

Natixis 2018 Oil Outlook

June 2018



CONTENTS

- 1 INTRODUCTION
- 2 FUNDAMENTALS
 - a) SUPPLY
 - I) OPEC
 - II) NON-OPEC
 - b) DEMAND
- 3 MACRO
 - a) GEOPOLITICS
 - b) TRADE WAR
- 4 FINANCIAL MARKETS
- 5 PRICES & RISKS
- 6 *IN FOCUS – IMO 2020*



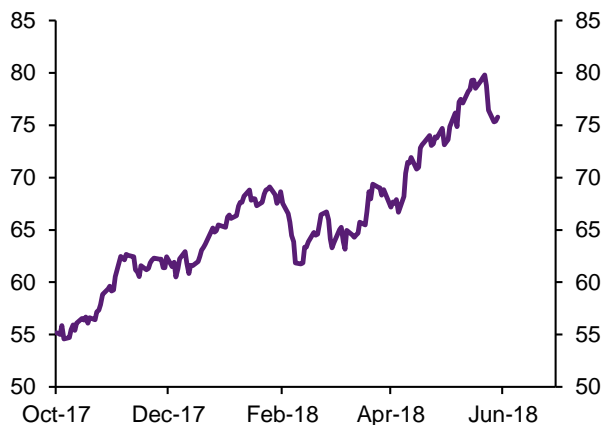
1

INTRODUCTION

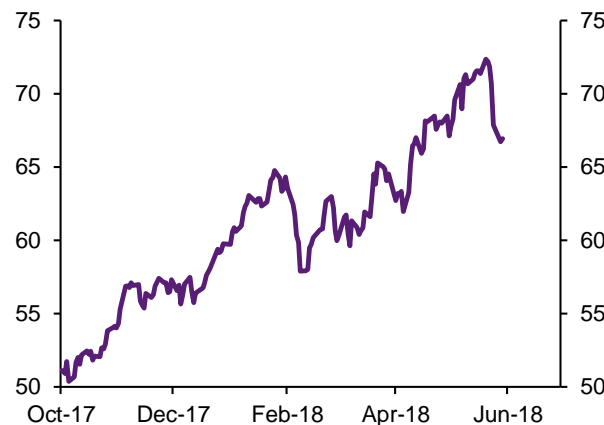
Prices have moved into a higher range in 2018, with tighter fundamentals and geopolitical risk allowing Brent prices to trade well above \$70/bbl through April.

Benchmark oil prices and Brent-WTI spread

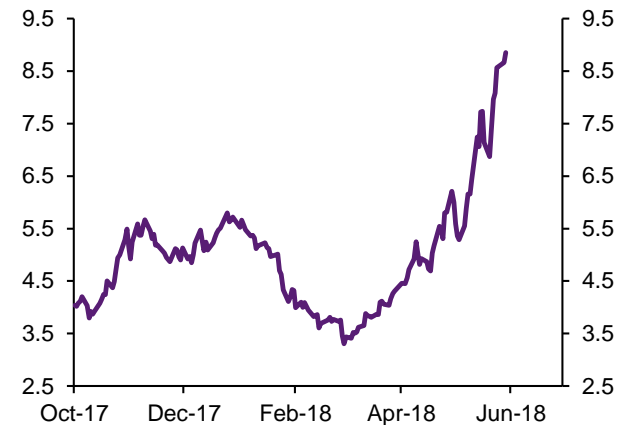
i) Brent price, \$/bbl



ii) WTI price, \$/bbl



iii) Brent-WTI spread, \$/bbl



Benchmark oil prices have touched highs not seen since 2014 during May 2018

Prices have moved higher due to:

- Robust demand growth
- Unplanned outages in Venezuela lowering total OPEC supply
- The increase of global geopolitical tensions, with President Trump reimposing sanctions on Iran.

Prices eased slightly in late May as OPEC+ announced an intention to raise output in the second half of the year.

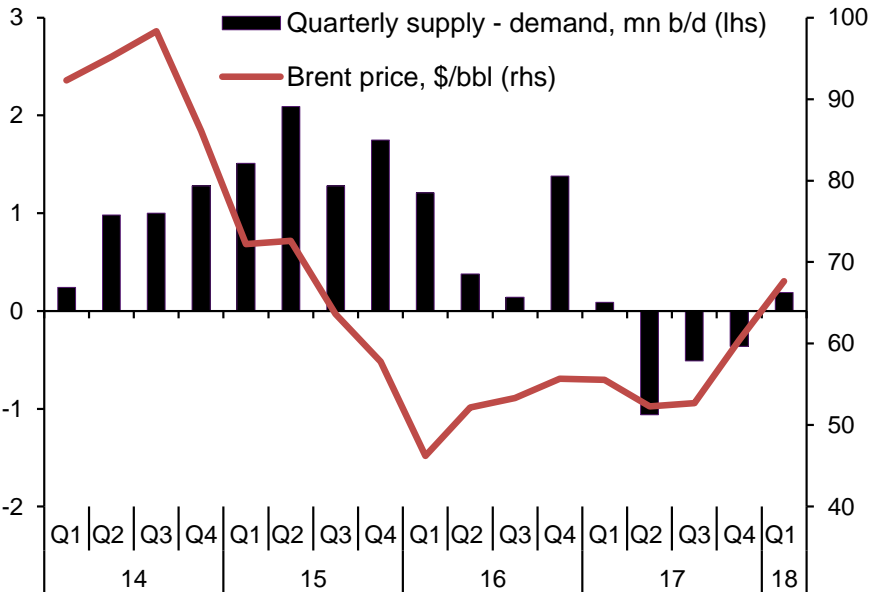
WTI prices have largely underperformed the wider energy complex since ~March 2018, with the Brent-WTI spread approaching \$9/bbl

We expect this weakness to continue and attribute this to:

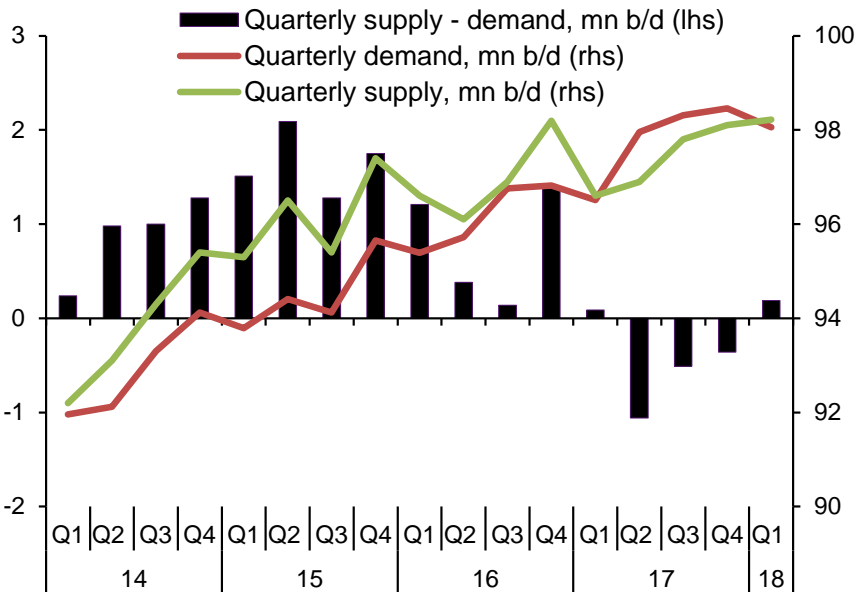
- Lack of Permian takeaway capacity to the Gulf Coast leading to a buildup of crude at Cushing
- Subsequent stockbuilds at Cushing weighing on NYMEX WTI

Global Supply vs Demand

i) Supply- demand imbalance vs Brent price



ii) Supply – demand imbalance vs supply and demand



- Inventories started to drain in 2017 as a combination of robust demand growth and OPEC’s production cuts led to demand outpacing supply, on an aggregated quarterly basis, for the first time since 2013.
- This provided a springboard for prices to move higher from H2 2017, a trend which has continued into 2018.
- Overall demand will continue to outpace supply this year, with another year of synchronised economic growth boosting oil demand and lower OPEC production (through a continuation of cuts through 2018, and lower Venezuelan output) weighs on supply.

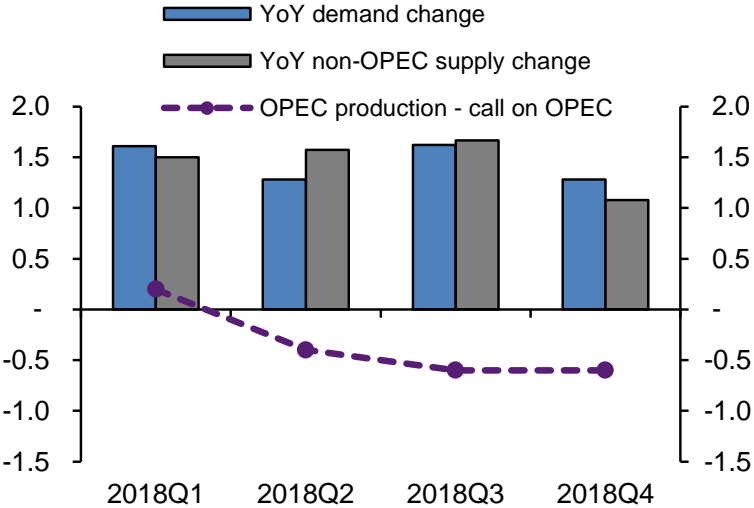


FUNDAMENTALS



Global Balance

i) 2018 balances



ii) Supply - Demand tables

Demand growth ('000 b/d)

China	360,000
USA	250,000
India	250,000
Europe	20,000
Total	1,450,000

Non-OPEC supply growth ('000 b/d)

USA	1,200,000
Canada	175,000
Brazil	145,000
Others	-20,000
Total	1,500,000

Inventories built slightly in Q1 2018 with supply outpacing demand. However, inventories only built by 190,000 b/d vs our expectations for a 400,000 b/d build. This lower build can be attributed to:

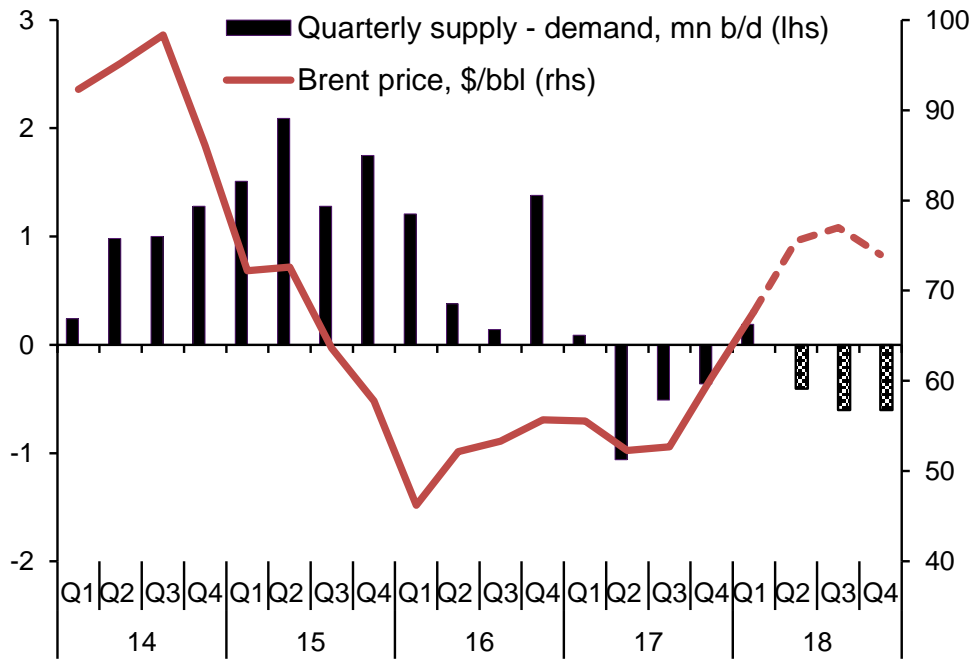
- Higher demand for heating oil due to colder weather across Europe and in China.
- OPEC production surprising to the downside, with Venezuelan losses higher than expected.

We see demand and non-OPEC supply growth as relatively balanced this year, with demand growth at 1.45mn b/d and non-OPEC supply growth at 1.50mn b/d. Lower OPEC production, driven by steep Venezuelan losses and continued OPEC cuts, will see the market in deficit this year however.

We forecast a theoretical stock draw of 350,000 b/d for 2018 as a whole.

Global Supply vs Demand - Forecast

i) Supply- demand imbalance vs Brent price (forecast)



Demand outpacing supply will allow prices to continue on their upwards trajectory in 2018.
We do expect prices to ease slightly in Q4 2018 before continuing their upwards trajectory in 2019.

OPEC+ likely to decide to increase production in H2 2018

i) Pressure mounting on OPEC from a variety of sources



Donald J. Trump
@realDonaldTrump

[Follow](#)

Looks like OPEC is at it again. With record amounts of Oil all over the place, including the fully loaded ships at sea, Oil prices are artificially Very High! No good and will not be accepted!

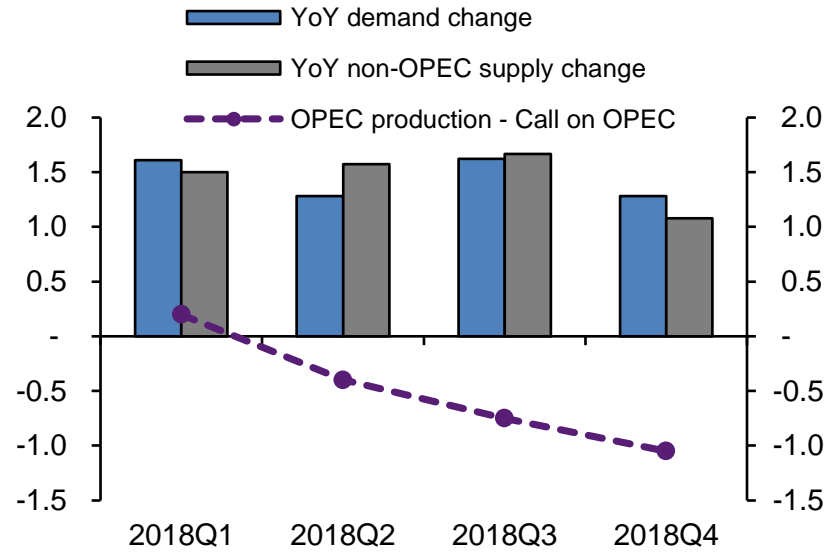
3:57 AM - 20 Apr 2018

India Asks Saudi Arabia For Stable, Moderate Oil Prices

Economics

IEA Cuts 2018 Oil Demand Forecast as \$70 Crude Takes a Toll

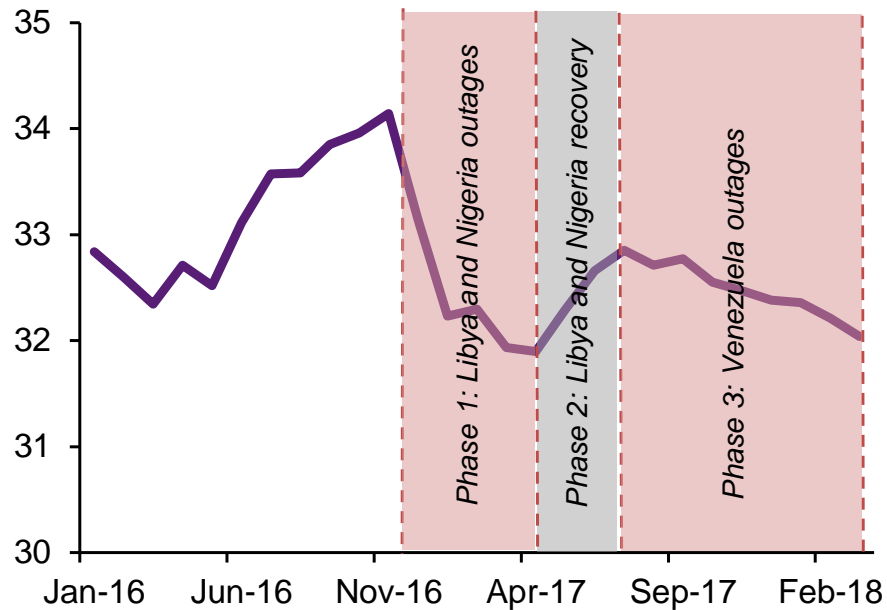
ii) Global balance with no OPEC production increase, mn b/d



- Pressure has been mounting on OPEC to dial back their cuts as oil moved comfortably above \$70/bbl.
- Involuntary cuts have pushed compliance above 160% in February and May 2018.
- Saudi oil minister Khalid Al-Falih and his Russian counterpart Alexander Novak announced plans to boost output on the 25th May at the St. Petersburg International Economic Forum.

OPEC production has surprised to the downside so far in 2018

i) OPEC production, mn b/d



ii) OPEC production comparisons, '000 b/d

('000 b/d)	Q1 18 - Q1 17	Q1 18 - 2017 average
Saudi Arabia	-13	-64
Iraq	-23	-12
Iran	35	33
Venezuela	-410	-333
Libya	337	179
Nigeria	193	108
Angola	-67	-60
Algeria	-20	-21
UAE	-102	-73
Kuwait	-5	-6
Ecuador	-12	-10
Qatar	-5	1
Total	50	-216

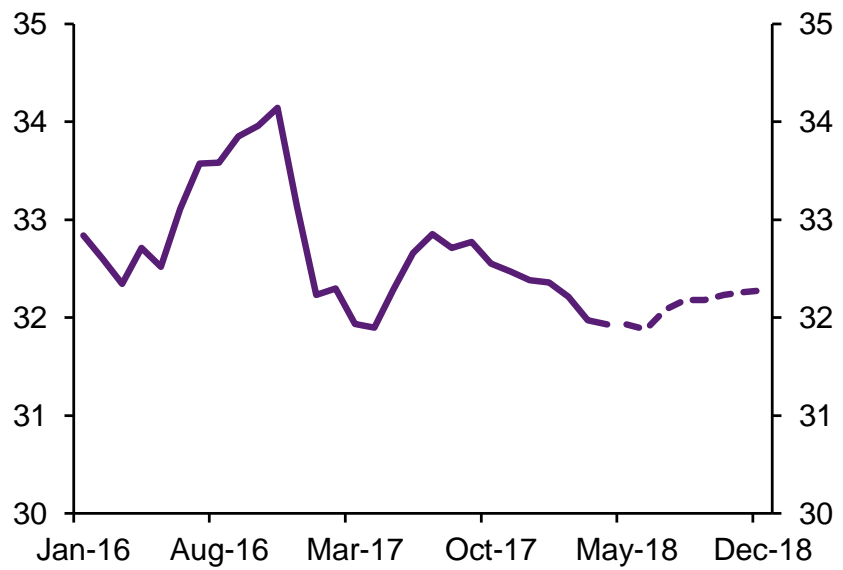
OPEC's production cuts have been boosted by operational issues in member countries since the implementation of cuts in November 2016:

- Venezuela has replaced Libya and Nigeria as the "sick man of OPEC" with production declining by 0.41mn b/d between Q1 17 – Q1 18.
- Structural decline in Libya and Nigeria in the first half of 2017 (*phase 1*), and later Venezuela (*phase 3*) has greatly increased the effect of OPEC's cuts.
- The UAE has also contributed to lower production in 2018, although this is through operational maintenance as well as tighter compliance to OPEC's cuts, rather than structural decline.
- Other OPEC members have neglected to replace this lost production so far, however we expect this to change after OPEC's meeting on 22nd June

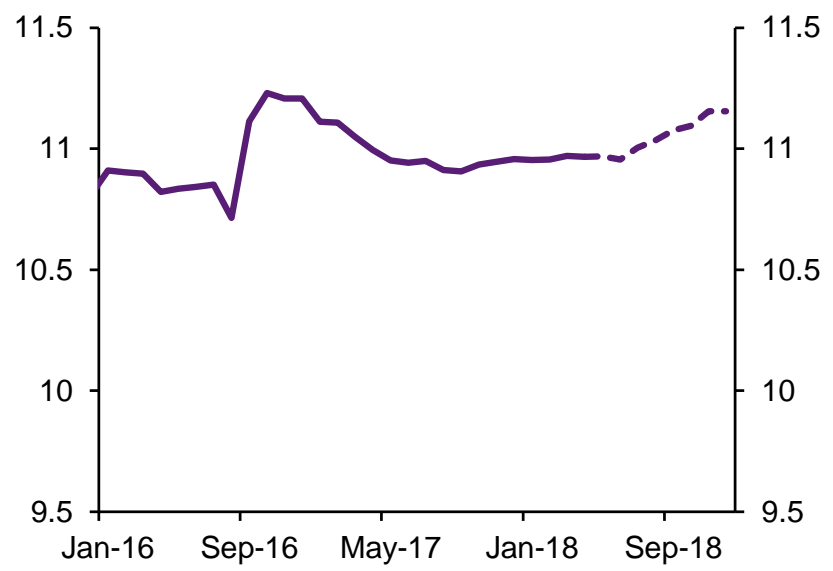
We expect combined OPEC and Russian production to increase by ~500,000 b/d on April-18 (42.91mn b/d) by end 2018...

...however this is hypothetical and greater clarity will be given after June-22nd meeting

i) OPEC production forecast, mn b/d



ii) Russian production forecast, mn b/d

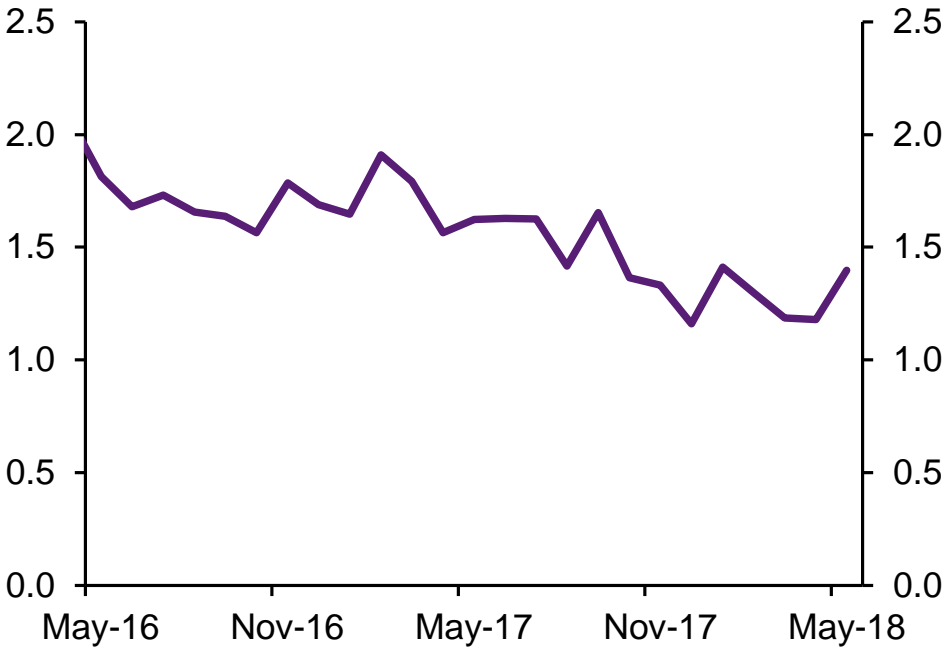


This assumes:

- OPEC members with spare capacity pumping an extra 600,000 b/d by Dec-18 on Apr-18
- Combined Iran and Venezuelan volumes 250,000 b/d lower by Dec-18 than Apr-18
- Russian production increasing 200,000 b/d by Dec-18 on Apr-18

In focus: Venezuela – how low can we go?

i) Venezuela crude exports, mn b/d



Production decline in Venezuela has accelerated so far in 2018, with production recorded at 1.51mn b/d in March 2018 (0.43mn b/d lower than the 2017 average).

Where is the floor for Venezuelan production?

- International oil companies operating in the Orinoco belt continue to operate their assets. However, the arrest of two Chevron workers in April 2018 potentially sets a dangerous precedent.
- Russia’s Rosneft and China’s CNPC and PetroChina continue to expand presence in the country despite the deteriorating political environment , with the Russian and Chinese administrations containing to support the Maduro regime.

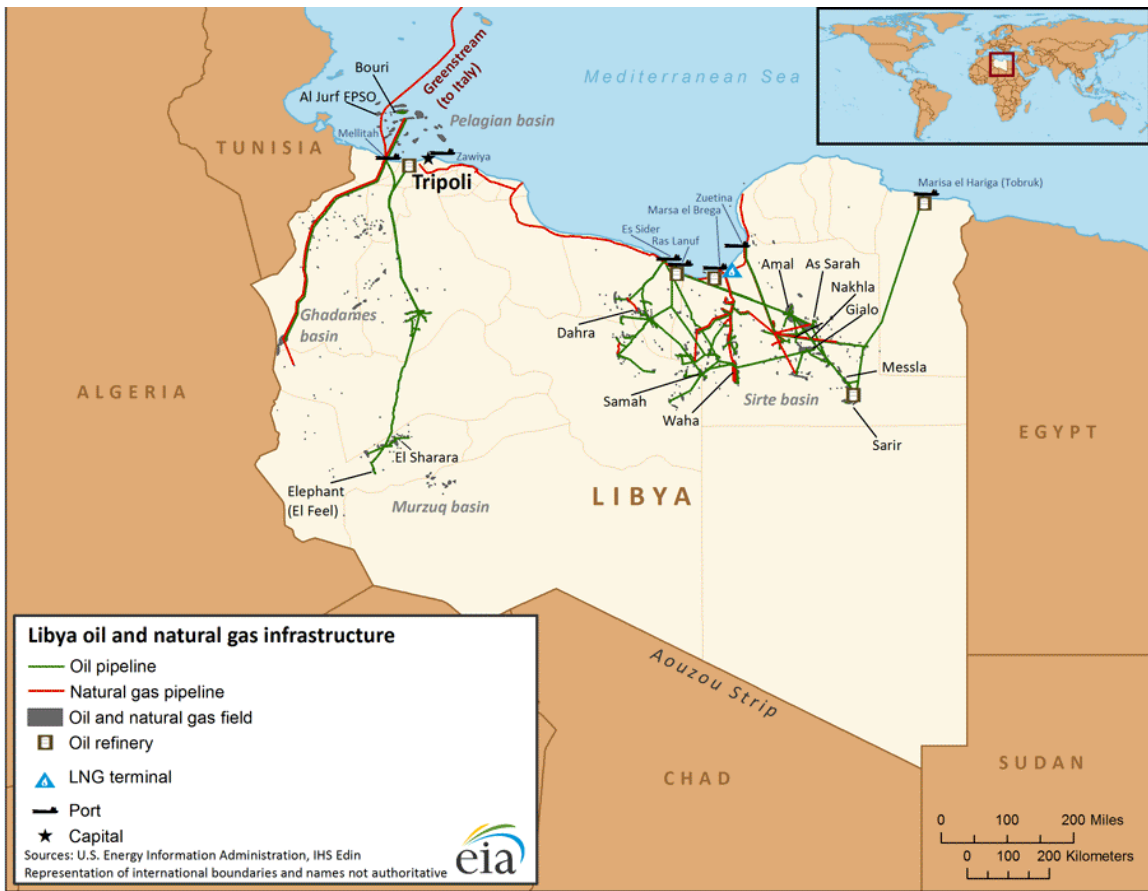
We therefore see a floor for production at around 1.1-1.2mn b/d (allowing for a further 0.4mn b/d of decline). We expect production to average 1.4mn b/d this year, and to exit the year at 1.2mn b/d.

Decline could be accelerated by sanctions from the USA

- Following Maduro’s contested re-election on the 20th May, the US has issued an order prohibiting purchases of debts owed to the Venezuelan government and PDVSA.
- Although this does not directly impact oil sales, it will impact the ability of both the government and the state oil company to finance themselves, which could exacerbate production declines.

In focus: Haftar’s episode highlights the fragility of Libya’s stability

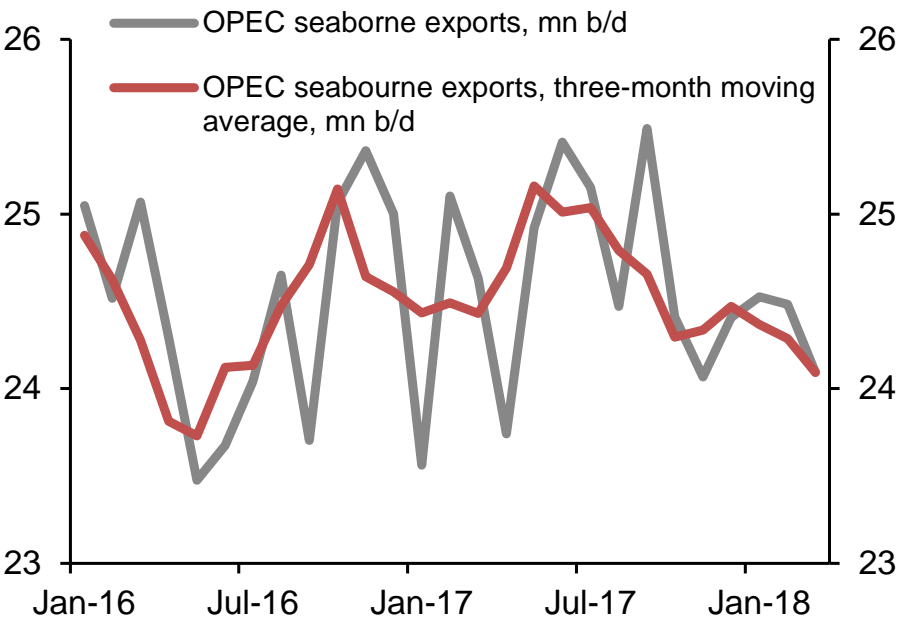
i) Map of Libya oil infrastructure



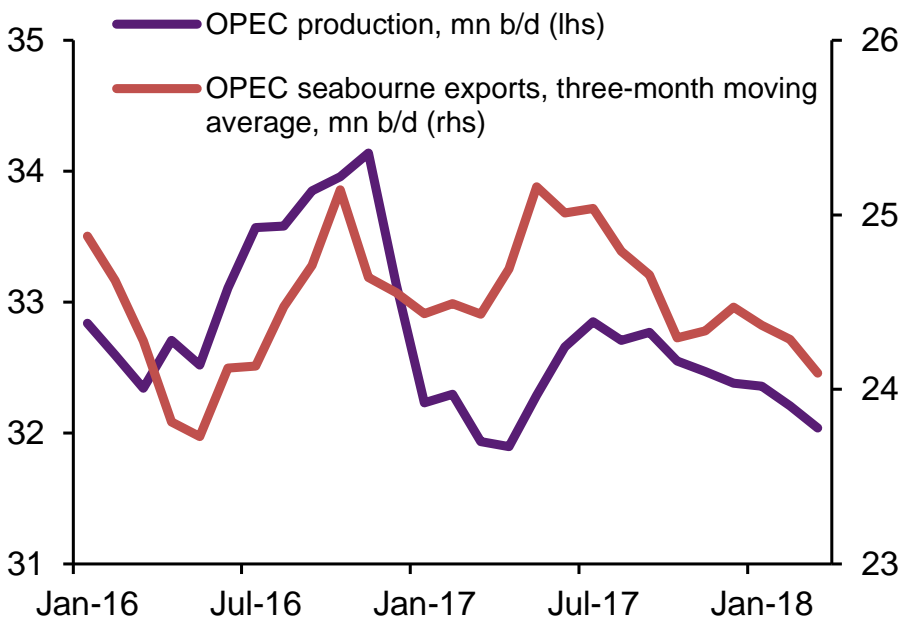
- There has been mystery surrounding the condition of the military strongman who controls oil rich Eastern Libya, Khalifa Haftar.
- Reports in early - April suggested Haftar was gravely ill in a Paris hospital, with some suggesting he could already be dead.
- However Haftar defied reports of his incapacitation and returned to Libya on the 26th April.
- His prolonged absence sparked some unrest, with Haftar’s Chief of Staff, General Abdel-Razeq Nathouri, surviving an assassination attempt.
- Although Haftar is now back, the fragility of the relative stability that has allowed Libya’s production to recover has been highlighted.
- This is potentially incredibly bullish for global balances in the second half of the year.

OPEC exports have largely tracked OPEC production

i) OPEC exports, mn b/d

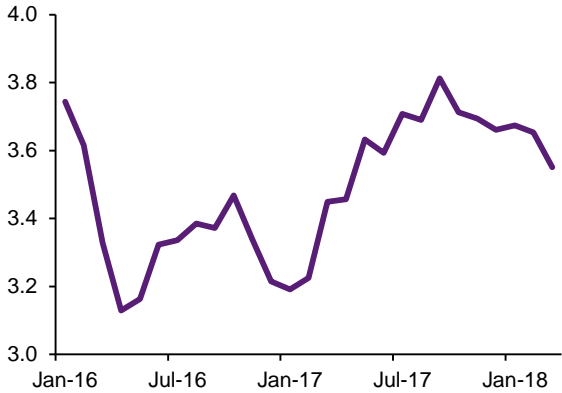


ii) OPEC production/ export comparison, mn b/d

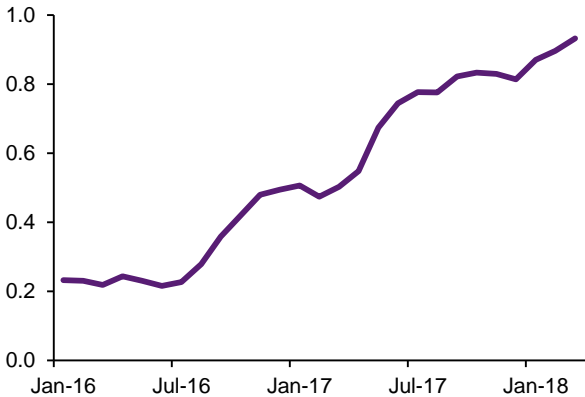


OPEC export detail

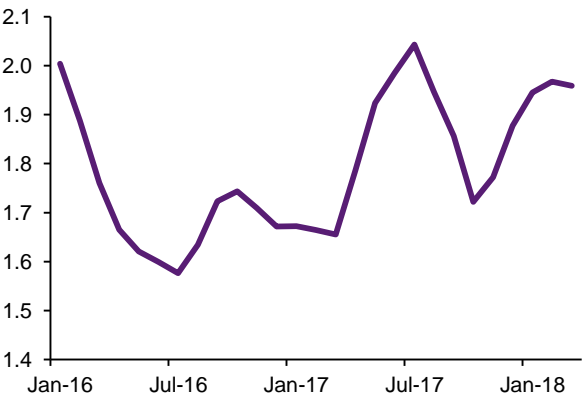
i) Iraq oil exports (three-month moving average) mn b/d



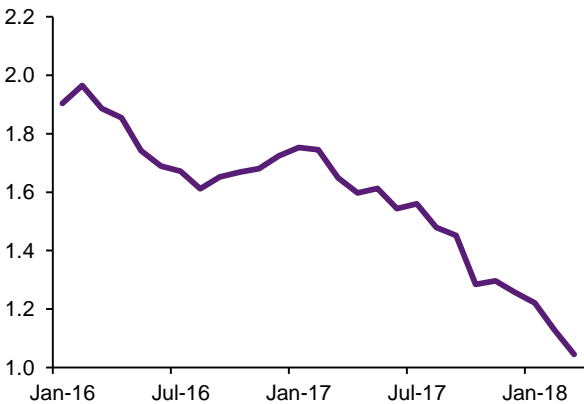
ii) Libya oil exports (three-month moving average) mn b/d



iii) Nigeria oil exports (three-month moving average) mn b/d



iv) Venezuela oil exports (three-month moving average) mn b/d



i) Iraqi exports were variable through 2016 as the newly marketed Basrah Heavy grade found its feet. In early 2017 exports ramped up as Iraq undercomplicated with production cuts, and fields in and around Kirkuk came under the control of the KRG, increasing both production and exports. Exports have declined since November 2017 following outages at Kirkuk fields due to clashed between KRG and federal forces.

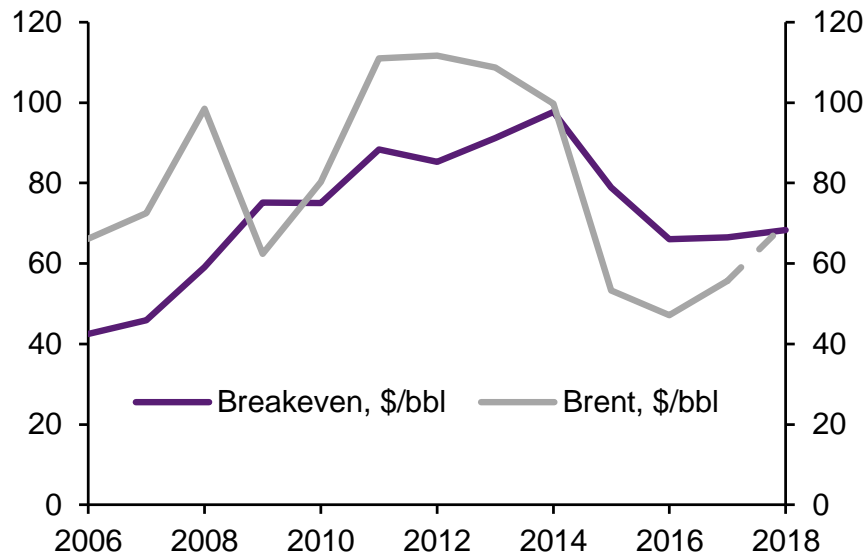
ii) Libyan exports have recovered steadily since mid-2017 and reached a high of 0.93mn b/d in March 2018.

iii) Nigerian exports have been highly variable, with a combination of militant attacks, upstream outages and worker strikes swinging exports. Although militant attacks have largely ceased, Nigerian exports are still vulnerable to operational issues.

iv) Venezuelan exports have followed the same downwards trend as production due to mismanagement and a lack of funds.

Weighted average breakeven of selected OPEC countries has increased to \$68.3/bbl for 2018 (from \$66.5 in 2017)

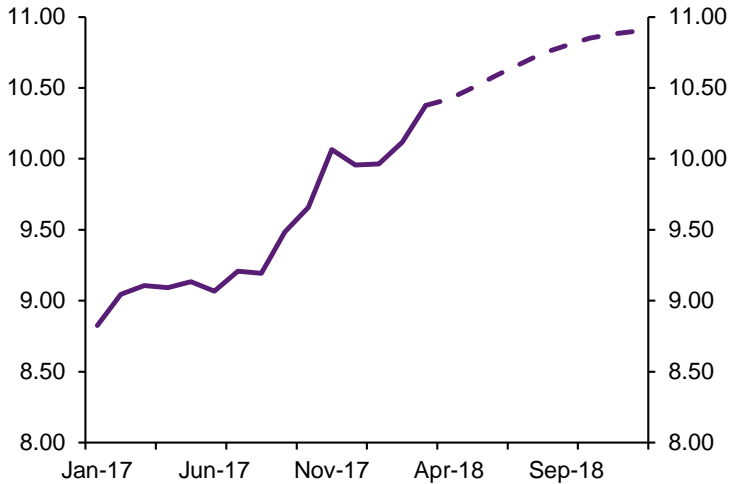
i) Weighted average breakeven price, \$/bbl



- The weighted average breakeven price has increased marginally for select OPEC countries.
- 2018 has the potential to be the first year since 2013 that the breakeven price will be above benchmark Brent prices.
- The slight uptick in breakeven prices since 2017 can be attributed to higher expenditure for 2018 – there has been an increase of total expenditure of \$58.5bn, or 4.95% YoY.

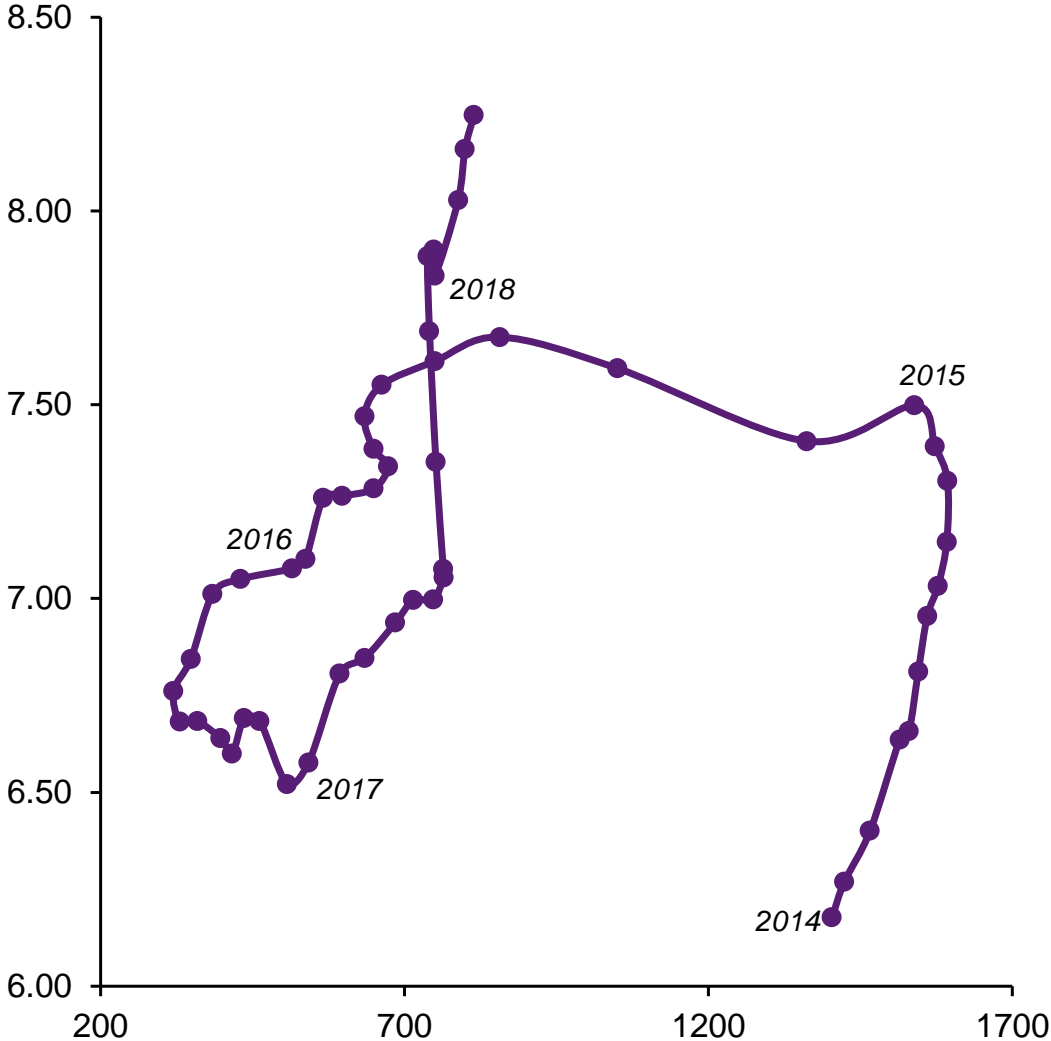
Non-OPEC production is driven by US tight oil growth

i) US Oil production (forecast), mn b/d



- Production in the US reached 10.4mn b/d in March 2018, a 0.42mn b/d increase since the start of the year.
- Production growth has been driven by tight oil activity in the L48 states with higher prices incentivising producers to boost capex and enact ambitious development plans.
- Cost efficiencies have seen production rising structurally, even with rig counts well below historical levels.

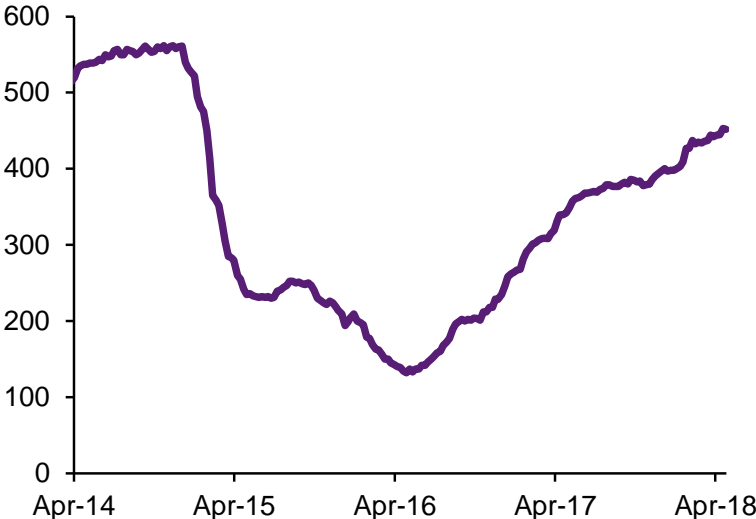
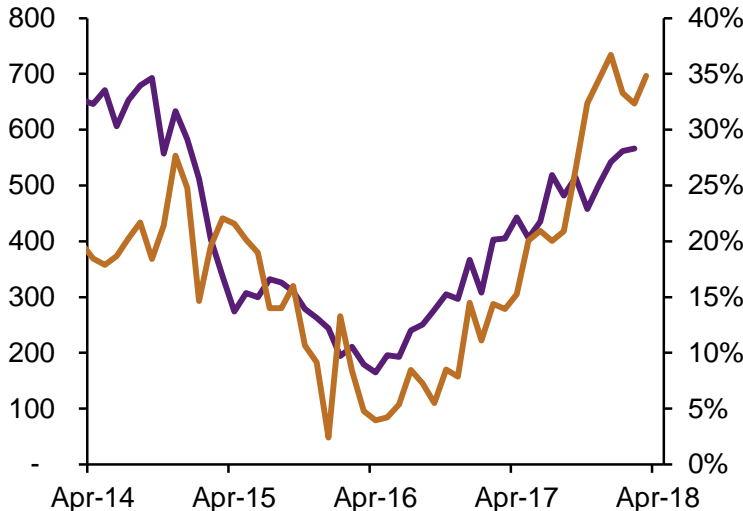
ii) Baker Hughes rig count (x-axis) vs L48 production (y-axis), mn b/d



Production growth has primarily been driven by the Permian

i) Permian wells drilled (lhs) VS month on month production change (rhs)

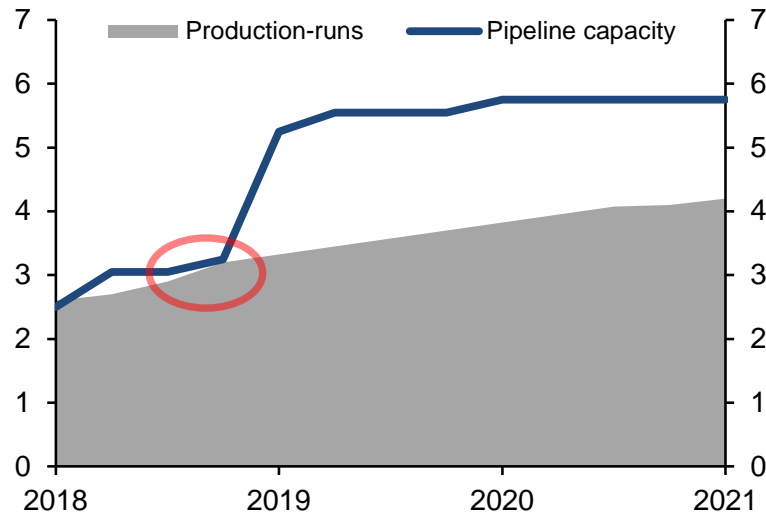
ii) Permian rig count



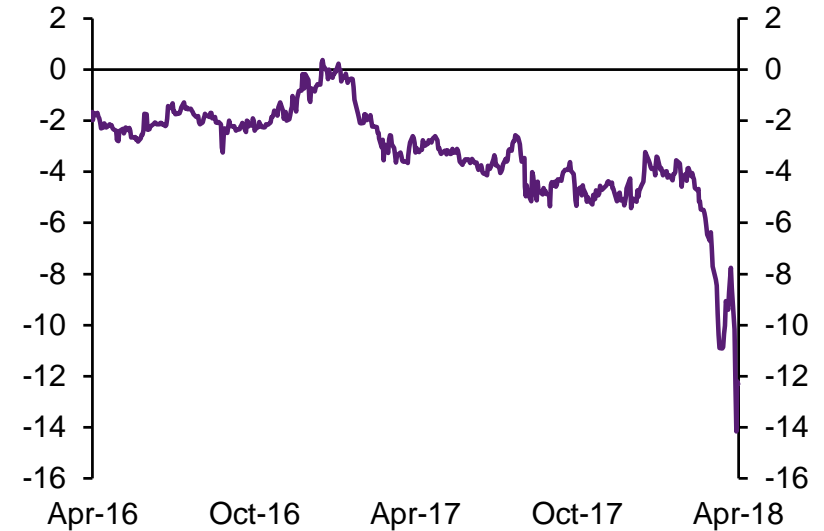
- Drilling activity in the Permian rebounded in mid-2016 and has remained robust since, with rig counts reaching 452 in late-April 2018 (80% of the 2014 peak).
- Production has increased substantially, and reached 3mn b/d in March-18 (compared to 2.5mn b/d average production for 2017).

Permian basin is facing a unique set of operational issues pt 1

i) Permian pipeline capacity, mn b/d



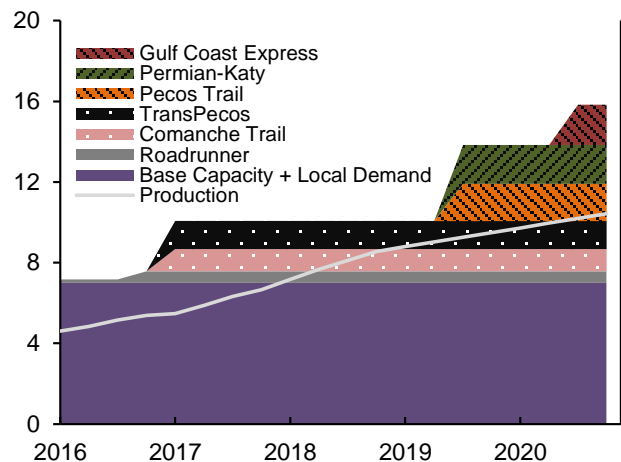
ii) Midland – Brent differential, \$/bbl



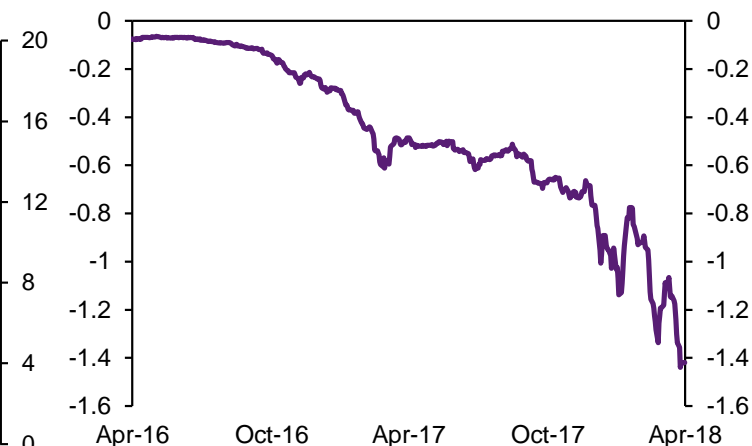
- The rapid growth in Permian production had outstripped available midstream infrastructure, with production growth likely to be constrained until the end of H1 2019.
- This has led to steep discounts for WTI Midland vs NYMEX WTI (Cushing), with even steeper discounts seen to Brent.
- Major Permian players have committed volumes on existing pipelines as well as dedicated gathering systems – smaller producers are having to compete for the limited remaining pipeline space (~10% of oil pipeline capacity is reserved for walk-up shippers) and rely on trucking their crude to pipeline injection points.
- A major shortage of truck drivers has hit the Permian in recent months, with some drivers unwilling to relocate to the oil patch after being laid off during the last downturn.

Permian basin is facing a unique set of operational issues pt 2

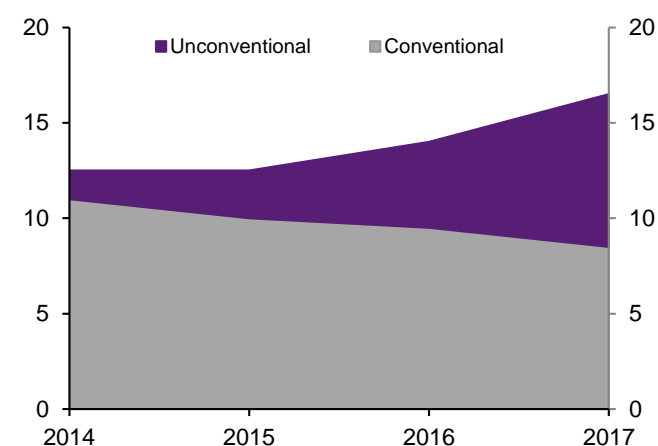
i) Permian gas takeaway capacity, bcf/d



ii) Waha (Permian) – Henry Hub differential, \$/MMBtu



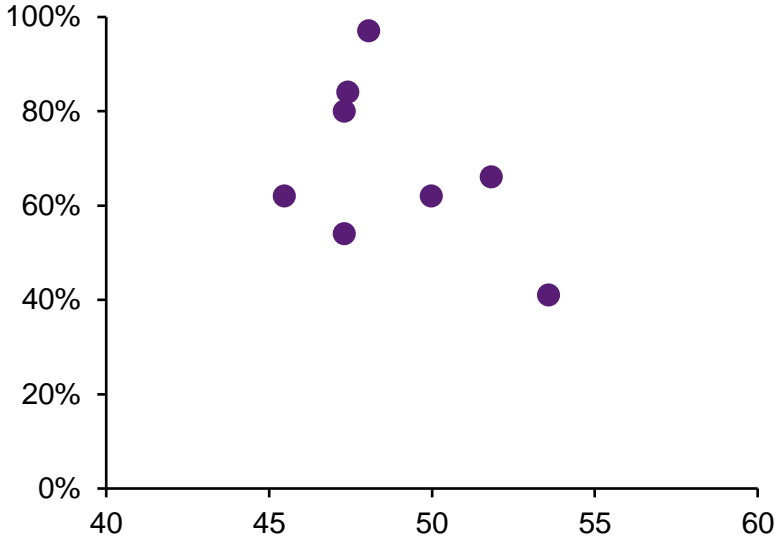
iii) Estimated water production, mn b/d



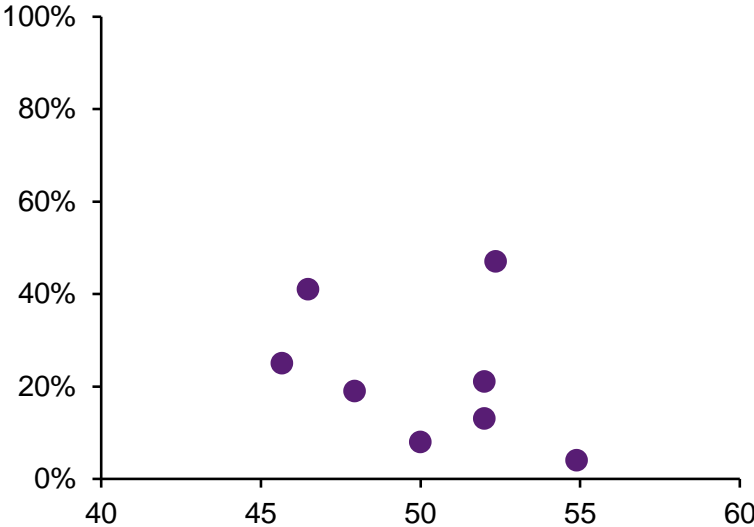
- A significant volume of associated gas is produced in the Permian alongside oil. Although adequate gas takeaway capacity exists, pipelines through to Mexico are currently underutilised due to a lack of infrastructure on the Mexican side of the border.
- Although Texas has relatively accommodating flaring regulations, the majority of new production growth in the Permian is located in the Midland (New Mexico), where flaring regulations are not as generous.
- If gas cannot be flared, or transported away via pipelines, producers may be forced to shut in to avoid having to deal with their gas.
- Water produced alongside oil has also increased dramatically in recent years, with producers having to invest in dedicated water disposal midstream infrastructure, eating into capex dedicated to growing production.

Permian producers are well hedged for both 2018 and 2019

i) Pure play Permian hedging 2018, percentage hedged (y-axis) strike price (x-axis, \$/bbl)



ii) Pure play Permian hedging 2018, percentage hedged (y-axis) (y-axis, \$/bbl)



- Pure play Permian producers are among the most well hedged of all pure play basin operators for 2018 and 2019.
- Producers are perhaps underweighted from a pricing perspective, with the recent oil price rally taking producers by surprise.
- The level of hedging by Permian operators suggests an expectation of robust production growth over the next two years.
- Producers are using a mixture of swaps and options depending on the risk appetite of the producer.

US producer sentiment is relatively high (although the same cannot be said for natural gas)

Although producers recognised that the current trends in the international crude markets were positive, a lack of takeaway capacity i) from the Permian and ii) from Cushing (once excess Permian barrels had been diverted, due to full pipes to the Gulf Coast) was occupying the minds of producers, with worries for a wide Brent-WTI spread.

The WTI-Midland spread was a frequent topic of conversation, with some producers convinced the spread would start pricing in crude by truck by Q4 18.

This was recognised as a short term issue however, with new pipeline capacity due in 2019.

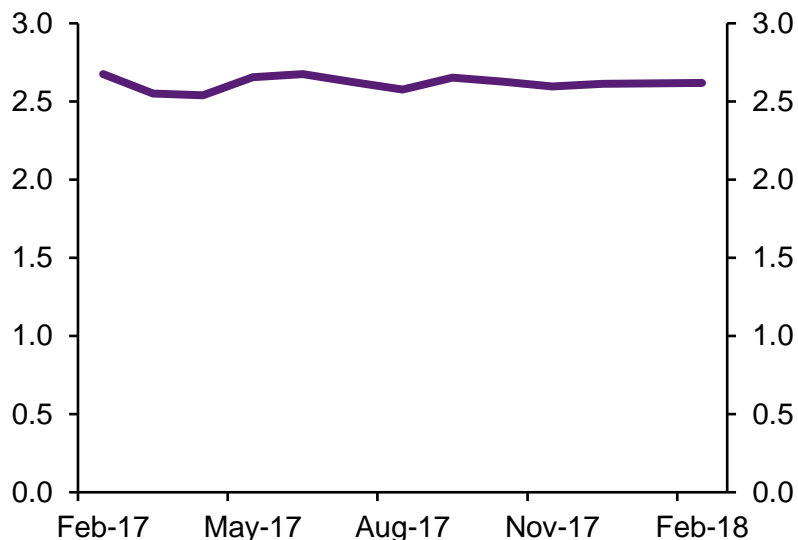
Three main issues facing Permian producers are oil takeaway capacity, gas takeaway capacity, and water disposal.

Multiple barrels of water per barrel of oil are produced (around 6 bbl per 1 bbl of oil seemed to be the consensus). This water needs to be transported to water disposal wells which are often located some distance away.

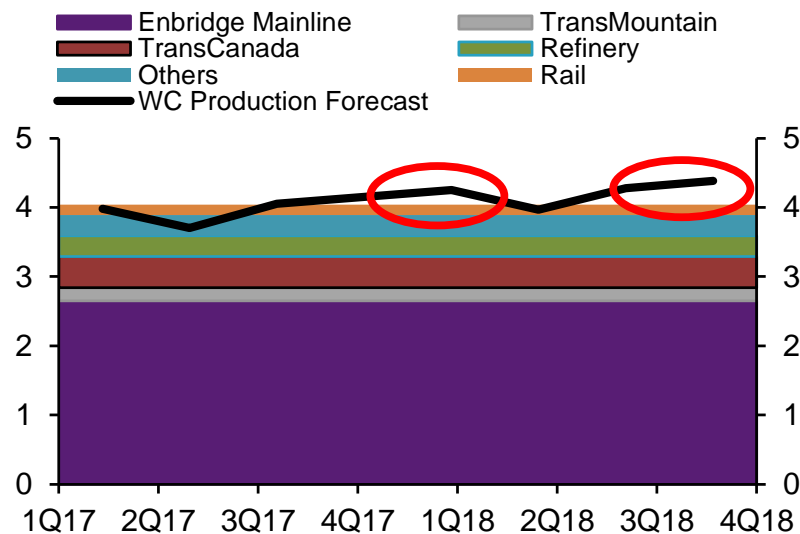
Some specific midstream infrastructure exists to pipe this water to the disposal wells, but the buildout is immature. Producers have to spend money trucking water if no pipeline infrastructure is available (aggravating the tight trucking issue). Companies are now diverting capex to build midstream infrastructure.

Other non-OPEC supply has disappointed to the downside so far in 2018

i) Brazil oil production, mn b/d



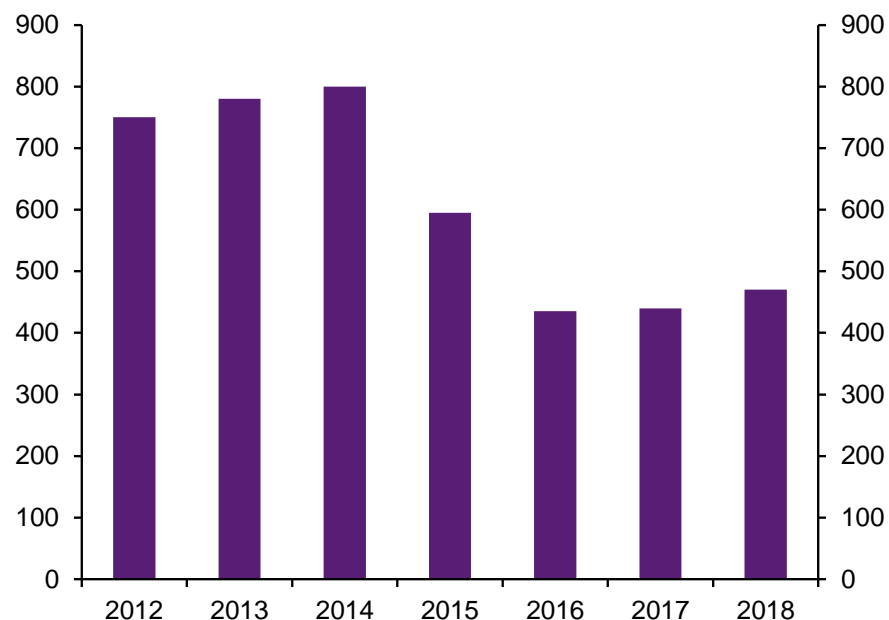
ii) West Canada production versus pipeline capacity, mn b/d



- Brazil has been heralded as a major source of production growth in recent years, however declines at legacy fields have offset gains from new pre-salt production units.
- Production has largely been flat through 2017 and into 2018 with limited pre-salt gains offset by post-salt declines.
- Pipeline capacity issues and associated steep pricing differentials are forcing some Canadian oil producers to curtail production.
- New pipelines are facing regulatory holdup and staunch opposition from both environmentalists and aboriginal groups.

Non-OPEC non-US upstream investment is far below historical levels (although upticked slightly in 2017).

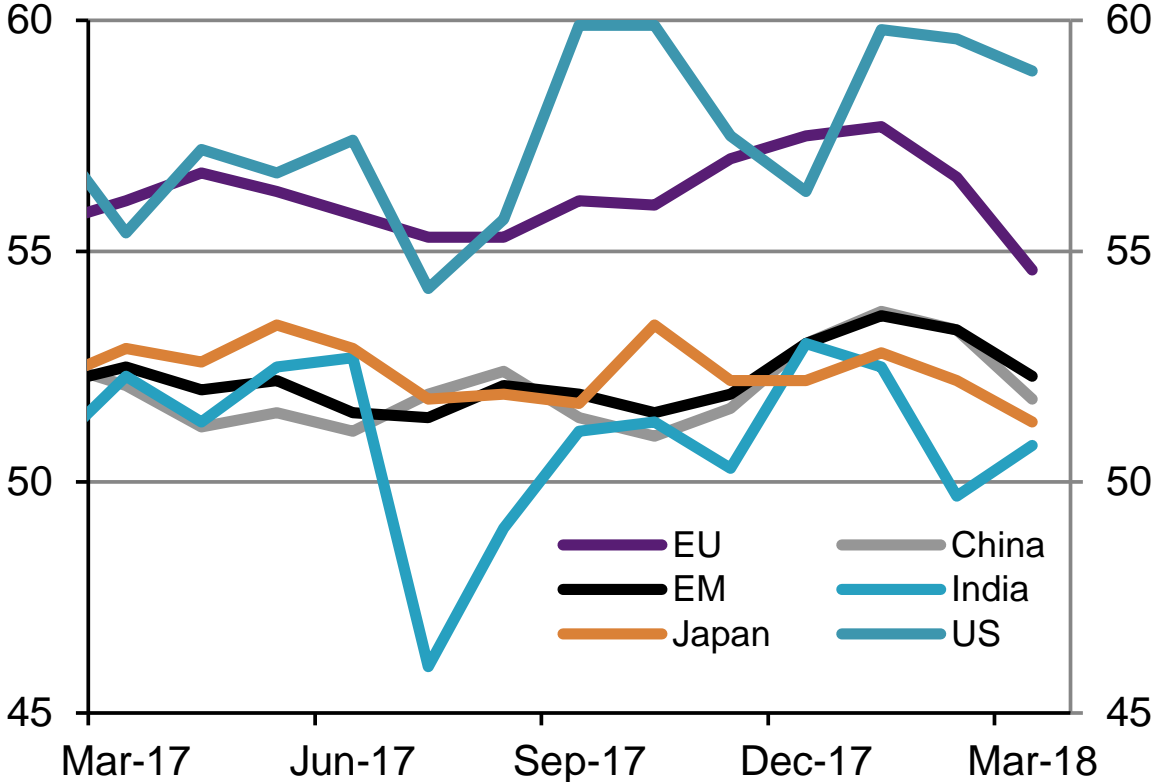
i) Global upstream capex, \$ bn



- Global upstream investment, outside US onshore, bounced back slightly in 2017.
- There were 30 project FIDs in 2017, compared to just 14 in 2016 and 9 in 2015.
- The projects reaching FID are far more geographically diverse, with deepwater projects back in vogue following significant cost reductions.

Global PMIs have consistently remained positive since early 2017 for the majority of major economies

i) Global composite PMIs



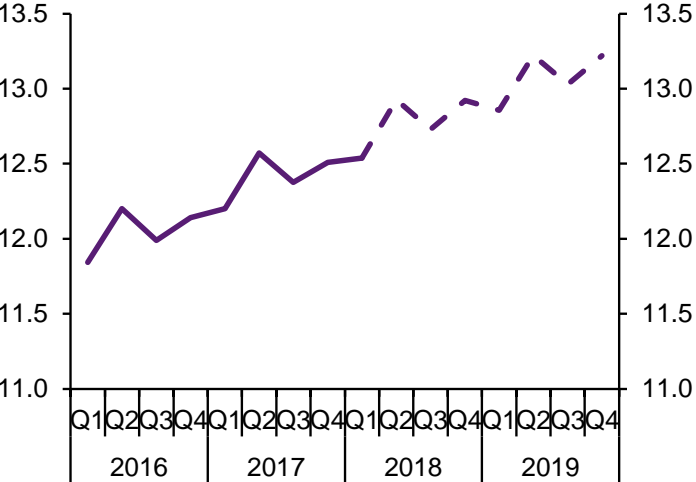
Q1 data from major oil demand centres has been constructive for demand growth

i) Global demand indicators

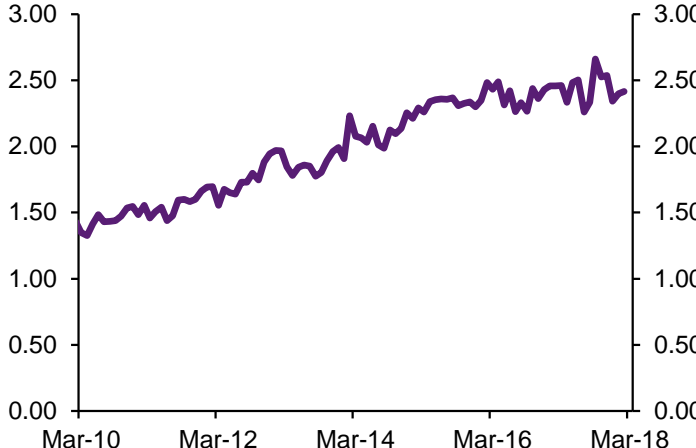
Country / Region	Q1 Oil Demand and Economic Indicators
China	March oil demand up 0.2mn b/d yoy. Q1 GDP up 6.8% yoy. March retail sales grew 10.1% yoy
India	March oil demand up 0.3mn b/d. Q1 GDP up 7.1% yoy.
Europe	February oil demand up 0.6mn b/d yoy. EU 28 GDP growth up 0.4% yoy in Q1
US	February demand up 1.12mn b/d yoy, GDP growth up 2.3% yoy in Q1

Demand detail - China

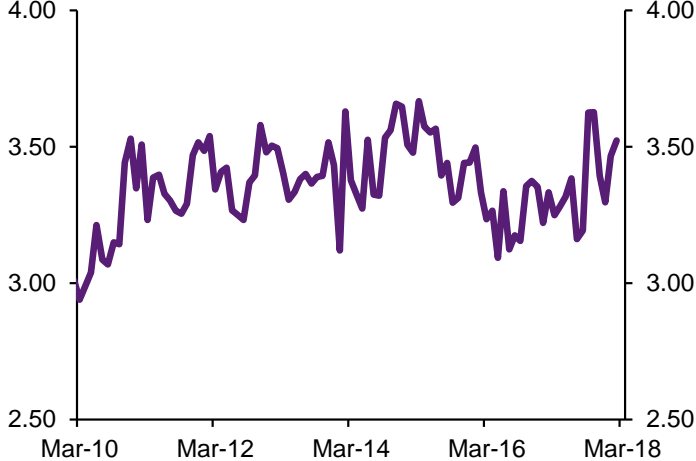
i) China oil demand, mn b/d



ii) Apparent Chinese gasoline demand, mn b/d



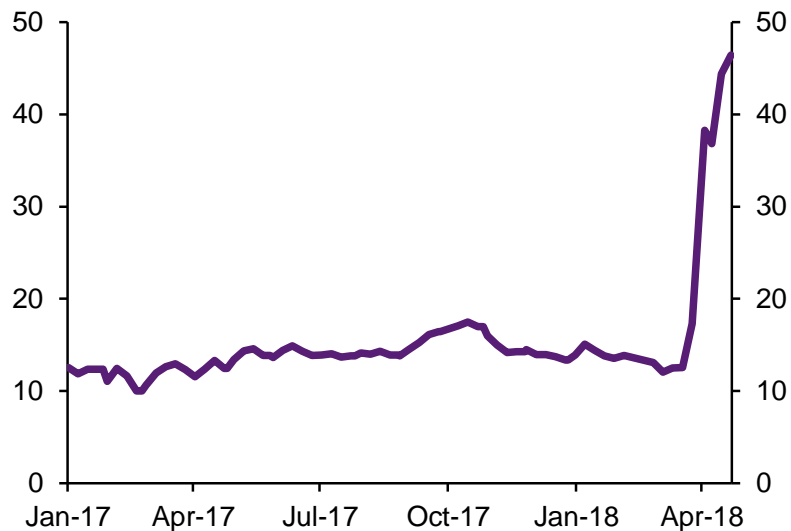
iii) Apparent Chinese distillate demand, mn b/d



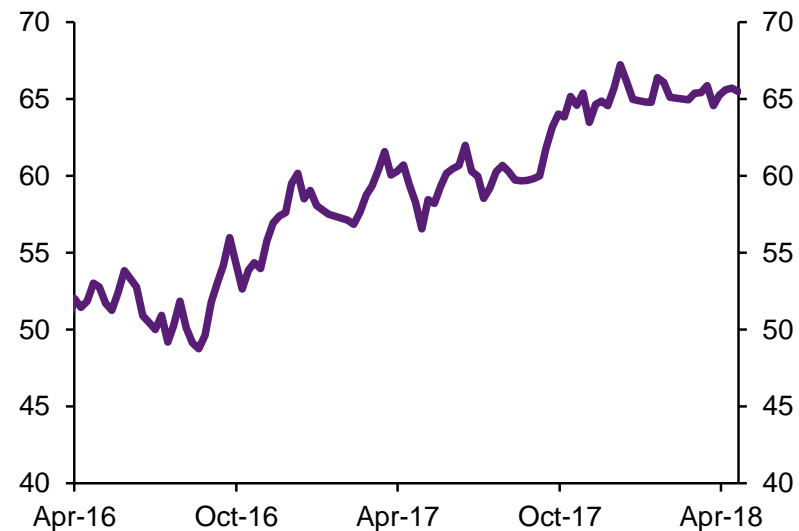
- Chinese apparent oil demand increased 3% YoY in Q1 2018.
- Gasoline demand increased 1.5% YoY whilst distillate demand increased 0.6%
- We expect Chinese demand to grow at 360,000 b/d YoY in 2018. This is a slowdown from last year (~490,000 b/d), due primarily to the central government targeting more measured economic growth and enacting policies to target industrial pollution.

Signs pointing to weaker Chinese independent refinery demand in Q2

i) Shandong oil stocks, mn bbl



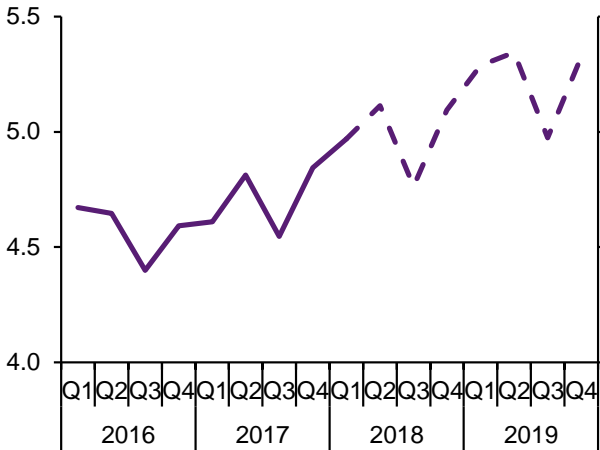
ii) Shandong refinery utilisation, %



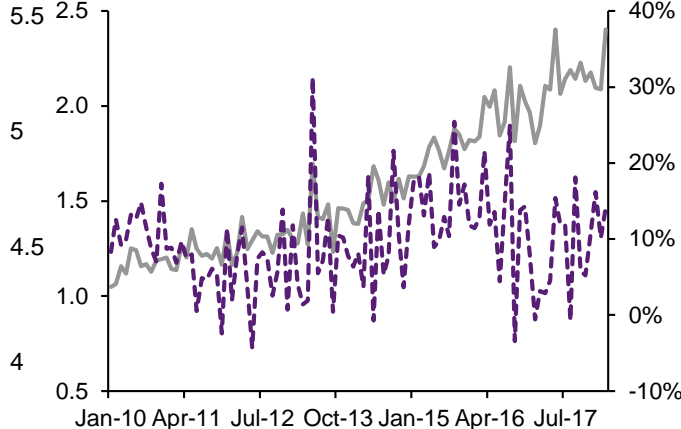
- Crude oil imports from teapot refineries will likely weaken in April and May.
- The closure of several tax loopholes has negatively impacted refinery margins.
- The largest regulatory change is that independent refineries can no longer claim crude oil imports as fuel oil imports to receive tax rebates.
- Runs have remained stagnant since the start of this year.
- Oil stocks at Shandong ports have hit record levels in recent weeks, and are now approaching 50mn bbl.

Demand detail - India

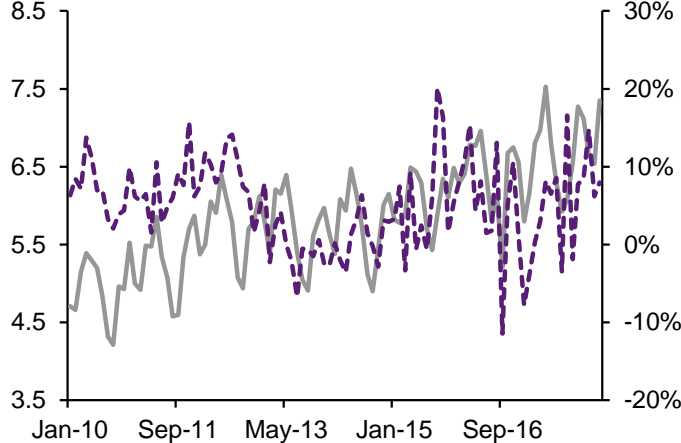
i) India total oil product demand, mn b/d



ii) India gasoline demand mn b/d (lhs) vs YoY gasoline demand growth (rhs)



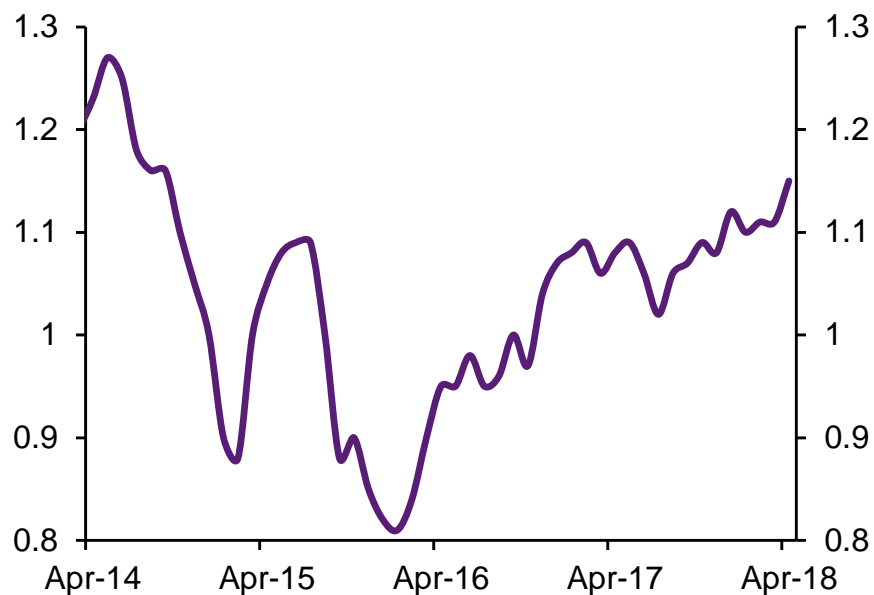
iii) India distillate demand mn b/d (lhs) vs YoY demand growth (lhs)



- India recorded robust oil demand growth in Q1. This is due to a combination of a low base (due to demand weakness in Q1 17 following demonetisation) as well as rising auto sales and government spending on infrastructure projects.
- Total growth was up 8.5% in Q1 YOY, with gasoline up 15% on rising auto sales.
- The majority of the impacts of India's economic reforms (Goods and Sales Tax, demonetisation) have largely been absorbed which sets 2018 up as a robust year for demand.
- We expect demand growth of 250,000 b/d, more than double the 120,000 b/d growth seen in 2017.
- Gasoline demand will continue to grow on higher auto sales, whereas gasoil demand will grow on higher government spending on construction activity and rural investment (up 24% YOY since previous budget).

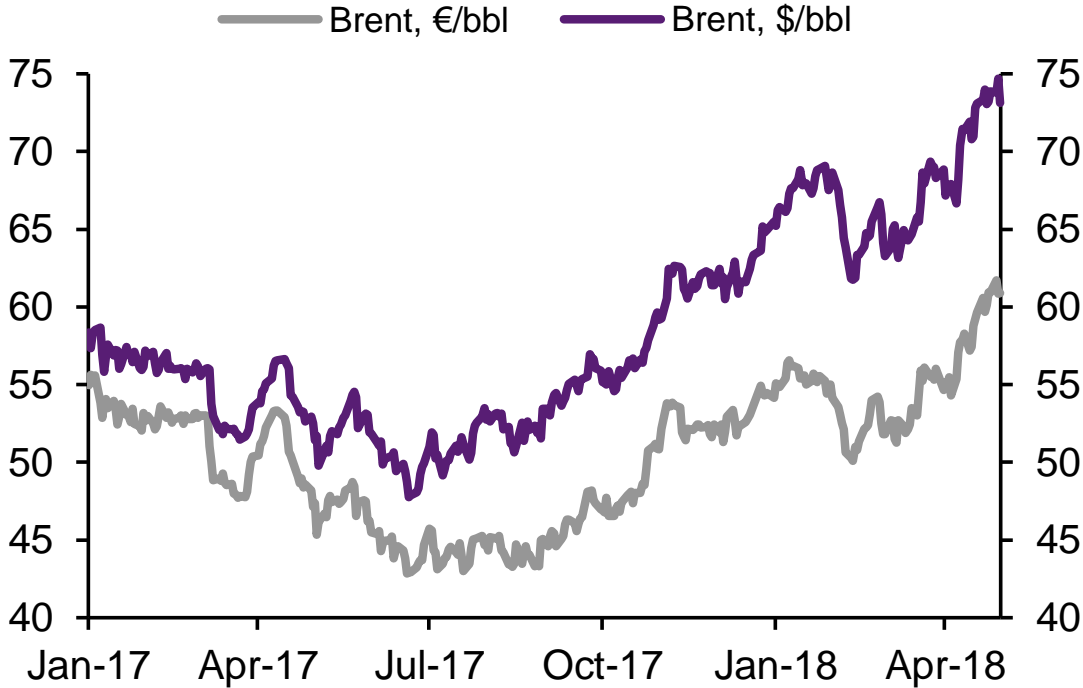
Could removing fuel subsidies kill Indian retail fuel demand?

i) India average gasoline retail price, \$/litre



- ~25% of India's YoY total oil demand growth can be attributed to gasoline, driven by robust passenger and motorcycle sales.
- However, India's average gasoline price has been rising steadily since mid-2016.
- The Indian government used low oil prices to slash fuel subsidies and add excise duties to the sale of gasoline. The Indian government has increased fuel duties 9 times between November 14-Jan-16 to take advantage of lower prices.
- As oil prices have risen, these taxes have not been scaled back.
- Prices have not yet risen to the same degree as international oil prices however, with marketers under pressure to largely absorb the extra costs.
- Gasoline prices have risen ~6% YOY (March-2018) compared to ~25% for benchmark Brent crude.

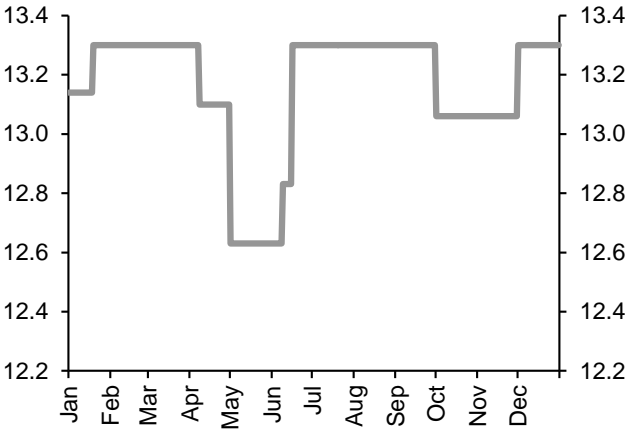
Weak dollar has offset some of oil's rise



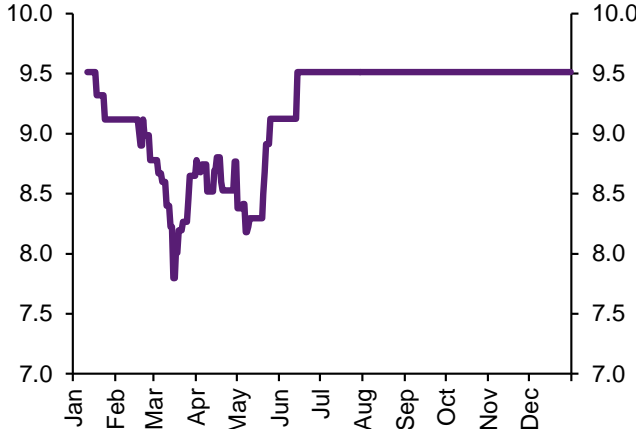
• The weaker dollar has offset some of crude's rise for non-US buyers, helping to support demand growth in the face of higher prices.

Global refinery outages will peak in May, driven by Chinese turnarounds

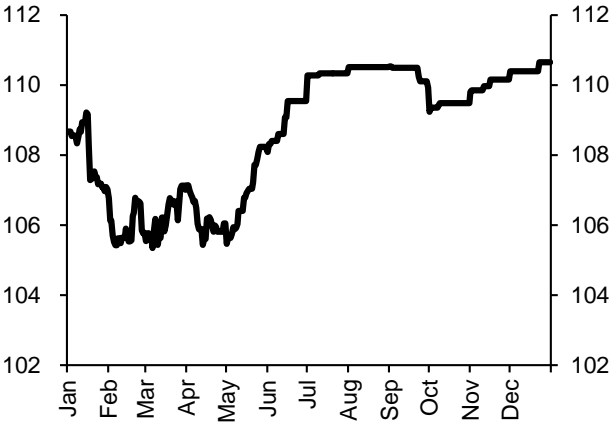
i) China refining capacity, mn b/d



ii) NW Europe refining capacity, mn b/d



iii) Global refining capacity, mn b/d



- In China, at least six state-owned and private refiners are planning a full annual maintenance shutdown in the second quarter for 30 days or more, accounting for ~10% of China’s monthly crude runs.
- NW Europe turnarounds peaked in March but will undergo a second round across May and June.
- This will lower demand for physical oil barrels through Q2.



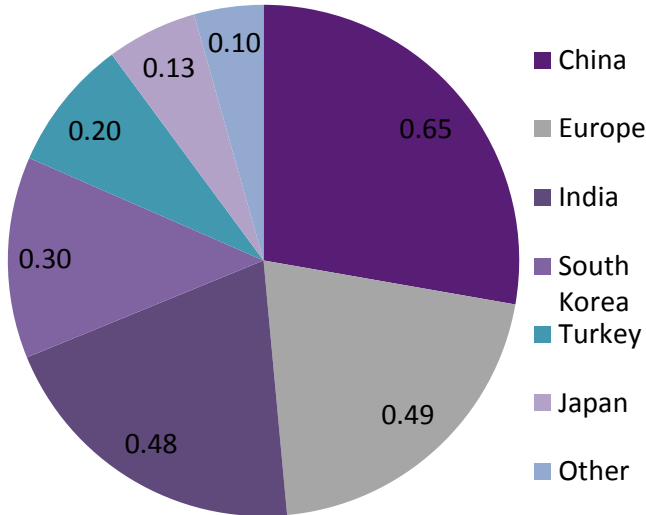
MACRO



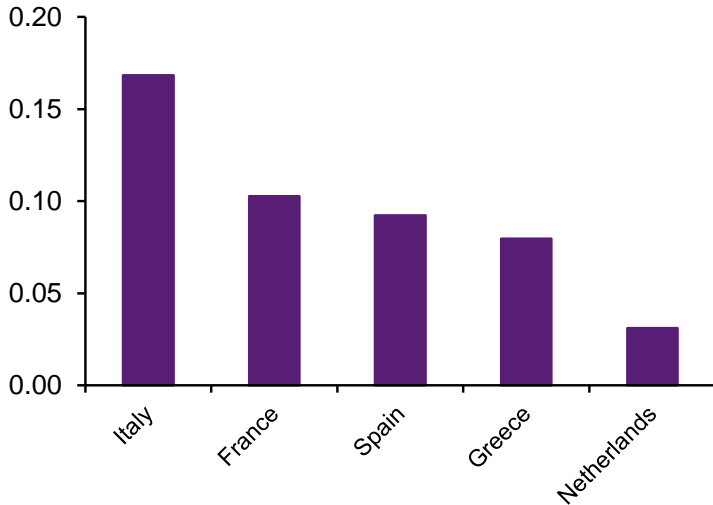
Macro factors have driven oil this year, with geopolitics providing upside and the brewing trade war downside

Geopolitical factors have been in the driving seat since early April, with Iran firmly in the spotlight

i) Iran export destinations, '17 April '18, mn b/d



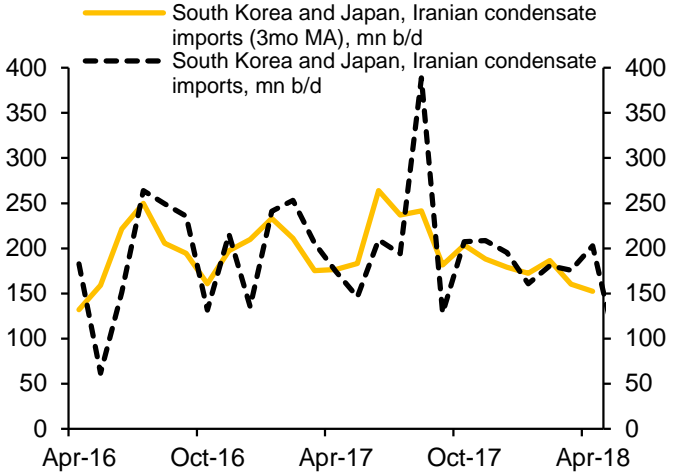
ii) Iranian oil exports to Europe, '17 – April '18, mn b/d



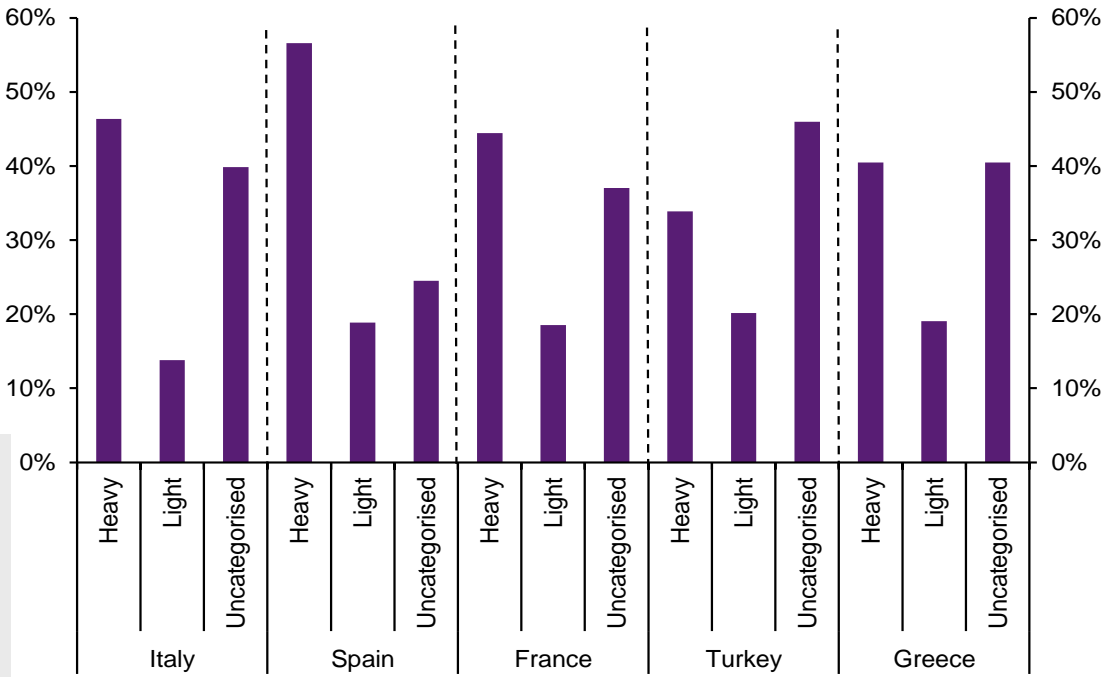
- US President Donald Trump fulfilled a key campaign pledge and withdrew the US from the Joint Comprehensive Plan of Action (JCPOA) on May 8th 2018
- Although Trump was only required to waive sanctions targeting oil, he reinstated the full program of economic sanctions previously in place against Iran.
- The US has enacted a 90-day wind down period (ending 6/9/18) on less intensive sanctions, and an 180-day wind down on more intensive sanctions (ending 4/11/18). Oil-industry related sanctions are included in the 180-day sanction basket.

250-300,000 b/d of Iranian exports likely to be lost in our base case

i) Developed Asia imports of Iranian condensate , mn b/d



ii) Percentage split of crude grade imported by European buyers, %



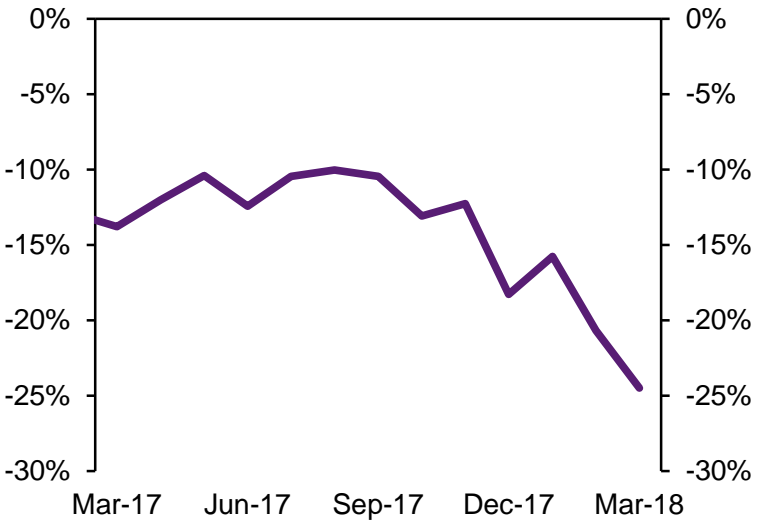
Of the major Iranian crude importers, we see three main groups emerging:

- Group 1: Developed Asian buyers - strong reductions, higher than the 20% required
- Group 2: European Buyers (Inc. Turkey) – reductions at required level of 20% on aggregate.
- Group 3: Developing Asian buyers - no reduction, perhaps increase in volumes.

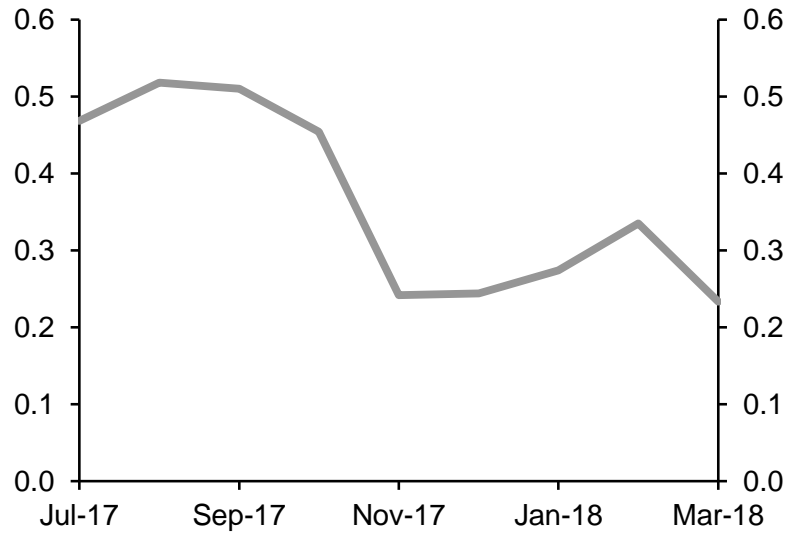
In terms of Europe, although individual countries would likely hold the minimum 20% reduction level, we expect individual corporate decisions to drive the overall reduction higher, as they are 'risk off' and make moves to exit the Iranian oil industry. Turkey is likely to not comply however, which will hold the total European reduction at 20%.

Other geopolitical risks lurk in the background and should not be forgotten

i) YoY change in Venezuela oil production



ii) KRG oil exports, mn b/d



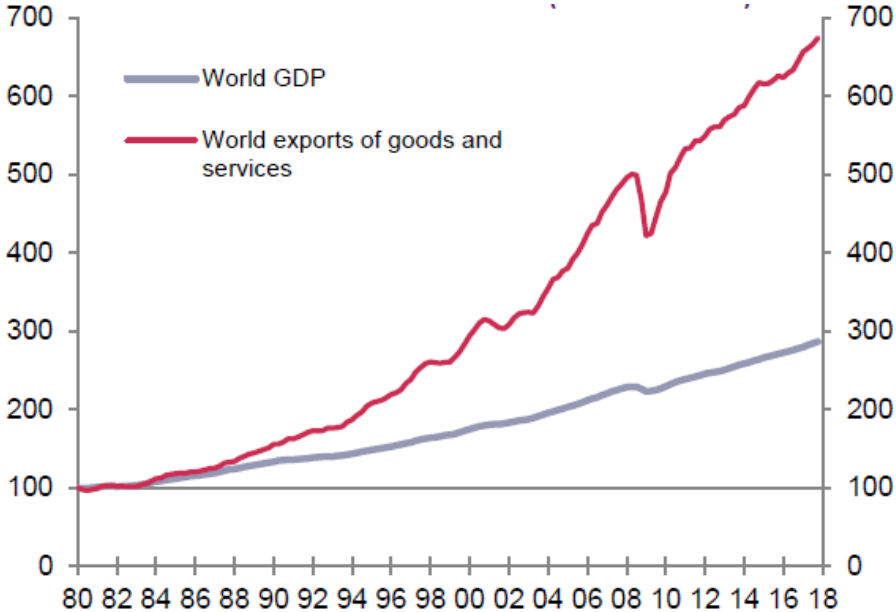
Production is also at risk in numerous other countries, with Venezuela perhaps the most pressing.

- We do not rule out the risk of further sanctions targeting the Venezuelan regime by the US, which could extend to crude
- Tensions between the KRG and the federal Iraqi government are simmering, and although the clashes in early October 2017 have been superseded by other issues, KRG exports have been significantly reduced. Any further clashes could take exports lower.
- The threat of Houthi missile attacks against Saudi oil infrastructure and tankers represents a major risk to the Red Sea area, although at present Houthi capabilities appear limited.

Trade war risks loom as the US and China lock horns

- The other major macro theme influencing crude markets is the spectre of a trade war between the US and China. The opening salvo has targeted goods as diverse as soybeans, haymaking machines and rocket launchers.
- The two largest economies engaging in protectionist trade policies has obvious implications for global economic growth, and therefore oil demand. But the globalisation of trade flows over the past few decades, resulting in value chains which spread over multiple countries and even continents, will exacerbate this impact.
- The current rally in oil prices, in place since mid-2017, has been precipitated on strong oil demand. Our optimism for the second.
- half of this year depends once again on the demand story. If GDP growth were to falter, the market would be unable to absorb additional supplies from the US. The main direct impact would be in oil demand associated with world trade, such as fuel oil in the shipping sector and diesel in trucking. Secondary impacts in consumer fuels would be felt if the slowdown in world trade led to a general economic slowdown.

i) World GDP and trade, Q1 1980 = 100





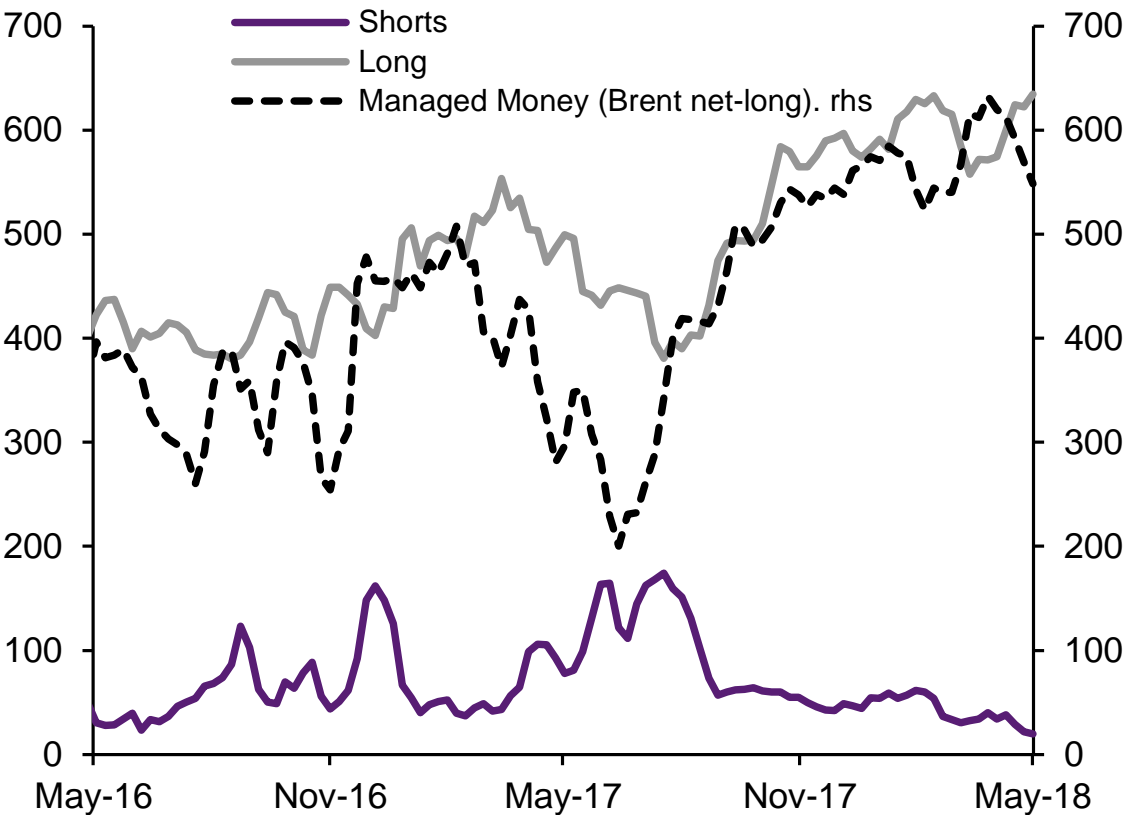
4

FINANCIAL MARKETS

Record speculative length in Brent contracts has been increasingly fuelled by geopolitical concerns. Oil has also had periods of strong correlation with both the dollar and equity markets at times this year.

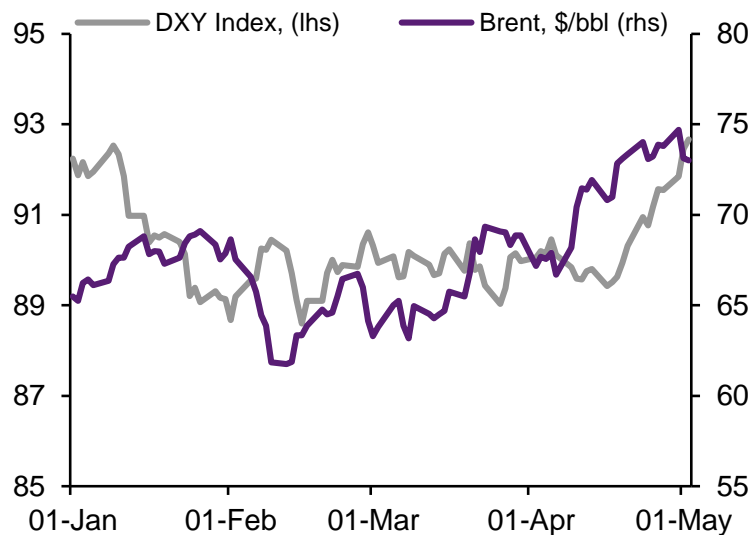
Speculative length has reached record levels in Brent, however the net long position has receded slightly through May

i) Brent speculative positioning

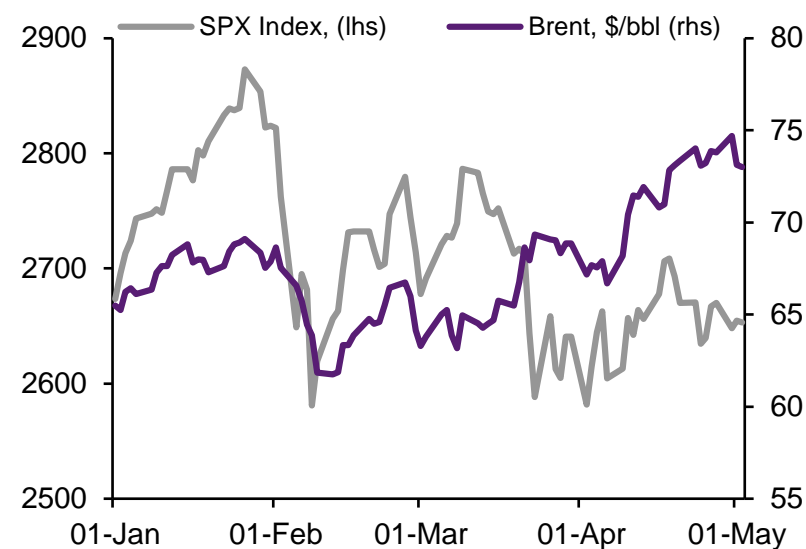


Oil's correlation with the dollar and equity markets has been mixed this year

i) Oil – Dollar correlation



ii) Oil – Equity correlation



Oil's correlation with both the dollar and equity markets has been mixed this year:

- The strongest correlation to equities was seen in early February, with oil caught in the general risk-off move as equity markets sold off.
- Since early April, geopolitical drivers have taken hold and broken the correlation with equities.
- The negative correlation with the dollar meanwhile was seen in Q1, with crude lacking a major fundamental driver.
- However, as with equities since early April the geopolitical drivers have taken hold, breaking the correlation.



4

FORECASTS AND RISKS

Geopolitical moves have artificially inflated prices in Q2, but the fundamentals will justify Brent above \$70/bbl in H2, in our view

Natixis' oil price outlook

Prices to remain well supported despite OPEC's decision to increase production

Average of period										
(\$/bbl)	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2018	2019
WTI	62.6	69.00	71.00	68.50	69.00	73.00	77.00	80.00	68.0	75.0
Brent	67.2	75.50	77.00	74.00	74.00	78.00	82.00	85.00	73.5	80.0

- We forecast Brent at \$73.5 for 2018 as a whole.
- We see prices having overrun the level justified by fundamentals in Q2, driven by geopolitical factors. Weakness in the physical market has largely been ignored.
- Despite the deteriorating geopolitical picture which has elevated prices through Q2, OPEC's decision to increase production following the June 22nd meeting should cap the upside in the second half of the year.
- Fundamentals are constructive this however year so we expect prices to remain well supported.
- Although US oil production will expand this year, we see upside limited in Q4 as tight pipeline capacity limits incremental production growth in the Permian.

Price risks

Déjà vu for markets as OPEC exit strategy and US output will once again be scrutinised. Geopolitical factors and macro-economic risks will be wildcards.

DOWNSIDE RISKS

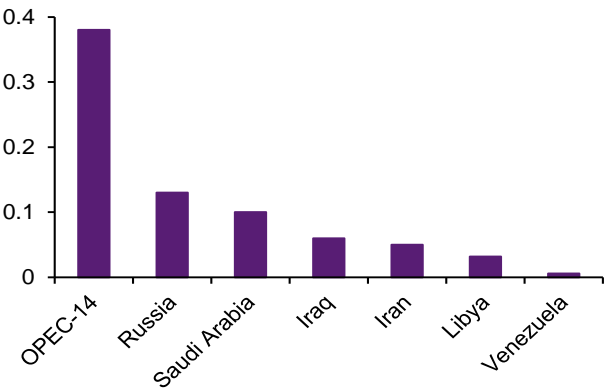
The likely decision to increase production following the June 22nd meeting presents downside risk.

- Will producers be able to stick to output limits once the green light to produce more is given?
- Will OPEC members without spare capacity support the motion?

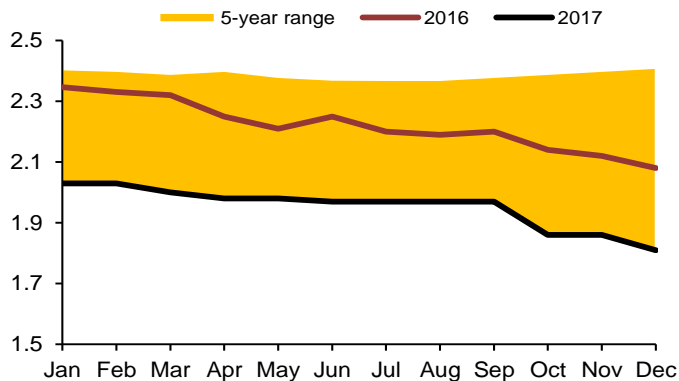
The macro economic picture has clouded significantly with the escalation of the trade war between China and the US.

- The integration of global trade networks means that any protracted trade dispute would have many victims, beyond China and the US.
- This could significantly lower global oil demand if a protracted slowdown in world trade were to occur.

i) OPEC- Non OPEC additional revenue, mn b/d



j) Venezuela oil production, mn b/d



UPSIDE RISKS

Strong adherence to the Iran sanctions by the main importers would provide upside. Could China limit imports as a concession to the US during trade negotiations?

We see further upside for oil if sustained production outages occur in 2018. We have identified Venezuela, Libya and Nigeria as the most likely source of an outage. In a tighter market environment outages will have a larger impact on prices.

Any escalation to Saudi Arabia - Iran tension would also lead to significantly higher prices than our base case forecast. Around 20mn b/d pass through the Strait of Hormuz between the two countries, a significant portion of global supply.

In Focus – IMO 2020

Implications for the global shipping and oil industry

Reduction in sulphur limit from 3.5% to 0.5% will have implications for the entire oil market.

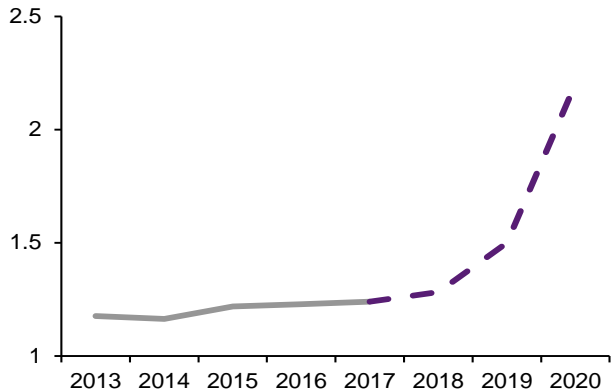
There was a large amount of uncertainty as to whether the deadline would be pushed back – the deadline is now set in place, requiring an amendment to the MARPOL Annex VI treaty which is highly unlikely, in our view.

Shippers can comply with the new regulations by using scrubbers, or running compliant fuel. It is our opinion that in the run up to 2020, the vast majority shippers will overwhelmingly choose to run compliant fuel.

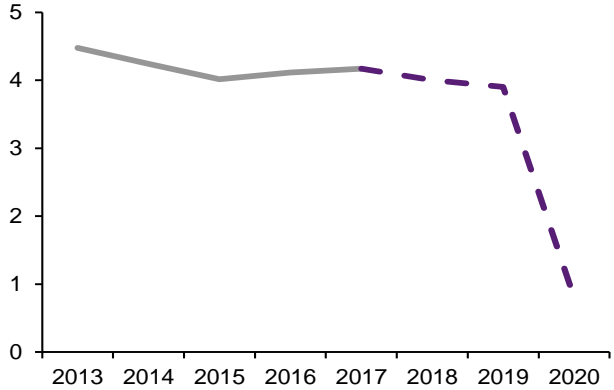
The arguments against scrubbers include:

- Take up space on ship
- Need a more highly trained and competent crew
- Further regulation may target other pollutants, which current scrubbers cannot remove
- Burden of compliance on shipper (what if scrubber malfunctions?)

MARINE GASOIL DEMAND BY SHIPPING SECTOR, MN B/D



HSFO DEMAND BY SHIPPING SECTOR, MN B/D



It is likely then that a significant volume of HSFO will disappear almost overnight.

Demand will therefore increase for ULSFO and Marine Gasoil. Whether there will be enough complaint fuel available is a major question.

ULSFO is still a heavy, dirty fuel – ULSFO could then be created from HSFO. There is potential for regional disparity in the volumes of ULSFO being produced globally due to a lack of hydrotreaters and sulphur recovery units in the legacy refining fleet.

Otherwise deep conversion units will be required to upgrade HSFO to more valuable middle distillates. Both scenarios heavily favour complex refineries. Less complex hydroskimming refineries could struggle as the premium paid for sweet crudes eats into their margins and demand for heavy fuel oil falls.

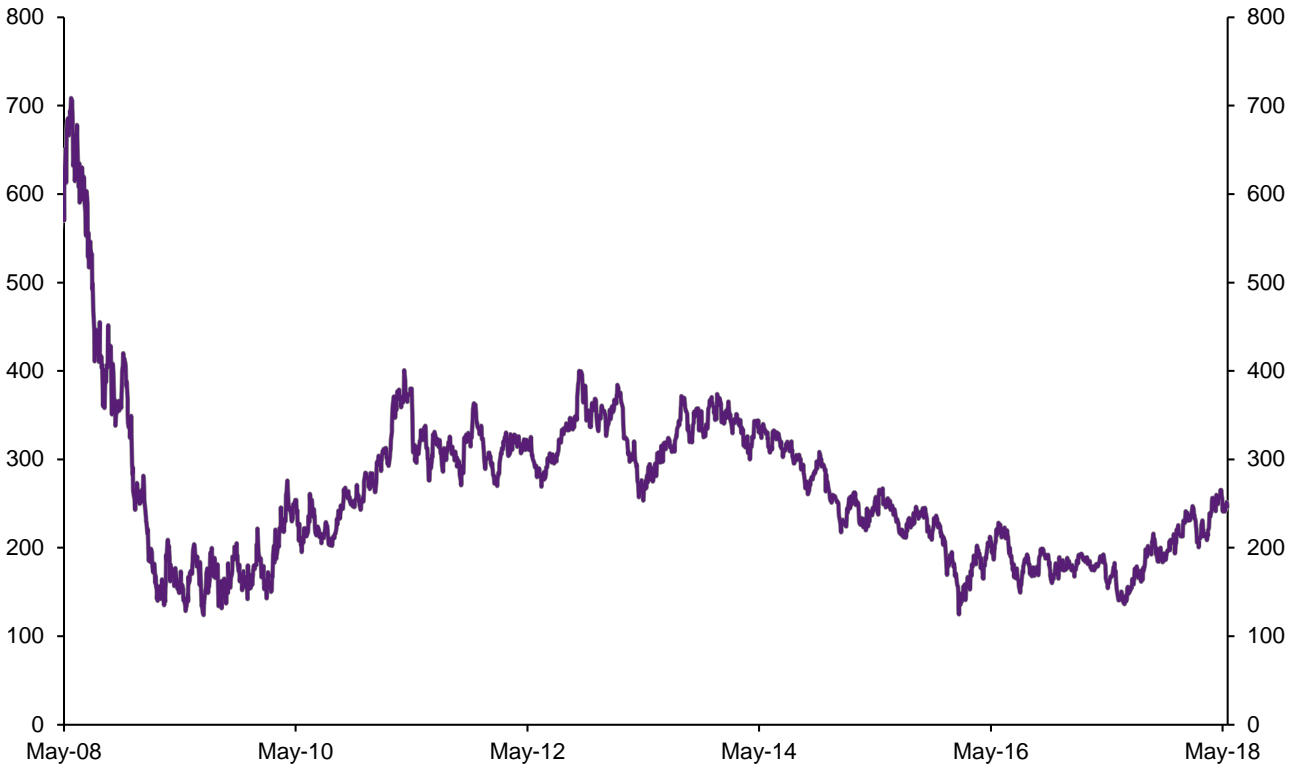
Upgrade capacity will likely be pushed to breaking point, resulting in a wide HSFO-Gasoil spread in 2020. The wide spread could encourage the adoption of more scrubbers after 2020 to take advantage.

In Focus – IMO 2020

Gasoil to HSFO spread likely to widen beyond \$400/ton

GASOIL 0.1% TO HSFO 3.5% PRICE SPREAD, \$/TON

- We expect a sustained widening to the Gasoil to HSFO spread as a lack of scrubber adoption significantly reduces demand for HSFO and shifts instead to gasoil.
- Forward prices have started to price in the start of the IMO 2020 regulations, likely driven by consumer hedging. We expect most of the spread appreciation to occur to the spot spread in 2020 however.
- Substantial growth in middle distillate demand will favour light, sweet crudes, such as WTI and North Sea Brent, which yield more distillate and require less desulphurisation.
- Continued light, sweet crude production from US shale will temper premiums to some extent.
- Lower demand for HSFO will depress prices of heavy, sour crudes.
- Venezuela’s crisis and likely reduced future output will reduce the surplus of heavy sour crude, lessening the discount.



CONTACT

Bernard Dahdah is Natixis' senior commodities analyst and leads the commodities research team.

Bernard joined Natixis in 2009 and covers metals and energy. He holds an MSc from the Cass business school where he wrote a dissertation on commodity forecasting errors.

Bernard regularly appears in the media and several years has been ranked as a top analyst by various bodies



Bernard.dahdah@natixis.com

Joel Hancock leads the team's coverage and analysis of the energy market.

Joel has an MSci in geology from Imperial College London and previously worked at various oil and gas consultancies, focusing on upstream production.

He makes regular television appearances and is quoted regularly in the financial press.



Joel.hancock@natixis.com



REFERENCE PRICES ARE BASED ON CLOSING PRICES.

THE INFORMATION CONTAINED IN THESE PUBLICATIONS IS EXCLUSIVELY INTENDED FOR A CLIENT BASE CONSISTING OF PROFESSIONALS OR QUALIFIED INVESTORS. IT IS SENT TO YOU BY WAY OF INFORMATION AND CANNOT BE DIVULGED TO A THIRD PARTY WITHOUT THE PRIOR CONSENT OF NATIXIS. IT CANNOT BE CONSIDERED UNDER ANY CIRCUMSTANCES AS AN OFFER TO SELL, OR A SOLICITATION OF ANY OFFER TO BUY FINANCIAL INSTRUMENTS. WHILE ALL REASONABLE EFFORT HAS BEEN MADE TO ENSURE THAT THE INFORMATION CONTAINED IS NOT UNTRUE OR MISLEADING AT THE TIME OF PUBLICATION, NO REPRESENTATION IS MADE AS TO ITS ACCURACY OR COMPLETENESS AND IT SHOULD NOT BE RELIED UPON AS SUCH. PAST AND SIMULATED PERFORMANCES OFFER NO GUARANTEE AS TO FUTURE PERFORMANCES. ANY OPINIONS OFFERED HEREIN REFLECT OUR CURRENT JUDGEMENT AND MAY CHANGE WITHOUT NOTICE. NATIXIS CANNOT BE HELD RESPONSIBLE FOR THE CONSEQUENCES OF ANY DECISION MADE WITH REGARD TO THE INFORMATION CONTAINED IN THOSE DOCUMENTS. NATIXIS HAS SET UP DUE PROCEDURES FOR THE SEPARATION OF ACTIVITIES, NOTABLY IN ORDER TO PREVENT CONFLICTS OF INTEREST BETWEEN THE RESEARCH ACTIVITIES AND ITS OTHER ACTIVITIES. DETAILS OF THESE 'INFORMATION BARRIERS' ARE AVAILABLE ON REQUEST FROM THE HEAD OF COMPLIANCE. ON THE DATE OF THOSE REPORTS, NATIXIS AND/OR ONE OF ITS SUBSIDIARIES MAY BE IN A CONFLICT OF INTEREST WITH THE ISSUER MENTIONED HEREIN. IN PARTICULAR, IT MAY BE THAT NATIXIS OR ANY PERSON OR COMPANY LINKED THERETO, THEIR RESPECTIVE DIRECTORS AND/OR REPRESENTATIVES AND/OR EMPLOYEES, HAVE INVESTED ON THEIR OWN ACCOUNT IN, OR ACT OR INTEND TO ACT, IN THE NEXT TWELVE MONTHS, AS AN ADVISOR, PROVIDER OF LIQUIDITY, MARKET MAKER, OR CORPORATE BANKER (AND NOTABLY FOR UNDERWRITING TRANSACTIONS, PLACEMENTS OR CONNECTED TRANSACTIONS), FOR A COMPANY DISCUSSED IN THIS REPORT.

NATIXIS IS AUTHORISED IN FRANCE BY THE AUTORITÉ DE CONTRÔLE PRUDENTIEL ET DE RÉOLUTION (ACPR) AS A BANK – INVESTMENT SERVICES PROVIDER AND SUBJECT TO ITS SUPERVISION. NATIXIS IS REGULATED BY THE AMF IN RESPECT OF ITS INVESTMENT SERVICES ACTIVITIES.

THIS DOCUMENT CAN BE DISTRIBUTE IN THE UK. NATIXIS IS AUTHORISED BY THE AUTORITÉ DE CONTRÔLE PRUDENTIEL ET DE RÉOLUTION (ACPR) AND SUBJECT TO LIMITED REGULATION BY THE FINANCIAL CONDUCT AUTHORITY AND PRUDENTIAL REGULATION AUTHORITY. DETAILS ABOUT THE EXTENT OF OUR REGULATION BY THE FINANCIAL CONDUCT AUTHORITY AND PRUDENTIAL REGULATION AUTHORITY ARE AVAILABLE ON REQUEST FROM LONDON OFFICE.

THIS DOCUMENT CAN BE DISTRIBUTE IN GERMANY. NATIXIS IS AUTHORISED BY THE ACPR AND REGULATED BY THE BAFIN (BUNDESANSTALT FÜR FINANZDIENSTLEISTUNGSAUFSICHT) FOR THE CONDUCT OF ITS BUSINESS UNDER THE RIGHT OF ESTABLISHMENT IN GERMANY.

NATIXIS IS AUTHORISED BY THE ACPR AND REGULATED BY BANK OF SPAIN AND THE CNMV FOR THE CONDUCT OF ITS BUSINESS UNDER THE RIGHT OF ESTABLISHMENT IN SPAIN. NATIXIS IS AUTHORISED BY THE ACPR AND REGULATED BY BANK OF ITALY AND THE CONSOB (COMMISSIONE NAZIONALE PER LE SOCIETÀ E LA BORSA) FOR THE CONDUCT OF ITS BUSINESS UNDER THE RIGHT OF ESTABLISHMENT IN ITALY.

NATIXIS IS AUTHORISED BY THE ACPR AND REGULATED BY THE DUBAI FINANCIAL SERVICES AUTHORITY (DFSA) FOR THE CONDUCT OF ITS BUSINESS IN AND FROM THE DUBAI INTERNATIONAL FINANCIAL CENTRE (DIFC). THE DOCUMENT IS BEING MADE AVAILABLE TO THE RECIPIENT WITH THE UNDERSTANDING THAT IT MEETS THE DFSA DEFINITION OF A PROFESSIONAL CLIENT; THE RECIPIENT IS OTHERWISE REQUIRED TO INFORM NATIXIS IF THIS IS NOT THE CASE AND RETURN THE DOCUMENT. THE RECIPIENT ALSO ACKNOWLEDGES AND UNDERSTANDS THAT NEITHER THE DOCUMENT NOR ITS CONTENTS HAVE BEEN APPROVED, LICENSED BY OR REGISTERED WITH ANY REGULATORY BODY OR GOVERNMENTAL AGENCY IN THE GCC OR LEBANON.

NATIXIS, A FOREIGN BANK AND BROKER-DEALER, MAKES THIS RESEARCH REPORT AVAILABLE SOLELY FOR DISTRIBUTION IN THE UNITED STATES TO MAJOR U.S. INSTITUTIONAL INVESTORS AS DEFINED IN RULE 15A-6 UNDER THE U.S. SECURITIES ACT OF 1934. THIS DOCUMENT SHALL NOT BE DISTRIBUTED TO ANY OTHER PERSONS IN THE UNITED STATES. ALL MAJOR U.S. INSTITUTIONAL INVESTORS RECEIVING THIS DOCUMENT SHALL NOT DISTRIBUTE THE ORIGINAL NOR A COPY THEREOF TO ANY OTHER PERSON IN THE UNITED STATES. NATIXIS SECURITIES AMERICAS LLC A U.S. REGISTERED BROKER-DEALER AND MEMBER OF FINRA IS A SUBSIDIARY OF NATIXIS. NATIXIS SECURITIES AMERICAS LLC DID NOT PARTICIPATE IN THE PREPARATION OF THIS RESEARCH REPORT AND AS SUCH ASSUMES NO RESPONSIBILITY FOR ITS CONTENT. THIS RESEARCH REPORT HAS BEEN PREPARED AND REVIEWED BY RESEARCH ANALYSTS EMPLOYED BY NATIXIS, WHO ARE NOT ASSOCIATED PERSONS OF NATIXIS SECURITIES AMERICAS LLC AND ARE NOT REGISTERED OR QUALIFIED AS RESEARCH ANALYSTS WITH FINRA, AND ARE NOT SUBJECT TO THE RULES OF THE FINRA.

I(WE), ANALYST(S), WHO WROTE THIS REPORT HEREBY CERTIFY THAT THE VIEWS EXPRESSED IN THIS REPORT ACCURATELY REFLECT OUR(MY) PERSONAL VIEWS ABOUT THE SUBJECT COMPANY OR COMPANIES AND ITS OR THEIR SECURITIES, AND THAT NO PART OF OUR COMPENSATION WAS, IS OR WILL BE, DIRECTLY OR INDIRECTLY, RELATED TO THE SPECIFIC RECOMMENDATIONS OR VIEWS EXPRESSED IN THIS REPORT.

THE PERSONAL VIEWS OF ANALYSTS MAY DIFFER FROM ONE ANOTHER. NATIXIS, ITS SUBSIDIARIES AND AFFILIATES MAY HAVE ISSUED OR MAY ISSUE REPORTS THAT ARE INCONSISTENT WITH, AND/OR REACH DIFFERENT CONCLUSIONS FROM, THE INFORMATION PRESENTED HEREIN.

THE STOCKS MENTIONED MIGHT BE SUBJECT TO SPECIFIC DISCLAIMERS. PLEASE CLICK ON THE FOLLOWING LINK TO CONSULT THEM

[HTTP://EQUITY.NATIXIS.COM/NETIS/DISCLAIMER/DISCLAIMER_SPE.ASPX](http://EQUITY.NATIXIS.COM/NETIS/DISCLAIMER/DISCLAIMER_SPE.ASPX)