Regional Industry Focus

Regional Oil and Gas

Refer to important disclosures at the end of this report

DBS Group Research . Equity

16 Jan 2019

Bouncing back again

- Lowered 2019 average Brent crude oil price forecast to US$65-70/bbl; but still implies good recovery hereon
- 2019 looks to be the year for offshore capex recovery as higher FIDs in 2018 filter through
- Top picks: Medco, PTT, CNOOC, Sinopec, SCI, SMM; initiating coverage on Anton Oil

Recent oil price pessimism overdone. Brent crude oil prices **averaged around US$72/bbl in 2018** after a steep fall towards the end, and while catalysts in early 2019 may not be that exciting, we expect **oil prices to pick up more significantly towards the latter half of 2019** as the impact of Iran sanctions post the expected expiry of waivers granted to key importers and the recent production cuts by the Organisation of Petroleum Exporting Countries (OPEC) fully filter into the market. We rationalise our average Brent crude oil forecast for **2019 to US$65-70/bbl** to account for the low base at the start of the year. Volatility will continue to rule, of course, on account of rising uncertainty in global gross domestic product (GDP) growth expectations, trade wars and other geopolitical risks which are expected to impact equity markets, to which oil price has become increasingly correlated in recent months.

Spending on offshore projects set to increase. Global upstream exploration and production (E&P) spending is projected to increase by about 16% in 2019, according to IHS Markit, in spite of significant cost reductions across all resource classes across the years. According to Rystad Energy, a surge in final investment decisions (FIDs) on offshore oil and gas projects in 2018 points to a pronounced increase in offshore capital spending in 2019. After years of underspending in offshore projects, **additional investments are needed to simply maintain production flat** at current levels, and to replenish reserves that are quickly dwindling. The recent oil price volatility may influence eventual 2019 capital budgets, but we believe to a limited extent only, as **oil companies forge ahead to achieve their production goals**.

Bottom-fish "defensive" O&G plays with visible catalysts. In this report, we have revised our E&P earnings of oil majors to reflect lower 2019 oil price and **downgraded PetroChina to HOLD**; **initiating coverage on Anton Oilfield Services (Antonoil)**. In view of the cautiously optimistic outlook, we advocate bargain hunting oil and gas (O&G) stocks that are less sensitive to oil price with visible company catalysts – **Medco, PTT, Sinopec, Anton, Sembcorp Industries, and Sembcorp Marine. CNOOC** remains the best proxy to trade oil price rebound.

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STOCKS

	Price LCY	Mkt Cap US$m	12-mth Target Price HK$	Performance (%) 3 mth	12 mth	Rating
Anton Oilfield Services Group	0.81	N/A	1.21	N.A	N.A	BUY
China Petroleum & Chem (Sinopec)	6.11	19,898	7.80	(10.0)	(6.1)	BUY
CNOOC	12.72	72,491	14.50	(14.8)	1.8	BUY
PetroChina	5.01	13,493	5.50	(17.2)	(15.5)	HOLD
Sembcorp Industries	2.65	3,487	3.70	(8.6)	(16.4)	BUY
Sembcorp Marine	1.60	2,464	2.40	(15.3)	(14.4)	BUY
Mermaid Maritime	0.10	99.2	0.10	(8.7)	(33.1)	HOLD
PACC Offshore Services Holdings Ltd	0.19	250	0.25	(29.4)	(48.1)	HOLD
Medco Energi Internasional	820	1,037	1,050	(10.4)	(25.1)	BUY
Elnusa	368	190	360	(0.5)	(11.5)	HOLD
Bangchak Petroleum Pcl	32.25	1,392	39.00	(3.7)	(25.4)	BUY
PTT Exploration &	121	15,054	135	(18.2)	9.0	BUY
PTT	47.75	42,742	57.50	(6.4)	1.6	BUY
Thai Oil PCL	67.25	4,299	96.50	(18.5)	(34.1)	BUY

Source: DBS Bank, DBSVI, DBSVTH, Bloomberg Finance L.P.
Closing price as of 15 Jan 2019

Please click on the link below

Anton Oilfield Services Group
China Petroleum & Chem (Sinopec)
CNOOC
PetroChina
Medco Energi Internasional
PTT Exploration & Production
PTT
Sembcorp Industries
Sembcorp Marine

DBS
Live more, Bank less

ed: JS, / sa: JC, , CW, CS

Stronger oil price recovery towards latter half of 2019

Bears returned to the oil market at end-2018. Despite the decision in early December 2018 by OPEC and allies to cut oil production again by around 1.2 million barrels per day (mmbpd) from January 2019, Brent crude oil prices remained depressed towards the end of the year, ending the year at around US$54 per barrel (bbl), though still averaging a much healthier US$72/bbl for the whole of 2018. Bearish sentiment had returned to the oil market owing to fears of a supply glut after US President Donald Trump agreed to temporary waivers for Iran oil importers, and warned Saudi Arabia and Russia from cutting oil production to boost prices. Thus, Brent crude oil price tumbled by close to 40% from its recent high of US$86/bbl in early October to US$54/bbl currently.

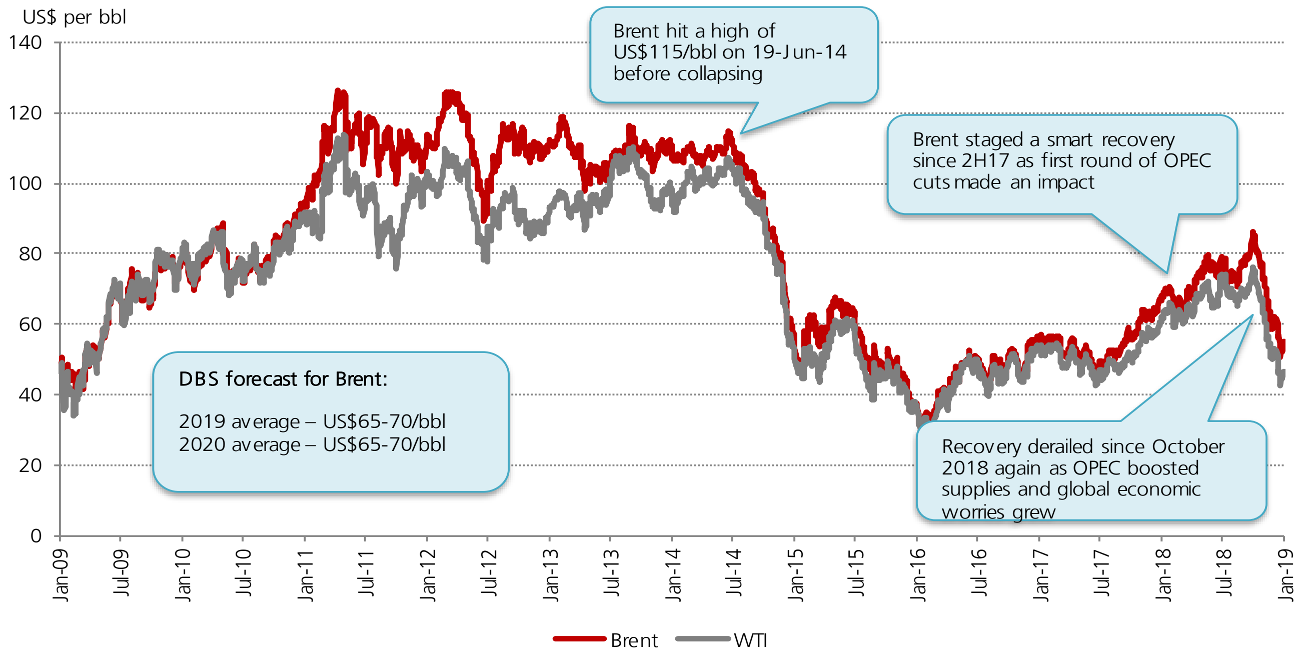
The three largest oil producers - the US, Saudi Arabia and Russia - had already boosted production by 900k barrels per day (bpd), 700kbpd and 400kbpd respectively from May to October 2018, thus raising concerns of near-term excess supply. This was intensified by bearish equity market conditions as investors sold off risky assets amid fears of slower growth in the US and China, and the negative fallout of the trade wars.

Expect oil prices to recover during the course of 2019. Brent crude oil prices averaged around US$72/bbl in 2018, and while catalysts in early 2019 are not very apparent, we expect oil prices to pick up more significantly towards the latter half of 2019 as the impact of Iran sanctions and OPEC production cuts fully filter into the market. As such, our average Brent crude oil forecast for 2019 is US$5 lower at US$65-70/bbl to account for the lower base at the start of the year, while we maintain our 2020 average Brent crude oil price forecast at US$65-70/bbl. Volatility will continue to rule, of course, on account of rising uncertainty in global gross domestic product (GDP) growth expectations, trade wars and other geopolitical risks which could impact equity markets, to which oil price has become increasingly correlated in recent months.

Brent Crude oil price – DBS' view

(US$ per barrel)	2013	2014	2015	2016	2017	2018	2019F	2020F
Average Brent crude oil price	109	99	54	45	55	72	65-70	65-70
Long-term Brent crude oil price								65-70

Oil price trends

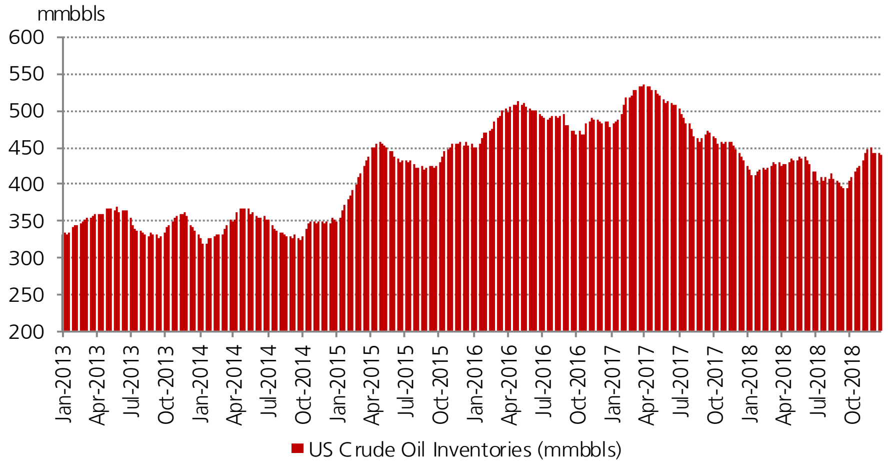


Source: Blooomberg Finance L.P., DBS Bank

Inventory drawdowns hit a pause button. After exhibiting favourable trends since 2H-2017, global inventory levels as well US crude oil inventory levels have reversed their trends in recent months. US crude oil stockpiles rose for ten weeks in a row from late September 2018, and added 56mmbbls to the US crude oil inventory level. This was above consensus estimates for the period. This was accompanied by a continuous rise in US shale oil production, which seemed to be defying earlier estimates of a pause caused by insufficient pipeline capacity in the Permian. Though stockpiles have fallen slightly during this ongoing winter season, the pace of declines is slower than previous years.

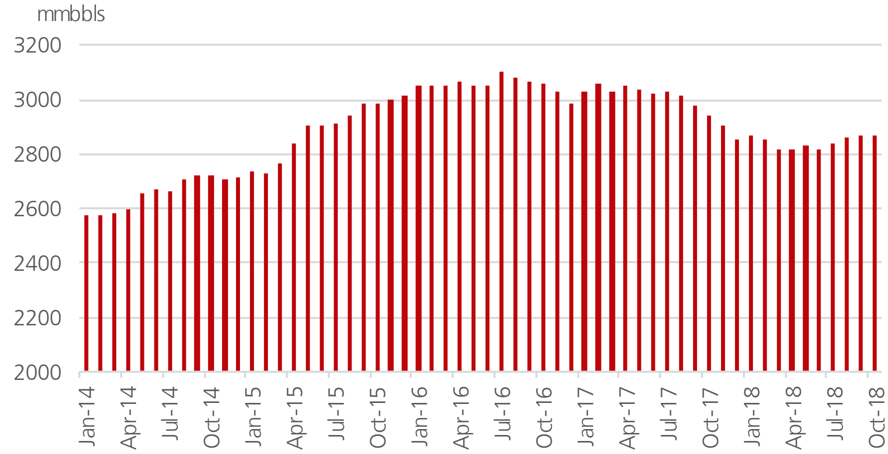
OECD inventory levels show a similar trajectory. According to latest estimates by the International Energy Agency (IEA) in its latest Oil Market Report (OMR), OECD commercial stocks rose by close to 6mmbbls m-o-m to 2,872mmbbls in October 2018, the fourth straight month of inventory increase and up almost 55mmbbls from recent low in March 2018. OECD stocks in October were for the first time in several months above the 5-year average, and while inventories are still a distance away from creating panic in the market, the trends are not in the right direction. We believe however that the OPEC cuts in 2019 should gradually help to ease the inventories situation.

US crude oil inventory levels show sharp build up in recent months



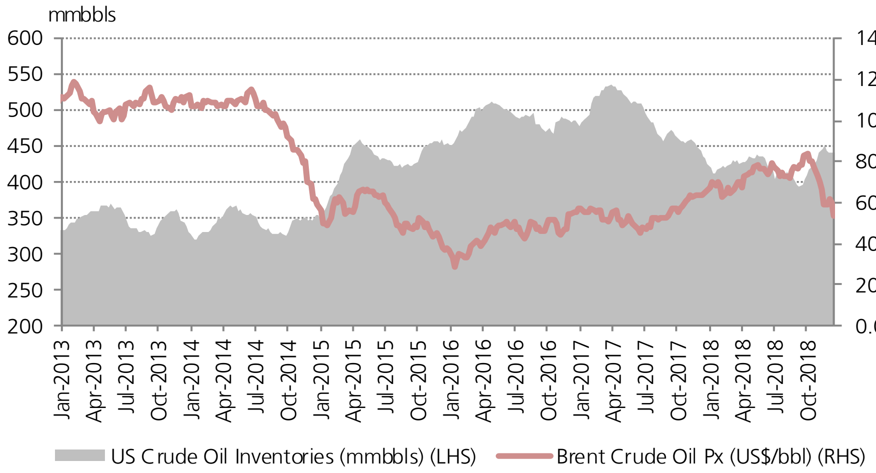
Source: Blooomberg Finance L.P., DBS Bank

OECD crude oil stocks have risen steadily since April 2018



Source: Blooomberg Finance L.P., DBS Bank

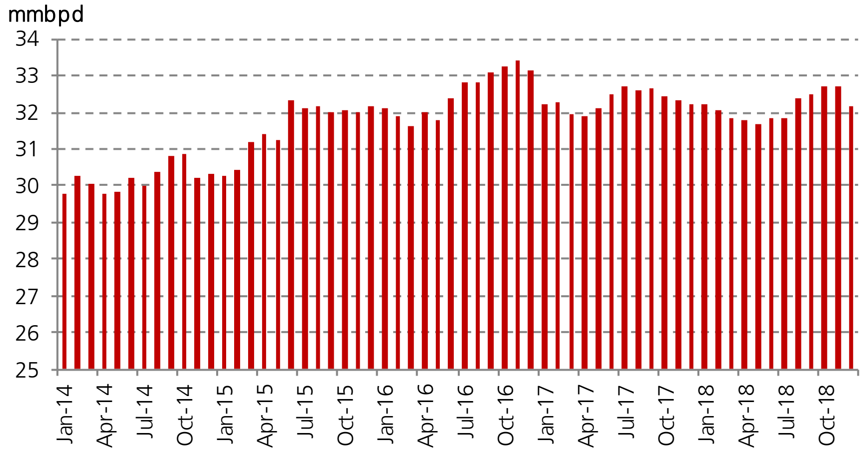
Inventory levels need to reverse for oil price recovery in 2H-2019



Source: Blooomberg Finance L.P., DBS Bank

This was partly because there was a big boost to OPEC production trends in 2H-2018 after relaxation of production quotas earlier in the year. To recap, OPEC and its key partner nations including Russia had agreed in the last general meeting in Vienna in June 2018 that they would look to boost supplies by close to 1mmbbpd to offset the losses from Venezuela and lend stability to the oil market. From May to October 2018, OPEC supplies increased by a whopping 1.2mmbpd, despite declines from Iran and Venezuela. Saudi Arabia boosted production by almost 700kbpd from 10.0mmbpd in May 2018 to 10.7mmbpd in October 2018, and peaked at 11.0mmbpd in November 2018, before cutting back somewhat in December. Countries like Iraq and UAE also boosted production significantly ahead of the Iran sanctions to boost market share and ensure market stability. All these efforts were aimed at ensuring that oil market did not overheat and cause demand destruction, but efforts came to zero when President Trump decided to provide waivers to key countries importing Iranian oil in a bid to lower oil prices even further.

OPEC production levels increased sharply in 2H-2018 before cooling down in December, which is a good sign for 2019 trend



Source: Blooomberg Finance L.P., DBS Bank

Moreover, Iran export shock was lower than expected earlier. Iran exports stood at around 2.5mmbpd before the announcement of renewed US sanctions around April 2018, and expectations were that 1-1.5mmbpd of exports would be affected by the time sanctions came into force in November 2018. However, US President Trump surprisingly agreed to provide temporary oil import waivers (partial) to eight countries including China, India, Japan, South Korea, Taiwan, Italy, Greece and Turkey.

While the Trump administration's goal remains to choke off revenue to Iran's economy, waivers were granted in exchange for continued import cuts so as not to drive up oil prices at one go, ahead of mid-term elections in the US. Though the mid-terms are over, Trump wants to continue to ensure that there are no huge spikes in oil prices, which will be politically damaging, and also ensure that US sanctions do not become irrelevant for Iran. It is a fine balancing act. In any case, it does seem that the impact of US sanctions on Iranian exports will not be as high as 2.5mmbpd or even 1-1.5mbbpd immediately and could be much lower in the range of 0.7-1.0mmbpd in the near term after factoring in the waivers. This is easily taken up by the rest of the key suppliers in the market.

However, it must be noted that the waivers are temporary, and the countries would eventually need to cut their imports of Iranian oil to zero, within 180 days. So we expect that the picture could be slightly more rosy as far as oil price is concerned beyond the 180-day timeline, which is roughly end-April 2019, unless President Trump has more surprises in store.

This forced OPEC+ coalition to agree to a renewed production cut of 1.2mmbpd, compared to October 2018 baseline production levels. OPEC members agreed to shoulder a reduction of 0.8 mmbpd and non-OPEC parties including Russia would absorb the remaining 0.4 mmbpd.

More details of the recent OPEC+ agreement below:

- OPEC members will reduce production by around 0.8mmbpd, with Saudi Arabia alone accounting for more than 0.3mmbpd.
- Saudi had already slashed production to 10.7mmbpd in December 2018, and plans to cut to 10.2mmbpd in January 2019, from its peak of around 11.0mmbpd in November 2018, despite the potential of triggering a renewed barrage of tweets from Trump.
- Non-OPEC members to reduce production by around 0.4mmbpd, with Russia accounting for a cut of around 0.23mmbpd.
- Iran, Libya and Venezuela are excluded from the cuts, given the US sanctions on Iran and Venezuela, and severe production outages in Libya.
- October 2018 production levels will be used as the baseline reference level for output cuts.
- Production cuts are set to be effective in January 2019, and will last for 6 months.

The outcome was better than expected. While Saudi had initially guided for a cut of between 1-1.4mmbpd, market watchers were expecting a cut of below 1mmbpd. Hence, we believe the outcome of the meeting was eventually better than expected, and it is now up to execution of the supply cuts. While certain countries like Russia will take time to roll out production cuts, Saudi Arabia's proposed production quantity suggests a substantial reduction of around 0.8mmbpd between November and January, which buys valuable time for the coalition to throttle production. OPEC production levels had already declined substantially in December 2018 as Saudi cooled off.

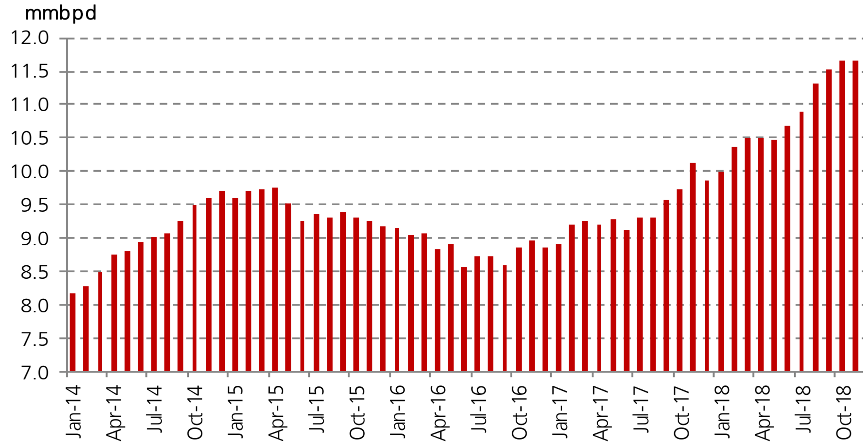
Additionally, excluding Iran and Venezuela from this round of cuts could translate to an even more pronounced reduction in crude supply, given that any production reduction assigned to these countries would merely be symbolic and inconsequential.

As such, we expect the 1.2 mmbpd production cut to balance the oil market, and even push it into slight supply deficit by the end of 2019, as the cut eats into projected increase in non-OPEC production in 2019, led by US production growth projections of around 1.0mmbpd in 2019. The cut should be potentially enough to ensure that supply and demand is better matched in 2019, after the significant supply-demand mismatch in 2018 (1.7mmbpd supply growth vs. 1.3mmbpd demand growth) despite our slightly lower projections of global demand growth in 2019.

Of course, like we saw the last time OPEC cut production at end-2016, it took close to 6-7 months for the production cuts to fully filter into export cuts and lead to inventory drawdowns and eventual oil price recovery in 2H-2017. Thus, we would expect a similar lag in oil price recovery this time around as well, aided to an extent by the expiry of US waivers for Iran oil importers.

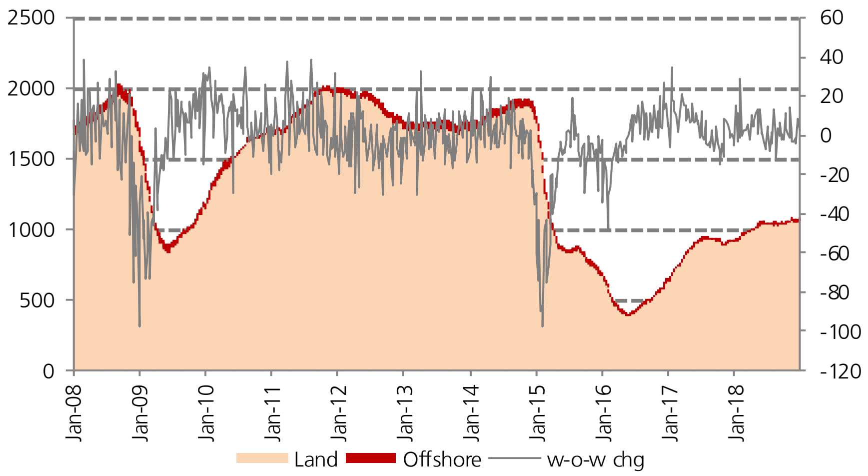
US shale oil growth production growth defies infrastructure constraints. US oil production was around 11.7mmbpd by the end of 2018, and the 2018 average of 10.9mmbpd was about 1.5mmbpd higher than the 2017 average. The increase was almost entirely contributed by tight (shale) oil production in the US, which averaged 7.1mmbpd in 2018, of which the Permian Basin production averaged 3.3mmbpd, up 0.9mmbpd y-o-y, and cementing its position as the leading growth engine for US shale. US onshore rig count increased from 911 at the start of the year to around 1060 rigs currently, though the rig count expansion has taken a breather since November 2018, as lower oil prices seem to have made a dent on further optimism. The production increase in 2018 came despite expected pipeline constraints in the Permian region. Pipeline bottlenecks in any case should ease by 2H19 in our view, and US production is likely to grow by at least 1.0mmbpd again on average in 2019, and end 2019 at around 12.0mmbpd. While shale producers' capex is likely to be subdued and flattish in 2019 compared to 2018 given the lower prevailing oil prices, the presence of hedges and easing of pipeline infrastructure constraints in 2019 should enable production to move further upwards. ..

US crude oil production continues ran on full steam in 2018



Source: Blooomberg Finance L.P., DBS Bank

US rig count growth could flatten in 2019 compared to 2018

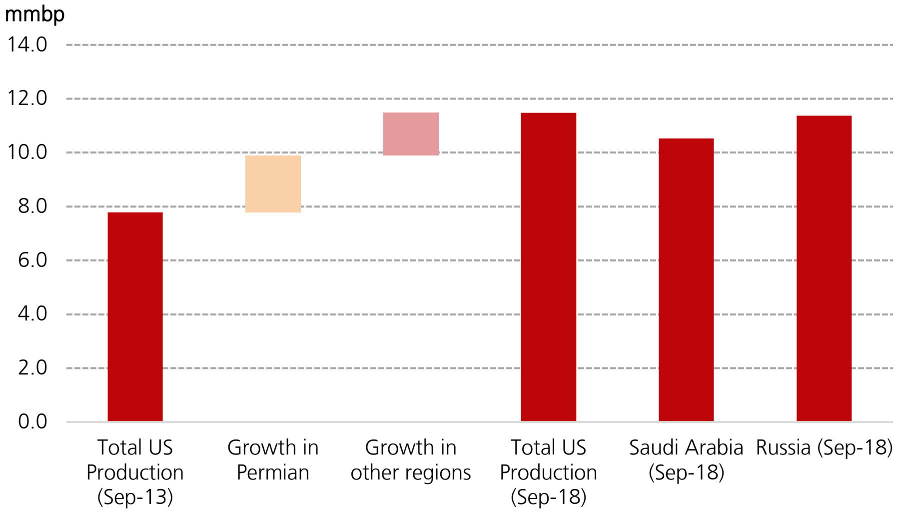


Source: Baker Hughes, DBS Bank

How long can the Permian growth story continue?

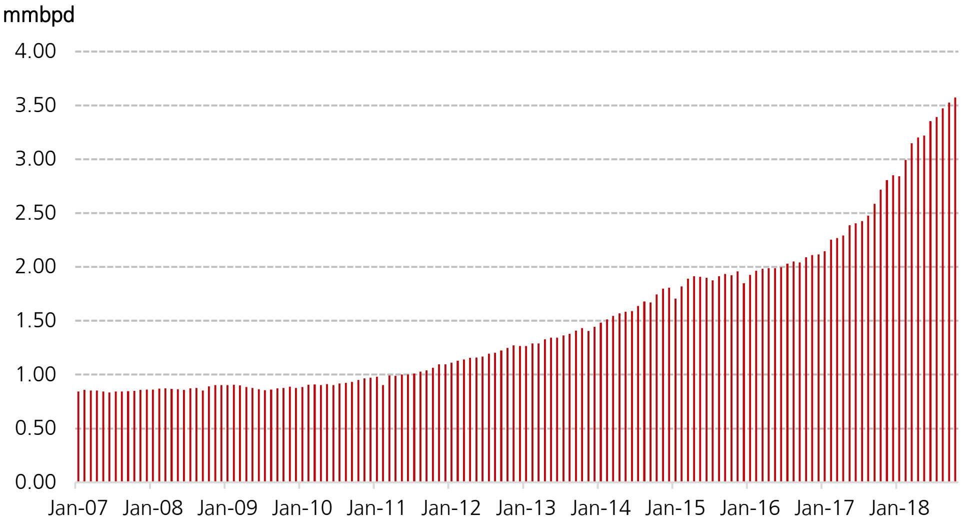
To understand that, lets first focus on how important the Permian Basin has been in recent times. The Permian shale boom has been the main factor behind the US becoming the world's largest producer of crude oil in 2018 after surpassing Saudi Arabia and more recently, Russia. Robust growth in the region accounted for more than 55% of the total increase in US crude oil production in the past 5 years. In 2019, we expect the region to continue to drive an increase of 1.0mmbpd in US crude oil production on average. The Permian, however, has been at significant risk of overheating as its takeaway capacity has been overwhelmed by the precipitous growth in production.

Permian Basin contribution to US production increase



Source: Blooomberg Finance L.P., DBS Bank

Permian Basin production trends

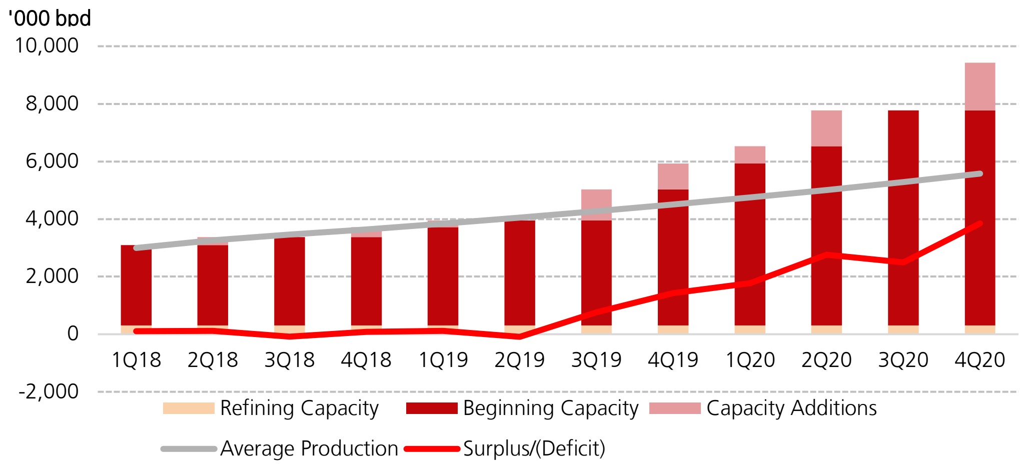


Source: Blooomberg Finance L.P., DBS Bank

What about infrastructure constraints? A severe lack of pipelines to transport crude oil from the oil fields to refineries and export terminals on the Gulf Coast could put an abrupt end to the Permian growth story. Currently, October crude production in the Permian of c.3.6 mmbpd is dangerously close to exceeding the c.3.4 mmbpd of pipeline capacity and c.0.3 mmbpd of in-basin refining capacity. While oil producers can turn to trucks and rail to overcome the infrastructure limitations for small surpluses of production overcapacity, this is not sustainable due to uncertainty in available rail capacity (majority of capacity is contracted for other commodities like frac sand) and an acute shortage of truck drivers in the region.

When will the capacity bottleneck be resolved? Offtake capacity in the region is expected to remain extremely tight until crucial new capacity projects come online in the second half of 2019. A series of key pipeline projects are scheduled to come online in the coming year, boosting takeaway capacity by c.0.7 mmbpd and 0.9 mmbpd in the third and final quarter of 2019 respectively. Additionally, a temporary conversion of a planned natural gas liquids pipeline to transport crude will increase the region's crude pipeline capacity by another c.0.4 mmbpd in the third quarter. Looking ahead in 2020, the Permian could suddenly shift to a state of considerable overcapacity, if plans to install another c.3.5 mmbpd of pipeline capacity are completed.

Permian Basin production vs. midstream/ downstream capacity

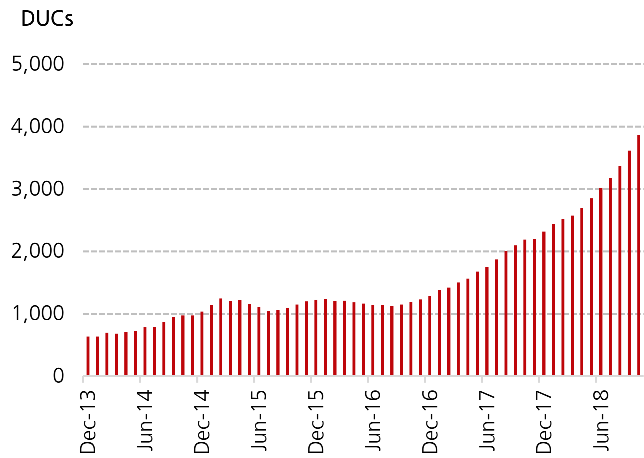


Source: Bloomberg Finance L.P., Company Filings, DBS Bank

Permian growth pause in 1H19 likely. Infrastructure bottlenecks will likely stifle Permian crude production in the first half of 2019, especially for smaller producers without guaranteed takeaway agreements. However, we still expect overall Permian crude production growth of around c.0.7 mmbpd in 2019, as crude production in the second half will accelerate rapidly on the back of oil producers converting their substantial inventory of drilled-but-uncompleted wells (DUCs).

The number of DUCs in the Permian more than quadrupled between 2014-2018, with the count in November 18 swelling by 1,836 (+83%) wells from a year ago, as takeaway capacity failed to keep pace. Coupled with their highly competitive cost structures, Permian crude producers can quickly ramp up production after the expansion of takeaway capacity in the second half of 2019, meaning majority of growth in the region will be back-ended. And as new pipelines continue to flood the Permian, we could witness strong production momentum in 2020 and beyond.

Drilled-but-uncompleted wells (DUCs) in the Permian Basin

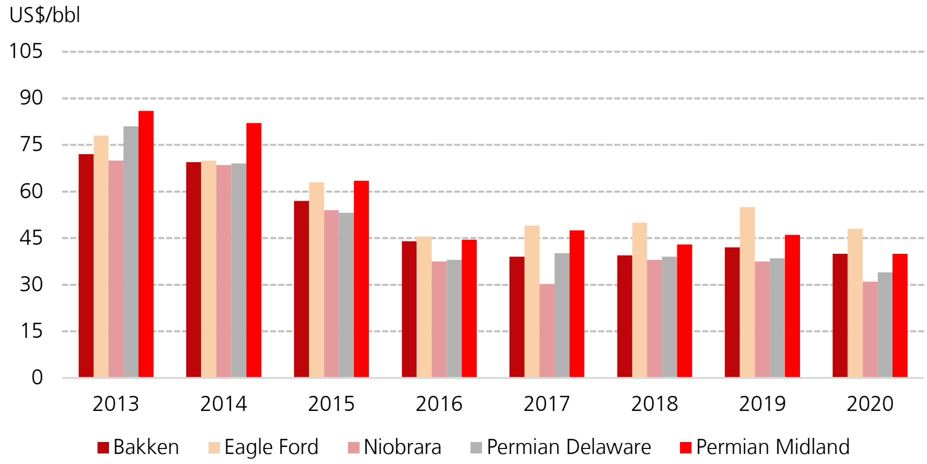


Source: Blooomberg Finance L.P., DBS Bank

Other risks could also curtail growth in the Permian. While the most critical issue that oil producers currently face is the inadequate offtake capacity in the basin, we note that there are several emerging risks that could dampen growth in 2019-2020. The sheer speed of growth in the region was made possible by the proliferation of hydraulic fractured horizontal wells, which requires a considerable amount of power, frac sand and water. And without an ample supply of raw materials or skilled labour to operate the fracking fleet, production costs could rapidly inflate and render well completion to be uneconomical, and consequently cause the number of DUCs to remain elevated, even after new pipelines are in service. Furthermore, persistent volatility in crude oil prices could also cause oil producers to be more cautious with production growth related spending, as seen by Parsley and Diamondback publishing 2019 budgets that were lower than expected.

Prevailing WTI oil price is close to breakeven level and may reduce future spending potential. Since end-2016, we have not seen US shale drilling and cash operating costs falling much further, after the sharp decline seen from 2013-16. The days of sharp cost reductions are over, and we believe breakeven prices have even reversed upwards in some US shale basins. We think Brent crude oil prices above US$60/bbl and WTI oil prices in excess of US$55/bbl are required for shale producers to achieve decent returns and consider re-investing. At the current level of US$45/bbl WTI, capex budgets for US shale producers are likely to be more muted, and 2019 production growth slower than that seen in 2018. As we can see from the table below, capex budgets for some of the top US shale players/ Permian Basin specialists are expected to be flattish, after two years of strong capex growth in 2017/18.

Breakeven prices for US shale regions



Source: Rystad Energy, DBS Bank

Capex budgets for select US shale players / independents for whom 2019 projections

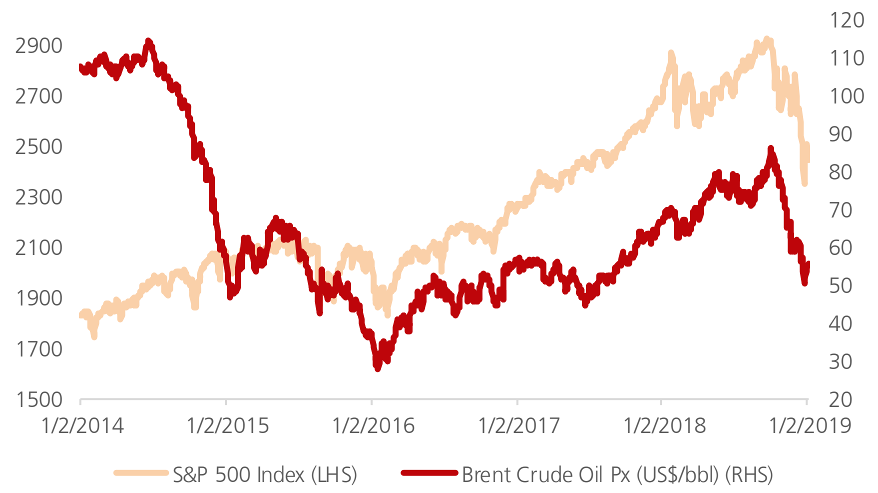
Company	2015 Capex (US$bn)	2016 Capex (US$bn)	2017 Capex (US$bn)	2018 Capex (US$bn)	2019 Capex (US$bn)
Parsley	0.5	0.5	1.1	1.7	1.5
PDC Energy	0.6	0.4	0.8	1.0	1.0
Concho	2.4	1.6	2.4	3.4	3.5
SM Energy	1.3	0.7	0.9	1.3	1.1
Occidental	5.6	2.9	3.3	5.0	5.2
Diamondback	1.6	1.0	1.8	2.7	2.9
Hess	4.0	2.1	2.3	2.1	3.0
Anadarko	5.5	2.8	4.6	4.4	4.5
Noble Energy	3.0	1.5	2.6	3.0	2.9
Apache	3.8	1.9	3.1	3.5	3.0
Devon Energy	4.1	1.2	2.2	2.4	2.6
Total	32.4	16.6	24.9	30.5	31.1
Y-o-Y Growth		-49%	50%	22%	2%

Source: Companies, DBS Bank

Meanwhile, demand side concerns have made a comeback. Escalating trade tensions between the US and China have led to concerns about slower economic growth globally, and has started to hurt the Chinese economy already, with real GDP growth slowing to 6.5% y-o-y in 3Q18, its slowest since 2009. China's growth can be expected to fall below 6% if US President Trump imposes tariffs on the remainder US$267bn of Chinese goods entering the US. The International Monetary Fund (IMF) estimated that this would shave 1.6% off China's growth over the next two years. Trade wars and asset market selloffs are clouding the overall global economic outlook as well. Emerging markets have been caught out by high USD rates and a stronger USD, and trade war has added to their woes. The US has been doing well so far but divergence of momentum between the US and the rest of the world is unsustainable, in our view. The most probable scenario is the latter eventually drags down the former. While we do not see any growth concerns in the US in the near term (read: 2019), as GDP growth is expected to be around 2.5%, impressive by historical standards, the economic conditions could become more challenging from 4Q19 onwards, according to our DBS Economics team. In addition to likely challenges with fiscal and trade wars, we see it as quite plausible that both the economy and markets will struggle with looming political and policy uncertainties as the 2020 presidential elections loom. This could readily hurt consumer and business sentiment. Hence, there could be a sharp slowdown or technical recession in the US in 2020. In light of the above pain points, we lower our 2019/2020 oil demand growth outlook to 1.2mmbpd p.a. from our earlier estimate of 1.4mmbpd, a deceleration compared to 1.4-1.5mmbpd p.a. growth trend over the past few years.

This is reflected in higher correlation to other risky asset classes in recent months. As concerns about global growth momentum has intensified, leading to a sell-off in equity markets worldwide towards the end of 2018, oil prices have fallen in tandem, owing to investor aversion towards risky asset classes and even positive news flow from the supply side like the OPEC+ production cut failed to enthuse the oil market. This is unlike the situation in 2014, when the oil price crash was largely independent of equity market trends. Hence, this time around, there has been a double whammy, which we believe has led to an over-correction in oil prices. In the near term, oil prices could benefit if equity markets recover, and eventually better voluntary (OPEC+) and involuntary (Iran sanctions) supply restraints will provide better support to oil price recovery in 2H-2019.

Increasing correlation of oil price with equity markets



Source: Blooomberg Finance L.P., DBS Bank

Global capital budgets to increase, but with a few nuances

In 2018, we witnessed a moderate uptick in global upstream E&P capital spending, albeit unevenly across regions and resources. Despite the majority of global supermajors only spending near the lower band of their budgets, greater investment by NOCs in Asia and North American shale players is estimated to have bolstered global upstream capital expenditure by around **11%** in 2018.

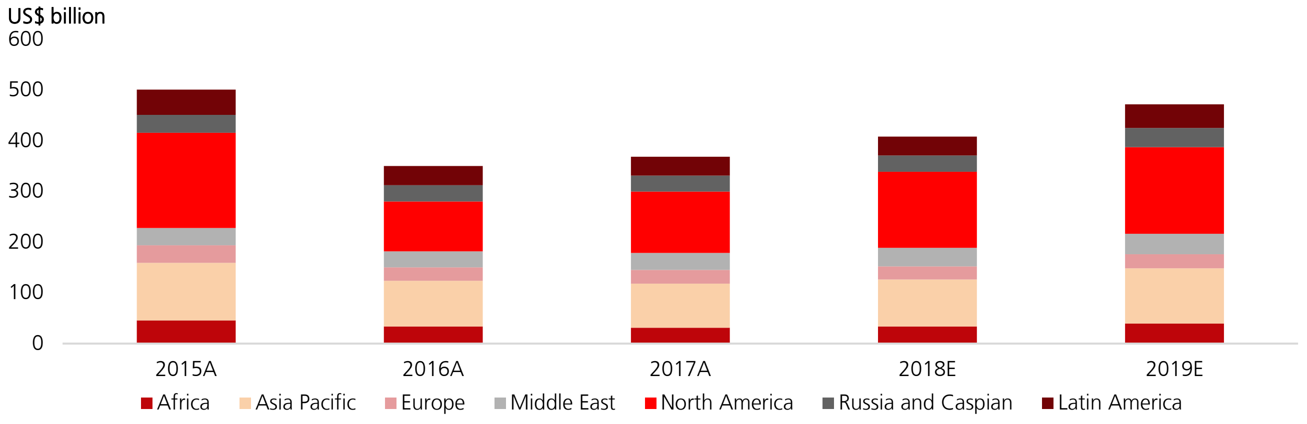
The outlook for 2019 appears more promising, with global upstream E&P spending projected to increase by about 16%, according to IHS Markit, in spite of significant cost reductions across all resource classes across the years. The rise in global capital spending comes as a potential reversal in the investment trend of the global supermajors, and a rebound in global offshore budgets building on the momentum from 2018. Other than North America and Asia, we anticipate other geographic regions like Latin America and Russia Caspian, to play a more important role in 2019, driven by the aggressive capital programs of oil companies in Brazil and Russia.

North America – Growth in capital investments to dip, but remain solid. We believe upstream companies in North America, including the global supermajors, will proceed cautiously amid the volatile oil environment and favour safer, medium to short-cycle unconventional projects in the region. This is substantiated by a recent report by the Dallas Fed, which shows that 53% (down from 70% in 2018) of firms surveyed expected a slight to significant increase in capital spending in 2019, after adjusting expectations due to the recent dramatic dive in oil prices. Though capital spending will likely be soft in the first half of 2019, we expect a marked increase in the second half after pipeline constraints in the Permian Basin are resolved.

Long awaited rebound in offshore spending to finally happen in 2019. According to Rystad Energy, the surge in final investment decisions on offshore oil and gas projects in 2018 points to a pronounced increase in offshore capital spending in 2019. The culmination of a significant reduction in offshore breakeven costs, declining productivity of mature oilfields and rapidly shrinking reserves, justifies higher offshore investments. We observe that on average, many offshore projects remain profitable, because the cost of offshore projects has decreased massively, with offshore breakeven oil prices now ranging between US$30-US$40/bbl, from as high as US$100/bbl in 2014. Furthermore, after years of underspending in offshore projects, additional investments are mandatory to simply maintain production at current levels, and to replenish reserves that are quickly dwindling. According to Rystad Energy, there could be instability in long-term global oil supply, if E&P players continue to underspend, as their reserve replacement ratios are dangerously low, at less than 10% on average.

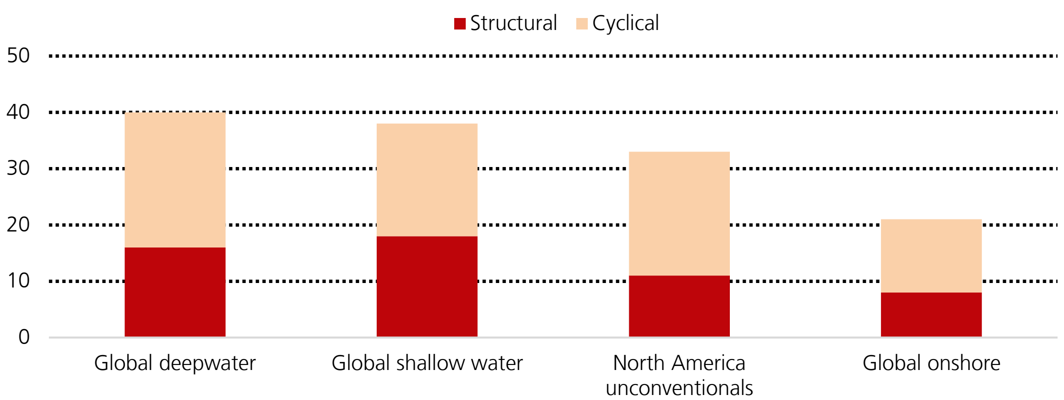
Oil price volatility will influence capital budgets, but to a limited extent. The last quarter in 2018 is an ominous reminder of how volatile crude oil prices can be, with Brent crude oil price sinking as much as about 42% in the short span of 3 months. While prices have recovered moderately since bottoming on Christmas Eve, the recency of this volatility will weigh on the minds of oil producers to a certain degree. However, the upstream industry is not what it used to be. Oil producers are now much better able to endure subdued prices after years of slashing costs, innovation and enhancing operating efficiency. Hence, we continue to believe, despite weak crude oil prices, that **upstream players will raise their capital spending** as they forge ahead to achieve their production goals.

Global capital spending is projected to grow across all regions in 2019



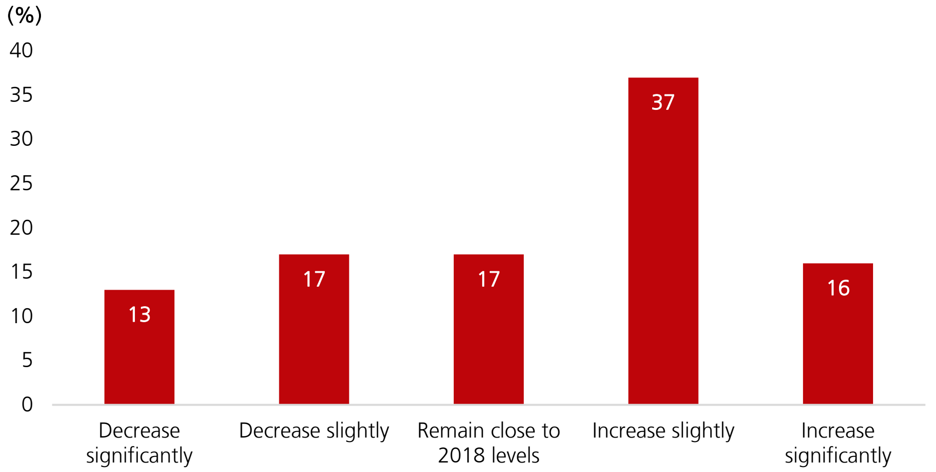
Source: IHS Markit

E&P aggregate cost reductions (%) by resource class (2014-2017)



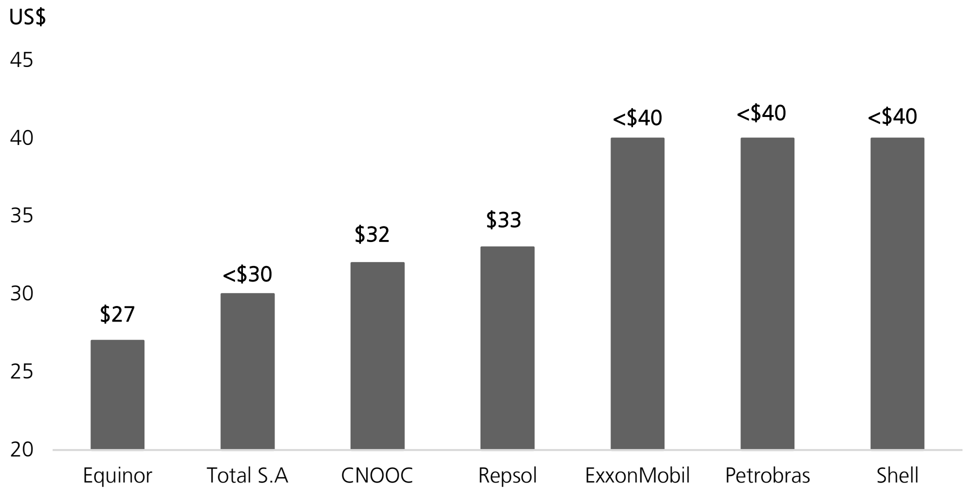
Source: IHS Markit

Dallas Fed Survey – What are your expectations for your firm's capital spending in 2019?



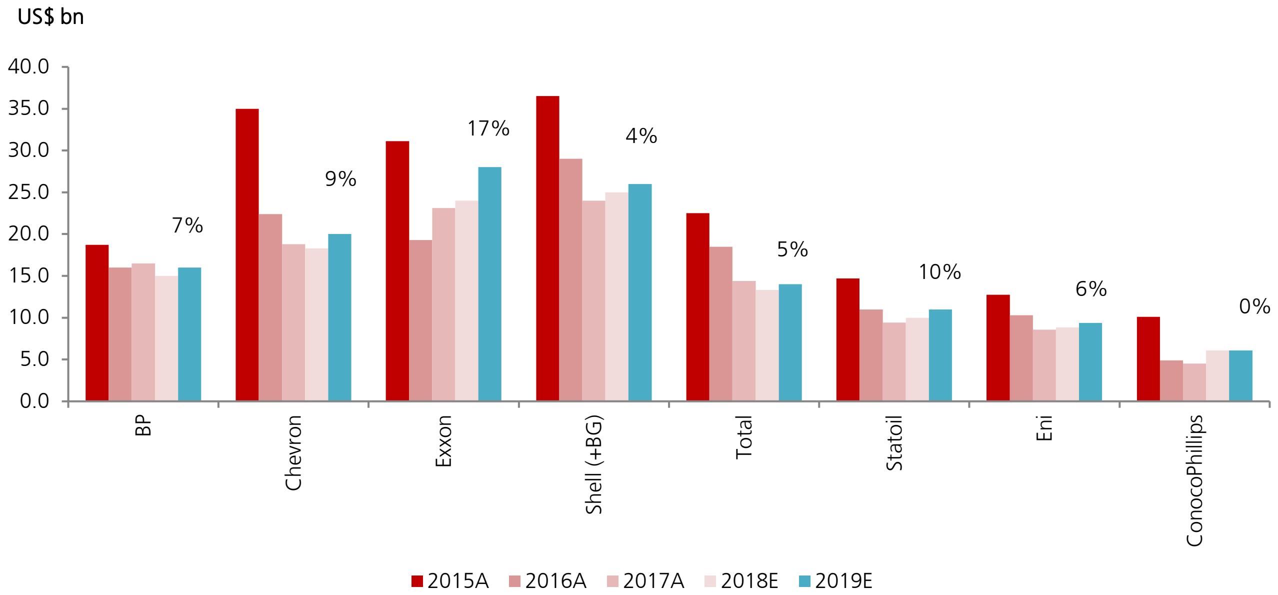
Source: Dallas Fed, DBS Bank

Average offshore breakeven oil prices are still well below the current Brent crude oil price



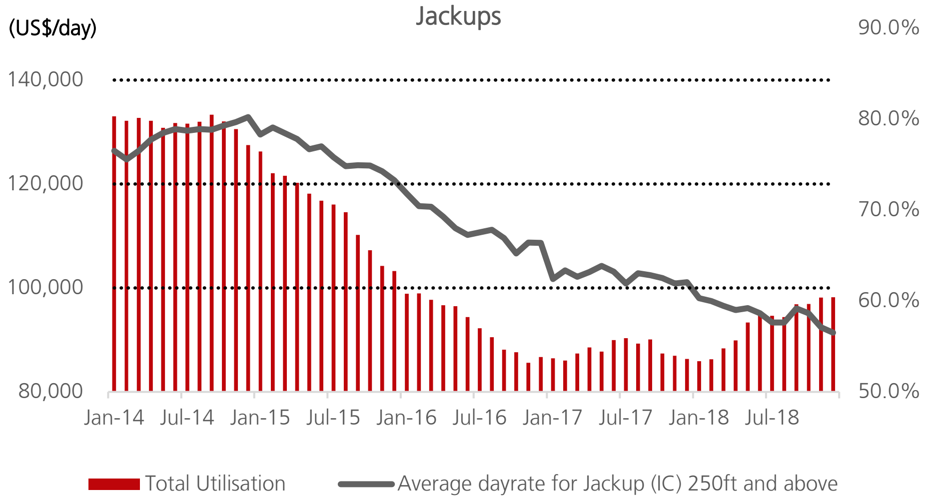
Source: Equinor, DBS Bank

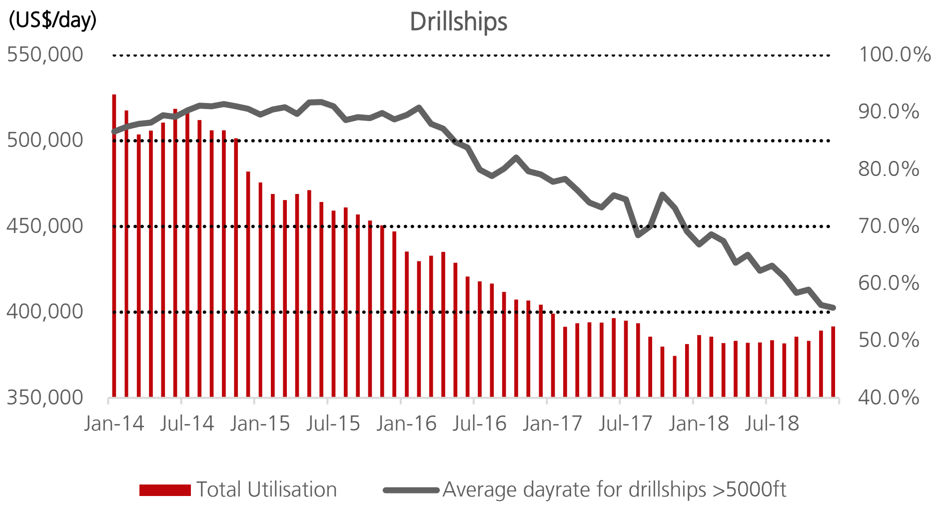
Capex budgets for global supermajors to increase in 2019 (figures in the chart represents y-o-y growth in 2019)

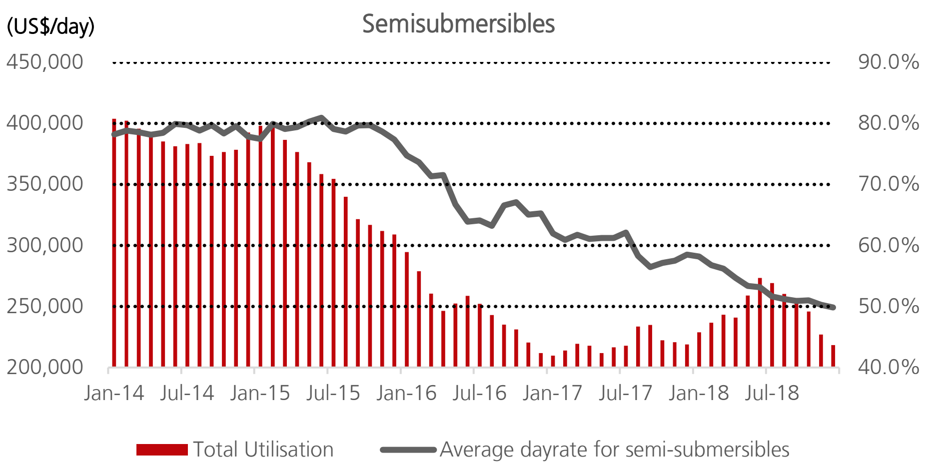


Source: Companies, DBS Bank Estimates

Improving utilisation for jackups and drillships, weaker demand for semisubmersibles







Source: IHS Markit, DBS Bank

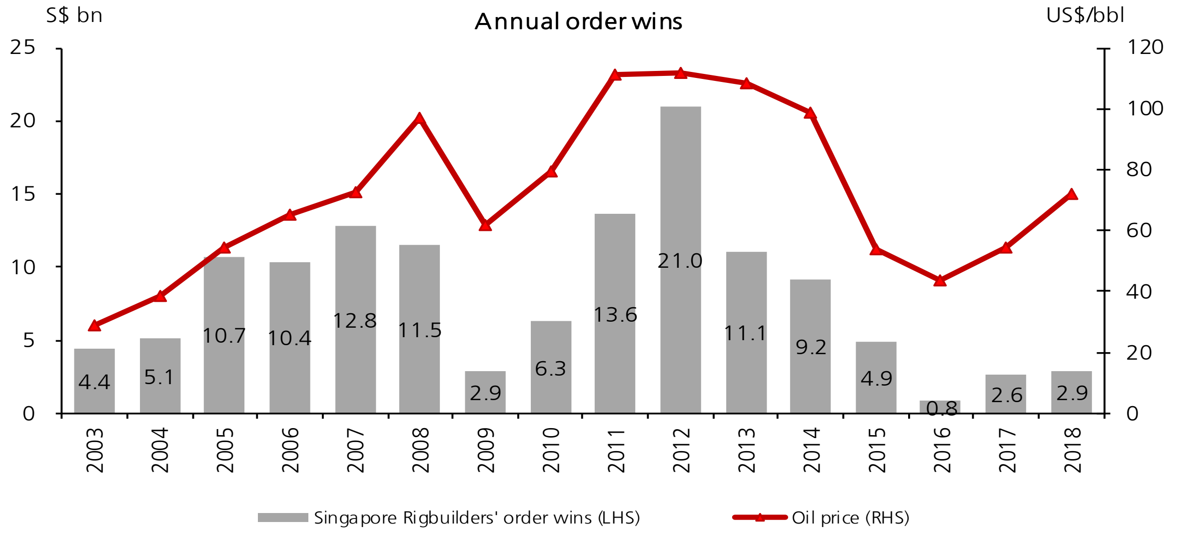
Shipyards Remain on Recovery Path

Singapore rigbuilders saw ~20% increase in offshore orders in 2018, stripping out Borr Drilling related rig sale. Both Keppel O&M and Sembcorp Marine secured a total of S$2.9bn new orders in 2018 (including ~S$400m orders from Borr Drilling Jackup sale) slightly higher than S$2.6bn in 2017 (including ~S$600m orders from Borr Drilling Jackup sale). Excluding Borr Drilling related sale, the increase in order wins was approx. 20%, from S$2bn in 2017 to S$2.5bn in 2018.

Could we see leap in offshore orders in 2019? While Korean peers have also achieved similar order win increase of ~20% driven by liquefied natural gas (LNG) carrier contracts, Singapore rigbuilders' contract wins disappointed last year, lagged consensus expectations of S$4-5bn in early 2018, blames to delay in Final Investment Decision (FIDs) and highly volatile oil prices.
We remain hopeful of Singapore rigbuilders achieving S$5-6bn this year from the delayed projects last year. Potential contract wins arising from production related platforms (in particular floating production storage and offloading vessels (FPSOs) from Latin America), gas-related facilities (floating liquefied natural gas (FLNG), modularised LNG terminal, LNG carriers, LNG-fueled vessels etc) and rig orders for niche markets such as mid-water harsh environments. (Please refer to table below for potential order pipeline)

Singapore rigbuilders merger speculation resurfaces…Following news of CapitaLand and Ascendas Singbridge merger on 14 Jan, spotlight shine on potentially more mergers of homegrown Singapore bluechips to create global champions. This brings about renewed speculation of merger between Sembcorp Marine and Keppel O&M. We had done scenario analysis on this in our thematic report dated 20-Jul-2017 [Asian Insights SparX: Shipyards: Creating Global Champions].

Singapore Rigbuilders' annual order wins vs Brent crude oil price



Source: Companies, DBS Bank

Potential order pipeline - SMM

Sembcorp Marine			
Type	Potential Customer / Project	Est.value (S$ m)	Status
Modularised LNG Exporting Terminal	Poly-GCL	1,000	LOI
Compressed Gas Liquid carriers x2	SeaOne Caribbean	800	LOI
FPSO	Rosebank	1,000-1,500	Tender
Modularised LNG Importing Terminal	-	200-300	-
FPSO conversion	Petrobras and others	200-400	-
		3,200-4,000	

Source: Company, DBS Bank

Potential contracts for production units in 2019

Type	Operator	Project	Potential Bidders	Frontrunner
FPSO	Chevron (Equinor)	Rosebank	**SMM,** DSME in the running. HHI & SHI withdrew	DSME, SMM
Wellhead platform + FPSO	Eni	Amoca	SBM, Modec, Bumi Armarda	Modec awarded LOI in Oct-18
FPSO	Karoon	Neon/Goia (Echidna light oil)	Bumi Armada, Modec, SBM, BW, Bluewater	Bumi Armada
FPSO	Petrobras	Buzios-5	Exmar, Modec	Exmar
FPSO	Petrobras	Marlim-1	Modec/Cosco, SBM/**Keppel** (or CMHI?), Bluewater/CMHI, Saipem/CIMC, Teekay/**SMM**.	
FPSO	Petrobras	Marlim-2	Modec/Cosco, SBM/**Keppel** (or CMHI?), Bluewater/CMHI, Saipem/CIMC, Teekay/**SMM**.	
FPSO	Petrobras	Parque das Baleias (Whale Park)	Modec, SBM, BW Offshore, Bumi Armada, Bluewater/Saipem, Teekay/**SMM.**	
FPSO	Petrobras	Mero-2	Modec, SBM, BW Offshore	
FPSO	Petrobras	Itapu		
FPSO	Premier Oil	Sea Lion		BW Offshore awarded FEED in Sept-18

Source: Companies, DBS Bank

Valuation and Recommendations

Oil majors could be lifted by oil price rebound in the near term; though upside might be limited by supply/demand concerns. Oil majors under our coverage have had a good run alongside the oil price rebound over the past two years. The correction of 15-25% from the recent high in 4Q18 on oversupply and economic slowdown fears could be reverted as oil price recovers from sub-US$50/bbl levels towards US$70/bbl, though further upside could be limited. We recommend bottom-fishing on low cost upstream producers with good track record such as CNOOC, which is a good proxy to trade oil price volatility. The integrated players with higher downstream exposure and/or identified company specific growth drivers / catalysts offer better risk-reward proposition. We continue to like Medco, PTT Group and Sinopec.

Position in niche service providers with visible growth prospect. We believe the rising E&P capital expenditure (capex) will benefit asset-light oilfield service companies, driving earnings recovery and share price re-rating. We are initiating coverage on Antonoil, which is trading attractively near a historical trough despite an earnings turnaround, deleveraging initiatives and brighter growth prospects riding on promising China and Iraq markets.

Rigbuilders - hinging on order wins. Rigbuilders are best proxies to oil price in Singapore as contract wins are typically highly correlated to oil price and they are well regarded as large cap blue chips on the Singapore Exchange (SGX). Stock prices were exceptionally volatile in 2018. Gains were largely offset towards the end of 2018 due to disappointing order wins momentum. We remain hopeful that some of the deferred projects would materialise this year, translating to higher order wins and share prices. We see value in Sembcorp Industries, which is a safer proxy to operations and maintenance (O&M) at ~40% of valuation through 60%-owned subsidiary SMM, backed by defensive utilities business. Sembcorp Marine is a higher beta pure play that awaits contract momentum to pick up.

Investment Summary

Stocks	Investment Thesis
CNOOC (BUY; TP HK$14.50)	• **Pure oil price proxy;** 100% E&P • **Superior cost control;** all-in cost <US$35/bbl • **Production / reserve growth** further re-rating catalyst
Sinopec (BUY; TP HK$7.80)	• **Integrated O&G play; earnings more resilient** given the upstream and downstream asset mix • **Share price dampened by hedging loss of trading arm Unipec; attractive 0.8x despite 10% ROE** • **High dividend yield 8-9%** supported by strong cash flow • **Initial public offering (IPO) of marketing arm**
Medco (BUY; TP Rp1,050)	• **Trading at 6.0x FY19 PE, or 0.6x P/BV** • **Lower exposure to commodity price movements**, since MEDCO's major gas volume is priced as per contract • **Non-oil price catalysts** – potential corporate actions such as debt refinancing, inorganic growth such as Ophir Energy acquisition potential, and IPO of its copper and gold mining assets (Batu Hijau)
PTT (BUY; TP Bt57.5)	• **Well diversified portfolio** • **Favourable policy** – lower burden of subsidising fuel prices in Thailand • **Potential IPO** of subsidiary
Sembcorp Industries (BUY; TP S$3.70)	• **Unique value proposition as a safer proxy** to ride the cyclical O&M upturn, and is supported by a defensive utilities business • **Narrower India losses** with commencement of Bangladesh power purchase agreement (PPA) expected in 1H19 • **Undervalued utilities business** at 0.6x P/BV and 7x PE against 6% ROE.
Sembcorp Marine (BUY; TP S$2.40)	• **Pure proxy to the recovery in the O&M** sector • **Order wins** is the key catalyst
Anton (BUY; TP HK$1.21)	• **Unjustifiable low valuation near historical trough** of 0.6x • Underappreciated **earnings turnaround** and **deleveraging initiatives** • **Proxy to rising China E&P capex** and **One Belt, One Road (OBOR)** initiative.

Source: DBS Bank

Peer comparisons

	Name	Crncy	Price 14-Jan-19	Target Price	Rec	Mkt Cap (US$m)	PE CY18F	PE CY19F	Dividend Yld (%) CY18F	Dividend Yld (%) CY19F	EV/EBITDA CY18F	EV/EBITDA CY19F	P/B CY18F	ROE CY18F
Asia	**Singapore**													
SMM SP EQUITY	Sembcorp Marine Ltd	SGD	1.6	2.40	BUY	2,412	-32.2	65.1	0.6	1.9	58.0	19.7	1.4	-4.2
SCI SP EQUITY	Sembcorp Industries Ltd	SGD	2.6	3.70	BUY	3,374	15.6	11.0	1.6	2.3	10.9	8.8	0.6	4.2
YZJSGD SP EQUITY	Yangzijiang Shipbuilding Holc	SGD	1.3	1.82	BUY	3,687	8.4	9.0	3.6	3.6	3.7	3.7	0.9	11.1
EZI SP EQUITY	Ezion Holdings Ltd	SGD	0.0	0.14	BUY	130	-2.0	12.6	0.0	0.0	28.9	10.8	0.3	1.0
MMT SP EQUITY	Mermaid Maritime PCL	SGD	0.1	0.10	HOLD	94	-4.7	-294.3	0.0	0.0	29.5	5.2	0.3	-5.5
POSH SP EQUITY	Pacc Offshore Services Holdi	SGD	0.2	0.25	HOLD	229	-8.4	-10.2	0.0	0.0	13.5	12.5	0.5	-6.1
Average	**Average**						**-3.9**	**-34.5**	**1.0**	**1.3**	**24.1**	**10.1**	**0.7**	**0.1**
	Thailand													
BCP TB EQUITY	Bangchak Corp PCL	THB	32.8	39.00	BUY	1,388	10.1	8.7	5.6	5.9	6.3	5.8	0.9	10.3
PTT TB EQUITY	PTT PCL	THB	48.0	57.50	BUY	41,750	9.6	9.6	4.3	4.3	4.8	4.7	1.5	15.6
PTTEP TB EQUITY	PTT Exploration & Production	THB	122.0	135.00	BUY	14,709	10.5	11.4	5.3	6.0	3.5	3.5	1.2	10.0
TOP TB EQUITY	Thai Oil PCL	THB	67.5	96.50	BUY	4,289	9.9	8.9	6.7	6.1	4.4	5.2	1.0	16.0
Average	**Average**						**10.0**	**9.6**	**5.5**	**5.6**	**4.8**	**4.8**	**1.2**	**13.0**
	Indonesia													
WINS IJ EQUITY	Wintermar Offshore Marine Tk	IDR	222	392	BUY	68	-7.4	-26.1	0.0	0.0	6.8	4.7	0.4	-5.3
ELSA IJ EQUITY	Elnusa Tbk PT	IDR	362	360	HOLD	178	7.5	6.5	3.9	4.4	3.5	2.9	0.8	10.7
MEDC IJ EQUITY	Medco Energi Internasional TI	IDR	830	1,050	BUY	951	8.0	6.4	2.5	3.1	4.9	4.9	0.7	9.1
Average	**Average**						**2.7**	**-4.4**	**2.1**	**2.5**	**5.1**	**4.1**	**0.6**	**4.8**
	China / Hong Kong													
883 HK EQUITY	CNOOC Ltd	HKD	12.22	14.50	BUY	69,596	8.4	8.4	4.6	4.6	4.1	3.4	1.2	13.7
386 HK EQUITY	China Petroleum & Chemical I	HKD	6.04	7.80	BUY	94,374	8.7	8.7	8.0	7.5	3.5	3.3	0.8	10.7
857 HK EQUITY	PetroChina Co Ltd	HKD	4.90	5.50	HOLD	188,139	12.3	11.8	3.9	3.8	4.8	4.7	0.6	5.4
3337 HK EQUITY	Anton Oilfield Services Group	HKD	0.80	1.21	BUY	306	8.3	5.4	0.2	0.2	6.0	5.1	0.8	10.7
Average	**Average**						**9.4**	**8.6**	**4.2**	**4.0**	**4.6**	**4.1**	**0.9**	**10.1**

Source: Blooomberg Finance L.P., DBS Bank

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BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return i.e. > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable catalysts within this time frame)

Share price appreciation + dividends

Completed Date: 16 Jan 2019 08:00:32 (SGT)
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Sources for all charts and tables are DBS Bank, DBS HK, DBVI, DBSVTH unless otherwise specified

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