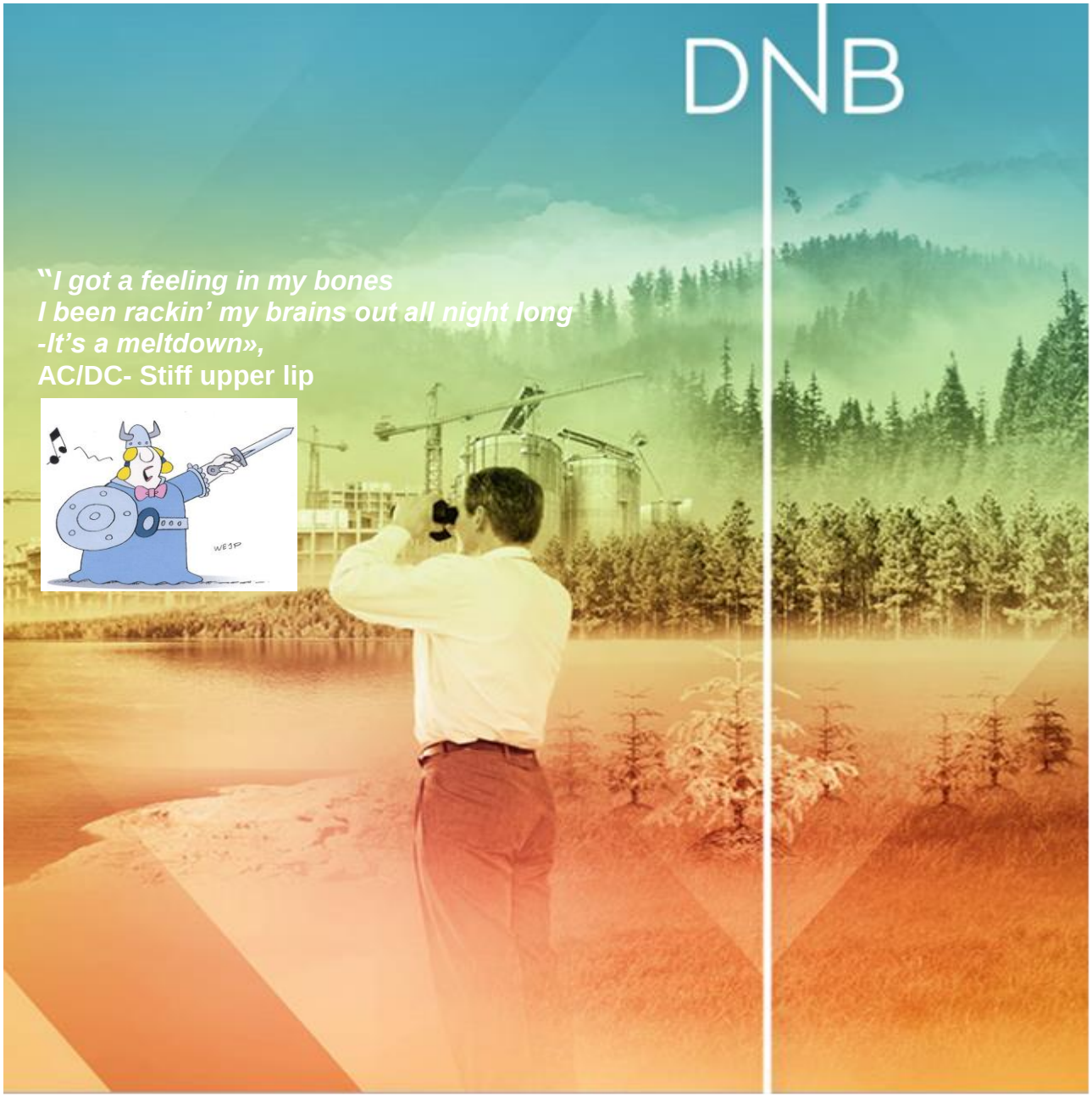
Meltdown – But oil prices have fallen enough

Non-OPEC to painfully balance the oil market by moving from record growth in 2014 to production declines in 2016



Content

1 Summary of 2015

Before we start a new year we usually publish a report on our view on the oil market for the coming year. Normally we try to issue such reports in late November or early December. Our analysis of the 2015 oil market was published on December 9 in 2014. Before the now famous OPEC meeting in November 2014 we had the lowest oil price forecast in the Reuters survey for 2015. Our forecast for 2015 was then 80 USD/b. One of the key reasons why we were more negative to the oil market than most others was our reading of the OPEC strategy. We did not believe OPEC (read Saudi Arabia) would protect the oil price this time because if they did it would have just been a repeat of the mistake of the 1980's. The Saudis have always seen the cut-period from 1980 to 1986 as a mistake and why would they repeat that mistake? In a supply driven downturn other solutions are required than in a demand driven downturn and the last time we had a supply driven downturn in the oil market was in the 1980's.

After the OPEC meeting 27th November 2014 the large global banks massively revised down their oil price estimates. Influential analysts in Barclays, BNP Paribas, Citigroup, Credit Suisse, Societe Generale, Standard Chartered, JP Morgan and Morgan Stanley revised down their oil price estimates for 2015 with 16 USD/b to 33 USD/b. Most of the banks revised down their oil price estimates by more than 20 USD/b. By December 9th 2014 the median forecast was revised down from 93 USD/b to 80 USD/b. We wanted to maintain a more negative view than consensus and hence revised down our 2015 Brent price forecast to 70 USD/b in our December 9th report.

We argued than the oil price itself would have to do the job of balancing supply vs demand, as OPEC will not be there to do that job. We warned that the oil price would not quickly return to where it had fallen from. We also warned that it would be impossible to figure out exactly how low the oil price would have to decrease in order to help the market rebalance. We wrote that the Brent market possibly had to drop as low as into the 50's to do the job and that the market may overshoot to the downside in the adjustment process. The oil market has during 2015 proved that we were not negative enough when we launched our forecast a year ago. Not only did the Brent price drop into the 50's, it even fell into the 30's and surpassed the bottom point of 36.20 USD/b which we saw during the financial crisis in December 2008. Prices have in January dropped to lower levels than we have seen during the past 13 years.

In our analysis for 2015 we also wrote that our base case was that the market should bottom out at around 65 USD/b. This lower price level would stimulate demand growth and after a while provide lower supply growth in non-OPEC. We did however emphasize that the market during 2015 would be in testing modus and that 65 USD/b may not be low enough to initiate the required effects for the oil market balance. In retrospect it has been proven that 65 USD/b was not low enough.

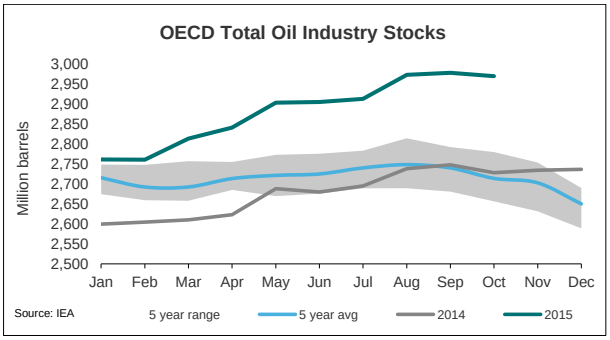
Since we forecasted a 30 % decrease in the oil price for 2015 we predicted that such a price drop would stimulate oil demand growth. We hence expected oil demand growth in 2015 to double from 2014. But since the oil price dropped 46% instead of our forecasted 30%, the growth in oil demand more than doubled. We had originally forecasted a jump in oil demand growth from 0.7 million b/d to 1.4 million b/d. But in the latest available monthly oil report by the IEA, the agency

reports the oil demand growth in 2015 to have been a very strong 1.8 million b/d.

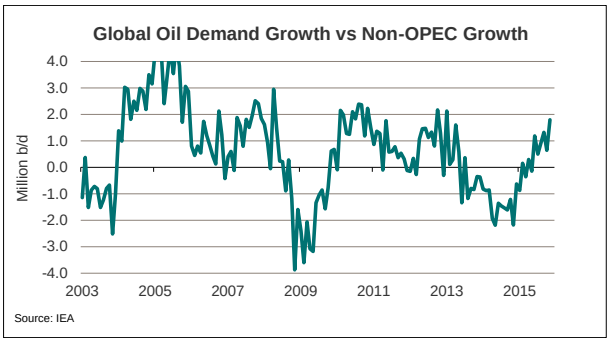
Even though the growth in oil demand was very strong last year, it was not strong enough to bring the oil market into balance, because the growth in production was even stronger. OPEC increased its production by 1.1 million b/d in 2015. The largest contributor to the growth was Iraq at 0.6 million b/d while Saudi Arabia increased by 0.4 million b/d. Output in Nigeria and Venezuela decreased a bit but UAE and Kuwait increased in total about 0.25 million b/d.

The growth in production outside OPEC became 1.2 million b/d in 2015, where the US was behind 0.9 million b/d of this. The other large contributors to the growth was Brazil (0.2 million b/d), China (0.1 million b/d), Russia (0.1 million b/d), Canada (0.1 million b/d) and the UK (0.1 million b/d). The largest negative contributions to growth came from Mexico (minus 0.2 million b/d) and Yemen (minus 0.1 million b/d).

The total supply of oil liquids increased a very large 2.5 million b/d when we also include biofuels and OPEC NGLs. Hence in 2015 we saw the second year in a row with a larger increase in supply than in demand. This situation led to continued inventory builds for crude oil and refined products through 2015 and as a consequence the IEA reported record high oil inventories in the OECD in the latest monthly oil market report.



Things are however on the move in the oil market and the oil price is about to do its magic to supply and demand. In the second half of 2015 the growth in oil demand started to outpace the growth in non-OPEC supply as can be seen in the graph below. If this measurement continues at the current level for a year or two it is just a matter of time before the oil price has to increase, but more on that in the next chapter.

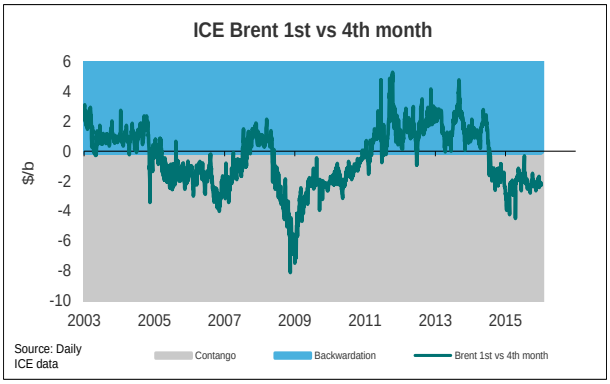


2 The oil market in 2016

We did think the oil price would drop in 2015, but as stated above, the price fell more than we thought. So what do we think about 2016? As we have written several times before our target is not to hit correctly on the oil price level. There are way too many moving parts in the oil market to be able to say what the fundamentally correct oil price should be. We have had certain years where we have come close to the actual price level, but our target is to be correct on the price direction. We are confident that the oil price direction will be up through 2016 compared with where the market is now trading.

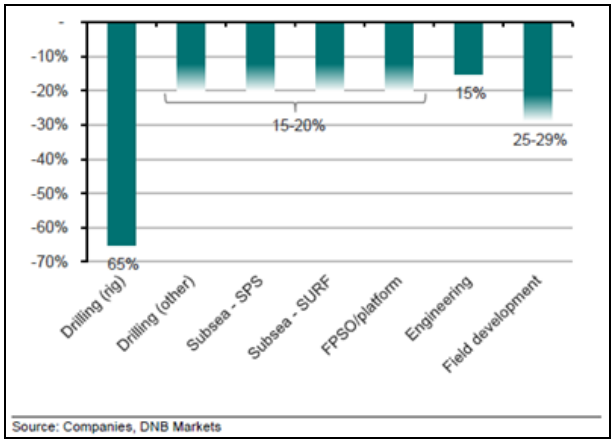
When we prepare our oil price estimates and forecast an oil price well above consensus and above the forward curve, we want this to be interpreted as confidence that oil prices during 2016 will come significantly up from where they are currently trading. We want our price forecast to provide a signal on both direction and conviction. Since our forecast is well above the forward curve we hence believe the current forward curve (not only the spot price) is pricing too low and that it will increase to higher levels during 2016

The formation of the oil price can be interpreted as the long end of the forward curve plus or minus the structure of the forward curve. The structure of the forward curve, that is if the market is in backwardation or contango, will be dependent on the supply and demand for oil in the market. If there is too much oil available compared with demand, the forward curve will be in contango. This happens automatically in the market in order to pay the oil traders for their storage of oil and hence help to build a bridge from current production to future consumption. If however there is too little oil available compared to demand, the forward curve will change into backwardation which will incentivise the oil traders to draw down on inventory levels. Since our supply-demand model for 2016 suggest that there will still be too much oil available compared with demand, and as a consequence oil inventories will continue to build, we believe the Brent forward curve will still trade in a contango structure for most of 2016. Our argument for higher oil prices through 2016 is hence not that we believe fundamentals will lead to inventory draws and hence flip the forward curve from contango to backwardation. We do believe in a flatter forward curve structure at the end of the year as we see a better balance between supply and demand, but we are unlikely to see backwardation in our opinion.



The back end of the Brent forward curve is mainly affected by the markets view on the costs to bring in the most expensive 2-3 percent of the barrels that will be required forward in time. This part of the forward curve has fallen too much in our opinion. We have no problem in justifying a large contango structure as our supply-demand balance indicated that there was way too much oil available in 2015 and also too much oil will be available in 2016. But we find it harder to justify fundamentally that Brent with delivery in December 2020 has almost halved in value since 2014. We know that costs are coming down in the oil industry and we believe that a

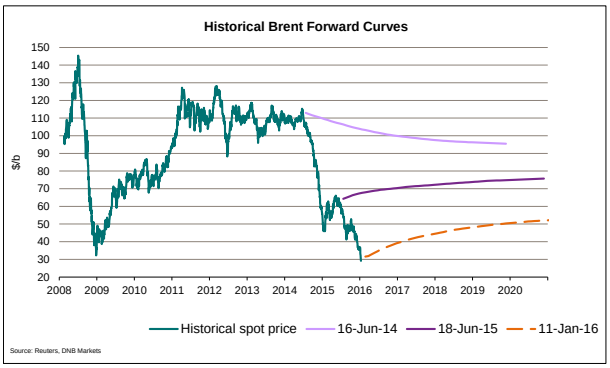
solid part of the lower costs are structural declines. But we also believe a chunk of the lower costs are cyclical and hence we think there will be some cost escalation again later when it is required to again increase activity in the oil sector after 2017. We have identified a drop in costs in the offshore industry of 25-29% so far where most of the drop is in the drilling sector. We do not believe the cost to produce oil can structurally drop 50% and hence we believe the long end of the forward curve has fallen too much.



Just to have it mentioned; we believe it will be required to increase investments again in the oil sector even if oil demand growth should completely stall. In the oil industry the largest part of the yearly spending is done just to maintain output, not to increase it.

The long end of the Brent forward curve has fallen to 52 USD/b. We believe this part of the curve will increase to about 70 USD/b during 2016-2017.

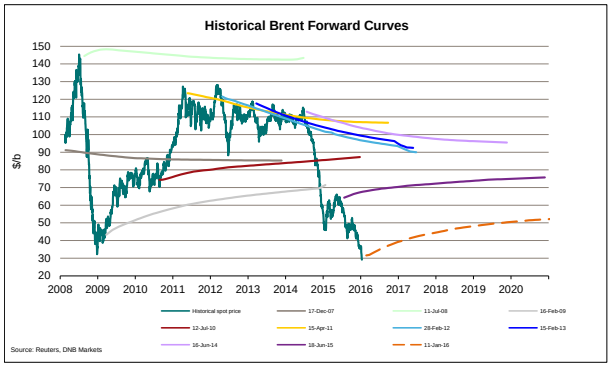
Several commentators seem to believe that there is stability in the longer end of the forward curve, but this is not the case. Volatility is not as large as in the spot price but it is nonetheless fairly large. Since 2008 the 20-day volatility in the Brent front month contract has averaged at about 30% while the rolling 3-year out contract has averaged at about 20%. In other words; the long end of the Brent curve has not been stable and will not continue to be stable going forward either.



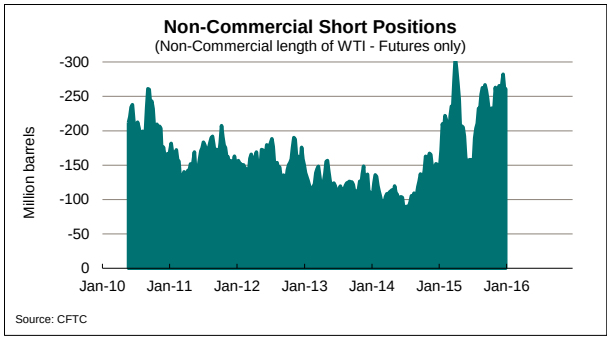
Sometimes we hear arguments against a higher oil price saying that since the forward curve has to pay for storage and hence a one-year contango of 10 USD/b is required, and since the 12-month forward contract has fallen below 50 USD/b, it will not be possible for spot prices to climb back above 50 USD/b in 2016.

We do not think the oil price discovery process functions that way. The oil market has changed the past 10-15 years and it is no longer enough to have a good forecast for supply and demand in order to say something sensible about the direction of the oil price. We are convinced that the moment the oil market starts to shift the focus towards 2017 and stops worrying about brimming inventories in 2016; that is the moment the oil price starts to increase. We have seen time and time again that the change in the oil price happens before changes in the supply-demand balance. It has to do with interpretations of the future more than current fundamentals. The oil market has become similar to the equity market where the players try to “see around the corner” in order to get a head start vs the rest of the market. Investors

would want to be early movers in order not to "miss the train".



We believe that the moment for higher oil prices will be the moment the investors starts to rebuild their long positions and buy back the short positions they have put on during 2015.

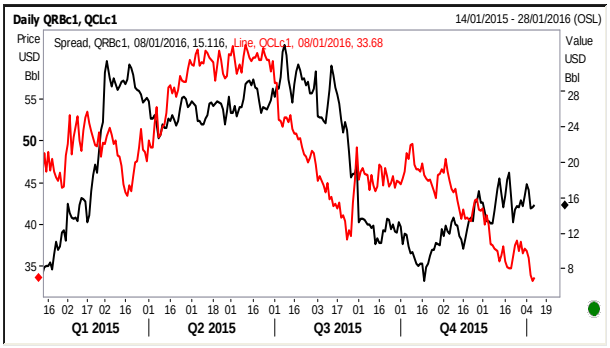


But what could make this happen? What can be the catalysts? Sometimes the catalysts just pop up from nowhere. That is they are unknown, unknowns as Donald Rumsfeldt so famously put it. Examples of such catalysts for the oil market are the Macondo-accident, volcano eruptions on Iceland, the tsunami in Japan, the Arabic spring, etc. Just at the start of 2016 we had such a potential trigger sailing in from the side when Saudi Arabia during the first weekend of the year executed 47 prisoners. One of these prisoners was an important Shiite cleric and hence the execution unleashed riots in Iran and a storming of the Saudi Arabian embassy and a break up of diplomatic relations between the two countries.

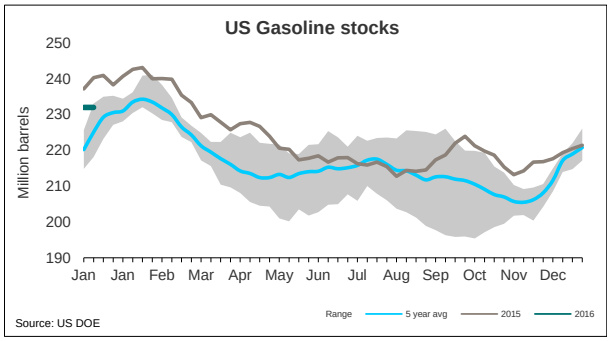
Other potential catalysts are already on the list (known, unknowns), like for example the write-downs of shale oil resources from shale oil producers which we believe will start to materialize by end February. There are also other factors to watch like potential unrest in Venezuela after the parliamentary elections, falling US oil production which will likely lead to crude oil stock draws from March and onwards, increased focus on lower production from non-OPEC as a result of spending cuts, etc, etc.

We believe that one of the key drivers for higher oil prices through the second quarter will be a strong gasoline market, similar to what happened in 2015. The NYMEX gasoline crack spread increased significantly from late February last year and this was one of the key drivers behind the increase in oil prices during the second quarter last year. WTI increased from about 44 USD/b in March to 61 USD/b in June. Brent increased even more and reached almost 70 USD/b in May before it started to drift lower again. It was demand for gasoline which was the key driver on the demand side for refined products in 2015 and we believe the gasoline market will be strong also in 2016. This is due to the fact that gasoline is a consumer product and not an industrial product like diesel.

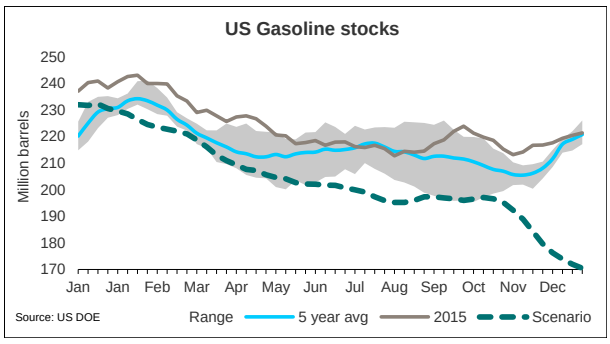
The gasoline crack spread (black line) vs WTI (red line)



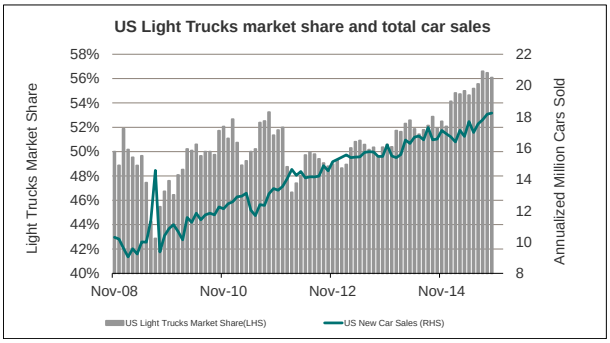
The low oil prices translate to low gasoline prices which again stimulates demand from the consumers. For the gasoline market it is also an important point to be made that almost half of the words consumption is still coming from the US. And in the US the demand growth for gasoline is still high and gasoline stocks start 2016 at a lower level than last year, despite the large stock build reported last week.



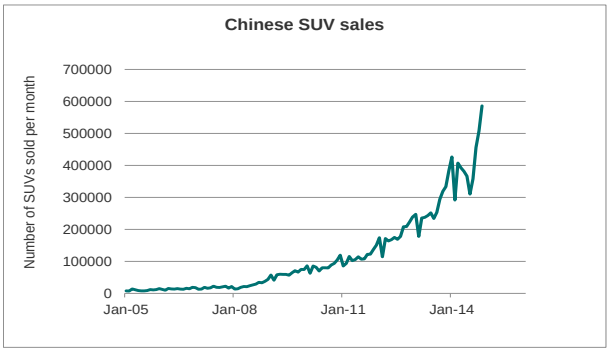
This bodes well for the gasoline market in 2016. If one assumes that US demand for gasoline increases by 100 kbd (1.1%) in 2016 (the increase in 2015 was 247 kbd), output of gasoline stays equal to 2015 in every week and imports/exports stays unchanged froom 2015 every week, it would imply that average gasoline stocks in the US would be 9% lower in 2016 than in 2015. And total gasoline stocks would end 2016 about 51 million barrels lower than where they started.



The Americans increased their driving length by 3.5% in 2015. This was due to much cheaper gasoline but also due to the fact that the US labour market has improved during the past year. They have also started buying larger vehicles again.

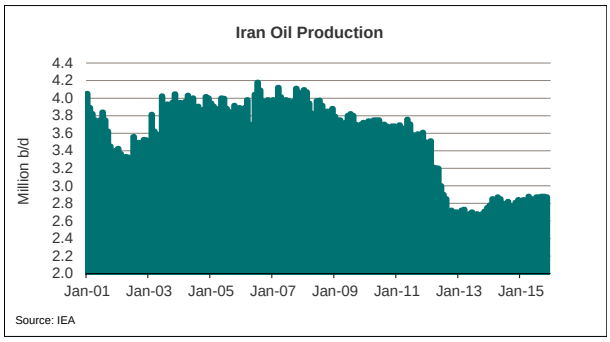


We expect oil demand growth in the US to stall from about 350 kbd in 2015 to about 200 kbd in 2016 and most of the demand increase will come in the gasoline market. China is also experiencing a strong gasoline market currently. SUV sales have set new records and increased 58% in 2015 vs 2014 sales. Also worth mentioning is the fact that the market share of SUV sales of total car sales have climbed from 13% to 27% in just the past two years. Hence the gasoline demand growth in 2015 has been impressive while we have seen continued weakness in the diesel market.



Based on the above we hence expect that as soon as the gasoline market takes over the driving seat from the distillate market, normally during March, the crude price development will benefit.

Of course we also have potential OPEC cuts on the list for possible catalysts but we still do not believe in any voluntary production cuts from the cartel. This despite Venezuela and certain other members lobbying to achieve a coordinated production cut. It will be hard to achieve any coordinated cuts when in practice only a few member countries are expected to do the job. It is also extremely unlikely that Saudi Arabia should deliver unilateral production cuts to grant Iran a higher oil price just as the country is returning to the oil market after sanctions.



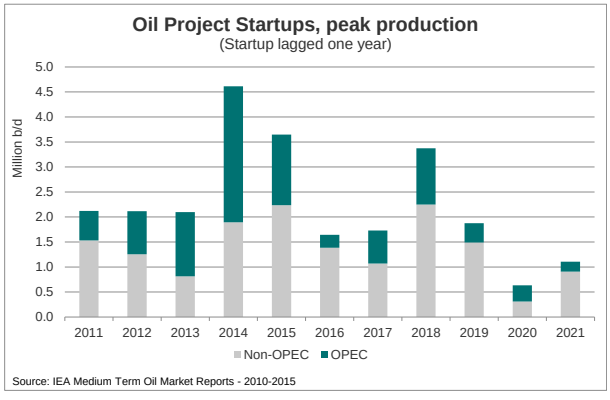
This recently became even harder to believe after Saudi Arabia executed the Shia Imam, Sheik Nimr al-Nimr. His death prompted harsh criticism by leaders of Iraq and particularly Iran and was followed by a storming of the Saudi embassy in Tehran by protesters. In a major escalation of the tension, Saudi Arabia and Bahrain cut diplomatic ties with Iran and gave all Iranian diplomats 48 hours to leave the kingdom, a significant deterioration in relations between the two Middle Eastern powers.

Another important news flash pointing towards very low chances for OPEC cuts was the news from last week that Saudi Arabia is evaluating to make Saudi Aramco a listed company. According to the deputy Crown Prince Mohammed bin Salman, who is also the head of the economic council in Saudi Arabia, a decision on this issue will be made over the next few months. The prince stated that he is enthusiastic about this step, because he sees it in the interest of the Saudi market, in the interest of Aramco, in the interest of more transparency and to counter any potential corruption that may be circling around Aramco.

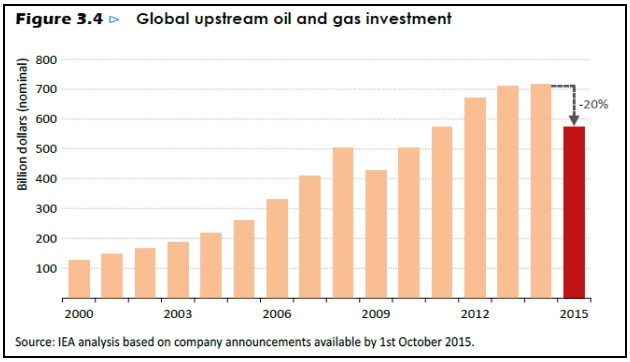
This is very interesting news because if Saudi Aramco ends up being a listed company one can rule out voluntary production cuts to manage the market going forward. The oil market would then permanently become an “every man for himself” market. One may wonder if this signals that the Saudi royal family has lost faith in the oil age and rather want to transfer their resources from the ground to a bank account before it is too late. If Saudi Aramco went public, it could by some estimates be the first company in the world valued above 1 trillion USD. In a news piece from this week however Reuters write: *“Saudi Arabia is considering selling shares in refining ventures with foreign oil firms but* ***would not offer a stake in the crude oil exploration and production operations*** *of state oil giant Saudi Aramco. One option is to create a holding company that would group together Aramco's stakes in the downstream subsidiaries, one source said.* ***Shares in the parent firm would not be offered****, he added. "The holding company is the one which could be listed, not Aramco itself."* If only such a holding company as described above would be listed, and not the upstream company, it would still be possible for Saudi Arabia to change back to becoming a swing producer if that is deemed to be the best option at a later stage.

We still believe that it will have to be non-OPEC which involuntarily will have to do the job of balancing the oil market. This is why the current price downturn is more painful for the oil industry than the 2008-09 downturn. It just takes much longer time to rebalance the market when non-OPEC has to do the job than when OPEC does the job. This should be quite obvious because when non-OPEC has to do the job it involves thousands of companies instead of just a handful of players.

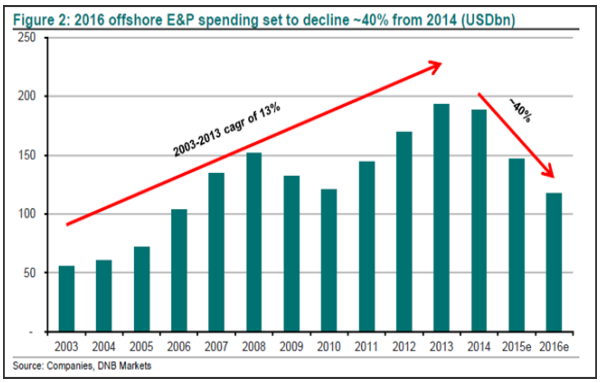
We believe the effect of the record large spending cuts from the oil operators will start to be visible on production during 2016. We never believed that the net production numbers in 2015 would show much of an effect of the large cuts in spending due to the fact that there have been so many start-ups of new projects around the world. The Gulf of Mexico offshore production is a perfect example of this. Offshore crude oil production in the GOM increased 274 kbd from March to September last year, despite the lower oil price.



Global E&P spending fell more than 20% in 2015 according to several oil consultancies and also the IEA.

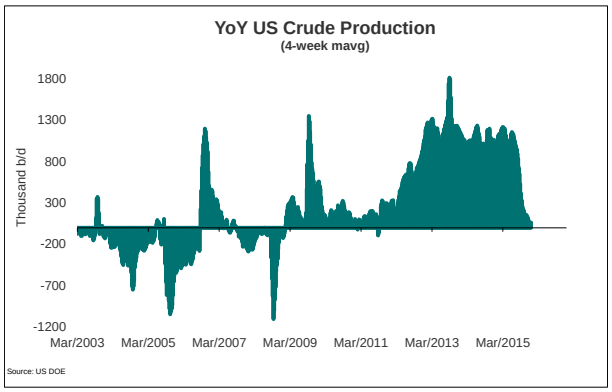


Preliminary estimates suggest we are going to see similar cuts in 2016. Large companies like Conoco and Chevron have already communicated spending cuts of about 25% for 2016 and Shell has communicated continued spending cuts if the BG merger is approved. This means that for the first time since the 1980's, global E&P spending is cut two years in a row. Note that the spending graph below just shows offshore spending.



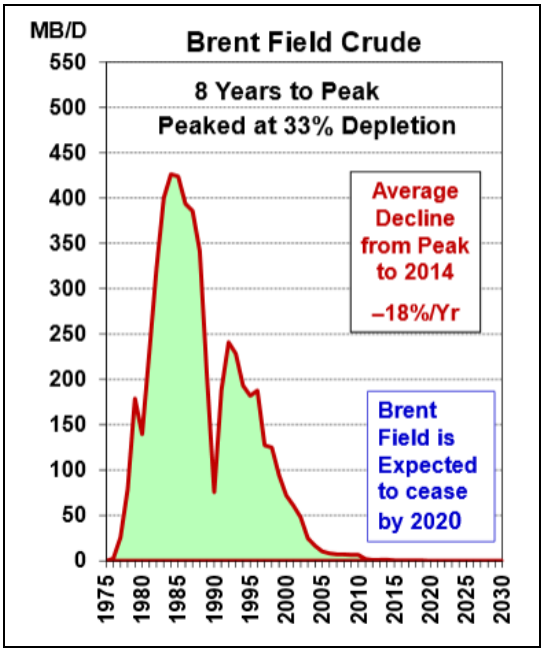
During the 1980's downturn it took about 4-5 years before growth in non-OPEC output started to feel the effect of the spending cuts. We believe the effects will be felt quicker this time since most of the growth in non-OPEC has been coming from the US shale oil industry and the lead time from investment to both growth and decrease in output is much quicker from that part of the industry.

The first part of the disappearing growth will hence be visible in the US while the second round effect will come from increased decline rates in mature producing fields.



We believe the growth we have seen in 2015 from both the North Sea and Russia is set to struggle by the end of 2016. We believe the year on year growth in Russia will continue all the way until the second half of 2016 but then start to drop and show negative growth rates afterwards. When it comes to the North Sea, postponed field maintenance and new projects have led to increased liquid supply of 2.7% in the Norwegian sector and a large 11.9% on the UK sector. Postponement of maintenance however cannot continue without consequences and hence we do not believe the growth in production can continue.

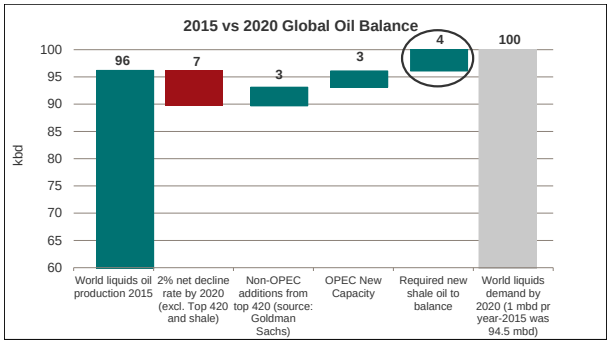
We have said for a while that it is difficult to predict exactly when the large drop in investments will lead to lower supply of oil globally. This is due to the fact that we are in a period of large start-ups of projects which have been matured during the past 6-7 years. The task to model production from a large oil field is challenging and one need a bit of luck to hit correctly on the production profile. The Brent field is a good example. Who would have modelled that it would take 8 years for that field to reach its historical peak level?



Source: PIRA Energy

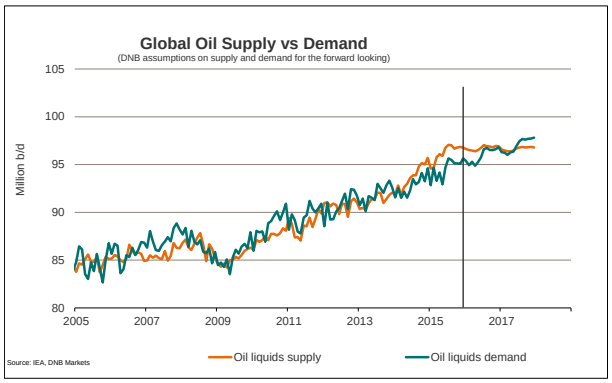
The fact that we have been in and is still in a period of ramp ups of new projects implies that we may not see the effect of the big drop in E&P spending in 2016, but we are confident that we will see the effect by 2020.

We have identified a net decline rate globally of 1.5% since 2006. This is a net decline rate that reflects large investments to maintain production in producing fields. If this decline rate should increase to 2% the next 5 years we calculate a “call on US shale” of 4 million b/d by 2020. This scenario assumes a global demand growth of one million b/d per year, which is 5 million b/d from 2015 to 2020. The demand growth in 2015 was 1.8 million b/d. We do not believe it will be possible for US shale oil production to come back to a yearly growth of 1 million b/d at the current oil prices.



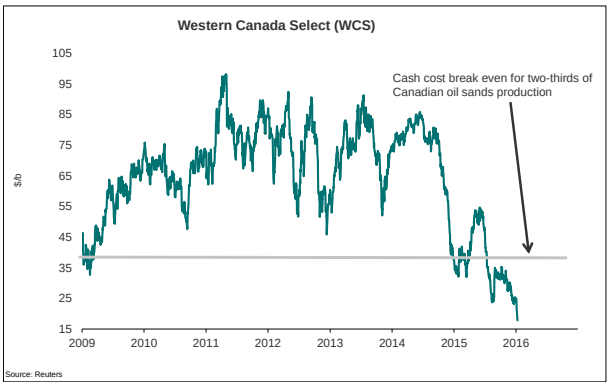
In our opinion this is the best argument to believe in higher oil prices for the coming years. We do still not believe in a return to 100 USD/b, but still believe a range of 60-80 USD/b will be necessary to create the supply growth the market will need by the mentioned 5-year time frame.

Even though we believe the global demand growth will weaken significantly from 2015 to 2017, our supply-demand balance suggests that global oil inventories should start drawing down in 2017.



This will happen despite an assumption of OPEC production growth of 0.9 million b/d in 2016 and 0.3 million b/d in 2017. These increased volumes are mainly from Iran and Iraq, but also some from UAE/Kuwait/Libya. If a critical mass of analysts starts to establish the same view of the 2017 balances as we hold, there is going to be a growing number of reports which will emphasize on under supply and hence stock draws a bit forward in time. We believe this focus on 2017 will start to establish itself in good time before we enter 2017, and hence the improved oil price discovery process is likely to start during 2016.

It is no doubt that oil prices could potentially decrease further from the already low levels we are seeing today. Last autumn we highlighted that there was maybe a 15 percent chance of oil prices dropping into the 20's in 2016, but that this was not our base case. The way we see it, a drop to 20 USD/b can only happen if there is no more room to store the surplus production. In such a case the world's oil producers could not produce more oil than the consumption would allow, and then the producers who have the highest operating costs in the world would have to start shutting down their output. Canadian oil sands producers look to be the worst off in this respect as their production has the highest operational costs. It is however costly to shut down the output and it is time consuming to restart an oil sands field. Hence the decision to shut down this type of production is very difficult.



Norwegian oil production has operational costs of about 10-12 USD/b and will probably not shut down unless the Brent price stays below 10 USD/b for a while.

We believe the type of production most likely to shut down first would be US stripper wells

which have operational costs of 20-40 USD/b. Oil prices would possibly have to fall below 20 USD/b and stay there for a while before this starts to happen. One might ask why such shut-downs of existing production are not already visible for these producers. There are about 400.000 such stripper wells in the US. These wells are producing about 10% of the US output of crude oil and many of these are already losing money on a daily basis. These wells produce on average 2 barrels per day and the best wells about 15 barrels per day. This part of the US oil industry is to a large extent privately run family businesses and hence consists of thousands of small operators. During the price crash in the 1990's about 142.000 stripper wells were plugged and abandoned according to some sources.

Recently we have read stories of small US operators who have started to close down wells. But they do of course shut down their weakest wells first and hence the production does not fall much yet. They are also cutting costs like maintenance, using temporary employees, cutting insurance costs, etc. They try as long as possible to keep the wells pumping because if they close them down for 60-90 days they will lose the licence to produce. This means that for a period these producers will be willing to operate with a loss just to keep the licence. It is hence not unthinkable that oil prices will have to drop below 20 USD/b for a period if shut-downs end up as the only option to balance the market. A meaningful shutdown of US production from stripper wells is still not the most likely scenario in the rebalancing process in our opinion.

According to IEAs latest monthly oil market report, the global oil storage capacity will be expanded by 230 million barrels in 2016 and this does not even include new built refineries. According to IEAs Medium Term Oil Market Report, the global refinery CDU capacity increases by 1.5 million b/d in 2016. A 200 kbd refinery will as a rule of thumb tie up about 10 million barrels as operational inventory. As such, an increase of 1.5 million b/d of refining capacity should require about 75 million barrels of increased operational oil storage. If we add that to the 230 million barrels the IEA mentioned in their report, we reach a number above 300 million barrels in new capacity to store oil for 2016.

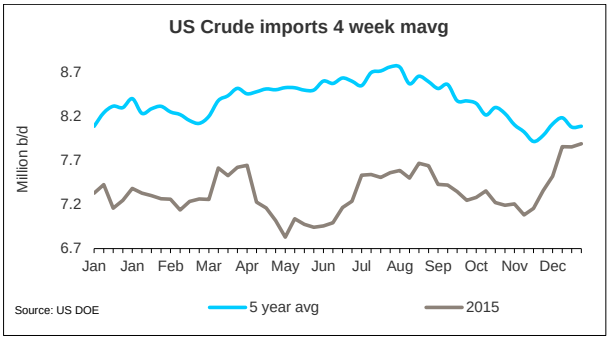
IEA also write in their last monthly report that even if data is not available for all countries, it looks as if the level of oil in storage is well below record levels in many European countries. We can also add that according to EIA (US Department of Energy), there is still plenty of storage capacity available in the US. We are hence confident that the oil market will not run out of storage capacity to store surplus production during 2016. And as we have already written above, we believe global oil inventories will start to draw down during 2017.

3 Revising down 1H-2016, but revising up 2H-2016

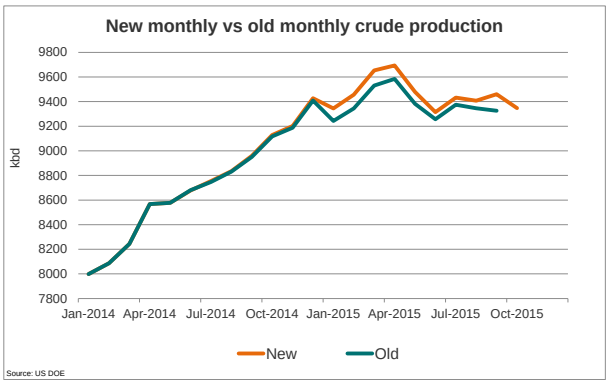
Unlike what we have seen in 12 of the past 14 years there was no Christmas rally in 2015.

				Christmas Rally	January Drop
2001	11.12.2000 17.9	04.01.2002 22.2 UP	17.01.2002 18.4 DOWN	**24.0%**	**-17.1%**
2002	16.12.2002 28.3	16.01.2003 31.7 UP	23.01.2003 29.7 DOWN	**12.0%**	**-6.3%**
2003	22.12.2003 29	09.01.2004 31.4 UP	04.02.2004 28.9 DOWN	**8.3%**	**-8.0%**
2004	24.12.2004 40.1	25.01.2005 47 UP	04.02.2005 43.9 DOWN	**17.2%**	**-6.6%**
2005	19.12.2005 56.1	20.01.2006 66.4 UP	15.02.2006 58.15 DOWN	**18.4%**	**-12.4%**
2006	19.12.2006 63.5	11.01.2007 52.3 DOWN	27.02.2007 61.9 UP	**-17.6%**	**18.4%**
2007	17.12.2007 91.3	02.01.2008 97.8 UP	21.01.2008 87.5 DOWN	**7.1%**	**-10.5%**
2008	24.12.2008 36.6	05.01.2009 49.6 UP	15.01.2009 44.7 DOWN	**35.5%**	**-9.9%**
2009	09.12.2009 72.4	06.01.2010 81.9 UP	27.01.2010 72.3 DOWN	**13.1%**	**-11.7%**
2010	08.12.2010 90.8	12.01.2011 98.1 UP	25.01.2011 95.25 DOWN	**8.0%**	**-2.9%**
2011	16.12.2011 103.35	10.01.2012 113.28 UP	25.01.2012 109.81 DOWN	**9.6%**	**-3.1%**
2012	07.12.2012 107.02	08.01.2013 111.94 UP	25.01.2012 115.55 UP	**4.6%**	**3.2%**
2013	12.12.2013 108.67	08.01.2013 112.18 UP	31.01.2013 106.4 DOWN	**3.2%**	**-5.2%**
2014	18.12.2014 59.27	08.01.2013 46.59 DOWN	17.02.2014 62.53 UP	**-21.4%**	**34.2%**
Average Excluding 2006 and 2014				**13.4%**	**-7.5%**

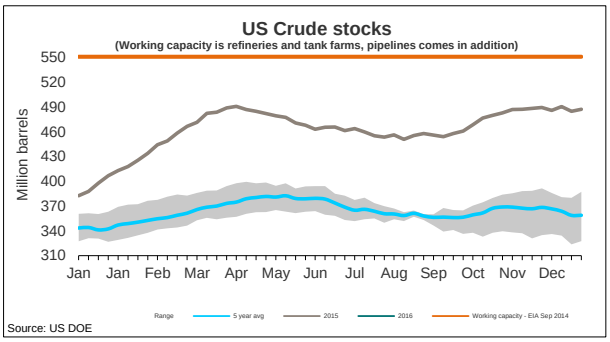
US crude oil stocks did not draw down like they usually do in December. The key reason why the crude stock drawdown did not happen this year was that crude imports followed refinery throughput higher. US crude imports made a jump in December to the highest monthly average of the year and that is not common to see.



Also the EIA in December revised up the historical reported crude oil production numbers back to about the level they had reported before the downward revisions in August. The last reported number is now 9.3 million b/d for October.



The market hence never saw the crude stock drawdown that could have been a catalyst for a Christmas rally as instead the US crude stocks flattened.



Since the winter has started much milder than normal, and distillate stocks as a consequence have built to very high levels, the oil market ran into more headwinds.

	Degree Days		--------Oil, MB/D Effect-------		
	2015	2014	2015	2014	15 vs 14
	-vs. 10-Yr Normal-		--------vs. 10-Yr Normal--------		
U.S.	-33%	-7%	-602	-138	-464
W. Europe	-24%	-6%	-501	-122	-379
Japan	-11%	17%	-100	153	-253
Total			-1203	-107	-1096

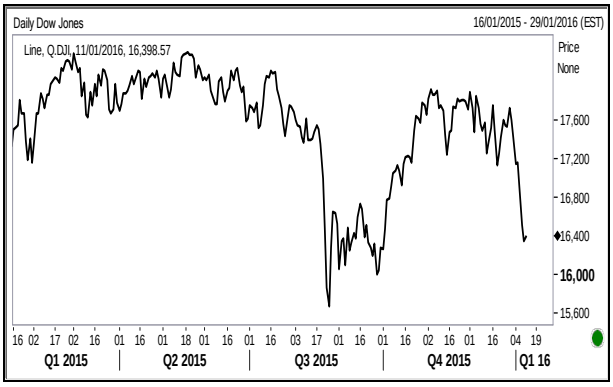
Note: Normal HDDs are based on the average temperatures of the 10-year period 1997 to 2006

Refining margins have kept up decently due to an unseasonally strong gasoline market, but there is large fear in the market that margins may collapse if the mild winter continues in January and February.

At the same time there has been some progress in Iran's nuclear deal where Iran has fulfilled their part of the deal quicker than many had anticipated. There is hence a good chance that sanctions on Iran's oil exports can be lifted already in February, but that will be up to the assessment of the IAEA. The market has been willing to price in an earlier return from Iran and hence a longer time frame with an over supplied market. We have now in our global supply-demand balance assumed that Iran starts ramping up its oil production in the first quarter instead of the second quarter.

On top of the above mentioned issues the stock market crash last week in China has led to a risk off sentiment that has also affected the oil price negatively.

The chart below shows the Dow Jones Index

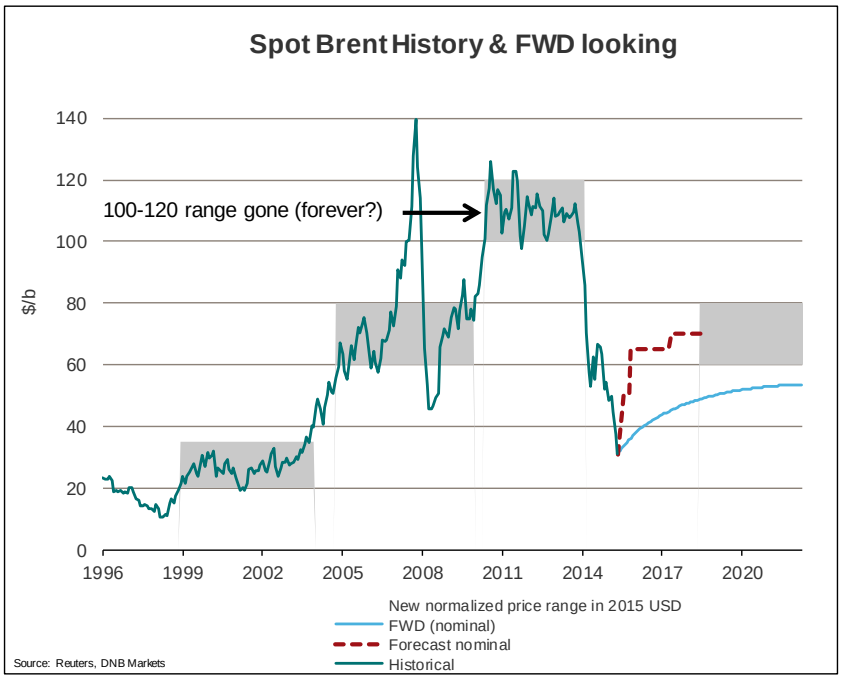


The consequence of the above is that 2016 starts with lower oil prices than what we had forecasted in our November-report. We are revising down our Q1 Brent price forecast from 55 USD/b to 38 USD/b and our Q2 forecast from 60 USD/b to 50 USD/b. At the same time we argue that since the oil price at the start of the year is even lower than we had assumed, this increases the risk for higher prices later in the year and hence we revise up our Q4 forecast from 60 USD/b to 65 USD/b. This means that the average price forecast for 2016 is lowered from 60 USD/b to 55 USD/b. For 2017 we revise down our oil price forecast from 70 USD/b to 65 USD/b, and for 2018 we maintain our forecast of 70 USD/b.

These oil price forecasts are all above the consensus. We want to signal that we are more positive to oil prices than most others. This is what we want our customers to remember in a year's time when we are summarizing what happened in 2016.

4 Brent forecast

	Historical Nominal $/b	Historical Real (2015) $/b
2001	24.4	32.7
2002	25.0	32.9
2003	28.8	37.1
2004	38.3	48.0
2005	54.5	66.1
2006	65.1	76.5
2007	72.4	82.7
2008	97.3	106.9
2009	61.7	68.1
2010	79.5	86.3
2011	111.3	117.1
2012	111.7	115.1
2013	108.7	110.4
2014	99.5	101.5
2015	53.6	53.6
	Forecast Nominal $/b	**Forecast Real (2015) $/b**
Q1-16	38	
Q2-16	50	
Q3-16	65	
Q4-16	65	
2016	55	
2017	65	
2018	70	
2019-2023		60-80



5 Global sypply-/demand balance – DNB, IEA, OPEC, EIA

DNB Markets World Oil Supply-Demand Balance:	2010	Change	2011	Change	2012	Change	2013	Change	2014	Change	2015	Change	2016	Change	2017
OECD Demand	47.0	-0.6	46.4	-0.5	45.9	0.1	46.0	-0.3	45.7	0.5	46.2	0.3	46.5	0.0	46.5
Non-OECD Demand	41.7	1.4	43.1	1.6	44.8	1.1	45.9	1.2	47.1	1.3	48.4	1.1	49.4	1.1	50.5
Total Demand	**88.7**	**0.9**	**89.6**	**1.1**	**90.7**	**1.2**	**91.9**	**0.8**	**92.8**	**1.8**	**94.6**	**1.4**	**95.9**	**1.1**	**97.0**
Non-OPEC Supply	50.9	0.2	51.1	0.3	51.4	1.2	52.6	2.2	54.8	1.2	56.0	-0.7	55.4	-0.6	54.8
OPEC NGL's and non-conventional oil	5.5	0.4	5.9	0.3	6.2	0.0	6.2	0.2	6.4	0.2	6.5	0.2	6.7	0.1	6.8
Global Biofuels	1.8	0.0	1.8	0.0	1.9	0.2	2.0	0.2	2.2	0.1	2.3	0.1	2.4	0.1	2.4
Total Non-OPEC supply	**58.2**	**0.6**	**58.8**	**0.6**	**59.5**	**1.4**	**60.8**	**2.6**	**63.4**	**1.5**	**64.9**	**-0.4**	**64.4**	**-0.4**	**64.0**
Call on OPEC crude (and stocks)	**30.5**	**0.3**	**30.8**	**0.5**	**31.3**	**-0.2**	**31.1**	**-1.7**	**29.4**	**0.3**	**29.7**	**1.8**	**31.5**	**1.5**	**33.0**
OPEC Crude Oil Supply	29.2	0.7	29.9	1.4	31.3	-0.8	30.5	-0.2	30.3	1.1	31.4	0.9	32.3	0.3	32.6
Implied World Oil Stock Change	**-1.3**		**-0.9**		**0.0**		**-0.7**		**0.9**		**1.7**		**0.8**		**-0.4**

IEA World Oil Supply-Demand Balance (Dec 2015):	2010	Change	2011	Change	2012	Change	2013	Change	2014	Change	2015	Change	2016	Change	2017
OECD Demand	47.0	-0.6	46.4	-0.5	45.9	0.1	46.0	-0.3	45.7	0.5	46.2	0.0	46.2		
Non-OECD Demand	41.7	1.4	43.1	1.6	44.8	1.1	45.9	1.2	47.1	1.3	48.4	1.2	49.6		
Total Demand	**88.7**	**0.9**	**89.6**	**1.1**	**90.7**	**1.2**	**91.9**	**0.8**	**92.8**	**1.8**	**94.6**	**1.2**	**95.8**		
Non-OPEC Supply	50.9	0.2	51.1	0.3	51.4	1.2	52.6	2.2	54.8	1.2	56.0	-0.7	55.4		
OPEC NGL's and non-conventional oil	5.5	0.4	5.9	0.3	6.2	0.0	6.2	0.2	6.4	0.2	6.5	0.2	6.8		
Global Biofuels	1.8	0.0	1.8	0.0	1.9	0.2	2.0	0.2	2.2	0.1	2.3	0.1	2.4		
Total Non-OPEC supply	**58.2**	**0.6**	**58.8**	**0.6**	**59.5**	**1.4**	**60.8**	**2.6**	**63.4**	**1.5**	**64.9**	**-0.4**	**64.5**		
Call on OPEC crude (and stocks)	**30.5**	**0.3**	**30.8**	**0.5**	**31.3**	**-0.2**	**31.1**	**-1.7**	**29.4**	**0.3**	**29.7**	**1.6**	**31.3**		
OPEC Crude Oil Supply	29.2	0.7	29.9	1.4	31.3	-0.8	30.5	-0.2	30.3	1.1	31.4	0.9	32.3		
Implied World Oil Stock Change	**-1.3**		**-0.9**		**0.0**		**-0.7**		**0.9**		**1.7**		**1.0**		

OPEC World Oil Supply-Demand Balance (Dec 2015):	2010	Change	2011	Change	2012	Change	2013	Change	2014	Change	2015	Change	2016	Change	2017
OECD Demand	47.0	-0.6	46.4	-0.5	45.9	0.1	46.0	-0.3	45.7	0.5	46.2	0.2	46.4		
Non-OECD Demand	40.3	1.5	41.8	1.3	43.1	1.3	44.4	1.2	45.6	1.1	46.7	1.0	47.7		
Total Demand	**87.3**	**0.9**	**88.2**	**0.8**	**89.0**	**1.4**	**90.4**	**0.9**	**91.3**	**1.6**	**92.9**	**1.2**	**94.1**		
Non-OPEC Supply (Incl all Biofuel)	52.4	0.0	52.4	0.5	52.9	1.4	54.3	2.2	56.5	1.0	57.5	-0.4	57.1		
OPEC NGL's and non-conventional oil	5.0	0.4	5.4	0.2	5.6	0.0	5.6	0.2	5.8	0.2	6.0	0.2	6.2		
Total Non-OPEC supply	**57.4**	**0.4**	**57.8**	**0.7**	**58.5**	**1.4**	**59.9**	**2.4**	**62.3**	**1.2**	**63.5**	**-0.2**	**63.3**		
Call on OPEC crude (and stocks)	**29.9**	**0.5**	**30.4**	**0.1**	**30.5**	**0.0**	**30.5**	**-1.5**	**29.0**	**0.4**	**29.4**	**1.4**	**30.8**		
OPEC Crude Oil Supply	29.2	0.7	29.9	1.4	31.3	-0.8	30.5	-0.2	30.3	1.1	31.4	0.9	32.3		
Implied World Oil Stock Change	**-0.7**		**-0.5**		**0.8**		**0.0**		**1.3**		**2.0**		**1.5**		

EIA World Oil Supply-Demand balance (Dec 2015):	2010	Change	2011	Change	2012	Change	2013	Change	2014	Change	2015	Change	2016	Change	2017
OECD Demand	46.1	-0.3	45.8	0.1	45.9	0.2	46.1	-0.3	45.8	0.6	46.3	0.3	46.7		
Non-OECD Demand	41.0	1.5	42.5	0.8	43.3	1.2	44.4	2.3	46.7	0.8	47.5	1.1	48.6		
Total Demand	**87.1**	**1.2**	**88.3**	**0.9**	**89.2**	**1.3**	**90.5**	**2.0**	**92.4**	**1.4**	**93.8**	**1.4**	**95.2**		
Non-OPEC Supply (Incl all Biofuel)	51.8	0.2	52.0	0.7	52.7	1.5	54.1	2.8	56.9	1.2	58.1	-0.4	57.7		
OPEC NGL's and non-conventional oil	5.5	-0.3	5.3	0.5	5.8	0.4	6.1	0.1	6.3	0.2	6.5	0.3	6.8		
Total Non-OPEC supply	**57.3**	**-0.1**	**57.2**	**1.2**	**58.4**	**1.8**	**60.2**	**2.9**	**63.2**	**1.4**	**64.6**	**0.0**	**64.5**		
Call on OPEC crude (and stocks)	**29.8**	**1.3**	**31.1**	**-0.3**	**30.8**	**-0.5**	**30.2**	**-1.0**	**29.3**	**0.0**	**29.3**	**1.5**	**30.7**		
OPEC Crude Oil Supply	29.2	0.7	29.9	1.4	31.3	-0.8	30.5	-0.2	30.3	1.1	31.4	0.9	32.3		
Implied World Oil Stock Change	**-0.6**		**-1.1**		**0.6**		**0.2**		**1.0**		**2.1**		**1.6**		

6 Oil price score card for 2016

2016 Oil Price Scorecard	Comments	Oil Price	Weight
Overall Outlook	The market still looks over supplied in 2016 but the call on OPEC is increasing by 1.6 million b/d according to IEA. The upside is capped by falling production costs, large US spare capacity in the form of available oil rigs/drilled uncompleted wells and OPECs market share strategy. But OPEC spare capacity is very low and non-OPEC supply growth will fade soon while geopolitical risk is high and rising.	**Average price 55 $/b**	
Fundamentals			
Global Fundamental Balance	The global supply-demand balance is still looking over supplied for 2016, but much less over supplied than in 2015 as the call on OPEC is increasing by 1.6 million b/d in the latest IEA forecast. The problem is however that OPEC looks to produce more than the call.	**BEARISH**	**HIGH**
Crude vs Product Balance (Margins)	Refinery margins will probably be weaker in 2016 than in 2015 as particularly the Middle East is bringing on new capacity and as oil demand growth will be weaker in 2016 than in 2015. For the first and last quarter of 2016 the weak diesel market may lead to refinery run cuts, but we believe margins will be strong during the gasoline season.	BEARISH	LOW
OECD Stock levels	Stock levels are record high, but we do not believe the market will run out of storage capacity	BEARISH	MEDIUM
OPEC Spare Capacity	Core OPEC spare capacity is low at only 2.3% of global oil demand according to IEA data. In reality the spare capacity is probably even lower since Saudi is probably producing close to capacity.	**BULLISH**	**HIGH**
US Oil Statistics - Fundamentals	US oil production growth which was 1.6 million b/d in 2014 and about 0.8 million b/d in 2015 is forecast to drop to negative in 2016 and US crude stocks will draw down in 2016.	**BULLISH**	**HIGH**
Global Demand Growth	Global oil demand growth is positively affected by the lower prices in 2015 but this effect is seen to fade in 2016. We have factored in weaker global demand growth for 2016, but the higher starting point of OECD oil demand next year means year on year growth will still be decent for OECD also in 2016.	NEUTRAL	MEDIUM
OPEC Supply	OPEC (Saudi) is seen to contiunue its policy of targeting market share instead of price. And we estimate that Iran will increase its output from the current 2.9 million b/d to about 3.6 million b/d by the summer, starting the ramp up in Q1-2016.	**BEARISH**	**HIGH**
Non-OPEC Supply	Total non-OPEC supply growth is seen negative in 2016, down from a record growth of 2.2 million b/d in 2014 and 1.2 million b/d in 2015.	BULLISH	MEDIUM
Political Risk			
Venezuela, Iraq, Iran, Saudi, Nigeria, Russia, Israel, MENA, Brazil, etc	Political risk is on the rise. Key risk is from countries like Venezuela, Iraq, Libya, Brazil. The Iran deal will probably bring meaningfully more OPEC barrels to the market, but generally the sunni-shiite conflict and IS has increased the total risk in the Middle East and weak economic conditions in countries like Venezuela and Brazil is threatening the social stability. There is a non-negligible risk related to conflict/power struggle inside the Saudi Royal family and the escalating tension between Iran and Saudi Arabia after Saudi executed an important Shia cleric.	**BULLISH**	**HIGH**
Other Factors			
Financial Money Flow	Total financial net oil length is significantly down since the peak. There is hence room room for a rebuild of positions if the sentiment should change. Triggers could be geopolitics, a strong gasoline season, accellerating decline rates, write downs of resources from shale oil companies, etc. A stronger USD has provided headwinds for the oil price since 2014, but this effect is probaly fading for 2016 as we do not believe in a further strengthening of the USD for the coming year.	BULLISH	LOW

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