

# OPEC

## Monthly Oil Market Report

13 June 2017

**Feature article:**  
*World oil market prospects for the second half of 2017*

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# Oil Market Highlights

## Crude Oil Price Movements

The OPEC Reference Basket fell 4.2% in May to average \$49.20/b. Crude futures prices tumbled as supply continue to be plentiful with US output continuing its upward trend this year and despite OPEC and non-OPEC production adjustments. ICE Brent ended 4.5% lower at \$51.40/b, while NYMEX WTI dropped 5% to \$48.54/b. The Brent-WTI spread widened to \$2.86/b, further supporting US exports. Money managers decreased bets on higher oil prices in both exchanges, trimming combined net length positions in futures and options to November 2016 levels.

## World Economy

After stronger-than-anticipated growth momentum since the beginning of the year, the forecast for global economic growth has been revised up to 3.4% in 2017, following growth of 3.1% in 2016. The recent growth dynamic in the global economy has been confirmed with the exception of potentially temporary dips in the US and India. US growth in 2017 remains at 2.2% and the Euro-zone at 1.7%, while Japan's growth forecast was revised up to 1.4%. The forecasts for China and India remain unchanged at 6.5% and 7.0%, respectively, in 2017. Similarly, the forecasts for Russia and Brazil also remain in line with the previous report at 1.2% and 0.5%, respectively.

## World Oil Demand

World oil demand in 2016 is expected to grow by 1.44 mb/d in line with the previous report to average 95.12 mb/d. Projected oil demand growth for 2017 was also unchanged at 1.27 mb/d to average 96.38 mb/d. OECD consumption is seen growing by 0.23 mb/d in 2017, in line with the previous report, following offsetting revisions in OECD Americas and Asia Pacific. The forecast for oil demand growth in China and India have also been left unchanged at 0.34 mb/d and 0.12 mb/d, respectively.

## World Oil Supply

Non-OPEC oil supply is estimated to have averaged 57.30 mb/d in 2016, a contraction of 0.71 mb/d and unchanged from the previous report. In 2017, non-OPEC oil supply is projected to grow by 0.84 mb/d, following a downward revision of 0.11 mb/d to average 58.14 mb/d. Lower output from Russia, as well as Brunei, the Sudans and Kazakhstan following the OPEC and non-OPEC decision to extend production adjustments for nine months offset higher growth in Canada and the UK. US oil supply growth for 2017 was also revised down by 30 tb/d due to lower output than expected in 1Q17. OPEC NGLs production and non-conventional liquids forecast to grow by 0.17 mb/d in 2017 to average 6.22 mb/d. In May 2017, OPEC crude oil production increased by 336 tb/d to average 32.14 mb/d, according to secondary sources.

## Product Markets and Refining Operations

Refinery margins in the Atlantic Basin fell in May, despite the strength seen in US gasoline crack spreads amid higher domestic demand. This was due to weakness in the middle of the barrel as relatively higher yields and increased refinery utilisation outweighed the improvement in gasoil demand. Meanwhile in Asia, margins weakened on supply pressure following the peak of the maintenance season amid increasing inflows to the region.

## Tanker Market

Tanker market sentiment weakened in May as spot freight rates in both dirty and clean segments mostly dropped from the previous month. The decline in freight rates was driven by light tonnage demand and high vessels availability. Aframax rates were the exception, with average spot freight rates improving due to high tonnage demand for several destinations combined with port delays and replacements. Clean tanker freight rates declined on average, mainly due to a weak market West of Suez.

## Stock Movements

Total OECD commercial oil stocks fell in April to stand at 3,005 mb. At this level, OECD commercial oil stocks were 251 mb above the latest five-year average. Crude and products stocks stood at a surplus above the seasonal norm of around 171 mb and 80 mb, respectively. In terms of days of forward cover, OECD commercial stocks stood at 64.1 days, some 4.1 days higher than the latest five-year average.

## Balance of Supply and Demand

Demand for OPEC crude stood at 31.8 mb/d in 2016, some 2.0 mb/d higher than in 2015. In 2017, the demand for OPEC crude is projected at 32.0 mb/d, around 0.3 mb/d higher than the previous year.

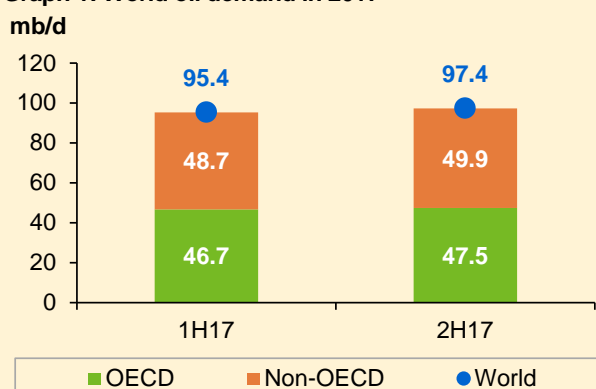


## Feature Article

### World oil market prospects for the second half of 2017

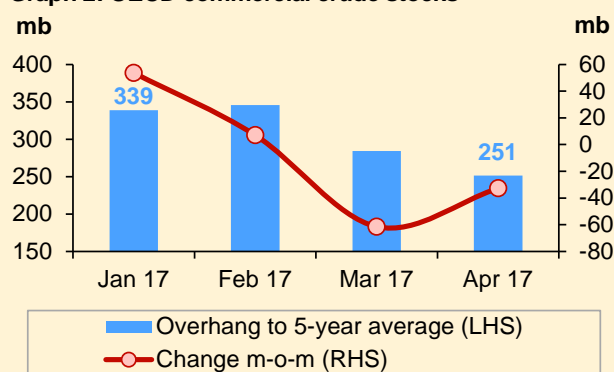
The gradual recovery of the **world economy** continues and stronger-than-anticipated growth in 1Q17 has lifted the world GDP growth forecast for 2017 to 3.4%, up from the 3.1% growth seen in 2016. This positive momentum is expected to continue into the second half of the year. In the OECD, growth in the second half is forecast to remain broadly at the healthy level seen in the first half of this year, even with political uncertainties as after recent elections in the UK. Developments in the emerging economies, however, are expected to vary. The pace of growth in China is forecast to continue slowing gradually in 2H17, while momentum in India is seen picking up as the strong negative impact from demonetisation fades. Better growth in the second half is also expected in Russia and Brazil, although this will depend on commodity price trends and – in the case of Brazil – political developments. Monetary policies will remain a focus as the US Federal Reserve may raise interest rates further in 2H17, which could create some capital outflows from the emerging economies. Overall, the underlying global dynamic continues to improve despite challenges from political developments. Moreover, commodity prices – and oil prices in particular – will continue to be a key determinant for the well-being of most producer economies and hence will remain influential for global growth.

**Graph 1: World oil demand in 2017**



Source: OPEC Secretariat.

**Graph 2: OECD commercial crude stocks**



Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

**Global oil demand** is forecast to pick up in 2H17. The second part of the year will exhibit a 2 mb/d increase in total consumption in the line with the seasonal average to reach 97.4 mb/d, compared to 95.4 mb/d in 1H17 (**Graph 1**). The OECD is forecast to see a potential increase of around 0.2 mb/d y-o-y. OECD Americas, particularly the US, is the largest contributor to this growth as demand for transportation fuels receives an extra boost during the summer driving season. Demand in OECD Europe is seen rising marginally, while consumption in the OECD Pacific is expected to contract, with healthy demand from South Korea somewhat moderating the decline. In the non-OECD region, oil demand is projected to rise by an average of 1.0 mb/d y-o-y in 2H17. Oil demand growth is projected to be supported by India as consumption rebounds mainly from the negative impact of demonetisation in the first half of the year. China is also foreseen contributing to oil demand growth, supported by developments in the petrochemical industry and transportation sector.

On the supply side, **non-OPEC oil supply** in the second half of the year is anticipated to increase by 0.5 mb/d compared to the first half, to average 58.4 mb/d. The US is the main driver behind this higher growth, contributing 0.76 mb/d followed by Brazil and Canada with 0.12 mb/d and 0.06 mb/d, respectively. Offsetting some of this growth will be lower production, mainly from Russia<sup>1</sup> (-0.13 mb/d), China (-0.06 mb/d), Indonesia (-0.06 mb/d) and Norway (-0.05 mb/d). In terms of regional oil supply, the OECD is seen growing by 0.71 mb/d in the second half, which will broadly offset the declines of 0.18 mb/d expected in FSU and elsewhere.

The decline seen in the overhang in **OECD commercial oil inventories** in the first four months of the year – from 339 mb to 251 mb compared to the five-year average (**Graph 2**) – is expected to continue in the second half, supported by production adjustments by OPEC and participating non-OPEC producers. These trends along with the steady decline in oil in floating storage, indicate that the rebalancing of the market is underway, but at a slower pace, given the changes in fundamentals since December, especially the shift in US supply from an expected contraction to positive growth. In light of these developments, OPEC and the participating non-OPEC countries decided to extend production adjustments for a further period of nine months in recognition of the need for continuing cooperation among oil exporting countries in order to achieve a lasting stability in the oil market.

<sup>1</sup> Russia's conformity with the 300 tb/d production adjustment in 2H17 is referenced to the country's October 2016 production.



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## Crude Oil Price Movements

*The OPEC Reference Basket (ORB) averaged \$49.20/b in May, down more than 4% from April to sit at its lowest value for the year. The oil market was range bound and bearish for most of the month, despite the OPEC and non-OPEC decision on 25 May to extend their production adjustments until the end of March 2018. Oil has been weighed down by the market's impatience with the generally slow pace of the global inventory drawdown amid a significant recovery in global oil supplies, particularly from the US. Year-to-date (Y-t-d), the ORB value was 49.2% higher or \$16.90, at \$51.25/b.*

*Month-on-month (m-o-m), the two main oil futures tumbled more than 4.5% to their lowest value since November 2016, given the plentiful supplies and despite the OPEC and non-OPEC decision. Eight consecutive weeks of US crude oil inventories draws, albeit at a slow pace, also failed to support oil futures. ICE Brent ended \$2.42 lower in May, a drop of 4.5% to stand at \$51.40/b, while NYMEX WTI plunged \$2.58 or 5%, to stand at \$48.54/b. Y-t-d, ICE Brent is \$14.38 or 36.5% higher at \$53.78/b, while NYMEX WTI rose \$13.13, or 34.7%, to sit at \$50.97/b.*

*The ICE Brent/NYMEX WTI spread widened slightly despite successive weeks of US crude stocks draws. This prompted more US exports, augmenting light crude availabilities in the Asia-Pacific and Europe. The spread widened to \$2.86/b, a 16¢ expansion.*

*Money managers decreased their bets on higher oil prices by about 19% in NYMEX WTI futures and options and around 2% in those for ICE Brent. Net long positions in NYMEX WTI declined to 206,103 contracts, and in ICE Brent they were lowered to 349,880 lots.*

*As the oil market moved toward higher seasonal crude demand and refinery runs, the contango structure eased in all markets. While limited sour crudes supplies to the Asian region, due to OPEC production adjustments, helped the Dubai market structure, consecutive weeks of crude inventories draws in the US supported the easing of the WTI contango.*

*Apart from the Mediterranean, the sweet/sour differentials continued to sustain a narrowing trend in all markets as OPEC and non-OPEC production adjustments started to limit the availability of sour grades, while increasing production in the US and the Atlantic basin resulted in a continued glut of light sweet crude supply.*

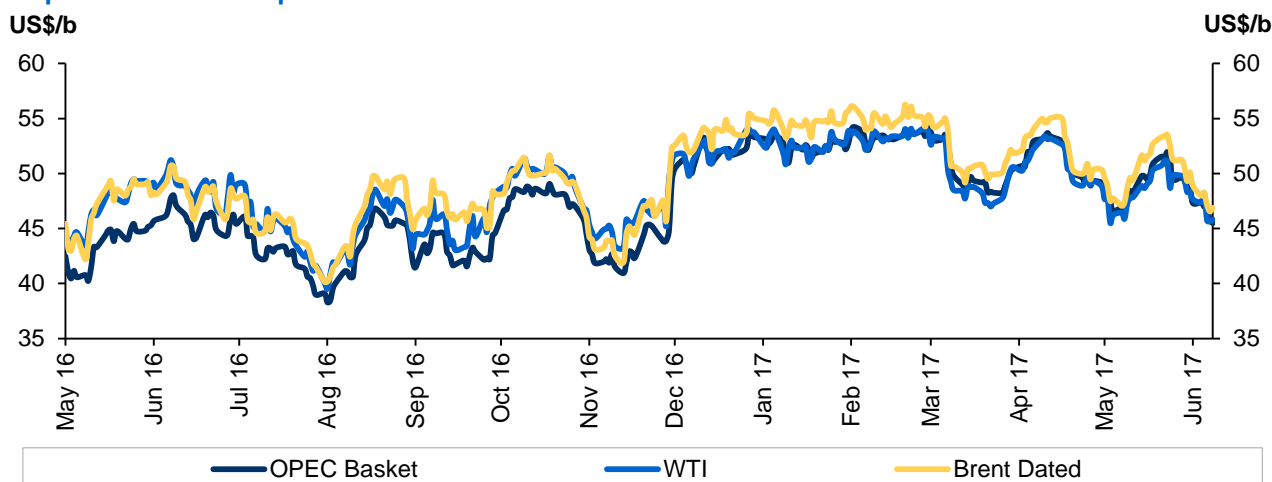
## OPEC Reference Basket

On a monthly average basis, the **ORB** ended May down more than 4% m-o-m to sit at its lowest value for the year. Its May average is the first time it has been below \$50/b on a monthly basis since November 2016.

The oil market was range bound and the sentiment bearish for most of May, despite the OPEC and non-OPEC decision on 25 May to extend production adjustments until the end of March 2018. Oil prices edged down earlier in the month as a recovery in Libyan and Nigerian output and rising US supplies raised worries about excess supply. Oil has been weighed down by the market's impatience with the generally slow pace of the inventory drawdown globally, even after major oil producing countries decided at the end of 2016 to reduce oil production by around 1.8 mb/d in the first half of 2017. Oil prices plunged further to five-month lows amid record trading volumes, as major oil producers ruled out deeper production adjustments.

## Crude Oil Price Movements

**Graph 1 - 1: Crude oil price movement**



Sources: Argus Media, OPEC Secretariat and Platts.

M-o-m, the ORB value declined \$2.17 to settle at \$49.20/b on a monthly average, down 4.2%. Compared to the previous year, the ORB value, y-t-d was 49.2% higher or \$16.90, at \$51.25/b.

**Table 1 - 1: OPEC Reference Basket and selected crudes, US\$/b**

	<u>Apr 17</u>	<u>May 17</u>	<u>Change</u>		<u>Year-to-date</u>	
<b>Basket</b>	<b>51.37</b>	<b>49.20</b>	<b>-2.17</b>	<b>-4.2</b>	<b>34.35</b>	<b>51.25</b>
Arab Light	51.64	49.30	-2.34	-4.5	34.48	51.43
Basrah Light	50.75	48.56	-2.19	-4.3	32.95	50.61
Bonny Light	53.02	50.77	-2.25	-4.2	38.07	53.10
Es Sider	51.04	48.90	-2.14	-4.2	37.17	51.21
Girassol	52.68	50.36	-2.32	-4.4	37.87	52.83
Iran Heavy	51.12	49.00	-2.12	-4.1	32.76	51.01
Kuwait Export	50.81	48.65	-2.16	-4.3	32.50	50.65
Qatar Marine	52.39	50.24	-2.15	-4.1	35.16	52.14
Merey	46.15	45.16	-0.99	-2.1	26.34	45.80
Murban	54.32	51.96	-2.36	-4.3	39.23	54.22
Oriente	48.70	46.91	-1.79	-3.7	31.60	48.16
Rabi Light	51.71	49.48	-2.23	-4.3	37.08	51.71
Sahara Blend	51.84	49.80	-2.04	-3.9	38.97	52.51
<b>Other Crudes</b>						
Dated Brent	52.59	50.45	-2.14	-4.1	38.17	52.77
Dubai	52.31	50.47	-1.84	-3.5	35.11	52.34
Isthmus	53.81	51.85	-1.96	-3.6	35.55	53.71
LLS	53.14	50.64	-2.50	-4.7	39.48	52.77
Mars	49.69	47.51	-2.18	-4.4	34.28	49.16
Minas	47.95	45.96	-1.99	-4.2	36.55	48.75
Urals	51.55	49.04	-2.51	-4.9	36.53	51.43
WTI	51.06	48.56	-2.50	-4.9	37.62	50.92
<b>Differentials</b>						
Brent/WTI	1.53	1.89	0.36	-	0.54	1.85
Brent/LLS	-0.55	-0.19	0.36	-	-1.31	0.00
Brent/Dubai	0.28	-0.02	-0.30	-	3.06	0.43

Sources: Argus Media, Direct Communication, OPEC Secretariat and Platts.

**ORB component values** slipped along with relevant crude oil benchmarks and the monthly changes in their respective official selling price (OSP) differentials. The crude oil physical benchmarks in May, namely Dated Brent, WTI and Dubai spot prices, dropped by \$2.14, \$2.50 and \$1.84, respectively.

As plentiful Atlantic basin supply pressured the price differentials for light sweet crude components from West and North Africa Basket, their values deteriorated alongside outright prices for the crude benchmark Brent. Saharan Blend, Es Sider, Girassol, Bonny Light and Gabon's Rabi values decreased \$2.20 on average, or 4.2%, to \$49.86/b in May. Physical crude differentials for these grades have been under pressure for several months as supply has surged. Despite an uplift in OSP offsets and support from healthy global sour markets, lower regional crude oil benchmarks forced down the value of multiple-region destination grades, Arab Light, Basrah Light, Iran Heavy and Kuwait Export. On average, these value of these grades deteriorated by \$2.20 for the month, or 4.3%, to \$48.88/b. The Middle Eastern spot components, Murban and Qatar Marine, saw their values decline by \$2.26, or 4.2%, to \$51.10/b. The OPEC and non-OPEC production adjustments have provided support for Latin American grades as global supplies for heavier sour crude have tightened. Yet, price gains for these crudes have been capped by slower demand from Chinese independent refiners amid uncertainty over their crude import quotas for the rest of 2017. The Latin American ORB components, Venezuelan Merey and Ecuador's Oriente edged down to \$45.16/b and \$46.91/b, respectively. They lost 99¢, or 2.1%, and \$1.79, or 3.7%, respectively.

On 12 June, the ORB stood at \$45.93/b.

## The oil futures market

**Oil futures** on both sides of the Atlantic tumbled more than 4.5% m-o-m to their lowest value since November 2016. This was due to plentiful supplies, especially in the US where output continued its upward trend, and despite the OPEC and non-OPEC production adjustments. Eight consecutive weeks of crude oil inventory draws, albeit at a slow pace, also failed to support oil futures. There was also a sign of slowing energy demand in China, the world's second largest oil consumer, with a recent survey showing April growth in the country's services sector at its slowest in almost a year.

Although oil prices rebounded from five-month lows in mid-month, following positive US jobs data and assurances by Saudi Arabia that Russia is ready to join OPEC in extending production adjustments to reduce a persistent supply glut, the market remained in technically oversold territory with futures trading down as much as 19% from highs in mid-April. This prompted some money managers to exit their long positions. Oil futures also fell following the 25 May decision by OPEC and non-OPEC producers to extend production adjustments for nine more months to end of March 2018. Oil prices tumbled sharply despite the extension of the output adjustments. While OPEC's move had been expected, some oil market investors had hoped producers might agree to deeper adjustments. The decision was greeted by a sell-off, with 25 May daily WTI volumes of 1.1 million contracts the highest since the 30 November 2016 session, when OPEC first announced its production adjustments.

Pressure mounted as countries that are not part of OPEC and non-OPEC's production adjustments increased output. For example, US crude output continued on its 2017 upward trend, with March production increasing by 62 tb/d to about 9.1 mb/d, according to US Energy Information Administration (EIA) data. Rising output from Nigeria, Libya and the North Sea kept the Atlantic basin well supplied with light sweet crude, weighing on crude values. Nigerian crude production rose to 1.68 mb/d, the highest level in more than one year. This followed the restart of Forcados loadings for the first time since October 2016.

**Table 1 - 2: Crude oil futures, US\$/b**

	Apr 17	May 17	Change		Year-to-date	
			May/Apr	%	2016	2017
<b>NYMEX WTI</b>	51.12	48.54	-2.58	-5.0	37.84	50.97
<b>ICE Brent</b>	53.82	51.40	-2.42	-4.5	39.40	53.78
<b>Transatlantic spread</b>	<b>2.70</b>	<b>2.86</b>	<b>0.16</b>	<b>0.55</b>	<b>1.56</b>	<b>2.81</b>

*Note: Totals may not add up due to independent rounding.*

*Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.*

## Crude Oil Price Movements

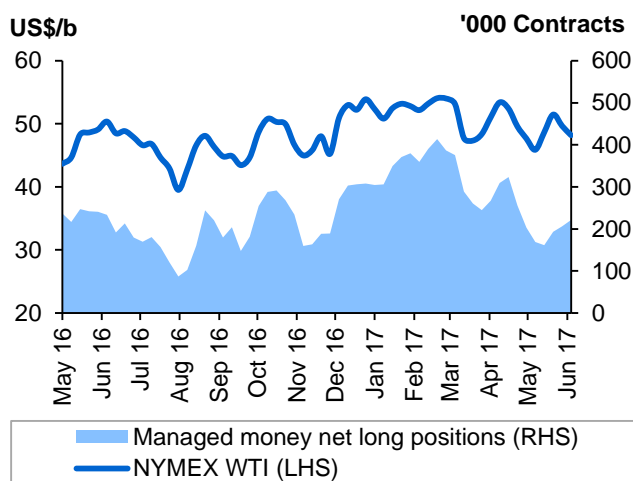
**ICE Brent** ended May \$2.42 lower, a decrease of 4.5%, to stand at \$51.40/b on a monthly average basis, while **NYMEX WTI** slipped \$2.58, or 5.0%, to \$48.54/b. Y-t-d, ICE Brent is \$14.38, or 36.5% higher at \$53.78/b, while NYMEX WTI swelled \$13.13, or 34.7%, to stand at \$50.97/b.

On 12 June, ICE Brent stood at \$48.29/b and NYMEX WTI at \$46.08/b.

In the period ending 30 May, **managed money activities** decreased their bets on higher oil prices by about 19% in NYMEX WTI futures and options and 2% for ICE Brent, relative to the end of the previous month. Speculative net length in NYMEX WTI declined 49,318 contracts from its level on 25 April, to 206,103 contracts in the week to 30 May. Similarly, in ICE Brent futures and options, speculators lowered net long positions by 8,386 contracts, or 2%, to 349,880 lots. The total futures and options in **open interest volume** for the two exchanges was down 1% to 5.69 million contracts, and the share of net length positions decreased to 9.8% from 10.7%.

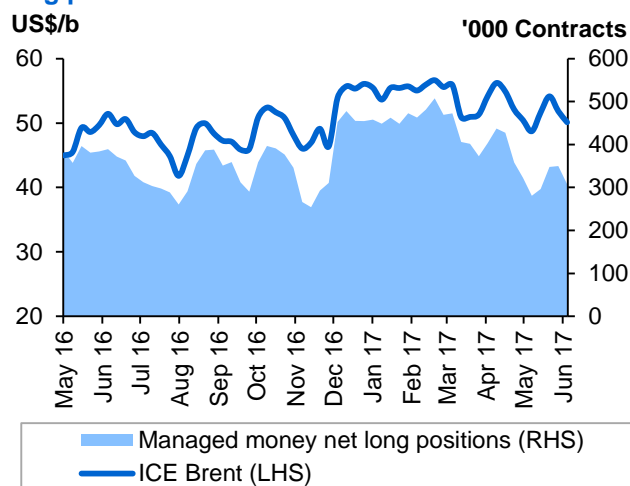
**Hedge fund managers** had already closed out many of their bearish short positions in crude oil before the OPEC and non-OPEC meeting on 25 May, according to data from regulators and exchanges. The spell of short-covering explains why oil prices rose consistently in the run up to the meeting then sold off sharply afterwards. Money managers raised their net long positions in the main Brent and WTI futures and options contracts by the equivalent of 89 mb in the week to 23 May. The net long position increased for a second week running, after rising 6 mb the previous week, but only after it had fallen by 308 mb in the three weeks prior to that. Nearly all of the most recent increase came from a sharp reduction in the number of short positions, which fell by 87 mb, rather than an increase in long positions, which were up by just 2 mb. Hedge fund managers gradually accumulated short positions between mid-April and mid-May amid growing concerns about the pace of the rebalancing. However, as the OPEC meeting approached, many of those short positions were closed as a precaution against any surprise in the market.

**Graph 1 - 2: NYMEX WTI vs. Managed money net long positions**



Sources: CFTC , CME Group and OPEC Secretariat.

**Graph 1 - 3: ICE Brent vs. Managed money net long position**



Sources: Intercontinental Exchange and OPEC Secretariat.

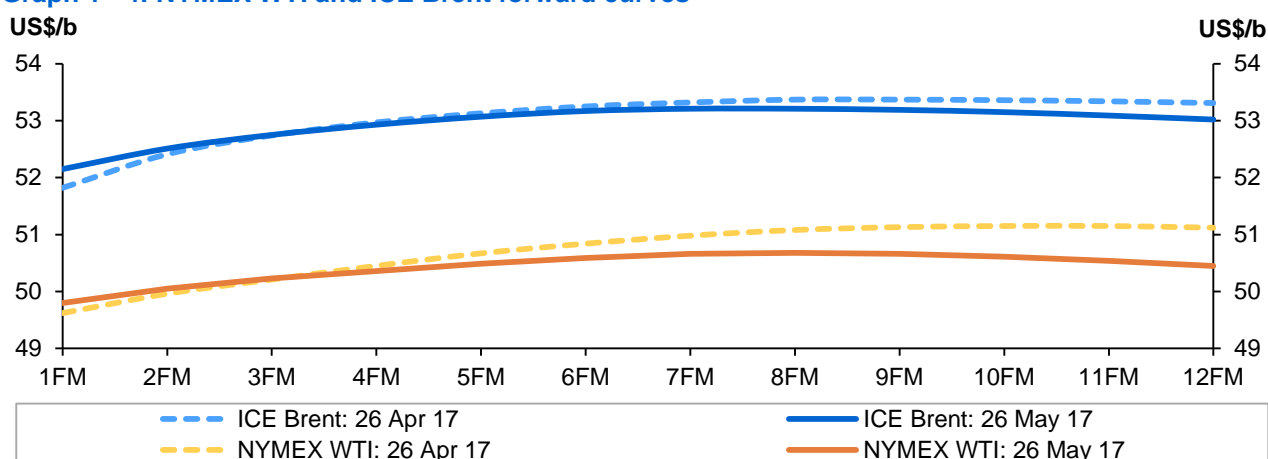
The **daily average traded volume** for NYMEX WTI contracts surged 134,095 lots, or 12%, to 1,251,216 contracts, while that of ICE Brent was 124,025 contracts higher, up 13% at 1,087,563 lots. The daily aggregate traded volume for both crude oil futures markets increased a hefty 258,120 contracts to 2.34 million futures contracts, or near 2.3 billion b/d of crude oil. The total traded volume NYMEX WTI futures in May was significantly higher at 27.53 million contracts, up 30%. Similarly, ICE Brent futures volumes increased 31% to 23.93 million contracts.

## The futures market structure

As the oil markets headed toward higher seasonal crude demand and refinery runs, the contango structure eased in all markets. M-o-m, the Brent contango tightened in May, compared to April. However, toward the end of the month, the forward market structure flattened, all but eliminating any of the backwardation that had built up earlier in the month. The contango widened as rates for prompt-loading barrels fell from their highest in nearly nine months, on account of a persistently large surplus of oil in the region. Oil market uncertainty regarding the pace of the rebalancing, coupled with market players cashing in on higher prices for prompt-loading barrels, brought the Dated Brent forward curve to a sharper contango. While limited sour crudes supplies to the Asian region, due to OPEC production adjustments, helped the Dubai market structure, consecutive weeks of US crude inventories draws supported an easing in the WTI contango.

The **Dubai** M1 70¢/b discount to M3 decreased to 40¢/b. The North Sea Brent M1/M3 discount eased to 55¢/b on average, from 89¢/b in the previous month. In the US, the WTI contango eased 13¢/b as WTI's (M1-M3) narrowed to 60¢/b.

**Graph 1 - 4: NYMEX WTI and ICE Brent forward curves**



Note: FM = future month.

Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

The **ICE Brent/NYMEX WTI spread** widened slightly despite successive weeks of US crude stocks draws. This prompted more US exports, augmenting light crude availabilities in the Asia-Pacific and Europe. US midcontinent demand for light Canadian synthetic oil fell following the start of Energy Transfer Partners' 470 tb/d Dakota Access pipeline, which delivers light North Dakota Bakken crude to Patoka, Illinois. Dakota Access also connects to another pipeline that runs to Nederland, Texas, resulting in a glut of light sweet crude in Texas. The first-month ICE Brent/NYMEX WTI spread widened to \$2.86/b, from \$2.70/b, an increase of 16¢/b.

**Table 1 - 3: NYMEX WTI and ICE Brent forward curves, US\$/b**

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
<b>NYMEX WTI</b>	26 Apr 17	49.62	49.96	50.21	50.84	51.12	1.50
	26 May 17	49.80	50.05	50.23	50.59	50.45	0.65
	<b>Change</b>	<b>0.18</b>	<b>0.09</b>	<b>0.02</b>	<b>-0.25</b>	<b>-0.67</b>	<b>-0.85</b>
<b>ICE Brent</b>	26 Apr 17	51.82	52.41	52.74	53.25	53.31	1.49
	26 May 17	52.15	52.51	52.75	53.17	53.02	0.87
	<b>Change</b>	<b>0.33</b>	<b>0.10</b>	<b>0.01</b>	<b>-0.08</b>	<b>-0.29</b>	<b>-0.62</b>

Note: FM = future month.

Sources: CME Group and Intercontinental Exchange.



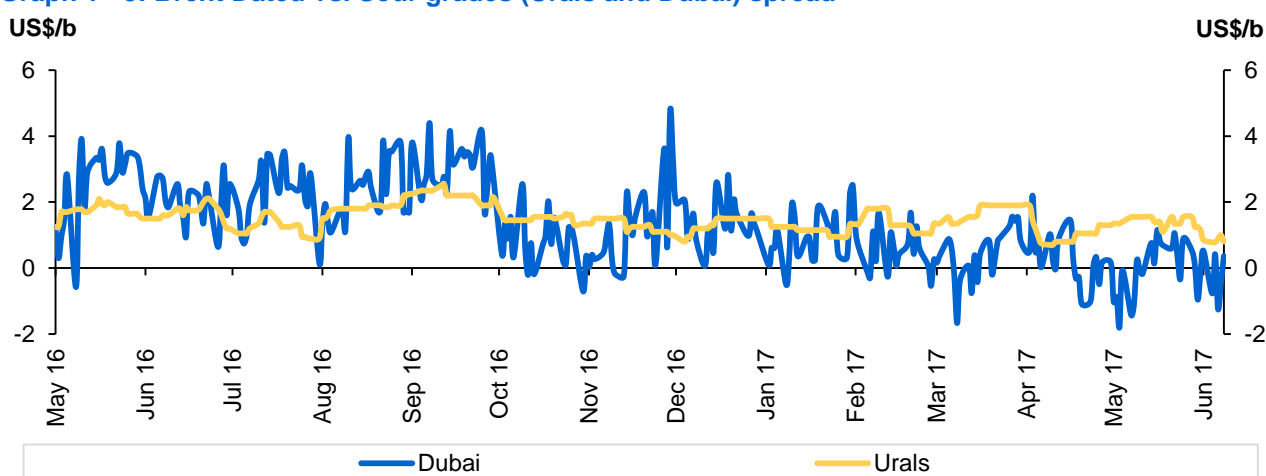
## The light sweet/medium sour crude spread

Apart from the Mediterranean, the sweet/sour differentials continued to sustain a narrowing trend in all markets as OPEC and non-OPEC production adjustments limited the availability of sour grades, while increasing production of in the US and the Atlantic basin glutted the supply of light sweet crudes.

In **Asia**, the Tapis premium over Dubai contracted a further 51¢ on a monthly average to \$1.79/b, amid limited sour crudes and ample supplies of light sweet crude available to refiners. The Dated Brent/Dubai spread also narrowed further by 30¢, to a premium of 2¢/b, its narrowest since August 2014, when Dubai traded at a 17¢ premium to Dated Brent. The Asia-Pacific light sweet crudes, such as Tapis continue to be pressured by a narrowing Brent-Dubai spread, which encourages the arbitrage flow of Brent related light sweet crudes to the region from all other regions. The flows will likely continue following the OPEC and non- OPEC decision to extend production adjustments for a further nine months.

In **Europe**, in contrast, the light sweet North Sea Brent premium to Urals medium sour crude increased by 37¢ to \$1.41/b. Urals price differentials to Dated Brent weakened in the Mediterranean amid more barrels from Novorossiisk in May due to an accident at Lukoil's Perm plant that pressured the market. An oversupply of light sweet grades in the Mediterranean, as well as buyers starting to buy more cheap sweet grades, especially in Asia, also put pressure on Urals crude. Urals differentials to Dated Brent softened as an oversupply of light sweet grades started to put pressure on medium-sulphur crude oil and the arbitrage to Asia seemed to be closed for the first time in three months.

**Graph 1 - 5: Brent Dated vs. Sour grades (Urals and Dubai) spread**



Sources: Argus Media, OPEC Secretariat and Platts.

In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium sour Mars reduced further to \$3.13/b, its narrowest since April 2015. Sour crudes continued to firm on increased demand for export and USGC refinery demand due to less availability of Middle East sour crudes. The high USGC sour crude prices helped draw in alternative Latin American cargoes, which are also going to the Asia-Pacific, as reduced Mideast Gulf sour crude exports boosted interest in alternatives.

# Commodity Markets

*Average energy commodity prices declined in May, with drops in both crude oil and coal, while, on the contrary, natural gas prices advanced. In the group of non-energy commodities, agricultural commodities advanced due to large increases in grain prices, partly due to weather-related events at the end of April and during May, while metals generally declined on slowing manufacturing prospects and monetary tightening in China. Precious metals mainly declined in the first days of the month, but the trend was largely reversed on the perceived difficulties of the US administration to move forward its economic agenda.*

## Trends in selected commodity markets

During the month, commodity market sentiment weakened due to slow pace of the decline in commercial stocks overhang pressuring down oil prices during the month. Meanwhile, metal prices weakened as the pace of expansion of global manufacturing slowed. The JP Morgan Global Manufacturing PMI reading for May was at a 6-month low of 52.6, largely due to a deceleration in expansion of the activity in China, amid efforts by financial industry regulators to improve risk management practices which have resulted into some financial tightening. Meanwhile, lower-than-expected inflation readings in the US and further difficulties experienced by the new US administration to move forward growth enhancing legislation translated into market participants' reassessment of their expectations regarding the path of interest rate hikes in the US, thereby supporting gold prices in the second half of the month.

**Agricultural commodities'** advances were led by the first increase in food prices since January, mainly due to higher grain prices. Rice prices jumped after the harvested volumes were below expectations due to flash flooding in March and April in Bangladesh, which resulted in the necessity of higher-than-anticipated imports. Wheat prices rose sharply due to the effect of snowy and frosty conditions in the US Central Plains in late April. At the same time, the US Department of Agriculture's first estimates for the 2017/2018 marketing year showed an expected decline in wheat supplies of around 9% in that country. However, with global ending stocks still expected to increase, the room for large price increases could be limited. Meanwhile, corn prices were also supported by expectations by the USDA of a decline in corn supplies in the US and China in 2017/2018 that would result in a reduction in global ending stocks to the lowest since 2013/2014. Meanwhile, sugar and coffee prices were in decline, following a sharp decline in the Brazilian Real due to political instability in that country.

**Base metals** showed a broad-based decline, on top of the above-mentioned slowdown in the pace of expansion in global manufacturing, but mainly in the largest metal consumer, China, as shown by the Caixin manufacturing PMI reading of 49.6 that signalled the first deterioration of the operating conditions in the sector in 11 months. In addition, further doubts about the ability of the US administration to move forward an infrastructure stimulus programme also weighed on prices. Copper prices were under pressure at the beginning of the month due to a sharp jump in inventories at the London Metal Exchange's warehouse system. Nickel prices declined sharply on the expectation of larger supplies from Indonesia, where the government is reaching an agreement with mining companies to restart exports, while in the Philippines, the new environment minister has shown willingness to allow the restart of mining operations. Iron ore prices declined sharply following bloated inventories at Chinese ports. Steel output in China increased by 4.9% in April and was up worldwide by 5.0%, according to World Steel Association

**Energy commodity** prices were led down by lower crude oil prices as market participants assessed the pace of market rebalancing. Natural gas advanced in the US due to below-average injections to underground storage at the beginning of the month on higher-than-average temperatures. However, the forecast for milder temperatures at the end of the month and the beginning of June, together with some recovery in output, weakened prices thereafter. In Europe, natural gas inventories in the EU 28 countries were at 40.2% full at the end of May, which is below last year's rate of 49.2%, according to Gas Infrastructure Europe. Coal prices declined as Chinese output has recovered.

Table 2 - 1: Commodity price data

Commodity	Unit	Monthly averages			% Change	Year-to-date	
		Mar 17	Apr 17	May 17	May 17/Apr 17	2016	2017
<b>Energy*</b>		<b>65.3</b>	<b>67.1</b>	<b>64.3</b>	<b>-4.1</b>	<b>47.3</b>	<b>67.0</b>
Coal, Australia	US\$/mt	80.6	84.6	74.7	-11.7	51.0	80.8
Crude oil, average	US\$/b	50.9	52.2	49.9	-4.4	37.0	52.2
Natural gas, US	US\$/mbtu	2.9	3.1	3.1	1.4	2.0	3.0
<b>Non-energy*</b>		<b>85.0</b>	<b>82.9</b>	<b>83.1</b>	<b>0.1</b>	<b>77.7</b>	<b>84.6</b>
<b>Agriculture*</b>		<b>89.2</b>	<b>87.9</b>	<b>89.2</b>	<b>1.4</b>	<b>86.6</b>	<b>89.8</b>
<b>Food*</b>		<b>92.7</b>	<b>90.8</b>	<b>93.0</b>	<b>2.4</b>	<b>89.2</b>	<b>93.4</b>
Soybean meal	US\$/mt	368.0	352.0	351.8	-0.1	354.6	367.4
Soybean oil	US\$/mt	812.0	791.0	827.0	4.6	766.6	827.4
Soybeans	US\$/mt	404.0	389.0	392.0	0.8	385.2	407.5
<b>Grains*</b>		<b>78.4</b>	<b>79.8</b>	<b>84.5</b>	<b>5.8</b>	<b>85.2</b>	<b>80.2</b>
Maize	US\$/mt	159.0	156.4	158.6	1.4	162.6	159.4
Wheat, US, HRW	US\$/mt	154.3	166.1	180.5	8.7	186.2	161.9
Sugar, world	US\$/kg	0.4	0.4	0.4	-2.2	0.3	0.4
<b>Base metal*</b>		<b>81.4</b>	<b>80.1</b>	<b>79.1</b>	<b>-1.2</b>	<b>64.7</b>	<b>80.3</b>
Aluminum	US\$/mt	1,901.5	1,921.2	1,913.0	-0.4	1,533.0	1,877.5
Copper	US\$/mt	5,824.6	5,683.9	5,599.6	-1.5	4,718.3	5,760.7
Iron ore, cfr spot	US\$/dmu	87.7	70.2	62.4	-11.1	52.2	78.0
Lead	US\$/mt	2,280.9	2,220.6	2,125.1	-4.3	1,730.8	2,236.2
Nickel	US\$/mt	10,204.7	9,609.3	9,155.1	-4.7	8,612.5	9,916.8
Tin	US\$/mt	19,875.2	19,910.3	20,200.3	1.5	16,011.1	20,024.8
Zinc	US\$/mt	2,776.9	2,614.9	2,590.2	-0.9	1,751.3	2,708.5
<b>Precious metals*</b>		<b>96.7</b>	<b>99.4</b>	<b>96.8</b>	<b>-2.6</b>	<b>93.4</b>	<b>96.8</b>
Gold	US\$/toz	1,231.4	1,266.9	1,246.0	-1.6	1,209.2	1,234.1
Silver	US\$/toz	17.6	18.0	16.7	-7.1	15.6	17.4

Note: \* World Bank commodity price indices (2010 = 100).

Source: World Bank, Commodity price data.

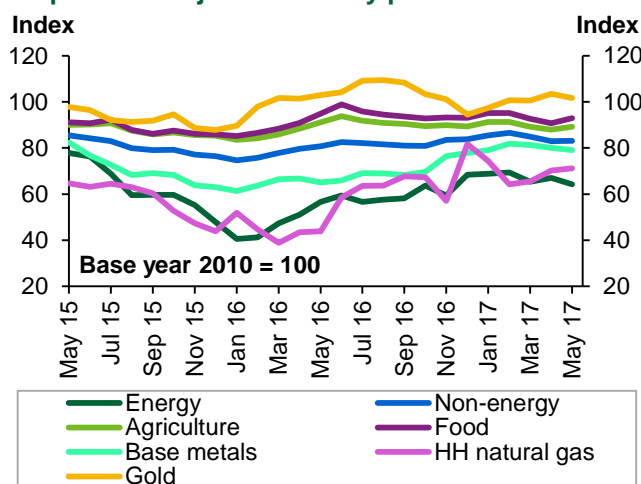
Average **energy prices** in May decreased by 4.4% m-o-m, due to a 4.1% decrease in average crude oil prices, while Australian benchmark thermal coal prices decreased by 11.7% m-o-m. Natural gas prices increased in the US by 1.4%, while average import prices in Europe advanced by 2.1%.

**Agricultural prices** advanced by 1.4% in April, with average food prices increasing on average by 2.4%. Benchmark Thailand rice, wheat and maize increased by 10.8%, 8.7% and 1.4%, respectively. In the group of beverages, Arabica coffee prices fell by 3.5%.

Average **base metal prices** decreased by 1.2% in March, led by a 1.5% monthly decrease in copper prices and a 4.7% decrease in nickel prices. Average iron ore prices dropped by 11.1% following lower steel prices.

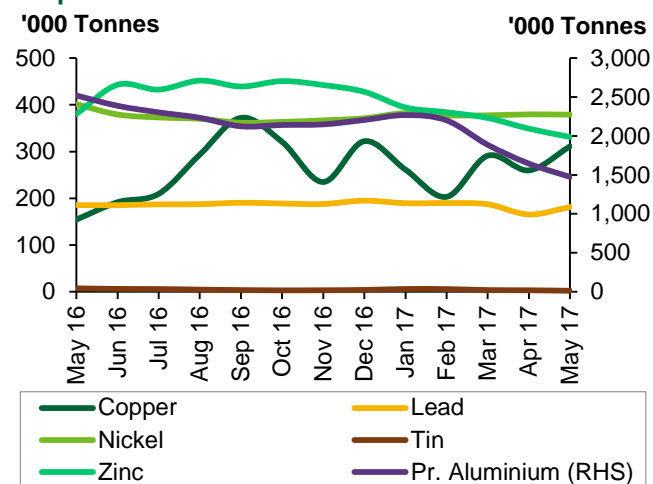
In the group of **precious metals**, gold prices decreased by 1.6% on average mainly due to drops at the end of the previous month and at the beginning of May, but the majority of the losses were reversed in the second half of the month on lower real interest rate expectations in the US following difficulties of the new US administration to move forward healthcare, tax and infrastructure legislation.

**Graph 2 - 1: Major commodity price indices**



Source: World Bank, Commodity price data.

**Graph 2 - 2: Inventories at the LME**



Sources: London Metal Exchange and Thomson Reuters.

In May, the **Henry Hub natural gas index** advanced. The average price was up by 4¢, or 1.4%, to \$3.12 per million British thermal units (mmbtu) after trading at an average of \$3.08/mmbtu the previous month.

The **EIA** said utilities added 81 billion cubic feet (bcf) of **working gas in underground storage** during the week ending 26 May. This was slightly above the median analysts' expectations of a 76 bcf injection. Total working gas in underground storage stood at 2,525 bcf, which is 12.8% lower than at the same time the previous year but 9.8% higher than the previous five-year average.

## Investment flows into commodities

**Open interest (OI)** increased in May for selected US commodity markets such as crude oil, natural gas and copper, while it declined for agriculture, copper and precious metals. Meanwhile, in monthly terms, speculative net length positions increased for natural gas but declined for agriculture, crude oil, copper, precious metals and livestock.

**Table 2 - 2: CFTC data on non-commercial positions, '000 contracts**

	Open interest		Net length			
	Apr 17	May 17	Apr 17	% OI	May 17	% OI
Crude oil	2,189	2,248	255	12	150	7
Natural gas	1,424	1,532	180	13	215	14
Agriculture	5,305	5,074	-304	-6	-371	-7
Precious metals	679	647	230	34	144	22
Copper	275	249	47	17	44	18
Livestock	677	709	163	24	178	25
<b>Total</b>	<b>10,549</b>	<b>10,460</b>	<b>571</b>	<b>94</b>	<b>360</b>	<b>78</b>

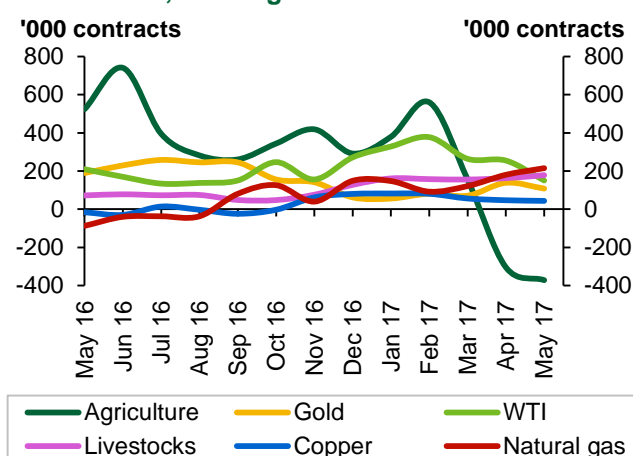
Note: Data on this table is based on monthly average.

Source: US Commodity Futures Trading Commission.

**Agriculture's OI** decreased by 4.4% to 5,074,144 contracts in May. Meanwhile, money managers increased their combined net short positions by 22% to 371,278 lots, largely because of increasing in monthly average net shorts in soybeans, sugar and corn.

**Henry Hub's natural gas OI** increased by 7.6% m-o-m to 1,532,029 contracts in May. Money managers increased their average net length by 19% m-o-m to 215,064 contracts. However, the net length declined towards the end of the month.

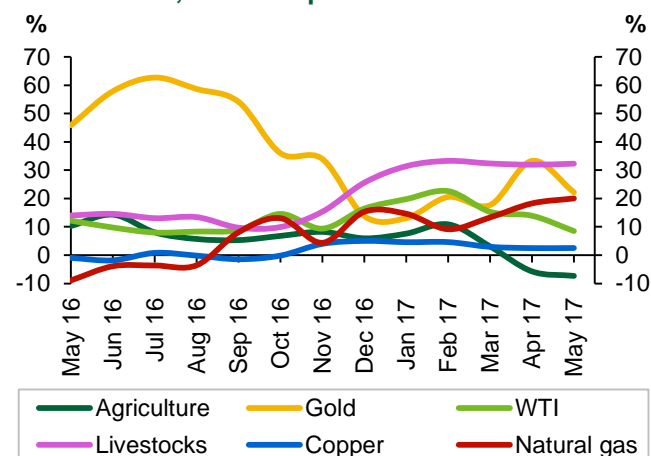
**Graph 2 - 3: Money Managers activity in key commodities, net length**



Note: Data on this graph is based on monthly average.

Source: US Commodity Futures Trading Commission.

**Graph 2 - 4: Money Managers activity in key commodities, as % of open interest**



Note: Data on this graph is based on monthly average.

Source: US Commodity Futures Trading Commission.

**Copper's OI** decreased by 9.2% m-o-m to 249,486 contracts in May. Money managers decreased their net long positions by 7.3% to 43,737 on the slowing pace of manufacturing in China and a lack of details regarding the expected infrastructure stimulus in the US.

**Precious metals' OI** decreased by 4.6% m-o-m to 647,184 contracts in May. Money managers decreased their net long positions by 38% to 143,576 lots.



# World Economy

Improving momentum from 1Q17 has been confirmed in most major economies, with the exceptions of the Brexit-impacted UK and potentially temporary dips in the US and India, which are both expected to rebound in the remainder of the year. This underlying trend has lifted the global GDP growth forecast for 2017 from 3.3% to 3.4%. The 2016 GDP growth estimate was also lifted to 3.1% from 3.0% after upward revisions were seen in India, Japan and some other economies.

While 1Q17 GDP growth in the US has been revised up, it remains soft at only 1.2% q-o-q. Some rebound is expected for the remainder of the year, given the latest positive momentum in the labour market as well as in other short-term indicators. The Euro-zone has had a strong start to the year as well, and the recovery is forecast to continue. Also, the Japanese economy's latest output numbers are pointing to a higher level of growth in 2017 compared with the previous year. China has shown strong output numbers in recent months. While the country's gradual deceleration is forecast to continue, the government is aiming to reach somewhere around its target growth rate of 6.5%. After a remarkable GDP growth slowdown during 1Q17 in India, impacted by demonetisation, growth is forecast to rebound and to continue upward at a high rate. Brazil and Russia are forecast to rebound into positive territory after two years of recession, depending on the development of commodity prices and in the case of Brazil also on near-term political developments.

While global economic growth is improving, some uncertainties remain. Policy issues carry considerable weight, as do monetary policy decisions, which remain particularly important in the near term. Moreover, global debt levels remain high in some key economies, an issue that will probably require further attention if interest rates continue to rise gradually, particularly in the US. Sustained stability in commodity prices is viewed as necessary for ongoing improvements in global economic growth.

**Table 3 - 1: Economic growth rate and revision, 2016-2017\*, %**

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
<b>2016</b>	<b>3.1</b>	<b>1.8</b>	<b>1.6</b>	<b>1.1</b>	<b>1.7</b>	<b>1.8</b>	<b>6.7</b>	<b>7.9</b>	<b>-3.6</b>	<b>-0.2</b>
Change from previous month	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0
<b>2017</b>	<b>3.4</b>	<b>2.0</b>	<b>2.2</b>	<b>1.4</b>	<b>1.7</b>	<b>1.5</b>	<b>6.5</b>	<b>7.0</b>	<b>0.5</b>	<b>1.2</b>
Change from previous month	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

Note: \* 2017 = Forecast.

Source: OPEC Secretariat.

## OECD

### OECD Americas

#### US

While most indicators in the US economy point at continued gradual growth amid an increasingly tight labour market and ongoing solid consumer confidence, growth in 1Q17 has been low, although revised up from the first estimate. **US GDP** growth for the quarter was seen at 1.2% q-o-q for the seasonally adjusted annualised rate (SAAR) after a first estimate of 0.7% q-o-q SAAR. While slightly better, the general trend of the key components has not changed. Particularly and importantly, private household consumption has been weak at only 0.6% q-o-q SAAR, though this is somewhat better than in the first estimate, when it stood at only 0.3%. This was to some extent also impacted by declines in energy sector-related spending. Motor vehicle and parts expenditures have declined by 13.9% q-o-q SAAR and expenditures on gasoline, fuel oil and other energy goods fell by 7.3% q-o-q SAAR. This also corresponds to weakening US oil product demand numbers in the first three months of the year. Importantly, the decline in motor vehicle sales added a large

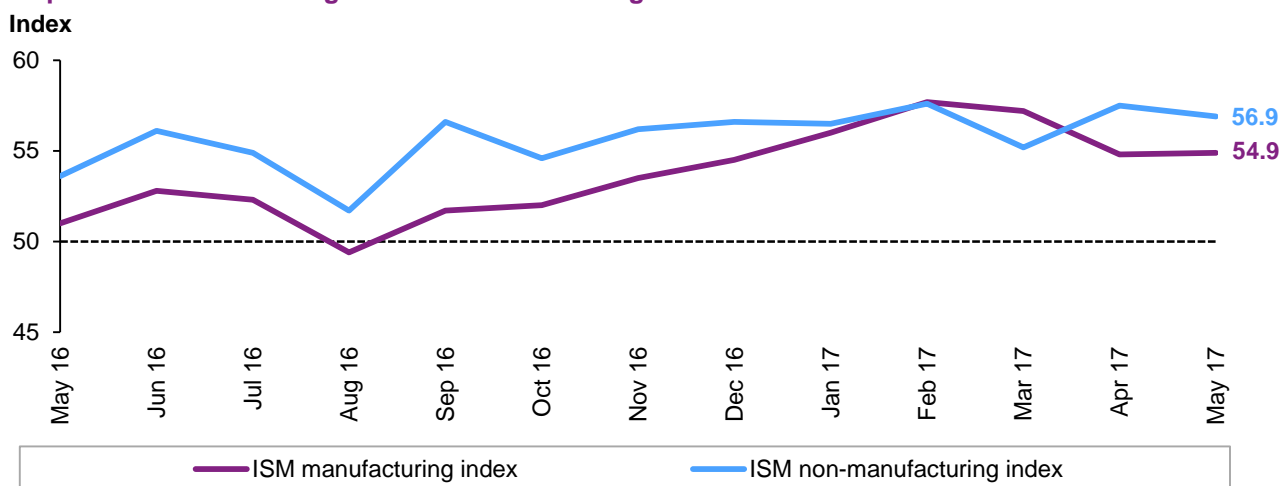
negative impact of 0.4 pp to total 1Q17 GDP growth. On the other side, this was offset by investments into the energy sector, which mitigated the weak first quarter trend to some extent. Investments into so-called “structures” with a majority of energy-related investments increased by 23.8% q-o-q SAAR, reflecting significant investment activity in the energy sector. Moreover, related investments into “equipment”, including energy-related equipment, rose by 7.2% q-o-q SAAR. This also helped to mitigate the 1Q17 slowdown, as it added almost 0.8 pp – or around two-thirds – to total GDP growth. As the reform agenda of the new US administration stalls, the aim to achieve GDP growth rates of 3% or more currently seems to be farfetched. Since the labour market continued to improve in May and consumer sentiment rose over the past months, this slowdown in activity is expected to be temporary and some rebound is forecast in 2Q17. Positively, exports expanded by almost 6% q-o-q SAAR, despite the relative strength of the US dollar.

With ongoing momentum and a healthier inflation outlook, it now seems likely that the **Fed** will at least raise interest rates in its upcoming meeting and will consider another rise in 2H17, though this remains to be seen. With indications of a tightening labour market, inflation at around 2% and relative buoyancy continuing in the housing market, a rate rise will be strongly considered, despite the potentially temporary weakness at the beginning of the year. **Inflation** is a key element in the Fed’s upcoming interest rate decisions, which stood at 2.2% in April. Core inflation was up by 1.9%, slightly below the Fed’s target. While inflation remains relatively healthy and supportive, the trend of rising inflation is slowing again. Core inflation in particular stood at its lowest level since October 2015.

The **labour market’s** positive momentum continued, seen in the latest May numbers, but some weak spots in the labour market will require monitoring in the coming months. The unemployment rate fell back further to 4.3% in May. However, some weakness became apparent in the development of non-farm payrolls. While they remained healthy, only 138.000 additions were recorded, lower than once again downwardly revised figures for April of 174.000. The average hourly earnings increase stayed at around the previous month’s level of 2.5% y-o-y and reached \$26.22/hour. Some weakness became apparent in the duration of unemployment as long-term unemployment rose again to reach 24% in May, after hitting 22.6% in April. Finally, the participation rate declined again slightly to 62.7% from 62.9% in April.

On the domestic side, **industrial production** increased in April by 2.2% y-o-y after a rise of 1.5% y-o-y in March. It was again supported by a better situation in the energy sector. Mining – which includes oil sector-related output – rose by 7.3% y-o-y in April, the strongest performance by this sub-group since the beginning of 2015. Manufacturing, another important sub-group of industrial production, rose by 1.9% y-o-y in April, compared with 0.9% y-o-y in March. **Domestic demand** was also supported by the latest rising retail sales numbers. Retail sales growth in April stood at 4.5% y-o-y after rising by 4.8% y-o-y in March. The generally positive trend in domestic consumption was also visible in the Conference Board’s Consumer Confidence Index, which declined slightly, but remained at a high level of 117.9 in May after reaching 119.4 in April.

**Graph 3 - 1: Manufacturing and non-manufacturing ISM indices**



Sources: Institute for Supply Management and Haver Analytics.

April’s **Purchasing Manager’s Index (PMI)** for the manufacturing sector as provided by the Institute of Supply Management (ISM) also indicated some support in the underlying economy. The manufacturing PMI remained almost unchanged at 54.9 in May after reaching 54.8 in April. This important index for the services

sector, which constitutes more than 70% of the US economy, fell slightly to reach 56.9 in May, compared with 57.5 in April.

Despite some positive revision to 1Q17 growth and in anticipation of some uncertainties in the labour market and private household consumption, the **GDP growth** forecast remained unchanged at 2.2% for 2017, after reaching growth of 1.6% in 2016. While the upside to the 2017 GDP growth forecast currently seems to be limited, any substantial reform as announced may change the growth level. Until then, some political uncertainty remains and the growth level will likely not move materially higher.

## Canada

The economy of Canada continues to improve. **Industrial production** increased by 4.2% y-o-y in March, compared with 2.1% in February and 1.2% y-o-y in January. This is the highest level of growth seen in three years. This positive momentum remained supported by rising exports, which have been boosted by improvements in the oil sector and the improving US market, as well by general improvements in global trade. **Exports** rose by 14.7% y-o-y after reaching 12.6% y-o-y in March, up from 4.6% y-o-y in February. Retail trade also continued to expand at the considerable level of 9.3% y-o-y in March after reaching 3.1% y-o-y in February and 5.1% y-o-y in January. **PMI** for manufacturing fell slightly, but remained at the substantial level of 55.1 in May, after reaching 55.9 in April. Taking this positive momentum into consideration, the **GDP growth** forecast for 2017 was revised up to 2.0% from 1.9%.

## OECD Asia Pacific

### Japan

While Japan's **economic recovery continues**, 1Q17 growth was revised down from an initial 2.2% q-o-q SAAR to 1.0% q-o-q. With inventory building less buoyantly, output was lowered in the most recent estimate, though the underlying momentum still seems to be intact. Private consumption expenditures grew by 1.1% q-o-q SAAR, up from 0.2% in 4Q16. Exports also turned out to be an important supporting factor, rising by 8.7% q-o-q. Importantly, the current series of five quarters of consecutive GDP growth is the longest period of GDP expansion in Japan since 2006. Positively, inflation also rose slightly recently and wages were also rising. This, along with an ultra-tight labour-market, should provide at least some support for prices. However, there is a flip-side to the tightness in the labour market, as it may also limit Japan's growth potential. In addition, productivity gains have only been gradual in the economy, which currently has a manufacturing utilisation rate of around 100%. So while current economic growth should be considered a success, only medium- to long-term improvements will be able to raise the current growth level further. In the meantime, the Bank of Japan (BoJ) continues its monetary stimulus.

**Inflation** rose slightly in April, increasing by 0.4% y-o-y, higher than in March and February, when inflation stood at 0.2% y-o-y. Despite tight labour markets, rising wages are only slowly turning into increasing consumption and rising prices. Core inflation (which excludes food and energy) even declined by 0.3% y-o-y for a second consecutive month, and remained negative for the third month in a row. So far, underlying deflationary – or at least low inflationary – forces remain persistent.

The **unemployment rate** remained at only 2.8% in April for the third consecutive month. Real income has continued to rise modestly with pay increases in April to 0.9% y-o-y. The ratio of open jobs to applicants rose to 1.77, a new record high. In Tokyo the ratio even stood at 2.07, also a new high. While the BoJ target of around 2% inflation remains in the distance, it has continued with its monetary stimulus measures, highlighting that it is still too early to move away from such measures, as the current economic environment requires further monetary support. The BoJ kept its overnight interest rates to a cap of minus 0.1% and 10-year bond yields are at about zero per cent. Furthermore, it has decided to continue purchasing government bonds at a pace of ¥80 trillion a year.

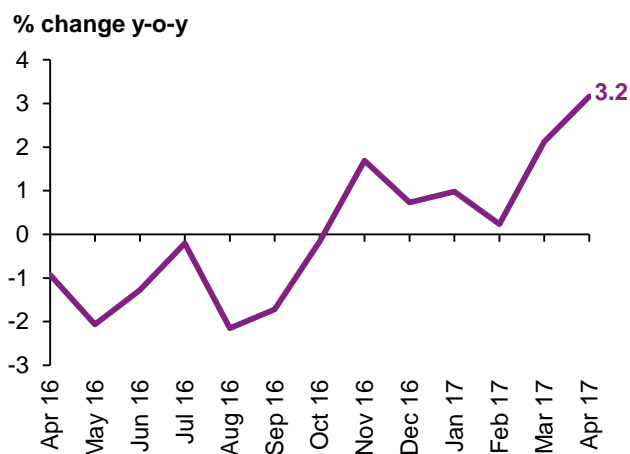
**Japanese exports** in April rose by 7.5% y-o-y, after already showing strong growth of 12.0% y-o-y in March and 11.3% y-o-y in February. This dynamic has been supported by the relatively weak value of the yen, compared with the US dollar. However, since the beginning of the year it has started to gradually strengthen again, thus exports in the coming months may potentially not receive as much support from the currency. The export of industrial goods and capital equipment mostly backed this positive trend in trade. Additionally, **industrial production** continued its recovery, rising for the eighth consecutive month, up by 7.2% y-o-y in April, after reaching 3.5% y-o-y in March. This was supported again by a strong trend in manufacturing,

## World Economy

which climbed by 7.1% y-o-y in March. Positively, manufacturing orders rebounded as well, rising by 2.0% y-o-y in April, after seeing a decline of 12.0% y-o-y in March.

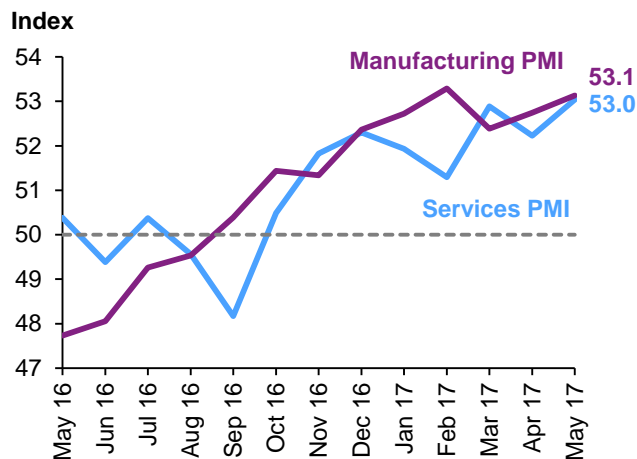
Some improvement was also reflected in **domestic demand**. Retail trade rose by 3.2% y-o-y in April, after reaching 2.1% y-o-y in March, following increases of only 0.2% y-o-y in February and 1.0% y-o-y in January. Hence, the rebound – after an annual decline of 0.6% in 2016 – is likely gaining strength.

**Graph 3 - 2: Japanese retail trade**



Sources: Ministry of Economy, Trade and Industry and Haver Analytics.

**Graph 3 - 3: Japanese PMIs**



Sources: IHS Markit, Nikkei and Haver Analytics.

The latest **PMI** numbers provided by IHS Markit confirmed some improvements in manufacturing, rising to 53.1 in May from 52.7 in April. The services sector PMI remained strong as well, rising to 53.0, the highest level this year, from 52.2 in April.

The most recent developments confirm a solid underlying growth dynamic in the Japanese economy. Hence the 2017 GDP growth forecast was revised up to 1.4%, from 1.2% the previous month, compared with 1.1% in 2016. Numerous issues persist, and given the tight labour market situation and high capacity utilisation rates, further advancements in growth seem challenging.

## South Korea

After the latest election, some clarity for investors and market participants re-emerged. While external political challenges in the region persist, the growth dynamic seems to be recovering. **Exports** were especially a driving force behind the economy's continued solid growth. They rose again considerably in May by 9.1% y-o-y, after seeing an increase of 23.1% y-o-y in April and 8.4% y-o-y in March. **Industrial production** rose by 3.6% y-o-y in April, after reaching 4.1% y-o-y in March and 3.1% y-o-y in February. However, the latest **PMI** number for the manufacturing sector in April indicates ongoing contraction in the sector, with the index remaining below the growth-indicating level of 50 for the tenth consecutive month. It fell back again slightly in May to 49.2, compared with 49.4 in April. GDP growth in 1Q17 showed strength, reaching 3.0% y-o-y on a seasonally adjusted base, reflecting continuing increasing output at a period of heightened political uncertainty, as investments in particular grew by 12.1% y-o-y. Given this momentum, the **GDP growth** forecast for 2017 was revised up to 2.5% from 2.4% after reaching growth of 2.8% in 2016.

## OECD Europe

### Euro-zone

The Euro-zone's recovery continues to thrive, and at the same time some of the region's political uncertainties are lessening. **GDP growth in the 1Q17** was strong at 0.6% q-o-q. Further support may come from the labour market, where the unemployment level is falling, although it still remains high. In addition, capacity utilization rates in the Euro-zone of somewhat above 80% could provide upside and core-inflation is also providing some room for improvement.

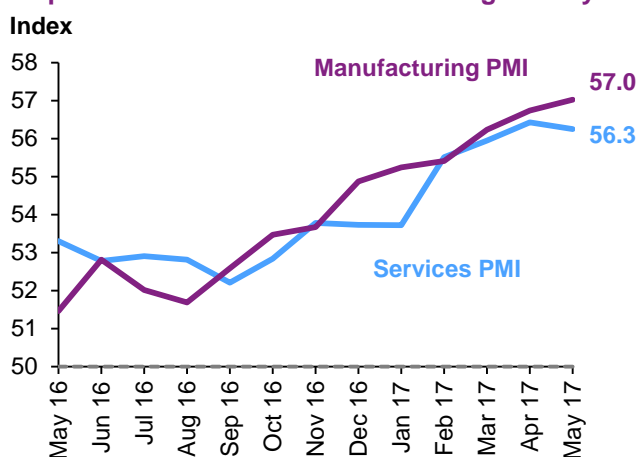
Moreover, political uncertainty seems to have abated to some extent. Following the elections in France the Euro-zone seems to be well supported again and the general election in Germany this autumn may also turn out to be supportive for the Euro-zone's economy, based on current polls. Nonetheless, some uncertainty remains regarding the process of the UK's exit from the EU, particularly after the outcome of the latest UK elections that saw the Conservative party lose its majority. While currently not at the forefront of debate, sovereign debt levels in some economies also remain an issue. They may be manageable, given the economic improvements, but they still need to be reduced. In some peripheral economies such as Portugal, and certainly Greece, but in Spain and Italy too, debt levels remain at considerable levels.

Growth continues to be supported by **healthy domestic demand**, as well as exports that continue to benefit from a relatively weak euro. Inflation fell again recently and seems to be low enough to keep the European Central Bank (ECB) from reducing its monetary stimulus. Additionally, sovereign debt spreads have improved and, as a consequence, the situation in the banking sector has improved too. Business sentiment is holding up as well, with the European Commission's May economic sentiment index remaining almost unchanged at a high level of 109.2. This is only slightly below the April level of 109.7. This positive sentiment has also impacted the euro, which rose to its highest level since the beginning of the year, when it stood at \$1.122/€ at the end of May.

Furthermore, the **unemployment rate** in April continued to decline, falling to 9.3%, the lowest since 2009. Wages remain low too, but should be expected to pick up at a later stage in the recovery. Wages increased by 1.62% y-o-y in 4Q16, which was the highest level in 2016. This compares to pre-crisis levels of 2% and more. The moderately improving labour market is also a positive driver for inflation and a signal of an improving economic environment. While **inflation** has constantly risen since last year's low levels, the recent May numbers have shown some slow-down in the inflationary trend. Inflation stood at 1.4% in May, falling from the April level of 1.8%. It was also the lowest monthly level in 2017. Core inflation – that is, the consumer price index (CPI), excluding energy, tobacco and food – rose at only 0.9% y-o-y in May. This has remained at around the same level for two years.

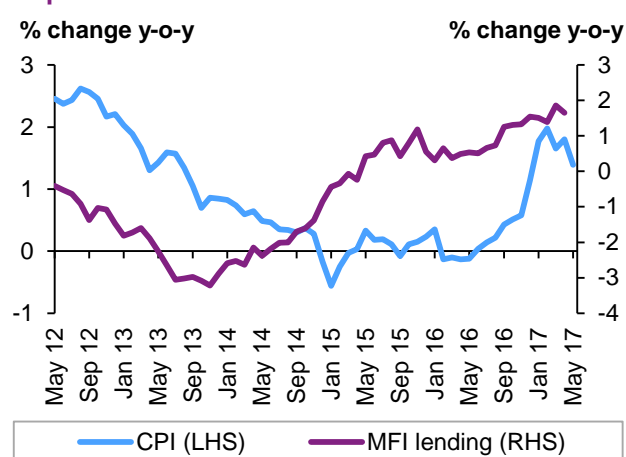
Such inflation-related developments, in combination with a trend of underlying improvements, will remain an area that the **ECB** will consider closely in its upcoming monetary policy decision-making meetings. While a change in monetary support is not likely in the coming months, the ongoing trends in growth, labour market improvements and inflation may lead the ECB to reduce its stimulus at the end of the year. In its latest rates setting meeting, the ECB kept its main policy rate at 0% and the deposit facility rate at -0.40%. In addition, the bond buying programme will likely continue until at least the end of 2017. It should also be noted that the notion of downside risk to the economy was not seen in the official statement. Furthermore, it was highlighted that underlying inflation pressures continue to remain subdued and have yet to show a convincing upward trend. Support from monetary stimulus – not only in terms of inflation, but also in terms of credit supply – has continued. In April, the credit supply increased by 1.7%, slightly below the March level of 1.9%. This confirmed a solid trend since the end of last year. This was also due to improvements in the banking sector.

**Graph 3 - 4: Euro-zone CPI and lending activity**



Sources: IHS Markit and Haver Analytics.

**Graph 3 - 5: Euro-zone PMIs**



Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.



**Industrial production** grew by 1.9% y-o-y in March, after increasing by 1.5% y-o-y in February and only 0.3% y-o-y in January. **Retail sales** growth in value terms was again an important support factor for Euro-zone growth, increasing by 3.9% y-o-y in April, after 4.2% y-o-y in March. This signals ongoing improvements in the underlying economy, and continued support may come from improvements in the labour market, particularly from the wages side at a later stage.

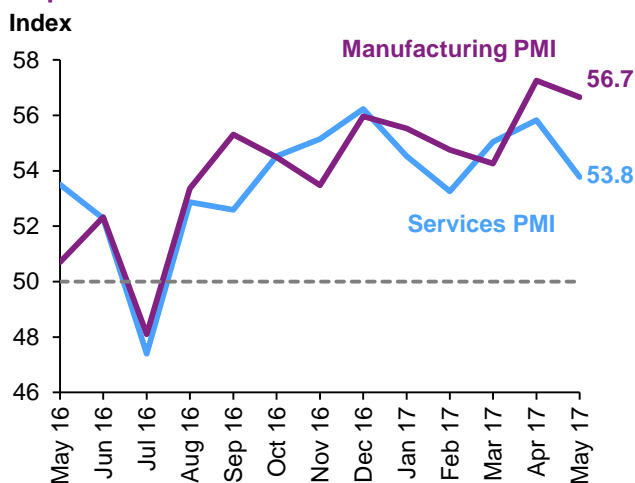
The latest **PMI indicators** point to a continuation of Euro-zone improvements. The manufacturing PMI rose to its highest level since the initiation of the index, reaching 57.0 in May, up from 56.7 in April. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, remained almost unchanged, hitting 56.3 in May, after 56.4 in April.

The 2017 **GDP growth** forecast for the Euro-zone remains at 1.7%, the same level of growth as 2016. In the case of a continuation of the ongoing growth momentum, it may even be higher in the current year. Political developments will need continuous monitoring, but with the French election now over, the uncertainty has evidently decreased. Still, the vagueness regarding Brexit procedures and the upcoming German elections remain important factors to closely monitor. These factors need to be seen in combination with the potential for rising inflation and, consequently, a potential reduction in monetary stimulus towards the end of the year.

## UK

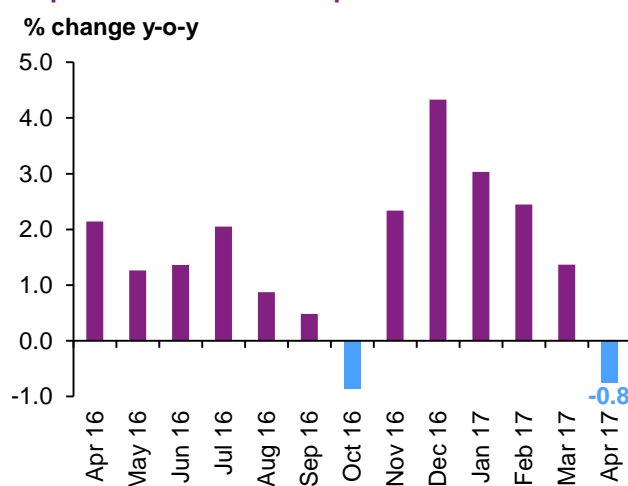
After the recent UK election, the Brexit negotiations will probably become more transparent, while at the same time more challenging, given the loss of a parliamentary majority for the governing Prime Minister and the Conservative party. While Article 50 was invoked in March and almost three months of the two-year negotiation period has already passed, it is unclear how this complex process will be finalised by 2019. The 1Q17 GDP growth has fallen to 0.2% q-o-q at a seasonally adjusted rate, lower than the already subdued first estimate of 0.3% q-o-q. This comes after 0.7% q-o-q in 4Q16.

**Graph 3 - 6: UK PMIs**



Sources: CIPS, IHS Markit and Haver Analytics.

**Graph 3 - 7: UK industrial production**



Sources: Office for National Statistics and Haver Analytics.

While these early signs of a 2017 slowdown have emerged, some parts of the UK economy have remained relatively robust. **Exports** have largely profited from a weakening pound and, hence, have benefitted from an improving competitive position. Exports increased by 12.9% y-o-y in April, following a 24.4% y-o-y rise in March. In addition, the **PMI** for manufacturing remained at a high level of 56.7 in May, only slightly below the 57.3 from April. However, the services sector PMI fell to 53.8 in May, from 55.8 in April. **Domestic consumption** rose considerably again in April, increasing by 7.1% y-o-y, following a 5.4% y-o-y rise in the previous month. **Industrial production** showed some weakness and it remains to be seen if this is the start of a weakening trend. It fell by 0.8% y-o-y in April, the first decline since October last year. The underlying assumption of a severe negative impact on the UK economy stemming from Brexit has not changed and it seems that the 1Q17 GDP growth number has started to reflect a slowdown. However, given the currently somewhat contradicting indicators the growth forecast remains unchanged at 1.5% for 2017, after growth of 1.8% in 2016.

## Non-OECD

### BRICs

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2016-2017\*

	GDP growth rate		Consumer price index, % change y-o-y		Current account balance, US\$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
<b>Brazil</b>	-3.6	0.5	8.7	4.3	-23.5	-27.6	-6.4	-7.7	69.9	76.7
<b>Russia</b>	-0.2	1.2	7.0	4.0	25.0	52.4	-3.4	-2.2	10.0	11.9
<b>India</b>	7.9	7.0	4.9	4.5	-11.9	-26.0	-3.5	-3.2	52.0	51.6
<b>China</b>	6.7	6.5	2.1	2.0	195.1	177.2	-3.9	-4.0	15.9	18.6

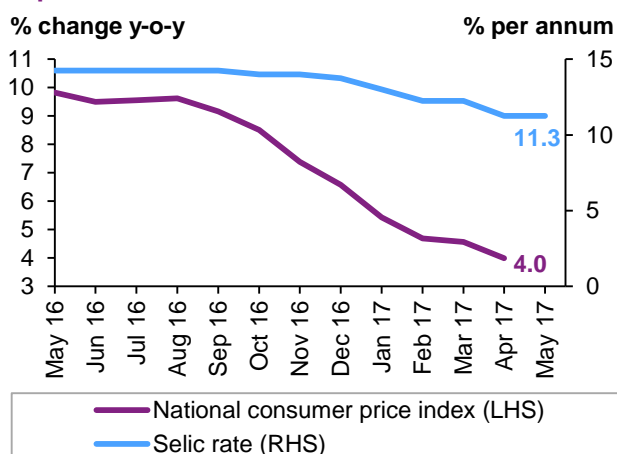
Note: \* 2017 = Forecast.

Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, OPEC Secretariat and Oxford.

### Brazil

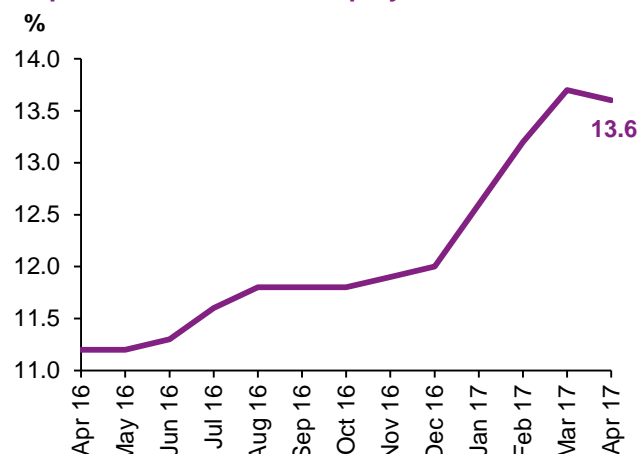
The pace of **GDP** contraction in Brazil notably slowed in 1Q17 as the economy declined by only 0.4% y-o-y, compared with a 2.5% contraction in 4Q16. While **government consumption** posted a larger drop by 1.3% y-o-y in 1Q17 vs. 0.1% in the previous quarter, the decline in **private consumption** and gross fixed capital formation (GFCF) was slower. Private consumption contracted by 1.9% y-o-y in 1Q17 from 2.9% in 4Q16. The **GFCF** registered a 3.7% y-o-y deceleration in 1Q17, compared with 5.4% in the previous quarter. On the trade end, both **exports** and **imports** flipped direction. In 1Q17, exports and imports grew by 1.9% and 9.8% y-o-y, compared with a decline of 7.6% and 1.1% in 4Q16, respectively.

Graph 3 - 8: Brazilian inflation vs. Interest rate



Sources: Banco Central do Brasil, Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

Graph 3 - 9: Brazilian unemployment rate

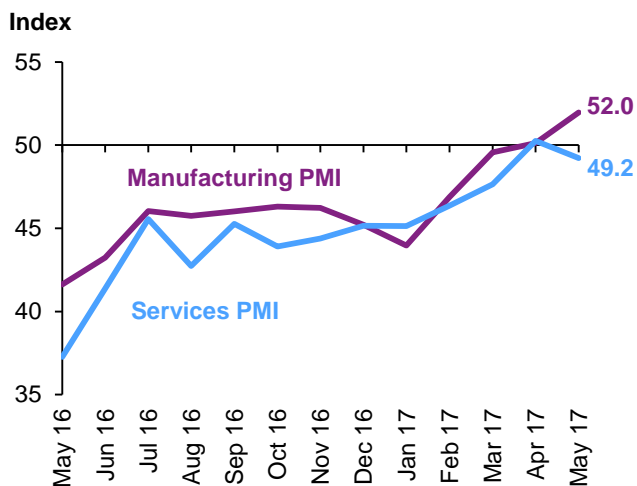


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

Brazil's **trade balance** reached its highest point ever in May 2017 at \$7.6 billion. Exports increased to \$19.7 billion and imports grew to \$12.1 billion in May. The **real** depreciated by 2.3% m-o-m against the dollar over the month. **Inflation** continued its downward movement in April, posting 4.0% y-o-y from 4.6% a month earlier. The central bank reduced its benchmark **interest rate** by 10 bp to 10.25% in June. The **unemployment rate** eased for the first time since December 2014, dropping from a record high of 13.7% in March to 13.6% in April.

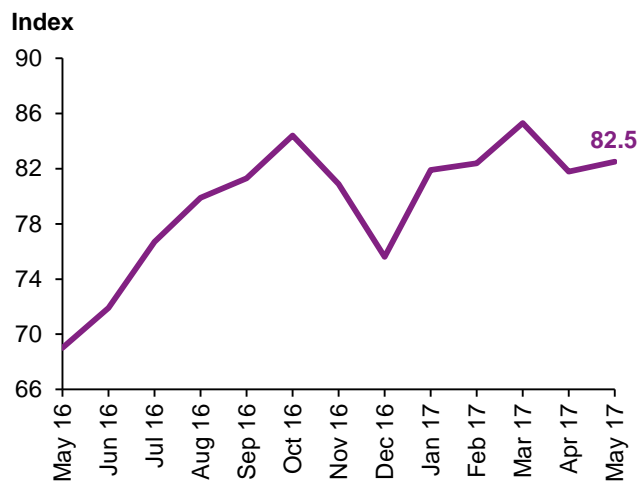
In May 2017, business conditions in the **manufacturing sector** registered their best improvement since February 2013, according to the IHS Markit Brazil Manufacturing PMI. The index stood at 52.0 in May, up from April's 50.1. This improvement came on the back of the strongest production rise in 51 months and the fastest increase in new business in nearly four-and-a-half years. The **services sector**, on the other hand, suffered a renewed downturn in May because of a decline in output. However, incoming new orders also increased at slower pace in May. The IHS Markit Brazil Services PMI Business Activity Index registered 49.2 points in May, from 50.3 the previous month. The **consumer confidence index** slightly improved in May to 82.5 points, from 81.8 in April.

**Graph 3 - 10: Brazilian manufacturing and services PMIs**



Sources: IHS Markit and Haver Analytics.

**Graph 3 - 11: Brazilian consumer confidence index**



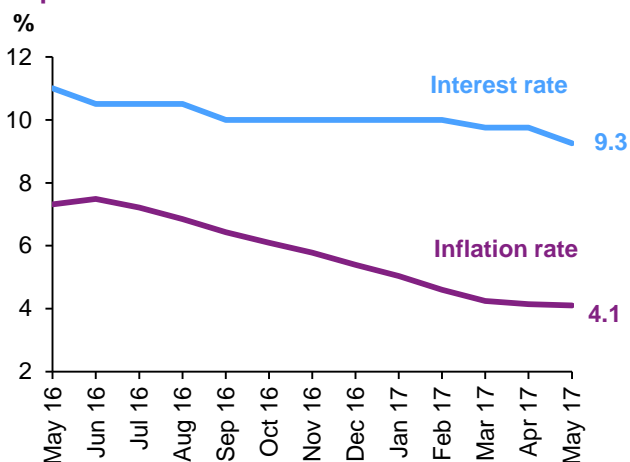
Sources: Fundação Getúlio Vargas and Haver Analytics.

The GDP figure for 1Q17 confirms a growth trend this year. Remarkable performance by the manufacturing sector and some easing in the unemployment rate provided further support for even better developments in 2Q17. Nevertheless, the setback in the services sector highlights the vulnerability of the expected minor recovery, especially considering ongoing political and public governance challenges in Brazil. The GDP is anticipated to show a cyclical growth of 0.5% in 2017.

## Russia

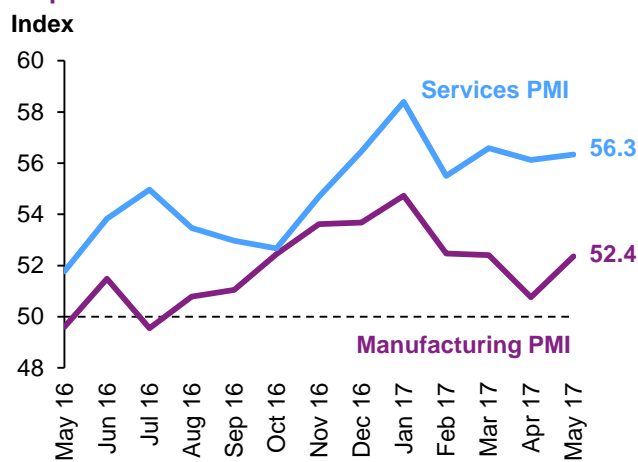
Data from the Federal State Statistics Services showed **GDP** growth of 0.5% y-o-y in 1Q17, highlighting the second consecutive quarter of expansion after growth of 0.3% y-o-y was seen in 4Q16. However, disaggregate data is not yet available.

**Graph 3 - 12: Russian inflation vs. Interest rate**



Sources: Federal State Statistics Service, Central Bank of Russia and Haver Analytics.

**Graph 3 - 13: Russian PMIs**

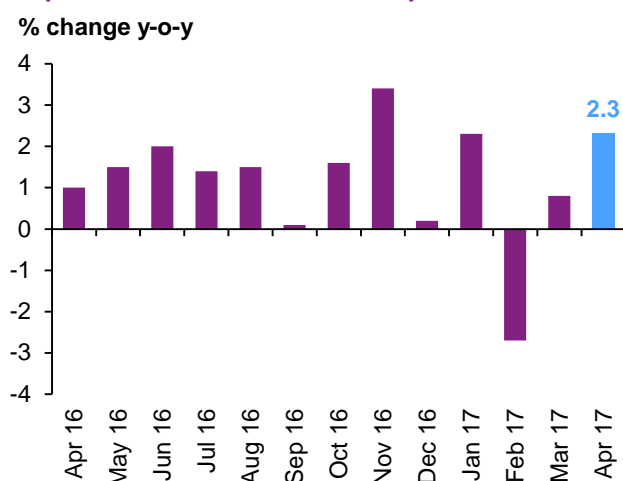


Sources: IHS Markit and Haver Analytics.

The **ruble** depreciated by 1.3% m-o-m in May, ending a five-month appreciation streak. **Inflation** was posted at 4.1% in May, unchanged from the previous month and close to the central bank's target of 4.0%. The central bank lowered its benchmark **interest rate** by 5 bp to 9.25% in May.

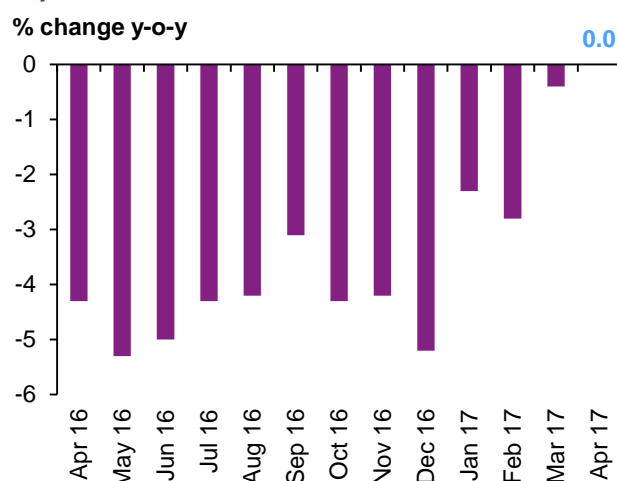
The IHS Markit Russia **manufacturing** PMI signalled strong improvement in the sector's operating conditions in May. The index rose from 50.8 points in April, to 52.4 in May due to solid growth in production together with a rise in new orders for the tenth consecutive month. **Industrial production** expanded in April by 2.3% y-o-y. The **services sector** expanded in May for the 16th month in a row, as suggested by its respective PMI. The index increased to 56.3 in May, up from 56.1 in April, signalling solid demand and a higher volume of new business. For the first time since December 2014, **retail sales** did not fall, stabilizing in April.

**Graph 3 - 14: Russian industrial production**



Sources: Federal State Statistics Service and Haver Analytics.

**Graph 3 - 15: Russian retail sales**



Sources: Federal State Statistics Service and Haver Analytics.

Growth data for 1Q17 alongside May and April indications reinforce the expectation of the start of an economic recovery this year. The GDP is forecast to post growth of 1.2% y-o-y in 2017.

## India

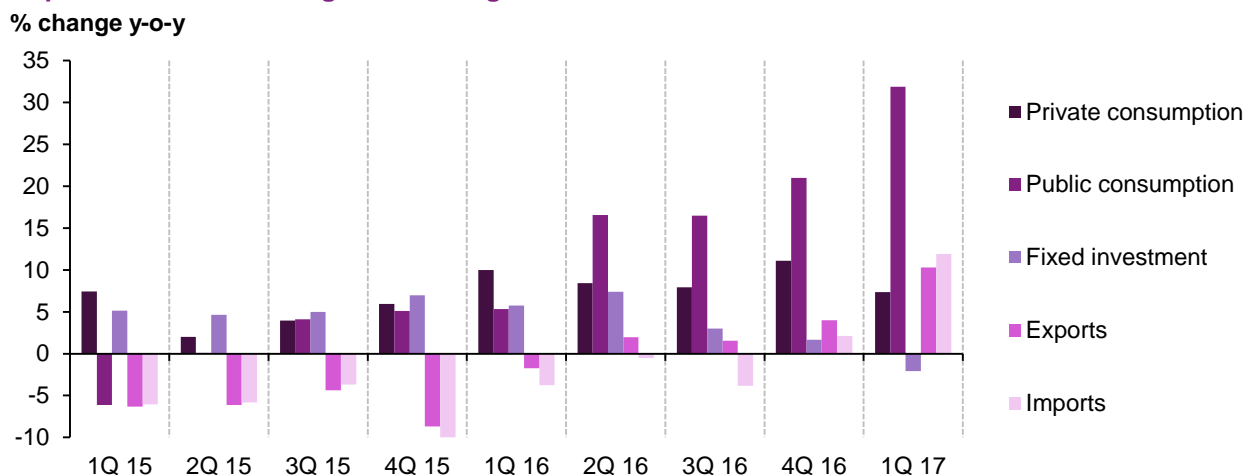
**India's GDP growth** in 1Q17 (the last quarter of the fiscal year (FY) 2016–2017) surprisingly sharply dropped to 6.1% y-o-y. It should be noted that the government changed the GDP base year to 2011–2012 from 2004–2005. Furthermore, some of the slowing is a statistical mirage due to over-representation of the wholesale price index (WPI) in the GDP deflator. The combination of WPI and GDP deflator divergence and the over-representation being incorrectly estimated led to the the implication that computed real GDP is either over or under estimated. The same change was already made for industrial production and WPI, with adjustments in the weights of different industries. Considering the April 2016–March 2017 period, the economy advanced by 7.1%, in line with the official estimate, but below the 8% seen the previous fiscal year, and 7.5 % in the 12 months to March 2015.

It is widely believed that the demonetisation process particularly impacted the construction and real estate sectors, which contributed to the slowdown in the second half of FY 2016–2017. The construction sector slowed by 3.8% percentage points (pp) between the first and second half of FY 2016–2017 and the financial and real estate service sectors slowed by a remarkable 5.5% pp over the same period. Given their share in core gross value added (GVA), these two sectors alone accounted for two-thirds of the slowdown of core GVA in the second half of FY 2016–2017.

On the **demand side**, the slowdown in growth during 4Q16 was due to much weaker expansion in consumer spending and a widening trade deficit, as the faster expansion of imports offset export recovery. Although real private consumption still registered relatively healthy growth of 7.3% y-o-y, in 1Q17 it moderated sharply from the revised figure of 11.3% y-o-y growth during 4Q16. The slowing reflects a loss of momentum in consumer demand, particularly in the rural economy. This is evident in sales and production weakness, albeit to varying degrees, of fast-moving consumer goods, automotive vehicles, and other consumer durables, as well as in the services sector in the months following demonetisation. Continuous strong expansion in

government spending has partially offset softer private consumption growth, with real government spending up by 31.9% y-o-y during 1Q17.

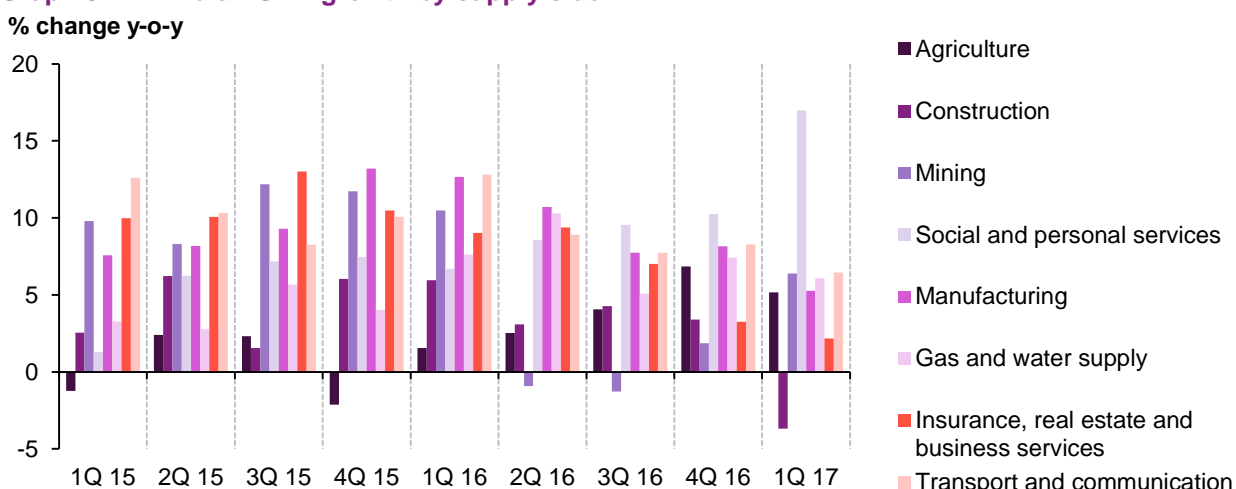
**Graph 3 - 16: Indian GDP growth through demand**



Sources: Central Statistics Office and Haver Analytics.

India's 1Q17 **supply side** GDP measure showed an even steeper loss of momentum. All sectors, with the exception of mining and public administration, showed slower growth or a contraction. Bumper agricultural output, which was partially behind stronger private consumption estimates and which supported growth in 4Q16, did not support the farm sector to the same extent during 1Q17, with real growth in agriculture slowing to 5.2% y-o-y from 6.9% y-o-y. Manufacturing, the weakest link in India's industrial sector, also showed slower expansion, although it was still higher than the average quarterly growth rate of 1.9% y-o-y reported by the newly rebased index of industrial production. Separate data showed that industry credit offtake fell by 4.1% y-o-y during 1Q17, reflecting the challenges faced by Indian factories. The construction sector was another soft spot in GDP data. This sector was hit the hardest by the demonetisation process (mostly through paralysis in real estate activity). Real construction fell by 3.7% y-o-y during 1Q17, down from 3.4% y-o-y in the previous quarter. Financial, real estate, and professional services growth was also accordingly affected, slowing to 2.2% y-o-y, the lowest rate seen since at least FY 2011, as reflected in rebased GDP-series data.

**Graph 3 - 17: Indian GDP growth by supply side**



Sources: Central Statistics Office and Haver Analytics.

India's government has renewed its focus on reforms and economic restructuring. Earlier in June, the **Goods and Services Tax** (GST) council broadly finalised the multi-tiered GST rate structure, bolstering expectations of a GST rollout on 1 July 2017. However, the government is concerned that companies could hide price increases (with the sole intent of hiking profits) during the rollout. Indeed, there is an 'anti-profiteering' clause built into the GST which could be used against companies that failed to pass on the benefits they received under new rules to consumers. An 'anti-profiteering agency' is due to be set up as part

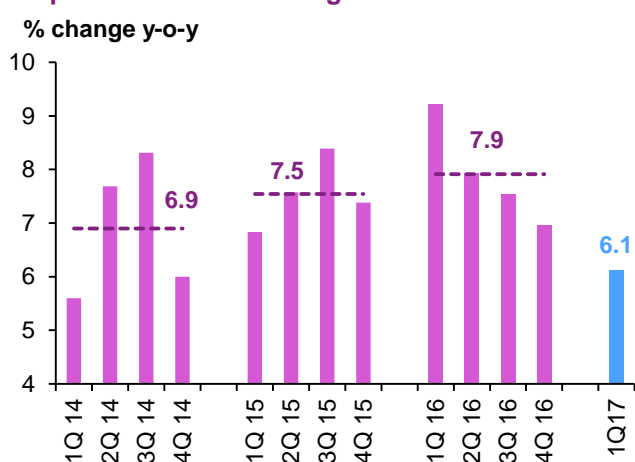


of the government's plans, and authorities are expected to closely monitor consumer price changes, particularly those in politically sensitive areas such as food and telecommunications.

The GST remains one of the most ambitious shake-ups of India's calculating tax system in decades. A key policy of the Indian government's economic reform agenda, the GST will create a single common market throughout India's states. If implemented smoothly, the GST has the potential to improve the ease of doing business in India and encourage foreign investment. However, the complexity of the system (a preliminary GST tax list was issued last week) means that some efficiency gains have already been lost due to political arguing.

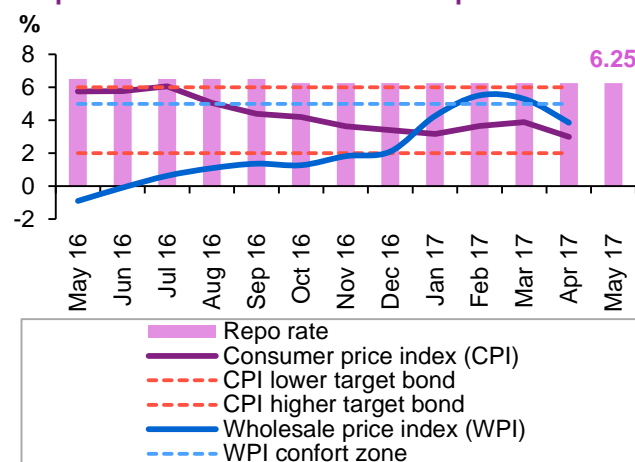
India's **CPI** increased by 2.96% y-o-y in April 2017, following a 3.92% rise in March. This was well below market expectations of 3.5%. It is the lowest inflation rate seen since June 2005, driven by a slowdown in food prices. The cost of food in India increased by 0.31% in April over the same month in 2016. With inflation under control and manufacturing growth below average, the Reserve Bank of India (RBI) may change its neutral monetary policy stance to become more accommodative in order to support the economy in the coming months.

**Graph 3 - 18: Indian GDP growth**



Sources: National Informatics Centre (NIC) and Haver Analytics.

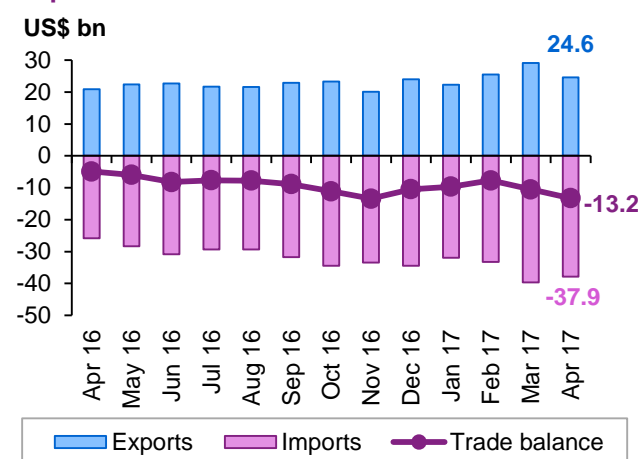
**Graph 3 - 19: Indian inflation vs. Repo rate**



Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

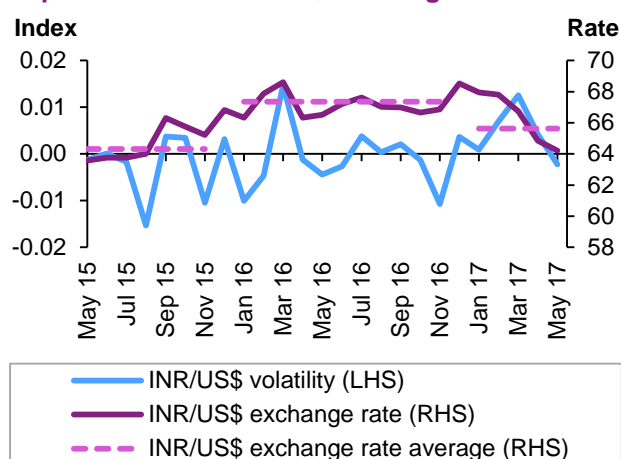
India's **trade** gap widened by 173.5% y-o-y to \$13.25 billion in April 2017, above market expectations of a \$12.79 billion gap. It is the highest shortfall since November 2014 due to a jump in oil and gold imports. Total purchases surged by 49.1% y-o-y to \$37.88 billion in April, boosted by a 30.1% rise in oil imports and a 211.4% increase in gold. Exports from India went up by 19.8% y-o-y to US\$24.6 billion in April.

**Graph 3 - 20: Indian trade balance**



Sources: Ministry of Commerce and Industry and Haver Analytics.

**Graph 3 - 21: INR and US\$ exchange rate**

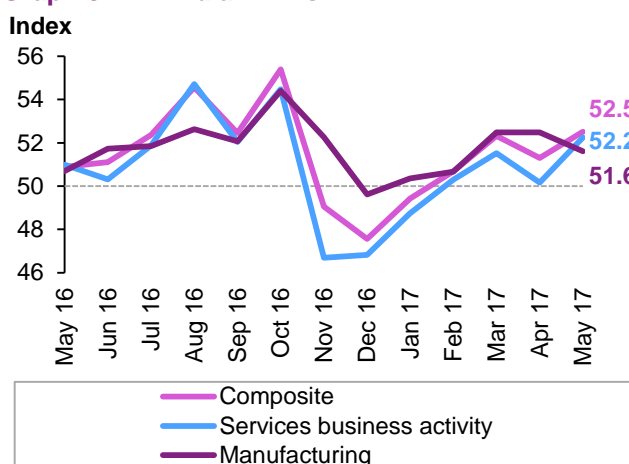


Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

India's **manufacturing** sector stayed in expansion mode in May as a further upturn in new business supported output expansion, though growth rates eased in both cases. Spending patterns were varied, with employment down, but purchase quantities were up from April. In addition, input costs rose at their slowest rate since the previous September, while charge inflation accelerated. Regarding anticipated future performance, goods producers were at their most optimistic in six months, with the Nikkei India PMI signalling a further improvement in operating conditions. Nevertheless, it should be noted that the manufacturing PMI was down from 52.5 points in April to a three-month low of 51.6.

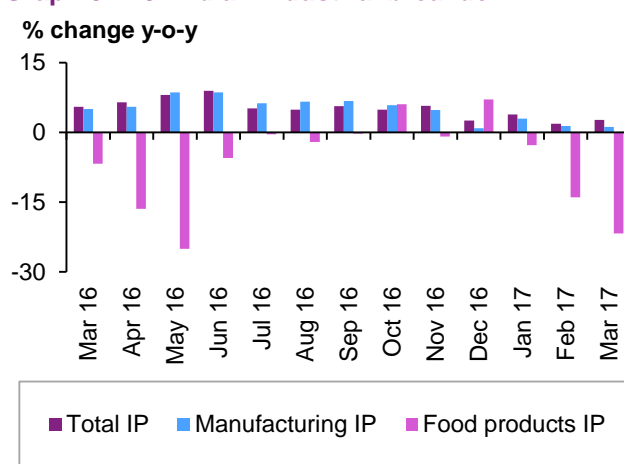
The Indian services sector recovered some ground lost recently in May, with a quicker rise in new business inflows boosting growth in terms of activity and employment. Input costs and output charges increased at softer rates, which were broadly negligible in the context of historical PMI data. The **services PMI** rose from 50.2 points in April to 52.2 in May, highlighting the fastest output increase in the current four-month sequence of expansion.

Graph 3 - 22: Indian PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3 - 23: Indian industrial breakdown



Sources: Central Statistical Organisation of India and Haver Analytics.

**India's GDP growth** expectation for 2017 has been kept unchanged at 7.0%. However, it appears that a slowdown continued into the second half of the fiscal year, with core GVA falling dramatically from 7.6% in 1H17 to 4.9% in 2H17. Given that growth was slowing sharply even before the demonetisation process, it is not clear how much of the subsequent slowdown is simply a continuation of this trend and how much was induced by demonetisation.

## China

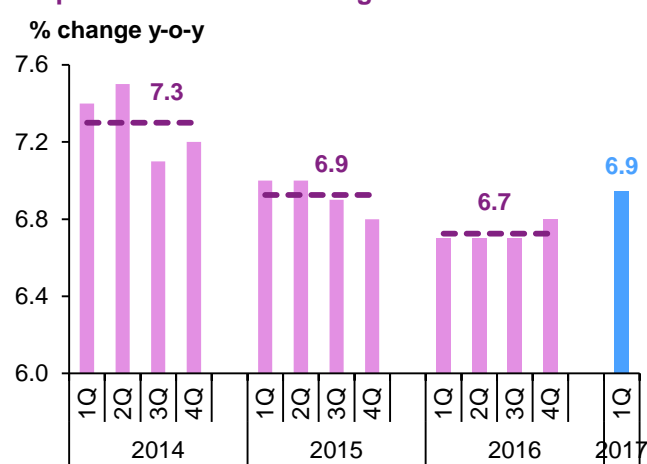
China's real **GDP growth** slowed across all key measures in April, consistent with expectations of a steady deceleration in GDP growth as 2017 progresses. After a strong upturn in 1Q17, economic growth slowed in April on weaker exports and investment, amid softer credit expansion following warnings by the country's senior leaders about financial risks.

It is expected that growth momentum will ease further in the coming months as the tightening of housing purchasing restrictions in many large cities weighs on real estate investment, and manufacturing investment is held back by spare capacity in most sectors. Chinese industry, investment, consumption, financing, and services were all moderated in April, compared with the 1Q17. The slowdown was broadly felt in manufacturing and utilities, each having decelerated by more than a percentage point, while mining output contracted at a slightly less rapid pace. Within specific sectors, the most significant slowdowns were in communication and electronics equipment, which slowed from 16.1% growth to 13.0% growth, and in automobiles from 12.4% growth to 9.2% growth. Heavy manufacturing sectors such as non-ferrous metal smelting also slowed, albeit to a much slower extent. The slowdown was felt across most important ownership classes, including state-owned, foreign and shareholding firms, but the deepest impact was among state-owned enterprises. Month-on-month seasonally adjusted growth slowed to 0.56%, the slowest sequential expansion since December 2016.

Chinese **fixed-asset investment** (FAI) growth slowed to 8.9% in April, from 9.2% in March. The slowdown was mostly due to weaker industrial and construction sector investment growth, which slowed from 4.2% to 3.5%. Investment in services also slowed marginally. The largest slowdowns in manufacturing investment were in general, for electrical machinery and special-purpose, while the largest slowdown in services investment was in railway infrastructure investment. Planned investment in new projects continued to contract in the mid-single digits, indicating a narrowing pipeline of projects in the coming quarters and thus a likely continued slowdown in completed FAI growth. However, it seems infrastructure investment is likely to remain robust, in a year of an anticipated major leadership reshuffle. Moreover, it is forecast that consumption growth will remain relatively resilient, despite an easing on moderating real wage growth, given that the labour market is holding up.

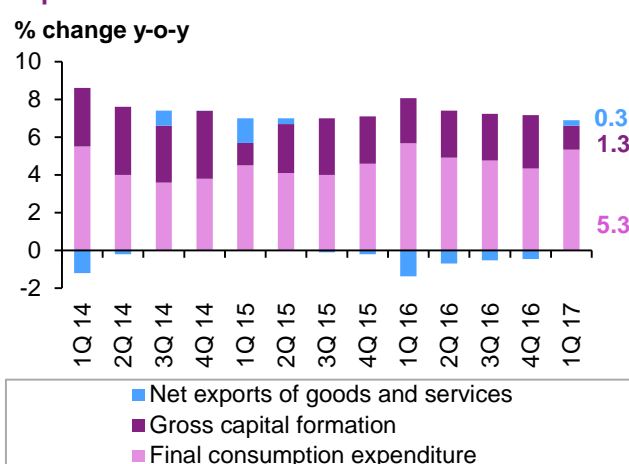
While the positive start for growth in 2017 has emboldened policymakers to tighten monetary policy and the regulation of the financial system and local government debt, it seems China's leadership will want to keep economic growth around the level of 6.5%, its 2017 target. Relatively strong real wage growth, a resilient labour market and high government spending are lifting the living standards of households and increasing consumption. Demand for services is expected to remain strong. Indeed, the services sector has outpaced the industry sector since 2012 and accounted for 51.6% of economic output last year.

**Graph 3 - 24: Chinese GDP growth**



Sources: China's National Bureau of Statistics and Haver Analytics.

**Graph 3 - 25: Chinese GDP breakdown**



Sources: China National Bureau of Statistics and Haver Analytics.

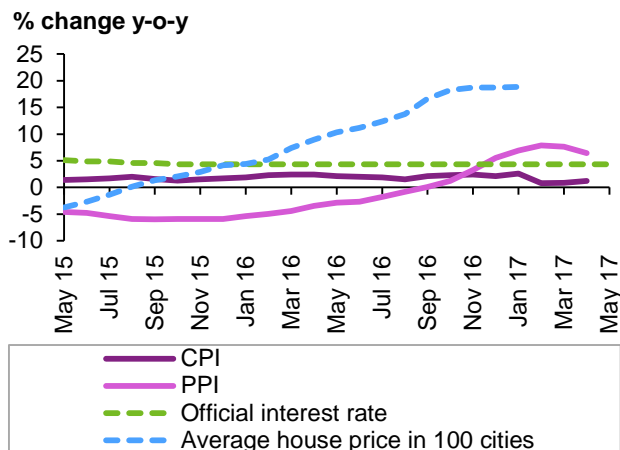
Due to China's debt problem its policymakers have been tightening monetary conditions. Indeed, some worry that China may be tightening too much, and squeezing the still fragile global economic recovery. Moody's actually downgraded China's **sovereign debt** on 23 May, which had a knock-on impact of stocks and the Yuan slipping in early trading following the rating shift from A1 from Aa3.

While efforts to reduce leverage in parts of the financial system have been fairly forceful, the People's Bank of China (PBoC) is tasked with ensuring that credit to the real economy does not slow too much. While the positive start to growth in 2017 has emboldened policymakers to tighten both monetary policy and the regulation of the financial system and local government debt, the senior leadership's insistence on meeting economic growth targets means that these measures need to be viewed from this perspective. Indeed, any further loss in economic momentum in the coming months will probably lead to an easing of the tightening efforts. While liquidity injections will be rapid and crucial in June, throughout the second half of 2017 the central bank is likely to maintain a modest tightening preference in the interbank market as it continues to monitor expected interest rate hikes in the US. However, the modest tightening trend is likely to continue further in 2017, although it should not be viewed as a sign of a changing monetary policy over the medium- to long-term.

China's **CPI** rose 1.2% y-o-y in April 2017, following a 0.9% rise in March. This was slightly above the market consensus of a 1.1% gain. It was the highest inflation rate since January, as the cost of non-food rose at a faster pace, although the cost of food fell less than a month earlier. On a monthly basis, consumer prices went up 0.1%, after declining 0.3% in March. Markets had anticipated a flat reading. The country's producer prices index (PPI) rose 6.4% y-o-y in April 2017, compared to a 7.6 % rise in March. This was a slightly below the market consensus of 6.9%. It was the eighth straight monthly increase, but the weakest since December 2016.

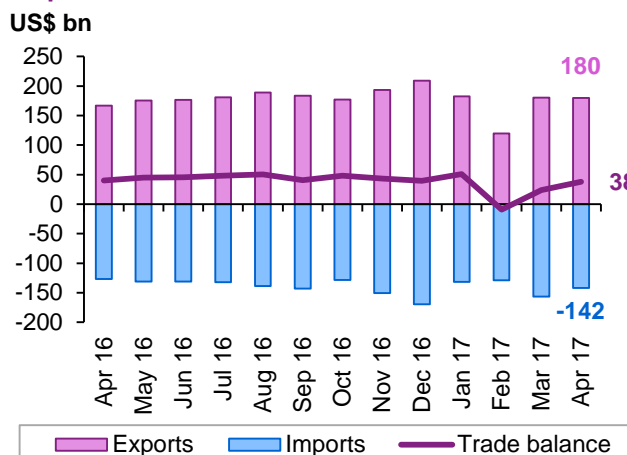
China's **trade** surplus fell to US\$38.5 billion in April 2017 from a US\$39.16 billion surplus a year earlier. This was above the market consensus of a US\$35.50 billion surplus, as exports rose less than imports. Y-o-y, sales grew by 8.0% to US\$180 billion, slowing from a 16.4 % rise in March. The market expected a 10.4% gain. Purchases went up 11.9% to US\$141.9 billion, after a 20.3% increase a month earlier. This was below market estimates of an 18.0% rise. In March 2017, the trade surplus stood at US\$23.9 billion.

**Graph 3 - 26: Chinese CPI and PPI**



Sources: China Index Academy, China National Bureau of Statistics, Soufan and Haver Analytics.

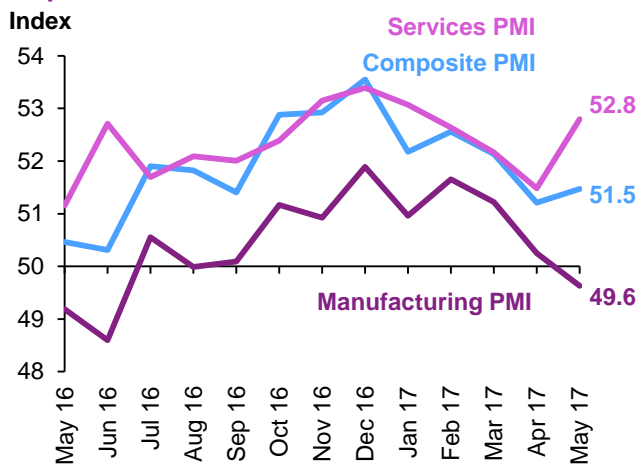
**Graph 3 - 27: Chinese trade balance**



Sources: China Customs and Haver Analytics.

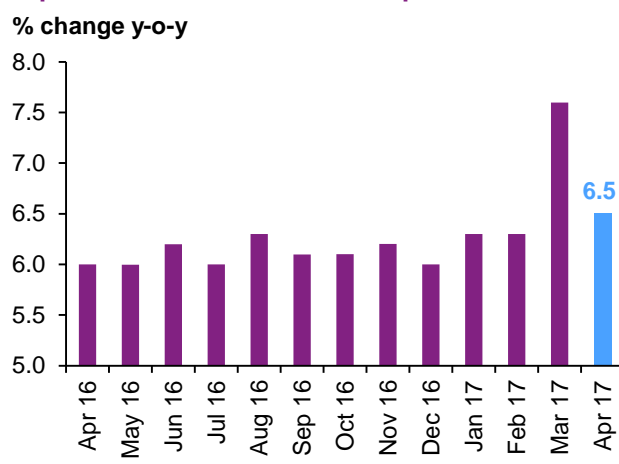
China's official **manufacturing purchasing managers' index** (PMI) was unchanged at 51.2 in May, according to a release from the National Bureau of Statistics. The index had declined in April from a five-year high of 51.8 in March. Output expanded at a slower pace, while inventories and employment contracted less rapidly. Authorities noted that the PMI for manufacturers of consumer goods rose 1.6 points to 53.8, while that of small and medium firms respectively rose by 1.0 point and 1.1 points to 51.0 and 51.3. New orders were unchanged, while new export orders grew more rapidly. China's official non-manufacturing PMI rose 0.5 points to 54.5 in May. New orders grew more rapidly while the pace of contraction in new export orders moderated.

**Graph 3 - 28: Chinese PMI**



Sources: Caixin, IHS Markit and Haver Analytics.

**Graph 3 - 29: Chinese industrial production**



Sources: China National Bureau of Statistics and Haver Analytics.

Expectations for future activity improved, although employment conditions deteriorated, reversing gains from a month earlier. A sub-index for services PMI rose 0.9 points to 53.5, mostly due to retailing, railway and air freight, and postal and data services. On the other hand, roadway shipping, capital market services, and real estate services were noted a contraction in sentiment. A sub-index for construction fell 1.2 points to 60.4. While services' growth improvement is an encouraging sign after March's deceleration, average growth in the second quarter remains below that of the first for both non-manufacturing and manufacturing PMI. In aggregate, this points to a softer GDP reading in the second quarter, hardly a surprise after the unsustainably fast growth rebound in the early part of 2017.

China's **GDP growth** expectation kept unchanged at 6.5% in 2017.

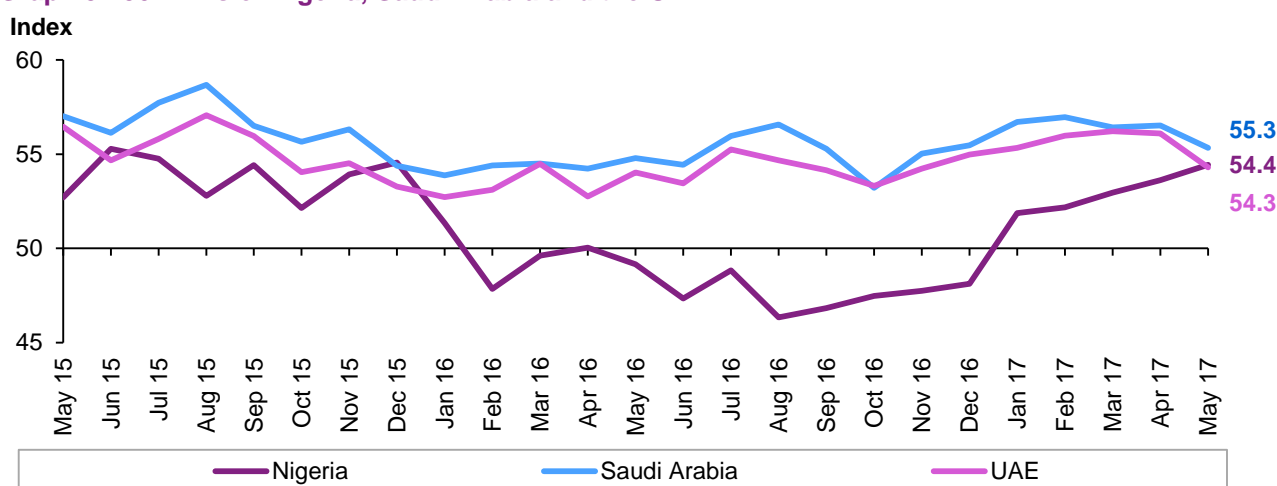
## OPEC Member Countries

The economy of **Saudi Arabia** expanded by 2.2% y-o-y in 4Q16, bringing GDP growth in 2016 to 1.7% y-o-y. Gross value added in the oil and gas sector posted a 4.6% y-o-y increase in 4Q16, while the non-oil and gas sector grew by 0.7% y-o-y in the same period. The Emirates NBD Saudi Arabia PMI was well into expansion territory in May at 55.3 on fast growth in output and new business.

In the **United Arab Emirates**, the GDP grew by 3.0% y-o-y in 2016. While public consumption declined by 1.2% y-o-y, private consumption posted fast acceleration of 11.7% y-o-y. The GFCF expanded by 2.3% y-o-y, exports increased by 6.5% and imports rose by 11.3% in 2016. Business conditions in the country's non-oil private sector continued to improve in May, as suggested by its respective PMI. The index registered 54.3 in May on increases in new business and output.

In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI rose to 54.4 in May, highlighting strong growth in the private sector. The survey showed that output grew at its highest rate in 22 months. New business orders also grew by their fastest pace in 17 months, with demand coming mainly from domestic market as export demand declined.

**Graph 3 - 30: PMIs of Nigeria, Saudi Arabia and the UAE**



Sources: Emirates NBD, IHS Markit, Stanbic IBTC Bank and Haver Analytics.

## Other Asia

In **Indonesia**, GDP posted growth of 5.0% y-o-y in 1Q17, compared with 4.9% in 1Q16. Exports posted a notable increase of 8.0% y-o-y in 1Q17 vs a contraction of 3.3% in 1Q16. Imports also expanded by a greater rate of 5.0% in 1Q17. There was a rise in household consumption expenditures of 4.9%, general government consumption expenditures of 2.7%, and GFCF by 4.8% y-o-y. The Nikkei Indonesia Manufacturing Purchasing Managers' Index fell in May to 50.6, from April's 51.2 due to softer growth in output and new orders.

In the **Philippines**, GDP expanded by 6.4% y-o-y in 1Q17, compared with 6.9% in the same period of 2016. Government consumption witnessed a sharp drop in growth from 11.8% y-o-y in 1Q16 to only 0.2% y-o-y in 1Q17. The expansion in private consumption somewhat softened to 5.7% y-o-y in 1Q17 vs 7.1% in 1Q16. The GFCF also experienced a notable decline in its 1Q17 growth rate of 11.8% compared with 1Q16 (28.3%). However, exports rose by 20.3% y-o-y in the first three months of the year, compared with 10.2% in 1Q16.



## Africa

The economy of **South Africa** registered minor growth of 0.1% y-o-y in 1Q17. Yet, the first quarter reading is better than the previous quarter, when GDP shrank by 0.6% y-o-y and 1Q16's contraction of 1.5%. The decline in GFCF continued, but notably eased in 1Q17. It dropped by 1.6% y-o-y, compared with a 4.4% decline in 4Q16. Public expenditure contracted in 1Q17 by 0.1% y-o-y, marking the first time since 1Q15. Exports posted a 0.7% y-o-y increase, and imports also grew by 0.6% over the same period.

In **Egypt**, the pound was stable vs the dollar in May and consumer price inflation was at 30.8 y-o-y, slightly lower than over the previous two months when inflation was higher than 32% y-o-y. The Emirates NBD Egypt PMI survey in May showed that new orders for export posted their highest growth in survey history. The index registered 47.3 in May, marginally lower than April's nine-month high of 47.4.

## Latin America

The economy of **Chile** expanded by only 0.1% y-o-y in 1Q17, the least since 4Q09. A decline in exports, together with a jump in imports, was the main driver behind the slowdown in growth. Exports decreased by 4.9% y-o-y in 1Q17, marking the sharpest decline since 2Q15. Imports rose by 4.2% y-o-y in 1Q17, the highest point since 2Q13. Private consumption also posted somewhat lower growth of 2.0% y-o-y in 1Q17 vs 2.4% in the previous quarter. Government consumption growth, on the other hand, was higher at 5.1% y-o-y in 1Q17 and the GFCF decline eased from 5.0% y-o-y in 4Q16 to 2.5% in 1Q17.

## Transition region

In the **Czech Republic**, GDP accelerated by 3.9% y-o-y in 1Q17, signalling the highest rate of expansion since 4Q15. Government consumption notably increased in 1Q17 by 2.4% vs 0.2% in 4Q16. Household consumption also posted its fastest pace of growth since 1Q15, expanding by 3.4% y-o-y in 1Q17. After four consecutive quarters of contraction, the GFCF posted growth of 1.9% y-o-y in 1Q17. Both exports and imports registered higher growth in 1Q17 by 7.9% and 6.4% y-o-y, respectively.

## Oil prices, US dollar and inflation

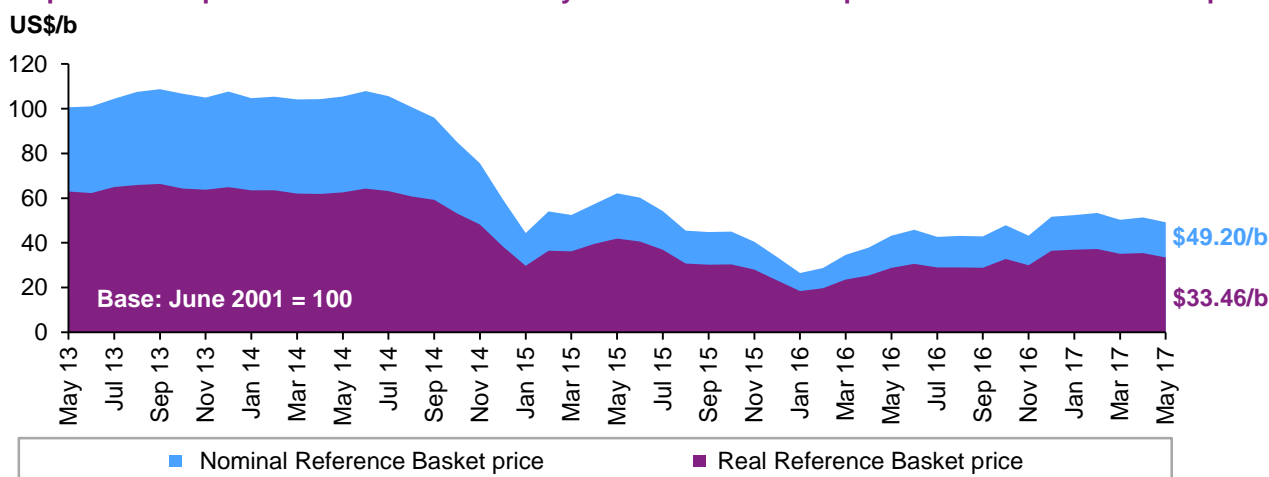
The **US dollar** was mixed in May, against both major and emerging market currencies. On average, the dollar declined 3.0% against the euro mainly following the results of the two rounds of the French presidential elections that improved investor sentiment in the Euro-zone. This also came at the same time as US political uncertainties that were viewed as a potential delay to the passage of economic reforms in the US. Against the pound sterling, the dollar declined by 2.3% on the expectation of an increased majority for the Conservative party in the UK, although this did not materialise in the 8 June election. The dollar also declined against the Swiss franc by 1.4%. Elsewhere, the dollar advanced 2.0% against the yen mainly on safe heaven demand before the French elections, but declined in the second half of the month on the back of the aforementioned US political uncertainties.

On average, the US dollar was almost flat m-o-m against the Chinese yuan in May. It decreased slightly by just 0.1% m-o-m against the Indian rupee, but it is down by 5.1% since the beginning of the year. The dollar advanced by 2.3% m-o-m against the Brazilian real mainly due to that country's political instability. Against the Russian ruble it increased m-o-m by 1.3% mainly due to lower oil prices.

Against NAFTA trading partners' currencies, on average the US dollar declined slightly by 0.1% against the Mexican peso, trading close to levels observed before the US election. Against its Canadian counterpart, the US dollar gained 1.3%.

In nominal terms, the price of the **OPEC Reference Basket (ORB)** decreased by \$2.17, or 4.2%, from \$51.37/b in April to \$49.20/b in May. In real terms, after accounting for inflation and currency fluctuations, the ORB decreased to \$33.46/b in May from \$35.43/b in April (base June 2001=100). Over the same period, the US dollar declined by 1.6% against the import-weighted modified Geneva I + US dollar basket\*, while inflation declined 0.2%.

**Graph 3 - 31: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price\***



Source: OPEC Secretariat.

\* The 'modified Geneva I+US\$ basket' includes the euro, the Japanese yen, the US dollar, the pound sterling and the Swiss franc, weighted according to the merchandise imports of OPEC Member Countries from the countries in the basket.

## World Oil Demand

World oil demand for 2016 was left unchanged from last month's MOMR, with total world oil demand growth at 1.44 mb/d and total oil consumption at 95.12 mb/d. In 2017, world oil demand is anticipated to rise by 1.27 mb/d from 2016 levels, again unchanged from last month's MOMR. Total OECD demand is expected to grow again by 0.23 mb/d but at lower pace growth compared to 2016. Non-OECD oil demand will continue to grow by 1.04 mb/d. Total oil consumption in 2017 is anticipated to be around 96.38 mb/d.

## World oil demand in 2016 and 2017

Table 4 - 1: World oil demand in 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016	Change 2016/15	
							Growth	%
Americas	24.59	24.49	24.67	25.01	24.77	24.73	0.14	0.57
of which US	19.84	19.78	20.00	20.21	20.05	20.01	0.17	0.84
Europe	13.75	13.67	13.98	14.49	14.07	14.05	0.30	2.22
Asia Pacific	8.04	8.55	7.64	7.79	8.31	8.07	0.04	0.44
<b>Total OECD</b>	<b>46.38</b>	<b>46.71</b>	<b>46.29</b>	<b>47.29</b>	<b>47.14</b>	<b>46.86</b>	<b>0.48</b>	<b>1.04</b>
Other Asia	12.28	12.75	12.93	12.64	13.09	12.85	0.57	4.64
of which India	4.05	4.54	4.29	4.13	4.58	4.39	0.34	8.30
Latin America	6.56	6.25	6.49	6.76	6.37	6.47	-0.09	-1.35
Middle East	7.97	7.98	7.79	8.37	7.74	7.97	0.00	-0.04
Africa	3.99	4.12	4.09	4.03	4.14	4.10	0.10	2.59
<b>Total DCs</b>	<b>30.81</b>	<b>31.11</b>	<b>31.31</b>	<b>31.80</b>	<b>31.34</b>	<b>31.39</b>	<b>0.58</b>	<b>1.89</b>
FSU	4.62	4.49	4.37	4.73	5.05	4.66	0.04	0.88
Other Europe	0.67	0.68	0.65	0.68	0.77	0.70	0.02	3.52
China	11.19	11.12	11.51	11.49	11.89	11.51	0.31	2.79
<b>Total "Other regions"</b>	<b>16.49</b>	<b>16.30</b>	<b>16.53</b>	<b>16.91</b>	<b>17.71</b>	<b>16.86</b>	<b>0.38</b>	<b>2.28</b>
<b>Total world</b>	<b>93.68</b>	<b>94.12</b>	<b>94.13</b>	<b>96.00</b>	<b>96.19</b>	<b>95.12</b>	<b>1.44</b>	<b>1.53</b>
Previous estimate	93.68	94.12	94.13	96.00	96.19	95.12	1.44	1.53
Revision	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## OECD

Based on the latest available data, oil demand growth in the **OECD region in 2017** was unchanged from last month's report, despite some upward and downward adjustments within regions. OECD America was revised lower (-50 tb/d in 1Q17) mainly to reflect the slower-than-anticipated oil demand growth in Canada and Mexico. However, US oil demand was revised upward (+28 tb/d in 1Q17) to reflect the positive distillate oil demand during March.

Table 4 - 2: World oil demand in 2017\*, mb/d

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16	
							Growth	%
Americas	24.73	24.56	24.83	25.26	24.93	24.89	0.16	0.65
of which US	20.01	19.84	20.09	20.42	20.19	20.14	0.13	0.66
Europe	14.05	13.80	14.06	14.56	14.13	14.14	0.08	0.60
Asia Pacific	8.07	8.57	7.62	7.76	8.29	8.06	-0.01	-0.15
<b>Total OECD</b>	<b>46.86</b>	<b>46.93</b>	<b>46.50</b>	<b>47.58</b>	<b>47.35</b>	<b>47.09</b>	<b>0.23</b>	<b>0.49</b>
Other Asia	12.85	12.97	13.30	13.00	13.47	13.18	0.33	2.57
of which India	4.39	4.53	4.37	4.32	4.81	4.51	0.12	2.74
Latin America	6.47	6.30	6.54	6.82	6.46	6.53	0.06	0.95
Middle East	7.97	8.11	7.91	8.45	7.85	8.08	0.11	1.36
Africa	4.10	4.23	4.19	4.14	4.26	4.20	0.11	2.64
<b>Total DCs</b>	<b>31.39</b>	<b>31.60</b>	<b>31.93</b>	<b>32.41</b>	<b>32.04</b>	<b>32.00</b>	<b>0.61</b>	<b>1.94</b>
FSU	4.66	4.57	4.43	4.80	5.12	4.73	0.07	1.51
Other Europe	0.70	0.71	0.67	0.70	0.79	0.72	0.02	3.15
China	11.51	11.63	11.80	11.78	12.17	11.84	0.34	2.93
<b>Total "Other regions"</b>	<b>16.86</b>	<b>16.90</b>	<b>16.90</b>	<b>17.28</b>	<b>18.08</b>	<b>17.29</b>	<b>0.43</b>	<b>2.54</b>
<b>Total world</b>	<b>95.12</b>	<b>95.44</b>	<b>95.33</b>	<b>97.27</b>	<b>97.47</b>	<b>96.38</b>	<b>1.27</b>	<b>1.33</b>
Previous estimate	95.12	95.44	95.33	97.27	97.47	96.38	1.27	1.33
Revision	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: \* 2017 = Forecast.

Totals may not add up due to independent rounding.

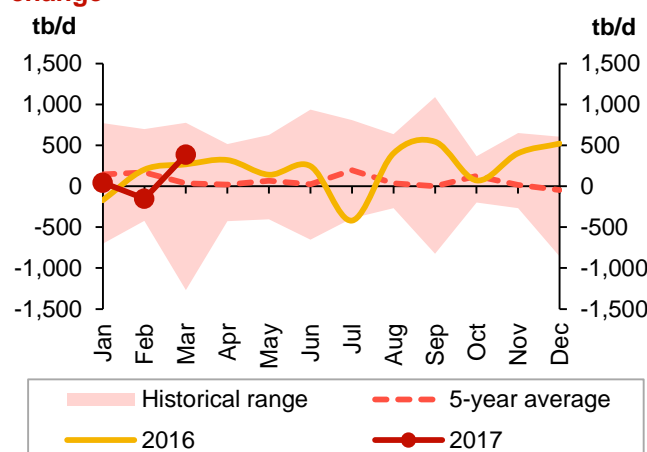
Source: OPEC Secretariat.

## OECD Americas

### US

US oil demand witnessed strong growth in March 2017, recording the highest monthly y-o-y expansion thus far for the current year. Demand growth for the month was recorded at more than 0.4 mb/d, or an equivalent 2.4% in percentage terms.

Graph 4 - 1: OECD Americas oil demand, y-o-y change



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

Graph 4 - 2: US gasoline demand, y-o-y change



Source: US Energy Information Administration.

## World Oil Demand

Unlike March 2016, when US oil demand growth was mainly supported by rising gasoline requirements, oil demand growth in March 2017 was supported by rising distillate and jet fuel requirements, while gasoline demand proved disappointing.

After falling for two consecutive months in January and February 2017, US distillate requirements exhibited solid gains during the month of March on a y-o-y basis, increasing by 0.2 mb/d or the equivalent of 5.4% y-o-y. This distillate demand improvement was in line with the rising industrial production index during the same month. The index showed an increase of around 1.56% above last year's levels, according to the Federal Reserve Board, with significant progress in the readings for the electric utilities and mining sectors. The *truck transportation of freight* indicator, a gauge of trucking activities in the US and calculated by the Bureau of Labor Statistics, inched up by 1.1% y-o-y during March lending further support to distillate demand. Additionally, the housing starts index showed significant increases in March adding 6.7% y-o-y. Overall, most of the major indicators related to various sectors, such as transportation, industrial and construction were positive in March providing extra support to distillates.

Jet fuel demand bounced back in March 2017 after a flat monthly y-o-y growth in February 2017. The product recorded a noticeable rise of more than 0.1 mb/d, which translates to a rise of 8.7% y-o-y. The modest gains in the US domestic air passenger market, the largest in the world, as well as an improvement in the airline passenger services index that measures international flights from the US, supported product demand during the month.

Gasoline demand declined for the third consecutive month, shedding 46 tb/d y-o-y. Vehicle sales remained on a declining trend in 2017 with data for March showing a drop of 0.26% y-o-y. Additionally, miles driven also declined in line with higher retail prices and improved overall efficiencies in the vehicle fleet. Retail prices were at \$2.44/gal versus \$2.07/gal in March 2016.

The 1Q17 has shown moderate US oil demand growth, with an overall increase of 64 tb/d compared to the same quarter last year, with jet fuel accounting for the majority of this growth. Preliminary April and May 2017 volumes, which are based on weekly data, suggest further steady increases in oil demand growth, with industrial fuels – namely distillate fuels – accounting for the bulk of these.

**Table 4 - 3: US oil demand, tb/d**

	<b>Mar 17</b>	<b>Mar 16</b>	<b>Change 2017/16</b>	
			<b>tb/d</b>	<b>%</b>
Propane/propylene	1,143	1,160	-17	-1.5
Gasoline	9,353	9,399	-46	-0.5
Diesel oil	4,154	3,941	213	5.4
Jet/kerosene	1,669	1,536	133	8.7
Fuel oil	362	398	-36	-9.0
Other products	3,352	3,182	170	5.3
<b>US 50</b>	<b>20,033</b>	<b>19,616</b>	<b>417</b>	<b>2.1</b>
<b>US territories</b>	<b>291</b>	<b>277</b>	<b>15</b>	<b>5.3</b>
<b>Total</b>	<b>20,324</b>	<b>19,893</b>	<b>432</b>	<b>2.2</b>

Sources: US Energy Information Administration and OPEC Secretariat.

## Canada

The latest **Canadian** data for March 2017 showed an overall increase in oil demand, with gains for diesel oil, fuel oil and gasoline, although these have been slightly offset by declines in demand for LPG and naphtha. Projections for Canadian oil demand in 2017 remain unchanged from those reported last month, with positive growth foreseen compared to 2016.

## Mexico

In **Mexico**, April 2017 was yet another declining month for oil demand. It was dominated by substantial decreases in demand for LPG, gasoline and diesel oil, although these were partly offset by increases in fuel oil and jet/kerosene.



Going forward, OECD America oil demand for 2017 is now projected to be slightly below last month's estimations, which is mainly a reflection of the slower-than-anticipated data from the US in the 1Q17. Looked ahead, the expected positive US oil demand growth depends on several factors, such as the economy, the degree of substitution to other commodities and the oil price environment. The risks, however, are skewed to the upside, compared to last month's publication, as a result of recent positive developments in overall economic momentum that is projected to support demand for distillate fuels.

In 2016, **OECD Americas oil demand** grew by 0.14 mb/d compared to 2015. In 2017, OECD Americas oil demand is projected to grow by a further 0.16 mb/d compared to 2016.

## OECD Europe

Initial indicators for **OECD Europe** oil demand growth in April 2017 hint towards a slippage in momentum for the third consecutive month, despite very bullish January oil consumption growth data. The waning oil demand trend in February, March and April, particularly during the latter month, is behind this development. The main reasons for this are the slower-than-expected industrial activity readings in countries such as Germany, UK and Turkey, in addition to slower-than-anticipated oil demand growth in the Netherlands and Belgium largely due to high a base line of comparison weighing down on the overall OECD Europe oil demand performance.

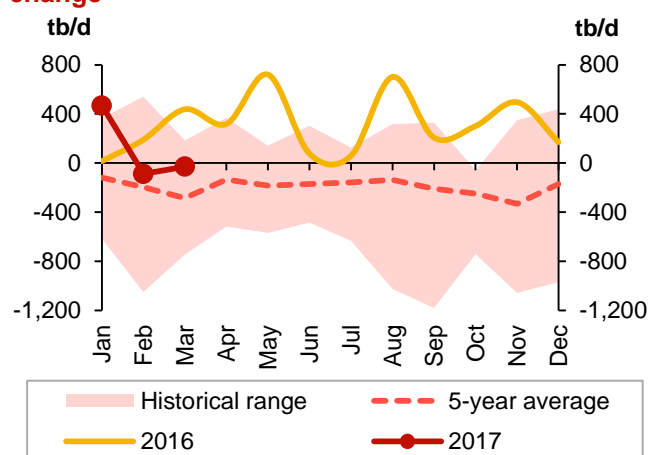
### Germany

In **Germany**, heavy declines in LPG requirements during March contributed to the negative sentiment in the region. LPG weakened by around 31% y-o-y, largely pulled down by tightening petrochemical demand. The oil demand growth projection in Germany for 2017 remained the same as last month's report with flat growth y-o-y. Future growth in the country this year will be dependent on overall economic activities, particularly the industrial sector, as well as weather conditions during the 4Q17.

### Turkey

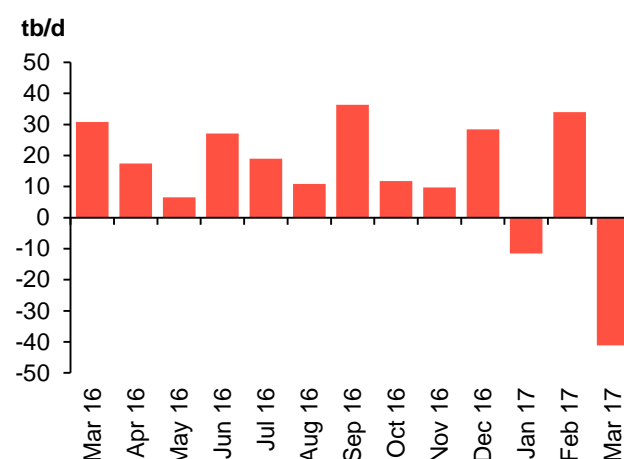
The latest available data for **Turkey** showed a lower-than-expected oil requirement for March. Oil demand growth was slower than projected mainly due to slower activities in the industrial sector as a result of large falls in middle distillate and LPG requirements.

**Graph 4 - 3: OECD Europe oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 4: UK diesel oil demand, y-o-y change**



Sources: Joint Organizations Data Initiative, UK Department of Energy Climate and Change and OPEC Secretariat.

## Big 4

Preliminary April 2017 **Big 4** total oil demand data indicates a sharp fall in oil requirements y-o-y, with UK declining the most and French demand being steady. All product categories have experienced declines, based on initial data. The largest declines were noted in jet/kerosene and fuel oil requirements, which each

## World Oil Demand

dropped by more than 7% y-o-y. The weakness in UK's initial April oil demand data has largely been led by jet/kerosene due to lower activities in the aviation sector. The drop in fuel oil demand growth was most profound in France where the product shed 10% of its volume compared to the same month in 2016 mainly as a result of slower demand for bunkering.

**Table 4 - 4: Europe Big 4\* oil demand, tb/d**

	<b>Apr 17</b>	<b>Apr 16</b>	<b>Change</b> <i>tb/d</i>	<b>%</b>
LPG	474	476	-3	-0.6
Naphtha	656	664	-8	-1.2
Gasoline	1,081	1,102	-21	-1.9
Jet/kerosene	726	787	-60	-7.7
Diesel oil	3,218	3,329	-111	-3.3
Fuel oil	222	239	-17	-7.0
Other products	524	655	-132	-20.1
<b>Total</b>	<b>6,900</b>	<b>7,253</b>	<b>-353</b>	<b>-4.9</b>

Note: \* Germany, France, Italy and the UK.

Sources: JODI, OPEC Secretariat, UK Department of Energy and Climate Change and Unione Petrolifera.

The European oil demand outlook for 2017 remains balanced going forward with industrial production data; auto market performance and the level of cold days during the winter season are the major factors impacting the region's oil demand.

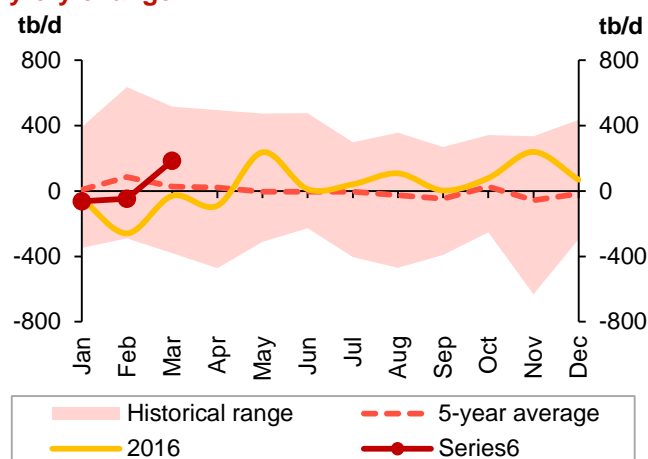
In 2016, **European oil demand** grew by a solid 0.30 mb/d, while oil demand in 2017 is projected to increase by 84 tb/d.

## OECD Asia Pacific

### Japan

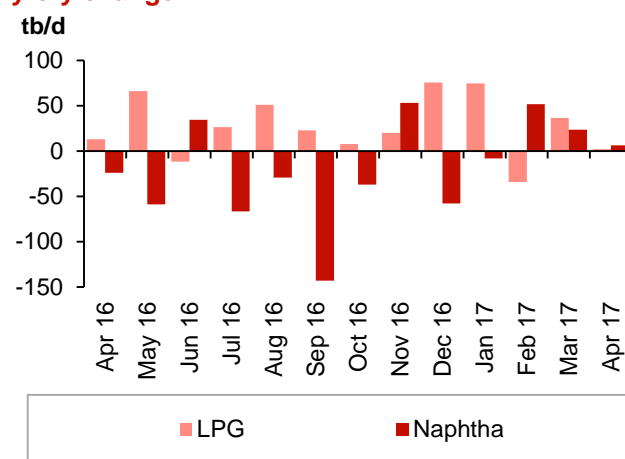
**Japanese oil demand** in April 2017 decreased by 0.1 mb/d, equivalent to 3.2% y-o-y. This is a continuation of its y-o-y declining trend in 2017, with falling requirements in most product categories, notably for fuels used for direct crude burning and electricity generation, as the impact of substitution with natural gas and coal continue to have its toll on the country's overall oil demand growth.

**Graph 4 - 5: OECD Asia Pacific oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 6: Japanese LPG and naphtha demand, y-o-y change**



Sources: Ministry of Economy Trade and Industry of Japan, Joint Organizations Data Initiative and OPEC Secretariat.

Similar to last year's trend, Japanese oil demand growth remains negative on a y-t-d basis. The weakness continues to be attributed to direct and indirect substitution programs in the power generation sector, the

demographically aging population and increasing efficiency gains in most sectors, especially transportation. Naphtha growth also fell in April, as petrochemical margins eased, which pushed naphtha crackers operators to reduce runs.

**Table 4 - 5: Japanese domestic sales, tb/d**

	<u>Apr 17</u>	<u>Apr 16</u>	<u>tb/d</u>	<u>Change</u>	<u>%</u>
LPG	416	414	2		0.5
Naphtha	793	818	-25		-3.0
Gasoline	864	883	-19		-2.1
Jet/kerosene	299	284	15		10.8
Diesel oil	561	558	3		0.5
Fuel oil	400	444	-44		-9.8
Other products	50	56	-6		-11.4
Direct crude burning	27	66	-39		-58.5
<b>Total</b>	<b>3,411</b>	<b>3,523</b>	<b>-112</b>		<b>-3.2</b>

Source: Ministry of Economy Trade and Industry of Japan.

## South Korea

In **South Korea**, the latest available March 2017 data shows bullish oil demand growth y-o-y. Most of the petroleum product categories saw rising requirements, with the exceptions being fuel oil, jet/kerosene and LPG. The products growing mostly related to the petrochemical sector – chiefly naphtha – as well as those used in the transportation sector, with gasoline and diesel oil supporting solid oil demand growth during March. Oil demand increased by a firm 0.15 mb/d, equating to a 5.2% rise y-o-y.

The outlook for South Korean oil demand during 2017 is projected to provide support to the OECD Asia Pacific, helping alleviate the impact of the expected weakness in Japanese oil demand. Support is anticipated to stem from a healthy petrochemical sector in the region, as well as positive developments in the country's economy. Some downside risks can be viewed from the level of substitution in Japan, the likelihood of Japanese nuclear plants coming back on stream, as well as the level of efficiency gains in various sectors.

In 2016, oil demand in the **OECD Asia Pacific** increased by 36 tb/d. However, oil demand in 2017 is projected to decrease by 12 tb/d.

## Non-OECD

Based on the latest available data, oil demand growth in the **non-OECD region** in 2017 was unchanged from the previous month's report. China has witnessed bullish actual oil demand growth data so far in 2017 and new April data seems to suggest a similar trend. Oil demand in China is anticipated to be driven by healthy transportation fuels requirements and solid demand for petrochemical feedstocks. Additionally, oil demand in India returned to growth in April, overcoming the aftershock of the demonetisation policy, following declines in the first three months of the year. In the Middle East, oil demand in Saudi Arabia showed a positive rise in April, which contributed positively to the region's overall growth. Oil demand growth in the Middle East is anticipated to reverse trend and move into positive territory in 2017.

## Other Asia

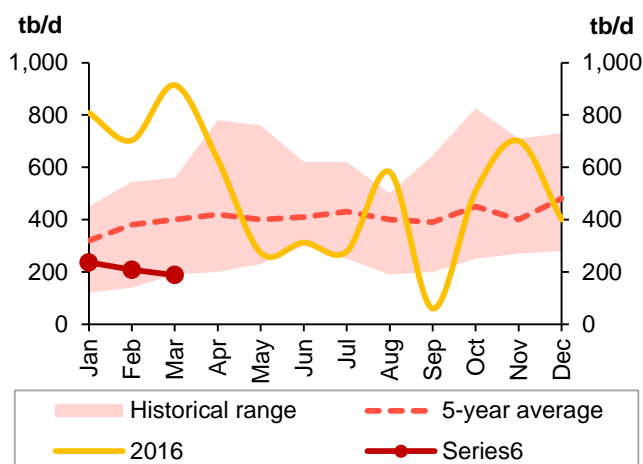
### India

In **India**, the beginning of the new financial year 2016/17 saw demand growth of 0.15 mb/d following three consecutive months of declines. This equates to 3.3% y-o-y oil demand growth for April 2017. Gasoline demand maintained its growth pattern, rising by 25 tb/d, or 4.9% y-o-y, to stand at 0.59 mb/d in April 2017, impacted by rising vehicle sales, improvements in road conditions and solid economic growth. The overall growth for the preceding 12 months was 11.3%. Distillates demand grew by 48 tb/d, or 2.8% y-o-y, and was mainly impacted by weather conditions, growing port traffic, as well as rising vehicle sales. Distillates

## World Oil Demand

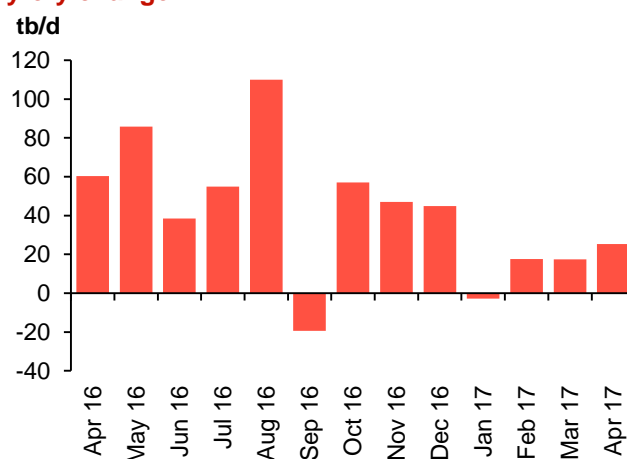
demand growth, however, was partly offset by declines in the industrial sector and supply improvements in the power generation sector.

**Graph 4 - 7: Other Asia oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 8: Indian gasoline demand, y-o-y change**



Sources: OPEC Secretariat, and Petroleum Planning and Analysis Cell of India.

LPG requirements continued to be healthy in April 2017, again positively influenced by subsidies. LPG has been the only main petroleum product category that has observed no demand drop since the demonetisation policy announcement. Fuel oil demand declined by 26 tb/d, which equates to 9.5% y-o-y. This was mainly the result of substitution in the industry and fertiliser sectors. The main increases for naphtha demand, whose requirements grew by 7.1% y-o-y, relate to strong activity in the petrochemical sector, as well as to a lesser extent in the power generation sector.

**Table 4 - 6: Indian oil demand by main products, tb/d**

	<b>Apr 17</b>	<b>Apr 16</b>	<b>Change</b>	
			<b>tb/d</b>	<b>%</b>
LPG	668	643	25	3.9
Gasoline	593	568	25	4.5
Jet/kerosene	267	305	-37	-12.2
Diesel oil	1,735	1,687	48	2.8
Fuel oil	246	272	-26	-9.5
Other products	1,226	1,110	116	10.4
<b>Total</b>	<b>4,736</b>	<b>4,586</b>	<b>150</b>	<b>3.3</b>

Sources: OPEC Secretariat and Petroleum Planning and Analysis Cell of India.

The overall forecast for 2017, **Indian oil demand** remained unchanged compared to last month's projections, with risks balanced between the upside and downside.

## Indonesia

In **Indonesia**, increasing transportation fuels requirements, notably gasoline, diesel and jet/kerosene, as well as LPG in the residential sector, were partly offset by decreasing residual fuel requirements. This resulted in an overall 3.2% increase y-o-y in oil requirements during April 2017. Indonesian oil demand, particularly transportation fuels is greatly dependent on domestic subsidies and retail price policies. The recent subsidies' reform foresees reductions in subsidised diesel, gasoline and LPG.

## Malaysia

Elsewhere, in **Malaysia** oil demand for March 2017 came up flat y-o-y, with demand in the majority of petroleum product categories falling slightly, although this was offset by growing diesel requirements.

## Thailand

In **Thailand**, the latest available data implies flat oil demand growth in March 2017 y-o-y; diesel, gasoline, and LPG demand grew, but this was offset by declining naphtha and residual fuel oil requirements.

## China and Hong Kong

Oil demand growth was substantial in **China/Hong Kong**, with the bulk of the additional volumes coming from diesel and residual fuel oil, mostly driven by industrial activities and transportation.

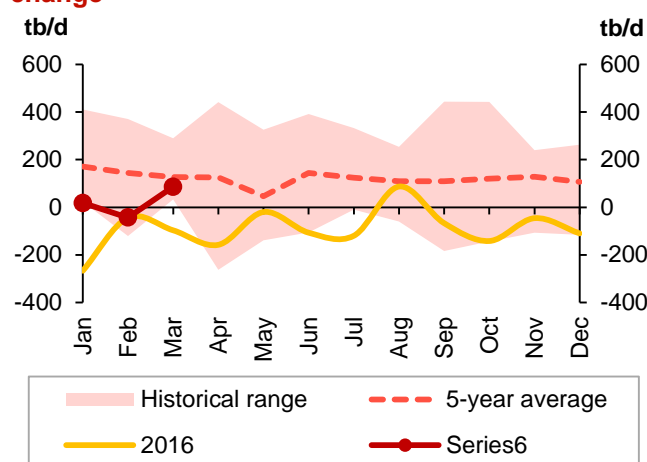
**Other Asia's oil demand** grew strongly at 0.57 mb/d y-o-y in 2016, mainly as a result of bullish Indian demand. As for 2017, oil demand is forecasted to grow by less, albeit a still solid 0.33 mb/d.

## Latin America

### Brazil

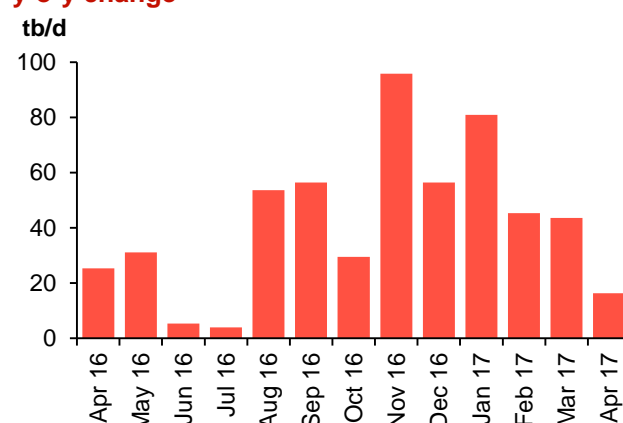
In **Brazil**, oil demand returned to a declining trend during April 2017, shedding 0.13 mb/d, or around 5.7% y-o-y, with total consumption at 2.22 mb/d.

**Graph 4 - 9: Latin America oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 10: Brazilian gasoline demand, y-o-y change**



Sources: Agencia Nacional do Petroleo, Gas e Biocombustiveis of Brazil, Joint Organisations Data Initiative and OPEC Secretariat.

All products recorded declines except gasoline, which continued to register gains, adding 16 tb/d, or 2.2% y-o-y. Ethanol demand fell 37 tb/d, which marked the 16th consecutive monthly decline. This is due to ethanol prices remaining elevated, which reduces the product's competitiveness for drivers of flex fuel cars. Diesel oil returned to a declining trend following positive signs in March, with demand dropping by 90 tb/d in April, or around 9.3% y-o-y. This is a result of slower manufacturing activities, which recorded a decline of more than 1% y-o-y. Fuel oil fell the sharpest in percentage terms in April, softening by 15 tb/d, or around 23.6% y-o-y. This marks the 27th monthly decline, primarily the result of fuel substitution towards gas mainly in power generation sector.

For Brazil's oil demand in the 1Q17, the country remained in negative territory, falling slightly y-o-y. However, there have been some positive indicators for March 2017, with the month seeing the first increase in oil demand since the beginning of 2015. Additional indicators towards a possible recovery for the remainder of 2017 are strong gasoline, LPG and diesel oil y-o-y requirements during the 1Q17, which have been more than offset by declines in residual fuel oil and ethanol in industrial and transportation sectors.

The expectations for 2017, **Brazilian oil demand** remains unchanged from last month's report. There is a cautious optimism, but oil demand growth is strongly dependent on the recovery of the country's economy in the coming months.

**Table 4 - 7: Brazilian oil demand\*, tb/d**

	<b>Apr 17</b>	<b>Apr 16</b>	<b>Change</b>	
			<b>tb/d</b>	<b>%</b>
LPG	216	222	-5	-2.4
Gasoline	766	750	16	2.2
Jet/kerosene	108	112	-3	-3.0
Diesel oil	869	959	-90	-9.3
Fuel oil	48	63	-15	-23.6
Alcohol	207	243	-37	-15.1
<b>Total</b>	<b>2,215</b>	<b>2,348</b>	<b>-133</b>	<b>-5.7</b>

Note: \* Inland deliveries.

Sources: Agência Nacional do Petróleo, Gás Natural e Biocombustíveis of Brazil.

## Argentina

Argentina's oil demand in March 2017 fell slightly y-o-y. Gains were seen in gasoline and jet/kerosene, although these were offset by losses in residual fuel oil requirements.

## Ecuador

The latest **Ecuadorian** oil demand data for April 2017 show declines y-o-y. The declines are dominated by shrinking residual fuel oil demand, which was partially offset by strong gasoline demand. Requirements for all other product categories remained flat.

**Latin American oil demand** fell by 0.09 mb/d in 2016. During 2017, Latin American oil demand is projected to increase by 0.06 mb/d.

## Middle East

### Saudi Arabia

In **Saudi Arabia**, the first three months of 2017 indicated a 2.3% y-o-y decline in oil requirements. The main factors behind this were a drop in crude direct use as a result of mild weather conditions, substitution with natural gas and declining diesel oil requirements, mainly in the industrial sector. However, April 2017 oil demand data illustrated growth in oil requirements as most products rebounded strongly, mainly due to a low baseline of comparison. The start-up of the Shuqaiq steam power plant project, located in Jazan province on the Red Sea coast, spurred fuel oil demand growth during the month of April as the product added a staggering 0.25 mb/d, equating to around 80% y-o-y, thereby pushing overall product demand growth higher. Jet/kerosene, gasoline and LPG have all increased by 19.4%, 7.2% and 6.7%, y-o-y, respectively. Overall oil demand growth rose by 0.17 mb/d or 7.5% y-o-y in April with total product consumption at 2.46 mb/d.

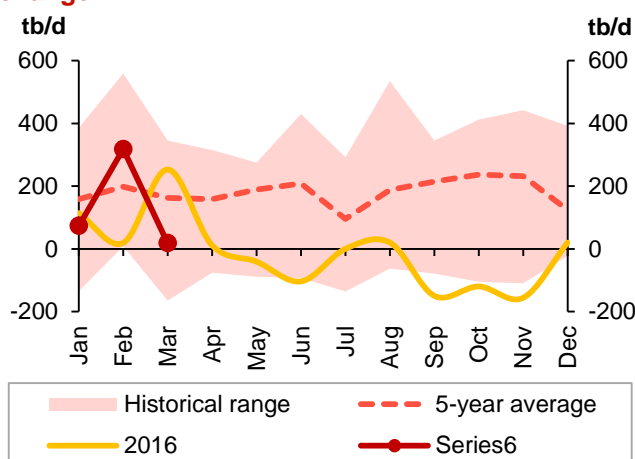
### Iraq

Strong oil demand in the first four months of 2017 has been observed in **Iraq**; all main petroleum product categories registered double-digit percentage y-o-y growth, which was notably solid in crude direct use, gasoline, diesel oil, jet/kerosene and residual fuel oil.

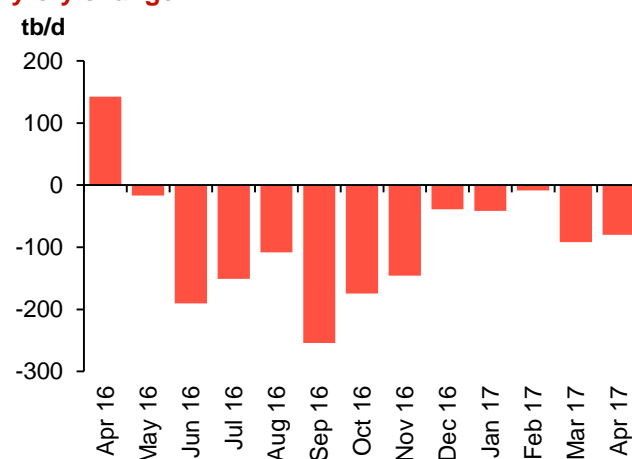
The outlook for 2017, **Middle East oil demand** remains positive with risk rather skewed to the upside. Some factors that may curb oil demand in the region during 2017 are petroleum product retail prices, fuel substitution, geopolitical issues, as well as the economic developments in the region's main oil consumers.

For 2016 **Middle East oil demand** remained flat, while oil demand in 2017 is projected to increase by 0.11 mb/d.



**Graph 4 - 11: Middle East oil demand, y-o-y change**

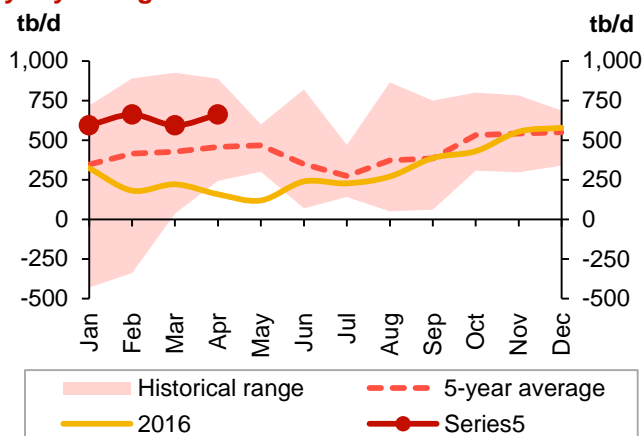
Sources: National, Joint Organisations Data Initiative, Direct communication and OPEC Secretariat.

**Graph 4 - 12: Saudi Arabian direct crude burning, y-o-y change**

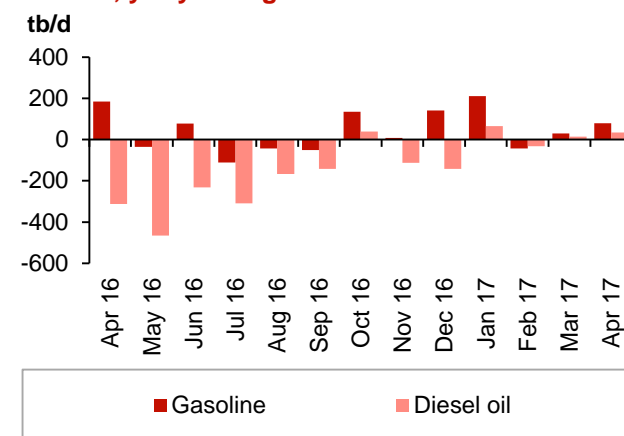
Sources: Joint Organisations Data Initiative, Direct Communication and OPEC Secretariat.

## China

The growth in **Chinese oil demand** in April 2017 continued its fast pace with an increase of 4.7% y-o-y. This is in line with strong economic growth, which mainly affected oil demand in the transportation and industrial sectors.

**Graph 4 - 13: Chinese apparent oil demand, y-o-y change**

Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics of China and OPEC Secretariat.

**Graph 4 - 14: Chinese diesel oil and gasoline demand, y-o-y change**

Sources: Facts Global Energy, China OGP (Xinhua News Agency), Argus Global Markets, JODI, National Bureau of Statistics, China, OPEC Secretariat calculations.

As in previous months, demand for LPG and jet/kerosene grew substantially on account of healthy growth in the petrochemical industry, as well as the road transportation and aviation sectors. Gasoline requirements added a mere of 0.08 mb/d y-o-y, in line with a slowdown in auto sales. The latter came mainly as a result of higher taxes imposed on auto sales as of March 2017. Residual fuel oil demand rose by almost 8% y-o-y; residual fuel oil is mainly used in teapot refineries, whose capacities do not exceed 100 million metric tons per year. In addition, diesel demand rose for the second consecutive month as a result of usage in the transportation and industrial sectors.

While Chinese oil demand is expected grow by 0.34 mb/d during 2017, the overall outlook risk remains skewed to the upside, mainly as a result of projected economic growth in combination with a flourishing petrochemical industry and upside potential in the transportation sector. Downside risks emanate from further fuel substitution in the industrial sector, as well as efficiencies and alternative vehicle penetration in the road transportation sector.

For 2016, **China's oil demand** grew by 0.31 mb/d, while oil demand in 2017 is projected to increase by a further 0.34 mb/d.

## World Oil Supply

Preliminary data indicates that world oil supply up by 0.13 mb/d m-o-m in May to average 95.74 mb/d, higher by 1.48 mb/d, y-o-y.

Non-OPEC oil supply is estimated to have averaged 57.30 mb/d in 2016, a contraction of 0.71 mb/d y-o-y. There were no changes compared to a month ago.

In 2017, non-OPEC oil supply is projected to grow by 0.84 mb/d, following a downward revision of 0.11 mb/d, to average 58.14 mb/d. This forecast is revised down mainly due to lower expectations for Russian oil production, as well as lower output in Brunei, the Sudans and Kazakhstan following the decision of OPEC and participating non-OPEC producers to extend oil production adjustments for a further period of nine months up to the end of 1Q18. Moreover, US oil supply growth for 2017 was revised down by 29 tb/d to 0.80 mb/d, due to lower-than-expected output in 1Q17. It should be noted that higher growth in 2017 is envisaged for Canada and the UK, compared to last month. Preliminary non-OPEC supply in May declined by 0.18 mb/d m-o-m to average 57.44 mb/d.

OPEC NGLs production and non-conventional liquids averaged 6.05 mb/d in 2016, an increase of 0.11 mb/d. In 2017, they are forecast to grow by 0.17 mb/d to average 6.22 mb/d.

In May 2017, OPEC crude oil production increased by 336 tb/d, according to secondary sources, to average 32.14 mb/d.

## Non-OPEC supply in 2016 and 2017

Table 5 - 1: Non-OPEC oil supply in 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016	Change 2016/15	
							Growth	%
Americas	21.07	21.00	20.08	20.49	20.82	20.60	-0.47	-2.23
of which US	14.04	13.81	13.68	13.42	13.58	13.62	-0.42	-2.99
Europe	3.77	3.92	3.74	3.64	3.92	3.80	0.03	0.83
Asia Pacific	0.46	0.44	0.42	0.45	0.41	0.43	-0.03	-7.48
<b>Total OECD</b>	<b>25.30</b>	<b>25.36</b>	<b>24.23</b>	<b>24.58</b>	<b>25.14</b>	<b>24.83</b>	<b>-0.47</b>	<b>-1.87</b>
Other Asia	3.70	3.78	3.70	3.69	3.72	3.72	0.02	0.49
Latin America	5.20	4.96	5.07	5.19	5.21	5.11	-0.10	-1.86
Middle East	1.27	1.27	1.28	1.29	1.29	1.28	0.01	0.78
Africa	2.13	2.10	2.05	2.11	2.14	2.10	-0.03	-1.52
<b>Total DCs</b>	<b>12.31</b>	<b>12.11</b>	<b>12.10</b>	<b>12.29</b>	<b>12.35</b>	<b>12.21</b>	<b>-0.10</b>	<b>-0.82</b>
FSU	13.69	13.95	13.73	13.67	14.09	13.86	0.17	1.22
of which Russia	10.85	11.07	10.98	11.03	11.25	11.08	0.24	2.18
Other Europe	0.14	0.13	0.13	0.13	0.13	0.13	0.00	-3.51
China	4.39	4.23	4.12	4.00	3.98	4.08	-0.31	-6.97
<b>Total "Other regions"</b>	<b>18.22</b>	<b>18.32</b>	<b>17.98</b>	<b>17.80</b>	<b>18.20</b>	<b>18.07</b>	<b>-0.14</b>	<b>-0.79</b>
<b>Total non-OPEC production</b>	<b>55.83</b>	<b>55.79</b>	<b>54.31</b>	<b>54.66</b>	<b>55.70</b>	<b>55.11</b>	<b>-0.72</b>	<b>-1.29</b>
Processing gains	2.17	2.19	2.19	2.19	2.19	2.19	0.01	0.60
<b>Total non-OPEC supply</b>	<b>58.00</b>	<b>57.97</b>	<b>56.49</b>	<b>56.85</b>	<b>57.88</b>	<b>57.30</b>	<b>-0.71</b>	<b>-1.22</b>
Previous estimate	58.00	57.97	56.49	56.85	57.88	57.30	-0.71	-1.22
Revision	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: OPEC Secretariat.

**Non-OPEC oil supply in 2016** is estimated to have averaged 57.30 mb/d in 2016, a decline of 0.71 mb/d from 2015. There was no change in 2016 growth from the previous assessment. During 1H16 and 2H16, non-OPEC supply decreased by 0.63 mb/d and 0.78 mb/d, respectively, compared with the same periods the previous year.

Non-OPEC supply in 2016 saw a strong decline in OECD Americas, China and Latin America, while growth was seen in the FSU, driven by robust output of 0.24 mb/d from Russia. OECD Americas' oil supply declined by 0.42 mb/d in 2016 compared with growth of 1.02 mb/d in 2015. This drop relates mostly to declines in US onshore crude oil output rather than the annual declines in Mexico and outages in the Canadian oil sands. Chinese crude oil production was weaker-than-expected in 2016, according to various sources, due to declines in mature onshore fields, as well as low investment. In Latin America, total oil supply was disappointing following a remarkable y-o-y drop in Brazilian growth, as well as a higher annual decline in Colombia.

For **2017, non-OPEC oil supply** is now projected to grow by 0.84 mb/d to average 58.14 mb/d, down by 0.11 mb/d from the May report. This was due to lower expectations for Russia, Brunei, the Sudans and Kazakhstan, following the extension of the Declaration of Cooperation by OPEC and participating non-OPEC producers for a further nine months up to the end of 1Q18. US oil production in 2017 has also been revised down by 29 tb/d, with growth now at 0.80 mb/d. This is due to lower-than-expected output in 1Q17. All these downward revisions in May offset the upward oil output revisions in Canada and the UK. Canada's oil supply growth forecast for 2017 was revised up by 41 tb/d, with growth now of 0.26 mb/d. UK production is now expected to see growth of 20 tb/d, with a yearly average of 1.05 mb/d. With attention to the extended required adjustment for the 2H17, since the annual natural decline rate in 2017 in some of the non-OPEC's participants have been more than the required adjustment such as; Mexico, Azerbaijan, Bahrain, Malaysia and Oman, hence the supply in countries which had to adjusted for the downward revisions in 2H17, were Russia, Kazakhstan, Brunei and Sudans with 120 tb/d and others with 20 tb/d each.

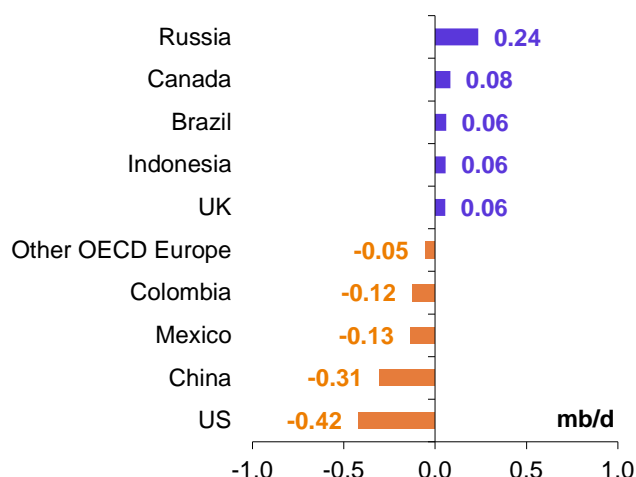
**Table 5 - 2: Non-OPEC oil supply in 2017\*, mb/d**

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	%
Americas	20.60	21.05	21.11	21.65	22.08	21.48	0.88	4.27
of which US	13.62	13.78	14.28	14.63	14.96	14.42	0.80	5.84
Europe	3.80	3.95	3.74	3.62	3.94	3.81	0.01	0.14
Asia Pacific	0.43	0.39	0.43	0.42	0.39	0.41	-0.02	-5.05
<b>Total OECD</b>	<b>24.83</b>	<b>25.38</b>	<b>25.29</b>	<b>25.68</b>	<b>26.41</b>	<b>25.69</b>	<b>0.86</b>	<b>3.48</b>
Other Asia	3.72	3.74	3.68	3.65	3.62	3.67	-0.05	-1.34
Latin America	5.11	5.19	5.22	5.25	5.34	5.25	0.14	2.79
Middle East	1.28	1.24	1.23	1.23	1.23	1.23	-0.05	-3.94
Africa	2.10	2.11	2.12	2.16	2.17	2.14	0.04	1.86
<b>Total DCs</b>	<b>12.21</b>	<b>12.29</b>	<b>12.25</b>	<b>12.29</b>	<b>12.35</b>	<b>12.29</b>	<b>0.08</b>	<b>0.67</b>
FSU	13.86	14.11	13.84	13.79	13.81	13.89	0.03	0.19
of which Russia	11.08	11.23	10.98	10.98	10.98	11.04	-0.04	-0.39
Other Europe	0.13	0.13	0.14	0.14	0.15	0.14	0.01	6.68
China	4.08	4.00	3.92	3.90	3.91	3.93	-0.15	-3.70
<b>Total "Other regions"</b>	<b>18.07</b>	<b>18.24</b>	<b>17.90</b>	<b>17.83</b>	<b>17.86</b>	<b>17.96</b>	<b>-0.12</b>	<b>-0.64</b>
<b>Total non-OPEC production</b>	<b>55.11</b>	<b>55.91</b>	<b>55.44</b>	<b>55.80</b>	<b>56.62</b>	<b>55.94</b>	<b>0.83</b>	<b>1.50</b>
Processing gains	2.19	2.20	2.20	2.20	2.20	2.20	0.01	0.50
<b>Total non-OPEC supply</b>	<b>57.30</b>	<b>58.11</b>	<b>57.63</b>	<b>58.00</b>	<b>58.81</b>	<b>58.14</b>	<b>0.84</b>	<b>1.47</b>
Previous estimate	57.30	58.15	57.57	58.20	59.05	58.25	0.95	1.66
Revision	0.00	-0.05	0.06	-0.20	-0.24	-0.11	-0.11	-0.19

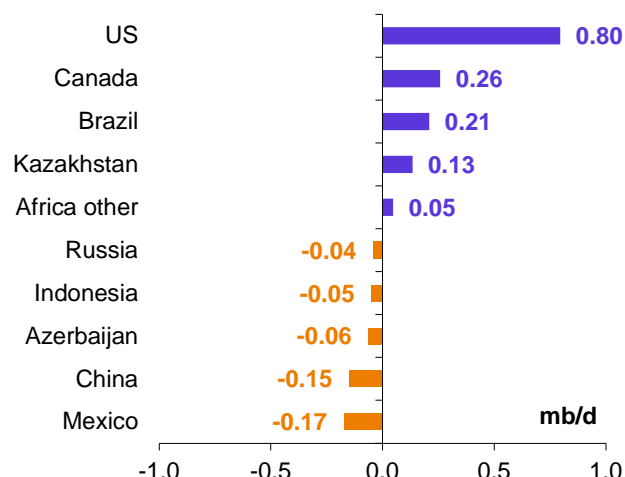
Note: \* 2017 = Forecast.

Source: OPEC Secretariat.

On a country-by-country basis, the main contributors to growth in 2017 are expected to be the US with 0.80 mb/d, Canada with 0.26 mb/d, Brazil with 0.21 mb/d and Kazakhstan with 0.13 mb/d. In contrast, Mexico and China, as per 2016, remain the countries that see the largest contractions.

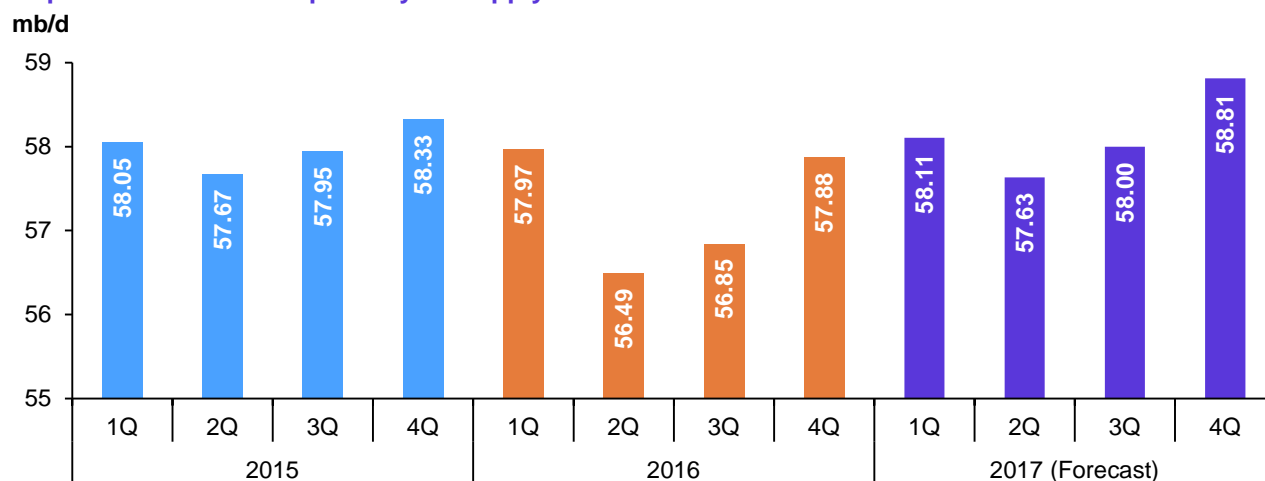
**Graph 5 - 1: Non-OPEC key countries annual growths/declines in 2016**

Source: OPEC Secretariat.

**Graph 5 - 2: Non-OPEC key countries annual growths/declines in 2017**

Source: OPEC Secretariat.

**Graph 5 - 3** highlights non-OPEC quarterly oil supply for 2015 and 2016, and the forecast for 2017. The quarterly distribution for non-OPEC supply in 2017 indicates a regular seasonal pattern due to maintenances, particularly in offshore areas, but with higher production levels compared to the same quarters in 2016. It is forecast that the 4Q17 will be the highest quarter for oil supply over the three-year period.

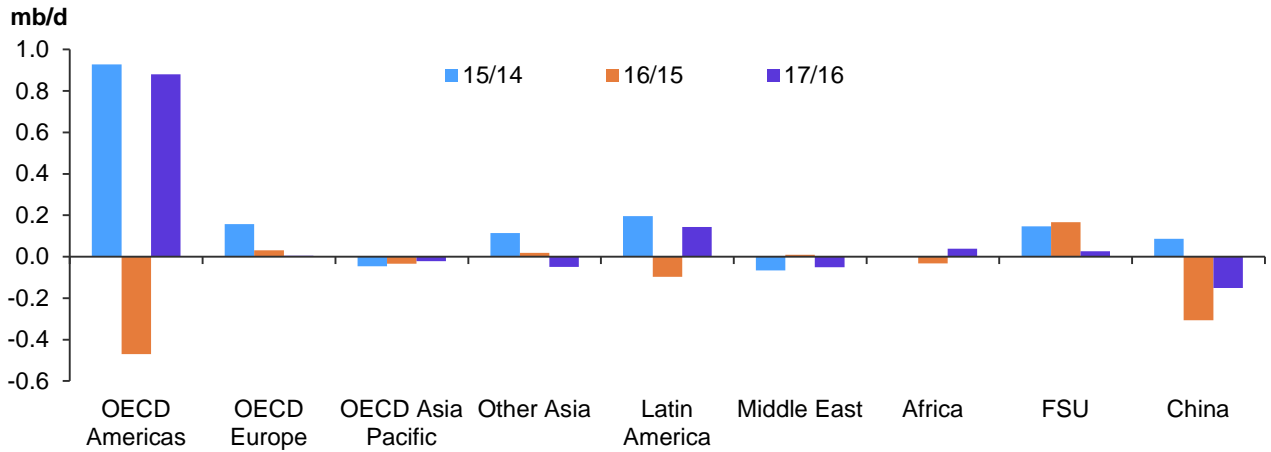
**Graph 5 - 3: Non-OPEC quarterly oil supply**

Source: OPEC Secretariat.

In terms of regional non-OPEC supply changes, **Graph 5 - 4** shows that the main rebound in annual growth will be in OECD Americas and, to some extent, DCs, particularly Latin America. Supply growth in OECD Americas fell by 0.47 mb/d last year, but in 2017 it is anticipated that growth will average 0.88 mb/d. The estimated higher growth is not only due to higher US output, but also due to robust growth in Canada.

For 2017 forecast, it is also anticipated that Latin Americas will see growth of 0.14 mb/d, along with Africa at 0.04 mb/d, FSU at 0.03 mb/d, while OECD Europe and Other Europe will each see minimal growth of 0.01 mb/d. The largest contraction is expected in China at 0.15 mb/d, with Other Asia and the Middle East each falling by 0.05 mb/d and the OECD Asia Pacific declining by 0.02 mb/d.

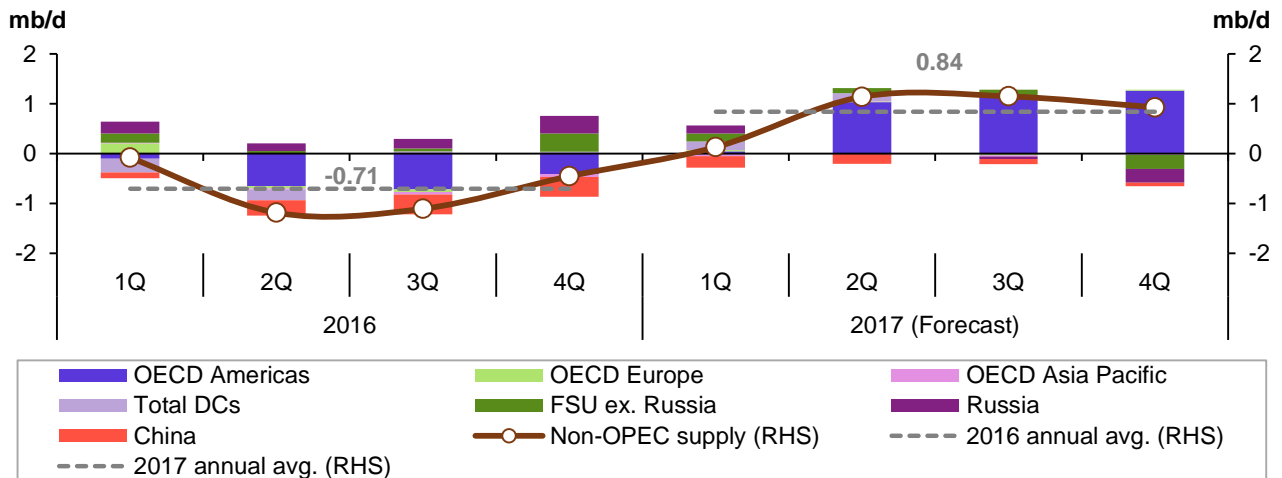
**Graph 5 - 4: Regional non-OPEC supply growth, y-o-y change**



Note: 2017 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 5** shows non-OPEC quarterly supply changes, with the three largest being the last three quarters of 2017.

**Graph 5 - 5: Non-OPEC quarterly supply change, 2016-2017, y-o-y change**



Source: OPEC Secretariat.

Table 5 - 3: Non-OPEC supply forecast comparison in 2016 and 2017\*, mb/d

Region	2016	Change 2016/15	2017	Change 2017/16
OECD Americas	20.60	-0.47	21.48	0.88
OECD Europe	3.80	0.03	3.81	0.01
OECD Asia Pacific	0.43	-0.03	0.41	-0.02
<b>Total OECD</b>	<b>24.83</b>	<b>-0.47</b>	<b>25.69</b>	<b>0.86</b>
Other Asia	3.72	0.02	3.67	-0.05
Latin America	5.11	-0.10	5.25	0.14
Middle East	1.28	0.01	1.23	-0.05
Africa	2.10	-0.03	2.14	0.04
<b>Total DCs</b>	<b>12.21</b>	<b>-0.10</b>	<b>12.29</b>	<b>0.08</b>
FSU	13.86	0.17	13.89	0.03
Other Europe	0.13	0.00	0.14	0.01
China	4.08	-0.31	3.93	-0.15
<b>Non-OPEC production</b>	<b>55.11</b>	<b>-0.72</b>	<b>55.94</b>	<b>0.83</b>
<b>Processing gains</b>	<b>2.19</b>	<b>0.01</b>	<b>2.20</b>	<b>0.01</b>
<b>Non-OPEC supply</b>	<b>57.30</b>	<b>-0.71</b>	<b>58.14</b>	<b>0.84</b>

Note: \* 2017 = Forecast.

Source: OPEC Secretariat.

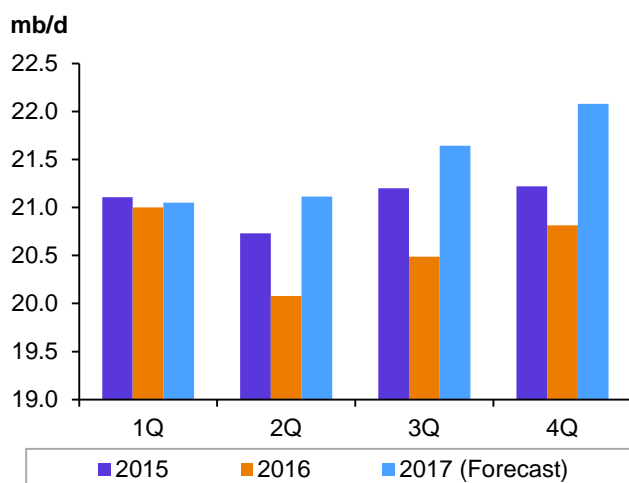
## OECD

OECD liquids production in 2016 is estimated to have contracted by 0.47 mb/d to average 24.83 mb/d. In 2017, OECD supply is forecast to average 25.69 mb/d, representing an upward revision of 51 tb/d. This is mostly due to increases in OECD Europe and OECD Americas, which represent growth of 0.86 mb/d.

## OECD Americas

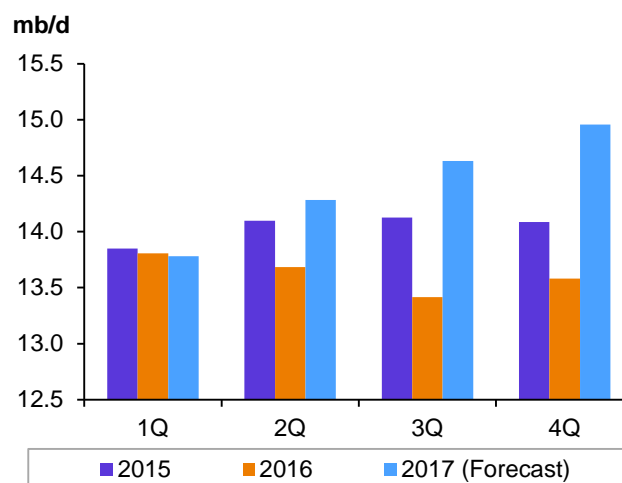
OECD Americas' oil supply in 2016 is estimated to have averaged 20.60 mb/d. This represents a drop of 0.47 mb/d y-o-y. This is mainly due to declines in the US and Mexico, while Canadian output grew.

Graph 5 - 6: OECD Americas quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 7: US quarterly oil supply, 2015-2017



Source: OPEC Secretariat.



In 2017, supply in the OECD Americas is expected to grow by 0.88 mb/d to average 21.48 mb/d. This follows an upward revision of 12 tb/d mostly due to higher-than-expected Canadian oil sands output in 1Q17, although this was partially offset by downward revisions to US oil production because of lower than expected output in 1Q17. A decline of 0.17 mb/d is anticipated in Mexico.

## US

According to the **US** Energy Information Administration (EIA), crude oil production averaged 9.10 mb/d in March 2017, representing a growth of 62 tb/d over February. While oil production increased in Alaska, the Gulf of Mexico (GoM), Wyoming and Oklahoma, output in the main producing states such as Texas, North Dakota and New Mexico was more or less stagnant. Upside 2017 potential exists for US tight oil production from the most prolific shale regions, particularly in the Permian Basin.

Oil production in the GoM and Alaska increased m-o-m by 14 tb/d and 13 tb/d to average 1.76 mb/d and 0.53 mb/d, respectively. Oil output from the GoM increased y-o-y in March by 130 tb/d, with strong production from oil fields such as Stones, Heidelberg and Mars.

US Lower-48 states onshore crude oil output declined from a peak of 7.63 mb/d in March 2015 to 6.52 mb/d in December 2016, but in 2017 it has grown. In March 2017 it had grown by 300 tb/d over the December level to average 6.8 mb/d. It is expected that Lower-48 States onshore crude oil output in 2017 will grow by 465 tb/d y-o-y to average 7.73 mb/d. Moreover, the EIA's official estimates show that US tight oil production in March grew by 45 tb/d m-o-m to average 4.37 mb/d. Moreover, it is expected to grow by 70 tb/d in April. According to the EIA's official data, tight crude production peaked at its highest level of 4.65 mb/d in April 2015.

US crude oil production q-o-q increased by 318 tb/d in 1Q17, while NGLs grew by 300 tb/d over the same period. US total liquids supply, excluding processing gains increased in March by 100 tb/d m-o-m to average 14.01 mb/d, which year to date is a growth of 0.48 mb/d. It is expected that US crude oil production will grow by 0.56 mb/d y-o-y to average 9.43 mb/d, with US NGLs output up by 0.25 mb/d. It is anticipated that US liquids supply in 2017 will increase by 0.80 mb/d to average 14.42 mb/d.

**Table 5 - 4: US liquids production breakdown**

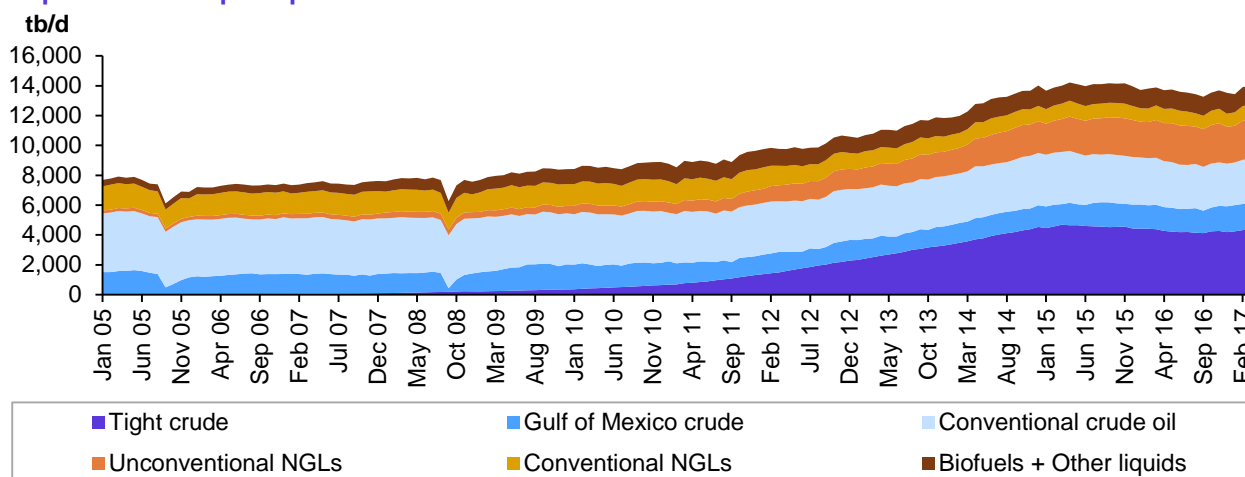
	2014	2015	Change 2015/14	2016	Change 2016/15	2017	Change 2017/16
<b>Tight crude</b>	3,932	4,545	614	4,266	-279	4,866	600
<b>Gulf of Mexico crude</b>	1,397	1,515	118	1,607	92	1,683	76
<b>Conventional crude oil</b>	3,435	3,355	-80	3,002	-353	2,882	-120
<b>Unconventional NGLs</b>	1,964	2,386	422	2,500	114	2,867	367
<b>Conventional NGLs</b>	1,050	956	-94	978	22	858	-120
<b>Biofuels + Other liquids</b>	1,238	1,283	45	1,268	-15	1,260	-8
<b>US total supply</b>	<b>13,016</b>	<b>14,041</b>	<b>1,025</b>	<b>13,621</b>	<b>-420</b>	<b>14,416</b>	<b>795</b>

Note: \* 2017 = Forecast.

Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

With regard to oil production from the various basins, the Permian plays could contribute most to additional output. The Permian plays including Wolfcamp, Bonespring, Spraberry, Yeso & Glorieta and Delaware are attractive due to their multi-stacked potential, and they have thus far witnessed the most spending in 2017. Overall Permian production in March was higher m-o-m by 74 tb/d, to average 1.67 mb/d. This is higher y-o-y by 0.28 mb/d. Producers in the Permian basin by using of longer laterals, proppant loading and optimised cluster spacing have increased production m-o-m in 2017; from 26 tb/d in January to 49 tb/d in February and in March the figure is 74 tb/d over a month ago. Oil production in the Eagle Ford has been stagnant since August 2016 at 1.09 mb/d, but with an expected increase in the rig count through the end of year, slightly higher output is anticipated in 2H17. The number of oil rigs has more than doubled by the beginning of June compared to December 2016. Production from the Bakken shale in North Dakota and Montana has been increased 76 tb/d since December to average 1.01 mb/d, although the average output has been flat at around 1.0 mb/d over the past 12 months.

**Graph 5 - 8: US liquids production breakdown**

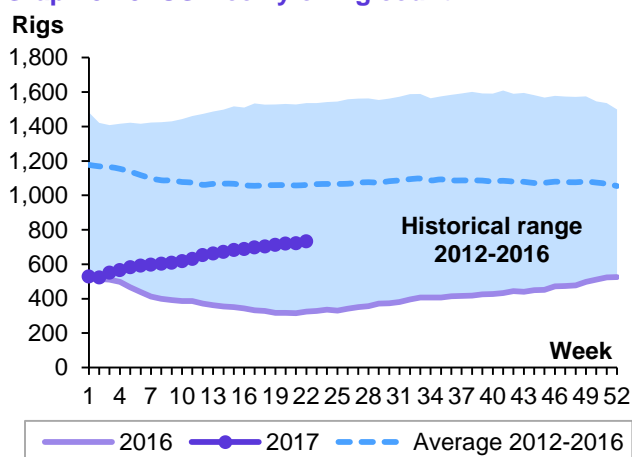


Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

**US oil rig count**

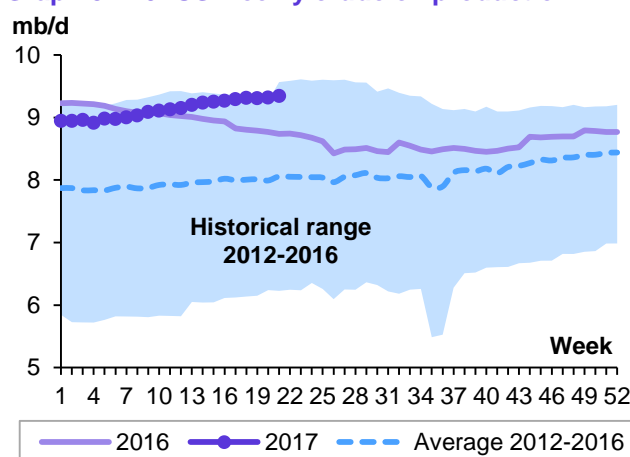
According to Baker Hughes' latest report for the week to 2 June 2017, the US drilling rig count has risen by 512 units to 916 rigs from the bottom of the rig count on 27 May 2016. The US rig count was higher by 408 rigs y-o-y, an increase of 45%. The number of active US drilling rigs increased for the twentieth consecutive week. Total oil rigs increased by 11 units during the week to 733 rigs, up 417 units since 27 May 2016. Natural gas-directed units decreased by 3 units to 182 rigs, up 101 units since it lowest level on 26 August 2016. Onshore rigs climbed by 8 units to 889 rigs, with horizontal rigs up 5 units to 771 rigs and directional rigs also up 3 units to 68 rigs. The horizontal count has expanded by 457 rigs (+59%) since 27 May 2016. US offshore drilling rigs were steady at 23 rigs over the past three weeks, which compares to 21 units a year ago.

**Graph 5 - 9: US weekly oil rig count**



Sources: Baker Hughes, US Energy Information Administration and OPEC Secretariat.

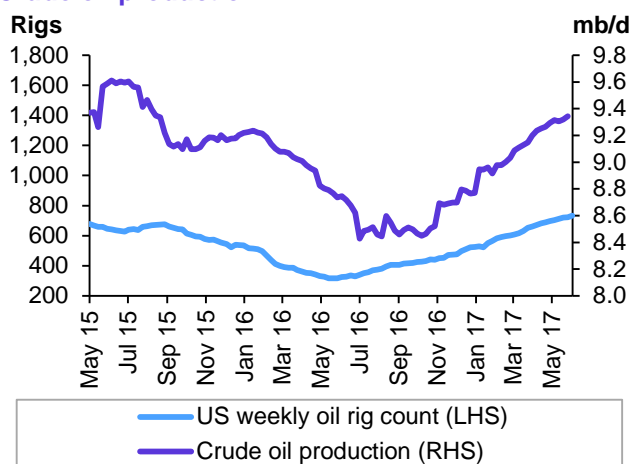
**Graph 5 - 10: US weekly crude oil production**



Sources: US Energy Information Administration and OPEC Secretariat.

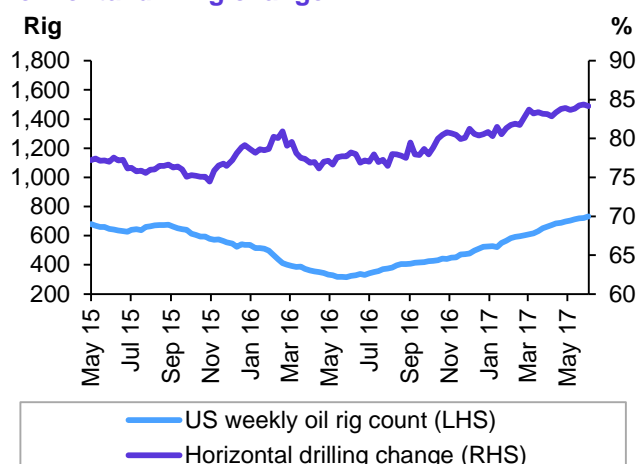
In regards to the major basins, the number of oil rigs in Eagle Ford has increased by 50 units to 78 rigs since its bottom of 28 rigs on 14 October 2016. In the Permian Basin, the number of oil rigs has increased by 232 units to 364 rigs from its lowest level at the beginning of May 2016. The rig count in the Williston Basin (North Dakota Bakken shale) has increased by 24 units to 46 rigs since the end of May 2016 and in the DJ-Niobrara Basin the rig count has increased by 16 units to 28 rigs since the middle of May 2016.

**Graph 5 - 11: US weekly oil rig count vs. Crude oil production**



Sources: Baker Hughes and US Energy Information Administration.

**Graph 5 - 12: US weekly oil rig count vs. Horizontal drilling change**



Source: Baker Hughes.

The majority of US onshore growth in 2017 is likely to be driven by development drilling programmes in the Delaware (Permian basin) and Eagle Ford regions. Most operators in the tight oil industry will continue to focus on long laterals and pad drilling, enhanced completions with higher proppant loadings and tighter stage and cluster spacing, as well as integrated facility designs.

**Table 5 - 5: US rotary rig count on 5 May 2017**

		2 Jun 17	Month ago	Year ago	Change		
					M-o-m	Y-o-y	Y-o-y, %
<b>Oil and gas split</b>	<b>Oil</b>	733	703	325	30	408	126%
	<b>Gas</b>	182	173	82	9	100	122%
<b>Location</b>	<b>Onshore</b>	893	858	387	35	506	131%
	<b>Offshore</b>	23	19	21	4	2	10%
<b>Basin</b>	<b>Williston</b>	46	43	22	3	24	109%
	<b>Eagle Ford</b>	86	83	29	3	57	197%
	<b>Permian</b>	364	349	142	15	222	156%
<b>Drilling trajectory</b>	<b>Directional</b>	68	67	44	1	24	55%
	<b>Horizontal</b>	771	734	319	37	452	142%
	<b>Vertical</b>	77	76	45	1	32	71%
<b>US total rig count</b>		<b>916</b>	<b>877</b>	<b>408</b>	<b>39</b>	<b>508</b>	<b>125%</b>

Sources: Baker Hughes and OPEC Secretariat.

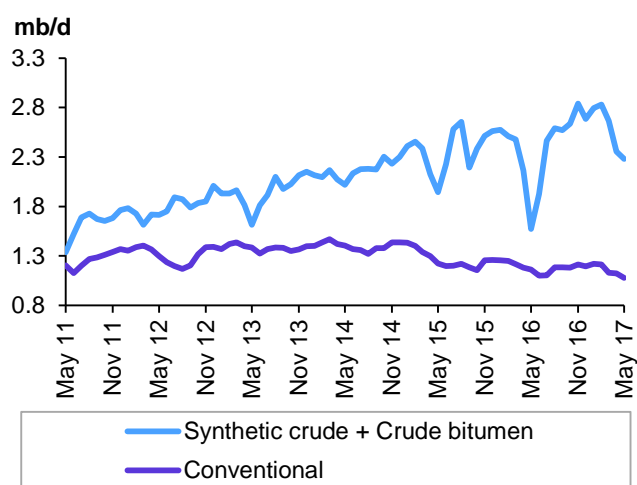
## Canada

Canada's oil supply in 2016 is estimated at 4.50 mb/d, an increase of 80 tb/d y-o-y. The liquids output breakdown shows that conventional crude oil output decreased to 0.9 mb/d. This excludes tight crude, which is estimated at 0.29 mb/d. Oil sands output in 2016 is estimated to be 2.42 mb/d.

In 2017, oil sands output is expected to grow by 0.30 mb/d – 0.17 mb/d from bitumen and 0.13 mb/d of synthetic crude – to average 2.72 mb/d. Following the start-up of three projects – Foster Creek phase G, Christina Lake phase F and Horizon Phase2B – with a total capacity of around 0.15 mb/d in 2016, Canadian producers are planning to implement another five projects in 2017. These are MacKay River phase 1, Hangingstone Expansion, Fort Hills phase 1, Hebron and Horizon phase 3, which combined will have a total capacity of just under 0.5 mb/d. NGLs production increased by 0.12 mb/d in 2016, but a contraction is anticipated in 2017. Conventional crude oil is expected to decline, but tight crude is anticipated to grow by 34 tb/d this year.

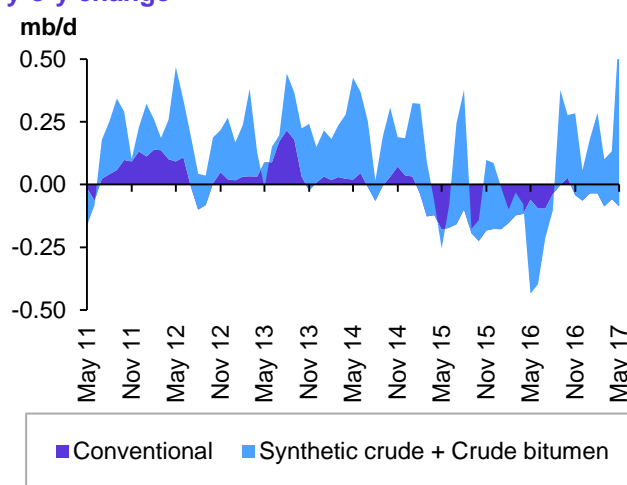
Canada's liquids output in January and February has passed 5 mb/d, but due to a fire at Syncrude's upgrader in Mildred Lake, which led to the shutdown of the 350 tb/d facility in the middle of March, the output in this month fell to 4.7 mb/d. Despite this outage, the forecast for Canada's oil supply growth in 2017 was revised up by 40 tb/d due to higher than expected production in January and February. Growth of 0.26 mb/d is now anticipated, with overall average 2017 production at 4.76 mb/d, although a lower 2Q than 1Q is expected.

**Graph 5 - 13: Canada production by crude type**



Source: OPEC Secretariat.

**Graph 5 - 14: Canada production by crude type, y-o-y change**

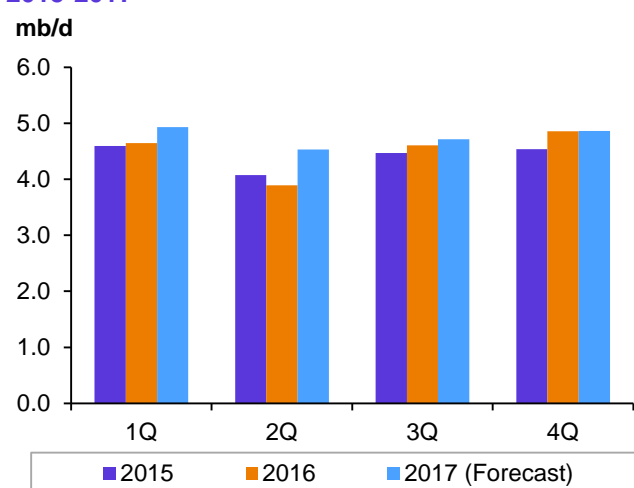


Source: OPEC Secretariat.

### Canada's oil rig count

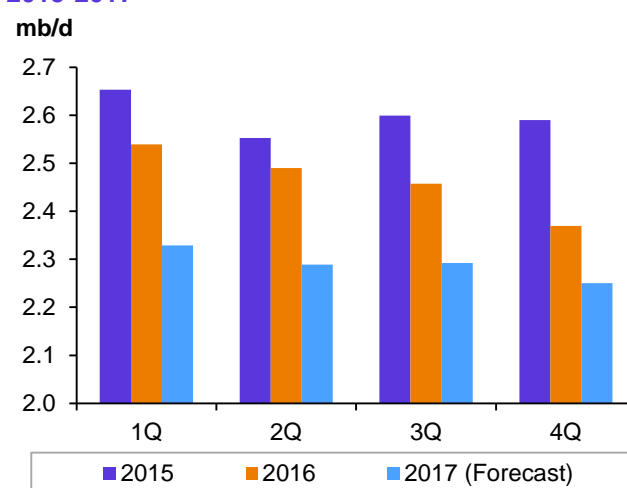
**Canada's overall rig count** for the week ending 2 June 2017 saw six more rigs added w-o-w to reach a total of 99 units. This is 58 rigs higher y-o-y. Only three of these are offshore. After decreasing to its lowest level of 36 rigs during the wildfires in Fort McMurray in May 2016, the number of active rigs reached its highest level of 350 rigs on 10 February 2017. On 27 January, Alberta – the main state for oil sands production – stood at 249 rigs. The number of active rigs in Alberta and other two main states of British Columbia and Saskatchewan now reduced to 57, 15 and 22 rigs so far.

**Graph 5 - 15: Canada quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

**Graph 5 - 16: Mexico quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

## Mexico

**Mexican** liquids production in 2016 is expected to decline by 0.13 mb/d to average 2.46 mb/d, unchanged from the previous report. Liquids output in 1Q17 was stagnant at 2.33 mb/d, but it is expected that output in 2Q17 will drop to 2.29 mb/d.

In terms of crude oil, production declined by 6 tb/d in April m-o-m to average 2.01 mb/d according to PEMEX. This is 81 tb/d lower than April. NGLs output also declined, albeit by a small 7 tb/d, to average 0.29 mb/d in May. Therefore, Mexico's liquids production in May declined by 90 tb/d to average 2.22 mb/d. Overall for 2017 a contraction of 0.17 mb/d is anticipated y-o-y, with Mexican production averaging 2.29 mb/d.

## OECD Europe

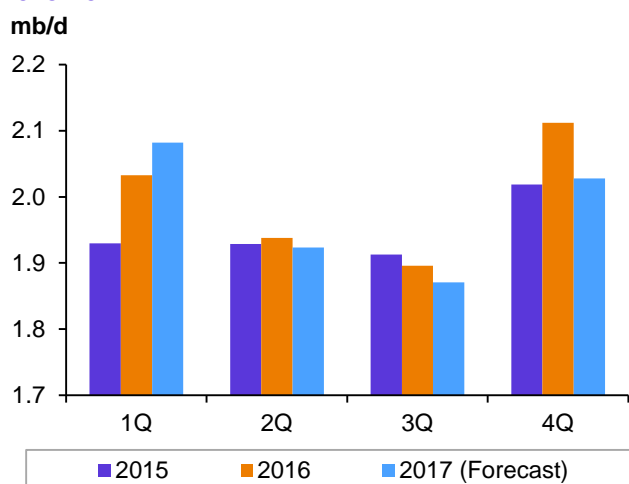
Total **OECD Europe's** oil supply is estimated to grow by 30 tb/d to average 3.80 mb/d in 2016, unchanged from the previous *MOMR*.

The 2017 forecast was revised up by 37 tb/d to 3.81 mb/d represents a growth of 10 tb/d, following a new adjustment for the UK's oil production following the start-up of two new projects in North Sea. which is now expected to see growth of 10 tb/d in 2017. Some estimates expect oil output from the North Sea – the world's oldest deepwater basin – to jump by a net 0.4 mb/d or about a fifth in the next two years.

## Norway

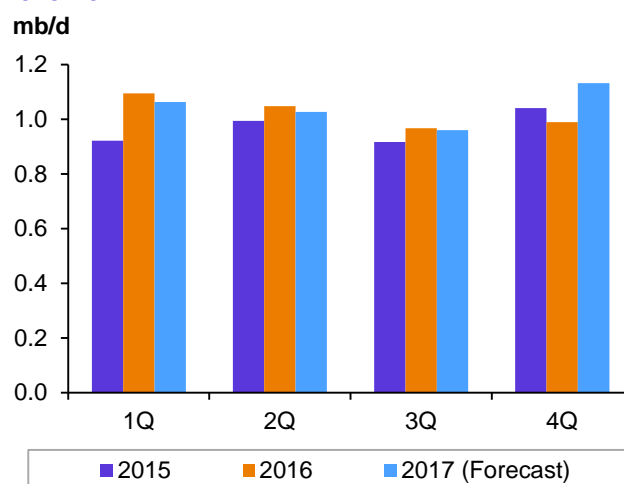
**Norway's** oil supply is estimated to have increased by 0.05 mb/d over the previous year to average 1.99 mb/d in 2016, unchanged from the previous report. Preliminary production figures for 1Q17 indicate average production of about 2.08 mb/d, a decline of 30 tb/d over 4Q16. The preliminary average daily liquids production in April 2017 was 2.11 mb/d, lower by 20 tb/d than March 2017, but 4.2% above oil production in April 2016. Moreover, it is also around 4.2% above the Norwegian Petroleum Directorate's proposal for April 2017. Crude oil output in April 2017 stood at 1.70 mb/d representing a decline of 30 tb/d, m-o-m. NGLs and condensate output in April was 0.38 mb/d and 0.03 mb/d, respectively.

**Graph 5 - 17: Norway quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

**Graph 5 - 18: UK quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

## UK

The **UK's** oil production is estimated to have grown by 60 tb/d in 2016, to average 1.02 mb/d, unchanged from last month's report. The UK's oil output in 2017 was revised up by 40 tb/d in this month's assessment, due to the production of first oil from the redeveloped project of Quad 204 (Schiehallion) in the west of Shetland (offshore UK). With the redevelopment through the Quad 204 project, operators expect to unlock a further estimated 450 million barrels of resources, extending the life of the fields out to 2035 and beyond. Production from the project is expected to ramp up through the remainder of 2017 to a plateau level of

130 tb/d. In May, oil production had also started at the Shaw field, part of the Montrose area redevelopment in the central North Sea. Shaw production will be followed by Cayley by the end of the second quarter, with gross incremental production expected to peak at around 40 tboe/d. The Cayley and Shaw fields have been developed as subsea tie-backs to the BLP platform.

April oil production declined by 20 tb/d m-o-m to average 1.04 mb/d, due to an unplanned outage at Buzzard field for a week. The UK's overall oil production in 2017 is predicted to grow by 20 tb/d y-o-y to average 1.05 mb/d, feeding off the new volumes from the continued ramp up of previous projects such as; Kraken, Monarb, Flyndre and Greater Stella. It is expected during the maintenance season in June that the UK's production will be impacted on average by about 120 tb/d.

## Developing Countries

Total oil production from the group of **Developing Countries (DCs)** is estimated to decline by 100 tb/d y-o-y to average 12.21 mb/d in 2016, unchanged compared with the previous assessment.

In 2017, supply from DCs is forecast to grow by 0.08 mb/d to average 12.29 mb/d, a downward revision in annual growth of 27 tb/d compared to the last report. The key regions for these changes are Africa (-15 tb/d) due to downward revision of 15 tb/d in Sudans' annual supply, Other Asia (-10 tb/d) due to downward revision of 15 tb/d in Brunei's annual supply and the Middle East (-2 tb/d). Growth of 0.14 mb/d is expected in Latin America – mainly from Brazil – to average 5.25 mb/d and, to a lesser degree, Africa, increasing by 40 tb/d – mainly from Congo and Ghana – to stand at 2.14 mb/d. Other Asia's oil supply will see a decline of 50 tb/d to average 3.67 mb/d. This is mainly due to natural annual declines in Indonesia. A decline of 50 tb/d is also expected for the Middle East, mainly in Oman, with output falling to 1.23 mb/d.

## Latin America

Oil supply from Latin America is predicted to increase by 0.14 mb/d to average 5.25 mb/d in 2017, despite declining in 2016 by 100 tb/d. Oil production in Brazil is expected to increase by 0.26 mb/d, while other countries in the region are anticipated to witness declines.

### Brazil

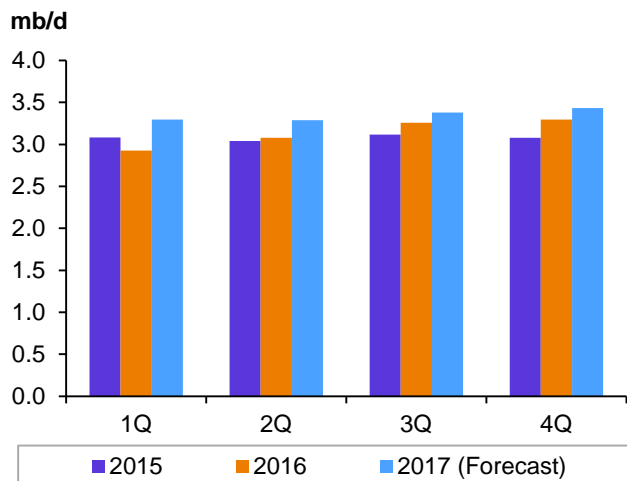
**Brazil's** liquids supply is estimated to average 3.14 mb/d in 2016, an increase of 0.06 mb/d over the previous year. Crude oil production in April 2017 showed a decline of 22 tb/d m-o-m to average 2.53 mb/d according to Petrobras, with output falling for the fourth consecutive month. However, according to some of the secondary sources, crude oil output in May showed an increase of 149 tb/d over April to average 2.68 mb/d. This is due to increasing output from Lula South through the P-66 unit, as the FPSO Cidade De Angra Dos Reis started to ramp up in April. Oil production from pre-salt reservoirs particularly from Lula field in Santos Basin will offset the continued annual declines in post-salt reservoirs in the Campos Basin which production fell to a 13-month low of 1.35 mb/d. NGLs output was stagnant at 0.1 mb/d in April and May. Biofuels was also steady at 0.56 mb/d in March, April and May.

Therefore, Brazil's liquids supply in April stood at 3.19 mb/d, which is 20 tb/d less than March. However, in May it increased by 150 tb/d to 3.34 mb/d, which is 0.22 mb/d higher y-o-y. Despite this growth, it is not expected that 2Q17 production will be higher than 1Q17, due to lower April production compared to 1Q.

According to Petrobras' plan for the production development in 2017, they are going to implement other projects in the pre-Salt horizon in the Santos Basin – start-up of P-66 in Lula South, ramp up the oil production from Lula North through P-67 unit, start production from Tartaruga Verde through FPSO Cidade de C.d.G. and finally developing of Libra field.

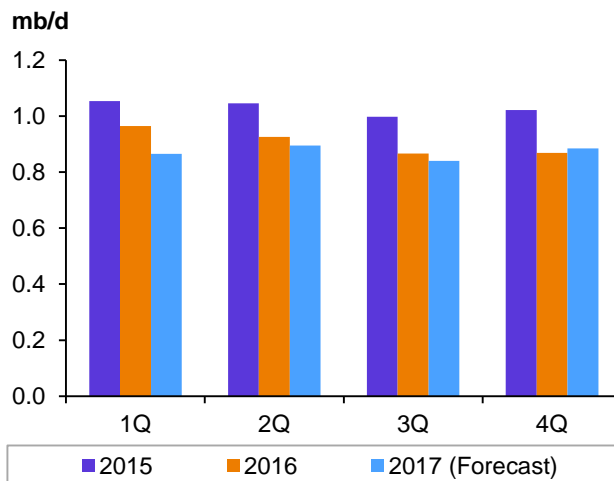


**Graph 5 - 19: Brazil quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

**Graph 5 - 20: Colombia quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

## Africa

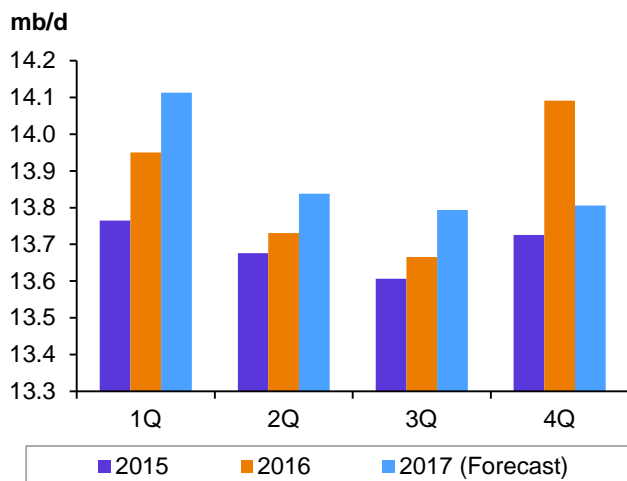
In 2017, oil production is expected to grow in Chad, Congo and Ghana, while production in South Africa and the Sudans is anticipated to be stagnant. Oil production in Egypt and Equatorial Guinea will decline in 2017 by 20 tb/d and 10 tb/d, respectively. Following the decision of OPEC conference in May 2017, Equatorial Guinea is the new member of OPEC commencing from 1 July 2017. Africa's oil supply is forecast to grow by 50 tb/d to average 2.16 mb/d in 2017(including Equatorial Guinea), following a decline of 20 tb/d last year.

## FSU

The FSU's oil supply is estimated to grow by 0.17 mb/d in 2016 to average 13.86 mb/d, unchanged from the May report. In 2016, oil production in Russia increased, while declining in other countries of the region.

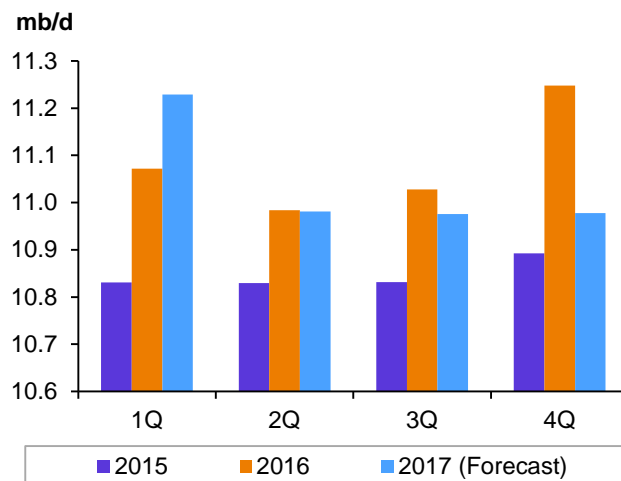
The FSU's oil production forecast for 2017 was revised down this month by 133 tb/d, with growth now estimated at 0.03 mb/d for total output of 13.89 mb/d. This is due to the downward revisions in Russian (-117 tb/d) and Kazakhstan (-15 tb/d) following the extension of the 'Declaration of Cooperation' by OPEC and 11 non-OPEC participants for a further nine-month period beginning on 1 July.

**Graph 5 - 21: FSU quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

**Graph 5 - 22: Russia quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

## Russia

Oil production in **Russia** for 2017 was revised down by 117 tb/d to average 11.04 mb/d. This represents a contraction of 40 tb/d y-o-y. Crude oil output decreased m-o-m from 10.51 mb/d in January, to 10.46 mb/d in February and then to 10.35 mb/d in March, according to JODI. Based on Russian Oil Ministry information, crude oil output in April and May fell further to 10.29 mb/d and 10.23 mb/d, respectively. NGLs production, after increasing in February to average 0.82 mb/d, decreased to 0.77 mb/d in March and have remained unchanged since. Russian liquids supply in April and May 2017 are estimated at 11.06 mb/d and 11.00 mb/d, respectively. As highlighted previously, the approach to production adjustments varies among Russian producers. For example, companies such as GazpromNeft and Lukoil will reduce production at mature fields, but at the same time raise output from new fields.

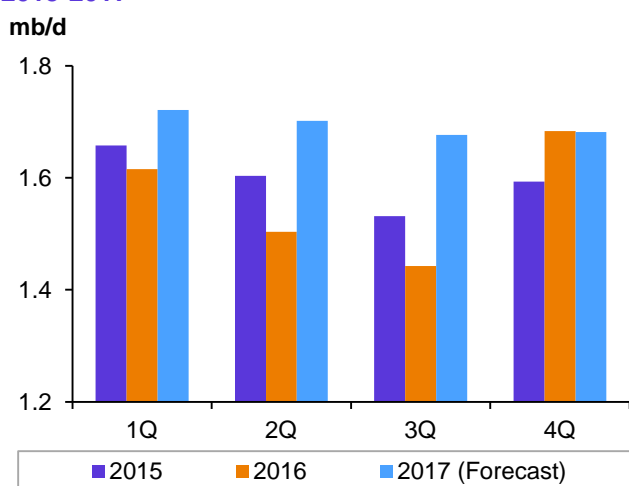
Russia's oil supply for 2017 has been revised down by 0.12 mb/d, due to the production adjustment in 2H17 following the nine-month extension of the Declaration of Cooperation. Thus, Russian oil supply is expected to decline by 40 tb/d y-o-y to average 11.04 mb/d in 2017, Oil supply on quarterly basis in 2017 is anticipated to be 11.23 mb/d, 10.98 mb/d, 10.98 mb/d and 10.98 mb/d, respectively.

## Caspian

**Azerbaijan's** oil supply increased 40 tb/d m-o-m to average 0.80 mb/d in April. However, it remained lower y-o-y by 80 tb/d. Azerbaijan's oil production has been declining due to mature oil fields, as well as a heavy decline of more than 16% in the ACG offshore complex in the Caspian. Overall, the country's oil supply is expected to contract by 60 tb/d y-o-y to average 0.78 mb/d in 2017.

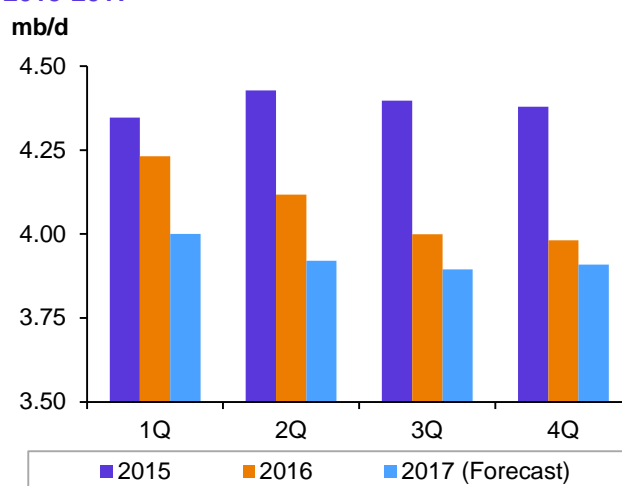
**Kazakhstan's** crude oil output in April 2017 decreased by 24 tb/d to average 1.48 mb/d. However, it added 0.26 mb/d of NGLs, to reach a total output of 1.74 mb/d. Despite the production shutdown in April at the Karachaganak oil field due to maintenance, the oil output in Kazakhstan because of the Kashagan ramp up is absolutely high; therefore, adjusting the production below the level of November 2016 (base line for Kazakhstan) at 1.70 mb/d, seems to be difficult.

**Graph 5 - 23: Kazakhstan quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

**Graph 5 - 24: China quarterly oil supply, 2015-2017**



Source: OPEC Secretariat.

## China

**China's** supply in 2016 remained unchanged in this month's analysis. It is estimated to contract by 0.31 mb/d to average 4.08 mb/d.

Chinese crude oil output, following a decrease in March 2017, decreased again by 12 tb/d in April to average 3.89 mb/d. Biofuels output in April averaged 113 tb/d. Therefore, the total liquids supply in April decreased by 10 tb/d m-o-m to average 4.0 mb/d. Chinese oil production in 2017 is forecast to see another contraction, albeit at a slower pace. The contraction over the previous year is estimated at 0.15 mb/d, with output averaging 3.93 mb/d. This is again unchanged from last month's report. It should be noted that Chinese companies are increasing their spending this year just to reverse last year's decline

## OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids in 2016 were revised down by 30 tb/d due to weaker GTLs output in Qatar in 2H16 to average 6.05 mb/d, representing growth of 0.11 mb/d over the previous year. In 2017, they are projected to average 6.22 mb/d, unchanged from last month's report. This represents growth of 0.17 mb/d over the previous year.

**Table 5 - 6: OPEC NGLs + non-conventional oils, 2014-2017\*, mb/d**

	2014	2015	Change				2016	Change		Change	
			15/14	1Q16	2Q16	3Q16	4Q16	16/15	2017	17/16	
<b>Total OPEC</b>	<b>5.83</b>	<b>5.94</b>	0.11	5.95	6.08	6.15	6.02	<b>6.05</b>	0.11	<b>6.22</b>	0.17

Note: \* 2017 = Forecast.

Source: OPEC Secretariat.

## OPEC crude oil production

According to secondary sources, OPEC crude oil production in May increased by 336 tb/d from the previous month to average 32.14 mb/d. Crude oil output increased the most in Libya, Nigeria and Iraq, while production in Angola and UAE showed the largest declines.

**Table 5 - 7: OPEC crude oil production based on secondary sources, tb/d**

	2015	2016	3Q16	4Q16	1Q17	Mar 17	Apr 17	May 17	May/Apr
<b>Algeria</b>	1,107	1,090	1,093	1,091	1,053	1,051	1,049	1,059	9.6
<b>Angola</b>	1,755	1,725	1,756	1,623	1,631	1,599	1,667	1,613	-54.2
<b>Ecuador</b>	543	546	547	542	529	525	525	528	2.2
<b>Gabon</b>	225	220	221	211	202	202	205	204	-1.3
<b>Iran, I.R.</b>	2,836	3,518	3,646	3,741	3,796	3,792	3,791	3,795	4.5
<b>Iraq</b>	3,961	4,390	4,406	4,604	4,447	4,425	4,379	4,424	44.4
<b>Kuwait</b>	2,764	2,853	2,880	2,874	2,712	2,702	2,705	2,705	0.0
<b>Libya</b>	404	390	309	574	656	612	552	730	178.2
<b>Nigeria</b>	1,839	1,557	1,376	1,553	1,511	1,456	1,506	1,680	174.2
<b>Qatar</b>	663	656	651	642	608	612	613	615	1.8
<b>Saudi Arabia</b>	10,142	10,406	10,596	10,541	9,887	9,905	9,938	9,940	2.3
<b>UAE</b>	2,906	2,975	3,045	3,079	2,935	2,909	2,903	2,885	-18.0
<b>Venezuela</b>	2,375	2,159	2,103	2,057	1,996	1,982	1,970	1,963	-7.7
<b>Total OPEC</b>	<b>31,519</b>	<b>32,486</b>	<b>32,630</b>	<b>33,133</b>	<b>31,963</b>	<b>31,770</b>	<b>31,803</b>	<b>32,139</b>	<b>336.1</b>

Note: Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 5 - 8: OPEC crude oil production based on *direct communication*, tb/d

	2015	2016	3Q16	4Q16	1Q17	Mar 17	Apr 17	May 17	May/Apr
Algeria	1,157	1,146	1,162	1,168	1,087	1,085	1,075	1,069	-6.0
Angola	1,767	1,722	1,736	1,610	1,638	1,652	1,651	1,593	-58.0
Ecuador	543	549	551	543	533	531	528	..	..
Gabon	..	..	..	..	..	..	..	..	..
Iran, I.R.	3,152	3,651	3,653	3,993	3,894	3,891	3,862	..	..
Iraq	3,504	4,648	4,666	4,802	4,589	4,568	4,531	..	..
Kuwait	2,859	2,954	2,969	2,915	2,705	2,700	2,710	2,715	5.0
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,748	1,427	1,227	1,401	1,388	1,210	1,404	1,640	236.1
Qatar	656	652	644	632	595	621	619	..	..
Saudi Arabia	10,193	10,460	10,651	10,602	9,882	9,900	9,946	9,880	-66.2
UAE	2,989	3,088	3,173	3,201	3,010	2,973	2,988	2,981	-7.0
Venezuela	2,654	2,373	2,326	2,265	2,244	2,235	2,194	2,189	-5.4
<b>Total OPEC</b>	..	..	..	..	..	..	..	..	..

Note: Totals may not add up due to independent rounding.

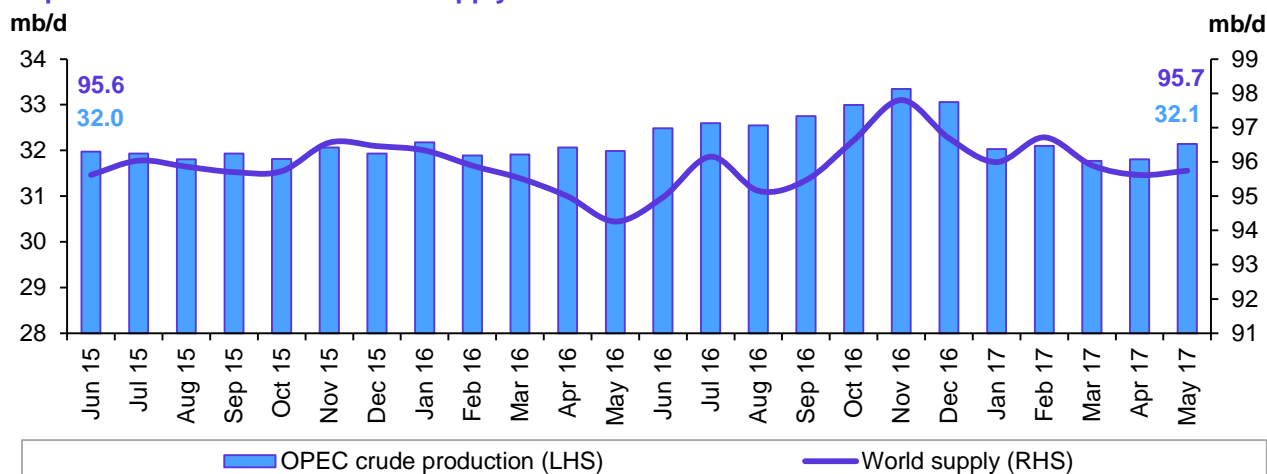
.. Not available.

Source: OPEC Secretariat.

## World oil supply

Preliminary data indicates that global oil supply increased by 0.13 mb/d in May to average 95.74 mb/d, m-o-m. It also showed an increase of 1.48 mb/d, y-o-y. A decrease in non-OPEC supply, including OPEC NGLs represents a contraction of 0.21 mb/d m-o-m but an increase of 0.34 mb/d in OPEC crude oil production, not only offset the decline of non-OPEC supply but also increased overall global oil output in May. The share of OPEC crude oil in total global production stood at 33.6% in May, an increase of 0.3% from the month before. Estimates are based on preliminary data for non-OPEC supply, direct communication for OPEC NGLs and non-conventional liquids, and secondary sources for OPEC crude oil production.

Graph 5 - 25: OPEC and world oil supply



Source: OPEC Secretariat.

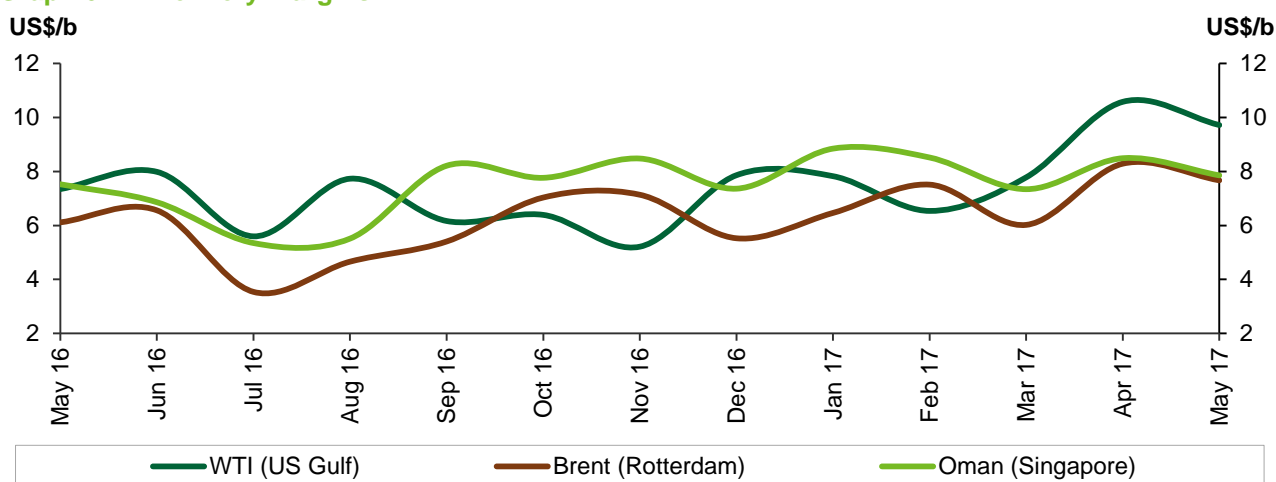
## Product Markets and Refinery Operations

Product markets in the Atlantic Basin weakened during May. Despite the strength seen in US gasoline crack spreads, supported by stronger domestic demand, refinery margins in the Atlantic Basin fell due to weakness seen at the middle of the barrel, as increasing gasoil demand was outweighed by relatively higher yields amid higher refinery utilisation. Meanwhile, in Asia, supply pressure following the peak of maintenance season, amid expectations of increasing inflows to the region, caused margins to weaken.

### Refinery margins

Stronger domestic gasoline demand with the beginning of the driving season allowed US gasoline crack spreads to continue their rally. However, despite stronger demand in gasoline and middle distillates, this was more than offset by the pressure coming from the supply side with higher refinery runs contributing to a build in inventories, thus weighing on market sentiment and causing US Gulf Coast (USGC) refinery margins for WTI crude to lose almost \$1/b compared to the previous month to average \$9.7/b in May. Despite losing some ground, margins remained at healthy levels.

Graph 6 - 1: Refinery margins



Sources: Argus Media and OPEC Secretariat.

Product markets in Europe weakened slightly during May, pressured by the lack of export opportunities at the top of the barrel, while at the middle of the barrel, stronger demand was offset by expectations of higher supplies with the end of spring maintenance. Product crack spreads exhibited losses across the barrel with the exception of fuel oil, which continued enjoying strong fundamentals on the back of a tightening market. The refinery margins for Brent crude in NWE lost around 70 cents over the previous month's level to average \$7.6/b in May.

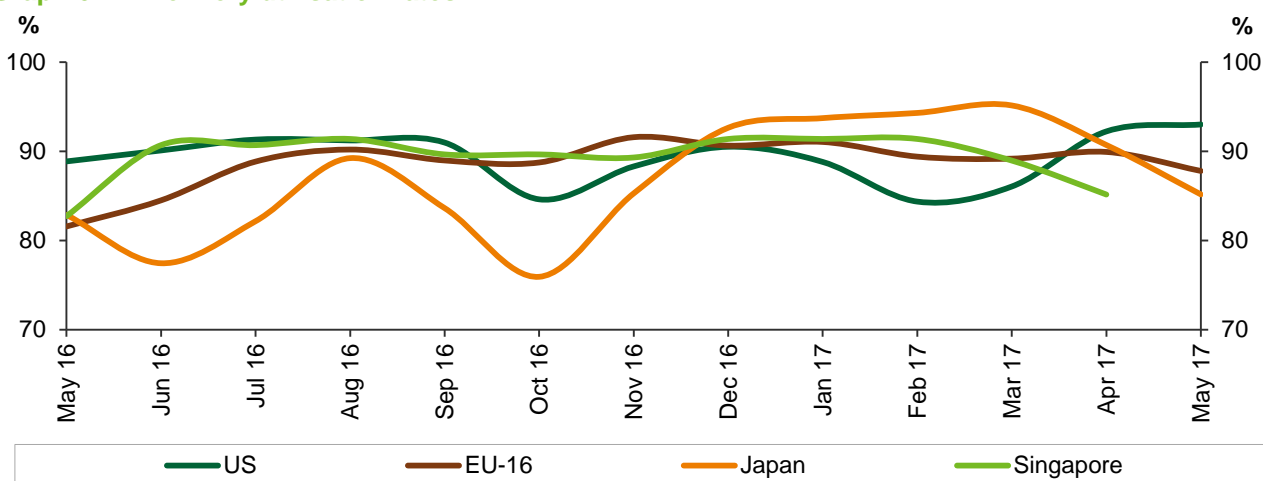
Asian product markets lost some ground during May despite firm regional demand. The approaching end of the refinery maintenance season amid increasing exports from China and expectations of lower demand during the upcoming monsoon season fuelled bearish sentiment in the market, causing refinery margins in Singapore to lose almost \$1/b versus the previous month's level, to average around \$7.8/b in May.

Another factor impacting the Asian market was the lack of export opportunities due to the limited east/west arbitrage.

## Refinery operations

The refinery utilisation rate in the US averaged around 93% during May, corresponding to 17.2 mb/d. This represented an increase of more than 100 tb/d from the previous month's level and was around 900 tb/d higher than the same month a year ago. With the start of the driving season and the end of the spring maintenance period, refinery runs have been on the rise, hitting the highest level witnessed in years, at the end of May, as several refineries came back on line. However, this contributed to gasoline and middle distillate inventories reversing their previous downward trend to remain well above the five-year average level, thus exerting pressure on the margins.

Graph 6 - 2: Refinery utilisation rates



Sources: Argus Media and OPEC Secretariat.

**European** refinery runs averaged around 88% of capacity in May, corresponding to a throughput of 10.2 mb/d. This is some 250 tb/d lower than the previous month and around 500 tb/d higher than the same month a year ago. Refinery throughputs are expected to be on the rise in Europe, due to the end of spring maintenance season. The sector was barely impacted by strike actions undertaken by French industry unions.

In **Asia**, refinery runs in India averaged around 4.9 mb/d during April, around 160 tb/d lower than in March. Meanwhile, Chinese refinery throughputs averaged 10.8 mb/d during May. This is around 190 tb/d lower than in April due to the impact of maintenance. Refinery runs in Singapore averaged around 85% in April, falling around 4 pp vs. the previous month due to some refinery maintenance. Japanese throughput averaged 85% of capacity in May, corresponding to 3.0 mb/d, down 5 pp vs. the previous month as available capacity continued to be impacted by peak maintenance.



## Product markets

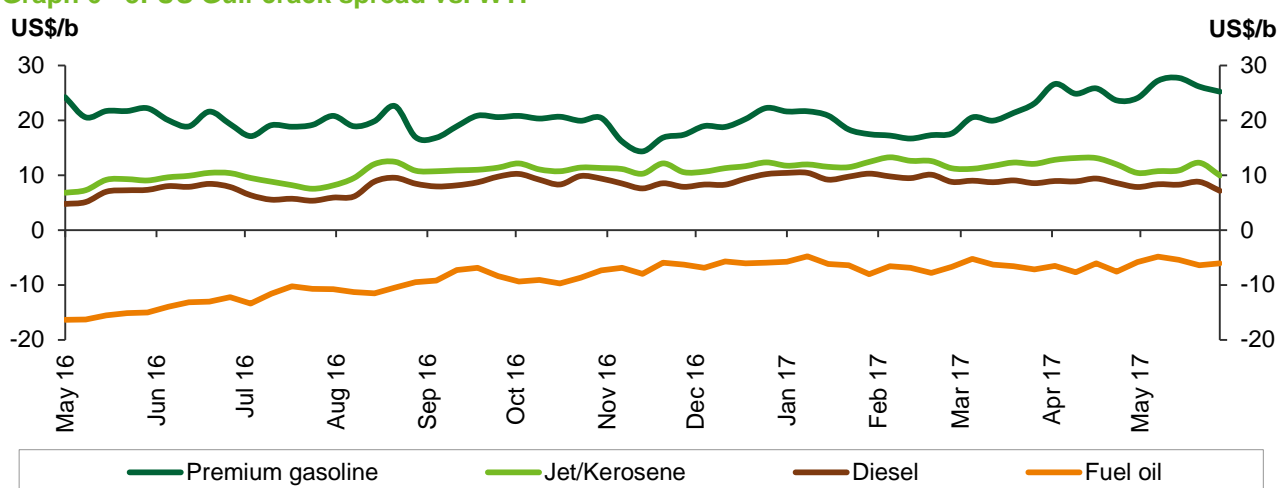
### US market

US **gasoline** demand stood at around 9.5 mb/d in May, approximately 380 tb/d higher than in the previous month and more than 100 tb/d higher than in the same month a year earlier.

Stronger domestic gasoline demand lent support to the US market, as expected with the start of driving season, which pushed gasoline demand during May above the previous year's level for the first time this year to hit a record of 9.8 mb/d at the end of the month. However, the crack spread gain was limited by the re-start of several gasoline/producer units among refineries returning from spring maintenance. Inventories continued to remain above the typical seasonal average, despite a reduction seen in import from Europe.

The gasoline crack spread gained around \$1/b versus the previous month's level to average \$26/b in May. Export opportunities to Latin America also continued supporting the market.

**Graph 6 - 3: US Gulf crack spread vs. WTI**



Sources: Argus Media and OPEC Secretariat.

**Middle distillate** demand stood at around 4.1 mb/d in May, some 130 tb/d lower than in the previous month and around 300 tb/d higher than in the same month a year earlier.

The gasoil market was supported by strong domestic demand, which was above the previous year's May level, while additional support came from higher export volumes to Latin American countries, mainly Brazil and Mexico.

Despite stronger demand, the gasoil crack was unable to retain the recovery seen the previous month due to pressure coming from the supply side with a rise seen in refinery runs amid relatively higher yields, which, along with slowing exports to Europe, caused inventories to rise at the end of the month to be well above the seasonal average level.

The US Gulf Coast (USGC) gasoil crack spread averaged around \$8/b in May, losing almost \$1 versus the previous month's level.

At the bottom of the barrel, **fuel oil** recovered on the back of a tightening market, as yields remained low despite an increase seen in refinery runs.

Additional support came from decreasing inflows into the region, mainly from Latin America, which also contributed to a gain in the USGC HSFO crack spread of more than \$1 to average minus \$6/b in May.

Meanwhile, higher refinery runs increased the availability of VGO, though this has been offset by strong VGO buying interest, with several FCC units coming back from maintenance in the USGC, amid healthy cracking margins.

## European market

Product markets in Europe weakened during May as the top of the barrel was pressured by less export opportunity, while at the middle of the barrel stronger demand was offset by the expectations of higher supplies due to the end of spring maintenance.

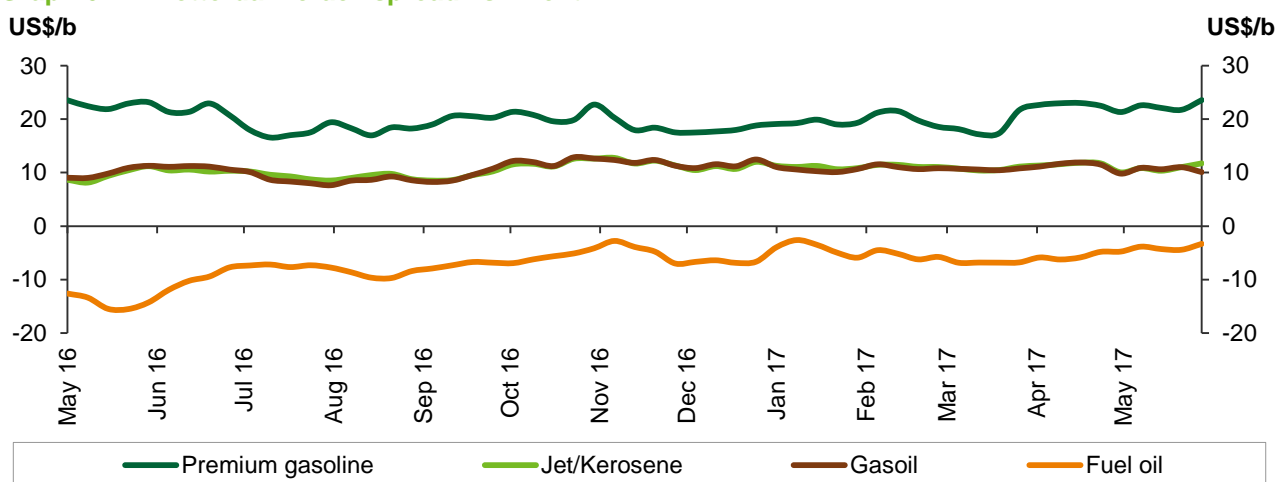
The **gasoline** market slightly weakened in Europe during May losing part of the recovery witnessed the previous month. Market sentiment was impacted by the slowing seen in transatlantic arbitrage to the US East Coast (USEC) due to ample supplies in the US, where more refinery runs are taking place amid high inventories in the region.

Meanwhile, the market got some support from emerging Chinese interest to buy blending components, mainly aromatics.

The gasoline crack spread against Brent lost 60¢ from the previous month's level to average around \$22/b during May. Losses were capped by strong buying interest from the Middle East and higher requirements from Latin America.

The light distillate naphtha crack remained pressured by typical lower seasonal demand, with ongoing maintenance at the steam cracker unit leading to a loss of around \$1/b during May. Falling LPG prices have made naphtha less competitive as a petrochemical feedstock. Meanwhile, demand from gasoline blenders also slowed and export opportunities to the Asia Pacific region lessened.

**Graph 6 - 4: Rotterdam crack spread vs. Brent**



Sources: Argus Media and OPEC Secretariat.

The European **gasoil** crack spread lost the ground it had recovered the previous month as the market was pressured by the end of heating season and lower export opportunities to North and West Africa, amid expectations of increasing supplies following spring maintenance in Europe. Nevertheless, this has been partially offset by limited exports seen from Russia due to heavy refinery maintenance in that country.

The gasoil crack spread against Brent crude at Rotterdam lost almost \$1/b compared with the previous month's level to average around \$11/b in May. Stronger domestic demand, mainly from Germany and the UK, along with some export opportunities to Argentina coming from winter in the southern hemisphere help to restrict further losses.

At the bottom of the barrel, the **fuel oil** market continued to show positive fundamentals on the back of stronger regional demand amid continued tightening sentiment, fuelled by slower inflows to the region and ARA fuel oil inventories by more than 25% during the month. Another positive contributor was arbitrage opportunities to Asia, which were boosted by lower freight rates.

The Northwest Europe (NWE) fuel oil crack gained more than \$1/b compared with the previous month to average around minus \$4.2/b in May.

## Asian market

The Asian market weakened in May, pressured by the supply side amid expectations of increasing refinery runs following the end of peak maintenance season. A lack of export opportunities also weighed on market sentiment.

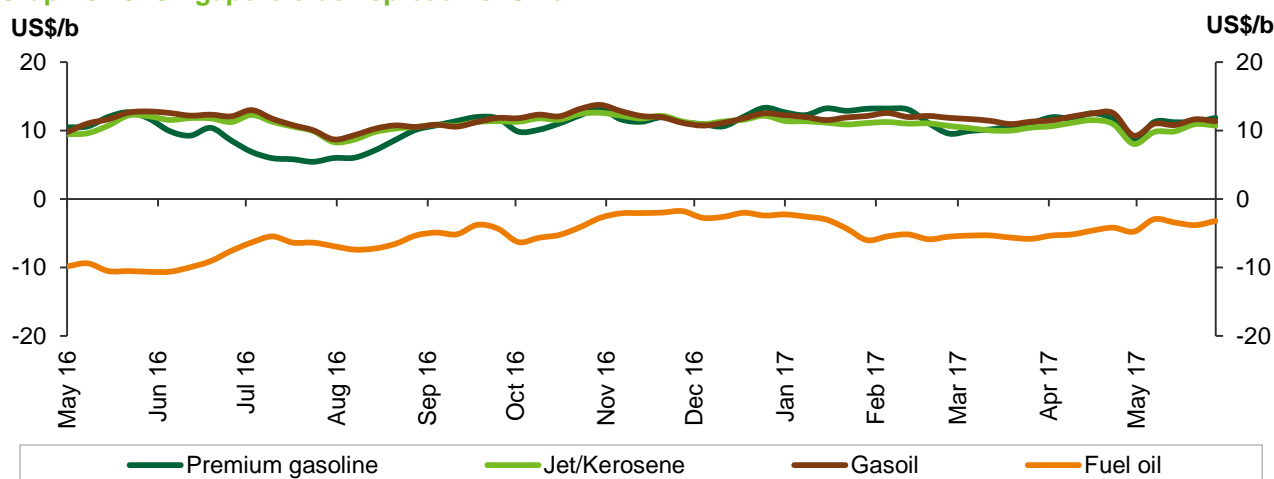
The Asian **gasoline** market lost part of the recovery it had witnessed during the previous month as a bearish environment in Europe filtered into Asia amid a regional increase in supplies, exerting pressure. Several secondary units were back from maintenance amid an expected increase in refinery runs following peak maintenance season. This outweighed firm regional demand, though temporary support came from Japanese holidays and some export opportunities to the Middle East.

In addition, increasing exports from China to Singapore continued exerting some pressure on the market.

The gasoline crack spread against Oman crude in Singapore averaged around \$11/b in May, losing about \$1/b compared with April.

The naphtha market weakened in Asia, and Singapore's naphtha margins lost more than \$1/b in May, due to slowing demand in the North Asian region amid lower LPG prices, which impacted naphtha as a petrochemical feedstock. Another bearish factor was the expected increase in Western inflows.

**Graph 6 - 5: Singapore crack spread vs. Oman**



Sources: Argus Media and OPEC Secretariat.

In the middle of the barrel, the **gasoil** crack spread lost the recovery shown the previous month, pressured by the supply side with the approaching end of heavy maintenance amid expectations of lower arbitrage opportunities East to West, with refineries on the rise worldwide.

The gasoil crack spread in Singapore against Oman averaged around \$11.20/b in May, a loss of almost \$1/b compared with the previous month's level. The ULSD got support from emerging Indian demand with the country's transition to low-sulphur specifications, which contributed to widening differentials versus high-sulphur diesel within the region.

The Asian **fuel oil** market has continued to receive support from a tightened environment amid stronger regional demand, not only for bunkering but also for power generation, mainly from Bangladesh, Pakistan and Sri Lanka.

Another supporting factor has been increasing volumes heading to the Middle East due to higher requirements for power generation in that region.

The fuel oil crack spread in Singapore against Oman averaged about minus \$3.4/b in May, gaining more than \$1/b against the previous month's levels. Further gains were limited by expectations of increasing inflows in the coming weeks.

Table 6 - 1: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Mar 17	Apr 17	May 17	Change May/Apr	Mar 17	Apr 17	May 17	Change May/Apr
<b>US</b>	15.88	17.02	17.17	0.14	86.05	92.23	93.01	0.78
<b>Euro-16</b>	10.34	10.42	10.18	-0.25	89.17	89.93	87.79	-2.13
<b>France</b>	1.02	1.12	1.07	-0.05	82.05	89.66	85.82	-3.85
<b>Germany</b>	1.79	1.90	1.68	-0.21	81.81	86.75	76.97	-9.78
<b>Italy</b>	1.30	1.27	1.27	0.01	63.29	61.83	62.17	0.34
<b>UK</b>	1.07	1.08	1.00	-0.08	82.26	83.18	76.88	-6.30
<b>Japan</b>	3.35	3.19	3.00	-0.20	95.14	90.70	85.16	-5.54

Sources: Argus Media, EIA, Euroilstock, IEA, METI, OPEC Secretariat and Petroleum Association of Japan.

Table 6 - 2: Refinery crude throughput, mb/d

	2014	2015	2016	2Q16	3Q16	4Q16	1Q17	2Q17 **
<b>Total OECD</b>	<b>36.95</b>	<b>38.00</b>	<b>38.01</b>	<b>37.19</b>	<b>38.77</b>	<b>38.04</b>	<b>38.27</b>	<b>38.44</b>
<b>OECD America*</b>	<b>19.00</b>	<b>19.19</b>	<b>19.21</b>	<b>19.24</b>	<b>19.65</b>	<b>18.82</b>	<b>19.05</b>	<b>19.43</b>
of which US	15.82	16.11	16.24	16.27	16.68	16.07	15.95	16.43
<b>OECD Europe</b>	<b>11.43</b>	<b>12.11</b>	<b>11.91</b>	<b>11.18</b>	<b>12.20</b>	<b>12.23</b>	<b>11.88</b>	<b>11.75</b>
of which:								
France	1.12	1.17	1.14	0.94	1.19	1.24	1.05	1.04
Germany	1.86	1.91	1.90	1.81	1.94	1.91	1.82	1.81
Italy	1.20	1.35	1.30	1.28	1.36	1.32	1.34	1.32
UK	1.14	1.14	1.09	1.07	1.12	1.09	1.04	1.03
<b>OECD Asia Pacific</b>	<b>6.51</b>	<b>6.70</b>	<b>6.88</b>	<b>6.78</b>	<b>6.93</b>	<b>6.99</b>	<b>7.33</b>	<b>7.25</b>
of which Japan	3.13	3.14	3.15	3.17	3.24	3.23	3.49	3.38
<b>Non-OECD</b>	<b>41.68</b>	<b>42.70</b>	<b>43.93</b>	<b>41.75</b>	<b>42.16</b>	<b>41.74</b>	<b>41.82</b>	<b>42.32</b>
of which:								
China	10.16	11.00	11.55	10.76	10.59	11.16	11.22	11.24
Middle East	6.90	7.27	7.92	7.19	7.43	7.20	7.40	7.47
Russia	5.92	5.79	5.72	5.37	5.67	5.78	5.64	5.69
Latin America	5.07	5.00	4.67	4.43	4.54	4.63	4.60	4.61
India	4.48	4.56	4.93	4.86	4.88	4.97	5.01	5.13
Africa	2.30	2.16	2.14	2.05	2.06	2.16	2.25	2.28
<b>Total world</b>	<b>78.62</b>	<b>80.70</b>	<b>81.94</b>	<b>78.94</b>	<b>80.93</b>	<b>79.78</b>	<b>80.08</b>	<b>80.75</b>

Note: \* Data includes Mexico and Chile.

\*\* OPEC Secretariat's estimate.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 6 - 3: Refined product prices, US\$/b

	Apr 17	May 17	Change May/Apr	Year-to-date 2016	2017
<b>US Gulf (Cargoes FOB):</b>					
Naphtha*	52.72	50.00	-2.72	40.90	53.95
Premium gasoline (unleaded 93)	76.31	74.72	-1.59	58.21	72.94
Regular gasoline (unleaded 87)	70.19	66.65	-3.54	51.33	66.78
Jet/Kerosene	63.79	59.56	-4.23	45.81	62.99
Gasoil (0.2% S)	60.01	56.80	-3.21	42.70	60.18
Fuel oil (3.0% S)	44.63	43.69	-0.94	24.33	45.06
<b>Rotterdam (Barges FoB):</b>					
Naphtha	51.54	48.43	-3.11	38.39	52.11
Premium gasoline (unleaded 98)	75.36	72.61	-2.75	58.73	73.50
Jet/Kerosene	64.21	61.13	-3.08	46.91	63.92
Gasoil/Diesel (10 ppm)	64.11	61.11	-3.00	46.38	63.72
Fuel oil (1.0% S)	46.95	46.26	-0.69	25.29	47.68
Fuel oil (3.5% S)	41.71	40.64	-1.07	21.45	41.69
<b>Mediterranean (Cargoes FOB):</b>					
Naphtha	50.67	47.31	-3.36	37.21	51.24
Premium gasoline**	67.89	63.74	-4.14	51.37	65.89
Jet/Kerosene	62.60	59.91	-2.69	45.11	62.35
Diesel	65.24	62.28	-2.96	47.62	64.94
Fuel oil (1.0% S)	48.03	47.10	-0.93	26.02	48.79
Fuel oil (3.5% S)	43.95	42.85	-1.10	24.23	44.13
<b>Singapore (Cargoes FOB):</b>					
Naphtha	52.31	48.71	-3.60	39.33	52.83
Premium gasoline (unleaded 95)	67.66	64.40	-3.26	52.19	67.14
Regular gasoline (unleaded 92)	64.81	61.68	-3.13	49.07	64.55
Jet/Kerosene	63.88	60.82	-3.06	46.20	63.61
Gasoil/Diesel (50 ppm)	64.98	61.74	-3.24	45.81	64.61
Fuel oil (180 cst 2.0% S)	52.47	51.58	-0.89	29.54	52.89
Fuel oil (380 cst 3.5% S)	47.34	46.01	-1.33	27.26	47.71

Note: \* Barges.

\*\* Cost, insurance and freight (CIF).

Sources: Argus Media and OPEC Secretariat.

# Tanker Market

Dirty tanker market sentiment was diverse in May reflecting a variation in average spot freight rates for different reported routes. Dirty spot freight rates' movement varied on each reported class. VLCC rates dropped, Suezmax rates were flat and Aframax rates rose from those registered in the previous month. In May, VLCC rates declined by 15% as a result of tonnage oversupply in many regions combined with limited loading requirements. Suemax spot freight rates managed to maintain rate stability despite general thin activities. Furthermore a reduction in transit delays added to the vessels' spot availability and prevented average rates from registering any gains despite some improved sentiment towards the end of the month. Aframax, in contrast, showed improved rates in May compared to the previous month, reflecting higher rates on most routes on the back of port delays, replacements and higher chartering requirements, mainly in the Caribbean. The clean tanker market showed weakened sentiment in both directions of Suez as a result of thin tonnage demand for different classes of the market.

## Spot fixtures

Preliminary May data shows that **OPEC spot fixtures** went up by 6.9%, compared with the previous month, to average 12.47 mb/d. Global spot fixtures rose as well by 3.6% in May, compared with the previous month, to average 17.66 mb/d. Fixtures on the Middle East-to-East route were up by 0.6% and on the Middle East-to-West routes by 0.4 mb/d. In general, global chartering activity was up by 14.3% in reported destinations compared to the same month in 2016.

**Table 7 - 1: Spot fixtures, mb/d**

	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	<u>Change May 17/Apr 17</u>
<b>All areas</b>	<b>16.90</b>	<b>17.04</b>	<b>17.66</b>	<b>0.62</b>
OPEC	11.71	11.67	12.47	0.80
Middle East/East	5.37	5.34	5.37	0.03
Middle East/West	2.65	2.72	3.12	0.40
Outside Middle East	3.69	3.61	3.98	0.37

Sources: Oil Movements and OPEC Secretariat.

## Sailings and arrivals

**OPEC sailings** rose by 0.36 mb/d, or 1.5%, in May compared to the previous month and were up by 0.12 mb/d compared to last year. **Middle East sailings** went up from the previous month by 0.25 mb/d and by 0.15 mb/d in comparison to last year.

According to preliminary data, **arrivals** at the main importing regions in North American, European and West Asian ports showed an increase from the previous month, rising by 0.5%, 0.2% and 2.6%, respectively. While vessel arrivals in the Far Eastern ports declined by 1.8% in May compared to the previous month.



## Tanker Market

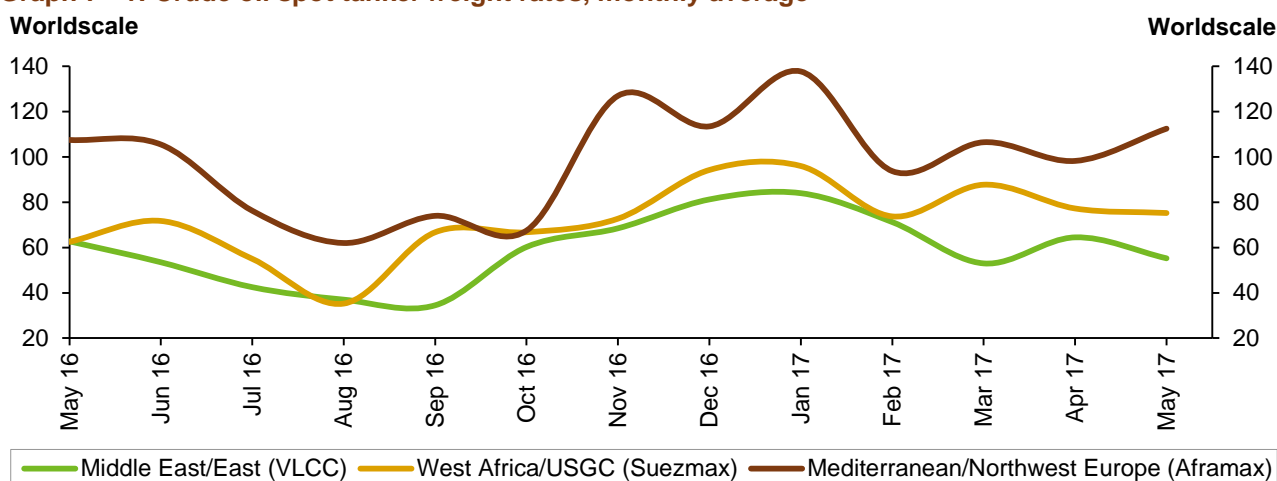
**Table 7 - 2: Tanker sailings and arrivals, mb/d**

	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	<u>Change</u> <u>May 17/Apr 17</u>
<b>Sailings</b>				
OPEC	23.97	23.86	24.22	0.36
Middle East	17.34	17.28	17.53	0.25
<b>Arrivals</b>				
North America	9.80	9.82	9.87	0.05
Europe	12.56	12.59	12.62	0.02
Far East	8.71	8.72	8.56	-0.16
West Asia	4.63	4.55	4.66	0.12

Sources: Oil Movements and OPEC Secretariat.

## Dirty tanker freight rates

**Graph 7 - 1: Crude oil spot tanker freight rates, monthly average**



Sources: Argus and Platts.

## VLCC

The month started with **VLCC freight rates** edging down on several trading routes as activities in the market waned and tonnage list was prolonged. The weak sentiment had the greatest impact on VLCC spot rates, which despite occasional recoveries saw average spot freight rates in May drop by 15% compared to the previous month to stand at WS47 points. The VLCC rate decline in May came on the back of limited market activity as the number of stems was low combined with an increased surplus of ships. Spot freight rates came under further pressure even when June requirements came onto the market as the tonnage build up was increasing, therefore Middle East-to-East freight rates dropped by 14%, to stand at WS55 points, which was a decrease of 12% compared to the same month a year ago. Middle East-to-West freight rates followed the same pattern, though they experienced a higher drop of 16%, to stand at WS29 points, which is 25% lower compared to the same month in 2016. Freight rates for tankers operating on the West Africa-to-East route also dropped by 15% from the previous month. In general, the VLCC market in May suffered from a clear lack of demand and an oversupply of ships.

**Table 7 - 3: Dirty VLCC spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Mar 17	Apr 17	May 17	Change May 17/Apr 17
Middle East/East	230-280	53	65	55	-9
Middle East/West	270-285	28	34	29	-6
West Africa/East	260	59	68	58	-10

Sources: Argus Media and OPEC Secretariat.

## Suezmax

Unlike what was seen in the VLCC sector, **Suezmax spot freight rates** managed to maintain rate stability in May, despite generally thin activity and a discouraging chartering environment, as the cargo requirements were scarce, while the tonnage build up kept growing. These facts, combined with a reduction in transit delays in the Turkish straits, prevented freight rates from increasing during the month. As a result, average Suezmax spot freight rates stood at WS72 points, similar to the previous month. In West Africa, spot freight rates for tankers operating on the West Africa-to-US Gulf Coast route dropped by 3% to stand at WS75 points as activity dropped mainly for third decade loadings allowing charterers to exert further pressure on rates. Spot freight rates for tankers operating on the Northwest Europe (NWE)-to-US Gulf Coast (USGC) route went up by 5% to average WS69 points on the back of an occasionally strengthening market in the USGC and the Caribbean. Despite the monthly drops, Suezmax rates on both routes remained higher than those registered on the same routes in the previous year.

**Table 7 - 4: Dirty Suezmax spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Mar 17	Apr 17	May 17	Change May 17/Apr 17
West Africa/US Gulf Coast	130-135	88	77	75	-2
Northwest Europe/US Gulf Coast	130-135	69	66	69	3

Sources: Argus Media and OPEC Secretariat.

## Aframax

**Aframax freight rates** were the only class in the dirty tanker segment, which showed improved rates in May compared to the previous month. On average, Aframax freight rates increased by 11%, as rates on most reported routes reflected growth in May. The higher rates for Aframax encouraged Suezmax chartering as an economic alternative as it suffered from a lack of orders.

**Table 7 - 5: Dirty Aframax spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Mar 17	Apr 17	May 17	Change May 17/Apr 17
Indonesia/East	80-85	121	101	97	-4
Caribbean/US East Coast	80-85	110	103	123	21
Mediterranean/Mediterranean	80-85	113	104	116	12
Mediterranean/Northwest Europe	80-85	107	98	113	14

Sources: Argus Media and OPEC Secretariat.

The markets in the **Black Sea** and the **Mediterranean** strengthened in May as chartering activity picked up, leading to thinner vessel supply. Furthermore, replacement requirements and delays at the Italian port supported the gains in the Mediterranean area. Therefore, freight rates for tankers operating on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes edged up by 11% and 15% to average WS116 and WS113 points, respectively.

In the **Caribbean**, rates showed the highest growth during May in comparison to other regions. Spot freight rates went up on the Caribbean-to-US East Coast (USEC) route by 20% from the previous month to stand at

## Tanker Market

WS123 points and higher rates were registered on the back of replacements fixtures combined with a pickup in activity levels.

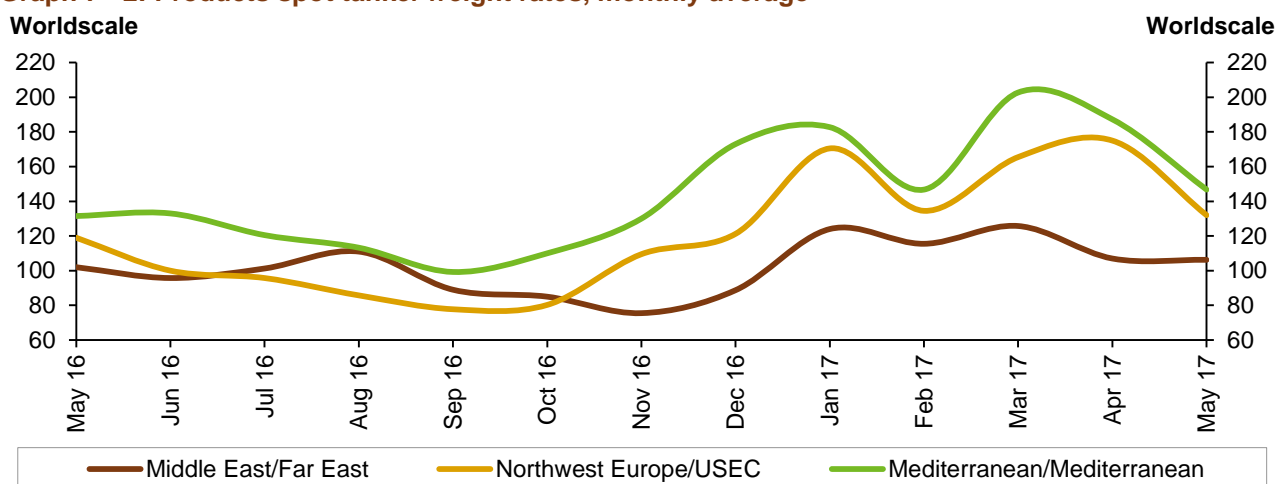
In contrast, Aframax freight rates to **eastern destinations** were the only exception to the general trend in May, dropping by 4% for tankers trading on the Indonesia-to-East route to average WS97 points.

## Clean tanker freight rates

In May, **clean tanker market** sentiment was generally under pressure. On average, clean spot tanker freight rates dropped by 15% from the previous month to stand at WS135 points. The drop in West of Suez rates was the main contributor to average rates as it declined by 21% from the previous month.

Clean tanker spot freight rates showed a significant drop on all **western destinations** as the market experienced slow pace with no visible signs of improvement during the month. Spot freight rates for clean tankers of different sizes edged down in May on the back of a lack of sufficient activity. As a result, spot freight rates on Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes declined by 22% and 20% to average WS147 points and WS158 points, respectively. Clean spot tanker freight rates for medium-range tankers operating on the NWE-to-USEC went down by 25% to average WS132 points.

**Graph 7 - 2: Products spot tanker freight rates, monthly average**



Sources: Argus Media and OPEC Secretariat.

Similarly, **East of Suez** average clean spot freight rates also declined in May although to a lesser extent. On average, spot rates for tankers trading on the Singapore-to-East route showed a slight decline by only WS1 point from the previous month, to average WS106 points. Tankers operating on the Middle East-to-East route, showed lower freight rates, down by 7% from the month before.

**Table 7 - 6: Clean spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Mar 17	Apr 17	May 17	Change May 17/Apr 17
<b>East of Suez</b>					
Middle East/East	30-35	126	107	106	-1
Singapore/East	30-35	151	144	134	-10
<b>West of Suez</b>					
Northwest Europe/US East Coast	33-37	166	175	132	-43
Mediterranean/Mediterranean	30-35	203	187	147	-41
Mediterranean/Northwest Europe	30-35	213	197	158	-39

Sources: Argus Media and OPEC Secretariat.

## Oil Trade

In May, preliminary data shows that US crude oil imports slightly increased by 14 tb/d from the previous month to average 8.2 mb/d. On an annual basis, US crude imports went up by 244 tb/d. US product imports went up by 247 tb/d, or 12%, to average 2.25 mb/d m-o-m, while y-o-y they remained almost flat compared to last year's level. Japan's crude oil imports rose in April by 326 tb/d, or 10%, to average 3.5 mb/d. On an annual basis, crude imports were higher in April by 63 tb/d, or 2%, and Japan's product imports went up in April by 97 tb/d to average 630 tb/d. China's crude oil imports dropped in April from the peak levels they had in the previous month by 806 tb/d to average 8.4 mb/d. In April, China's crude imports were up by 444 tb/d compared to the same month a year ago. As for China's product imports, they increased slightly by 27 tb/d in April compared to the previous month while declining by 64 tb/d compared to a year earlier to average 1.3 mb/d.

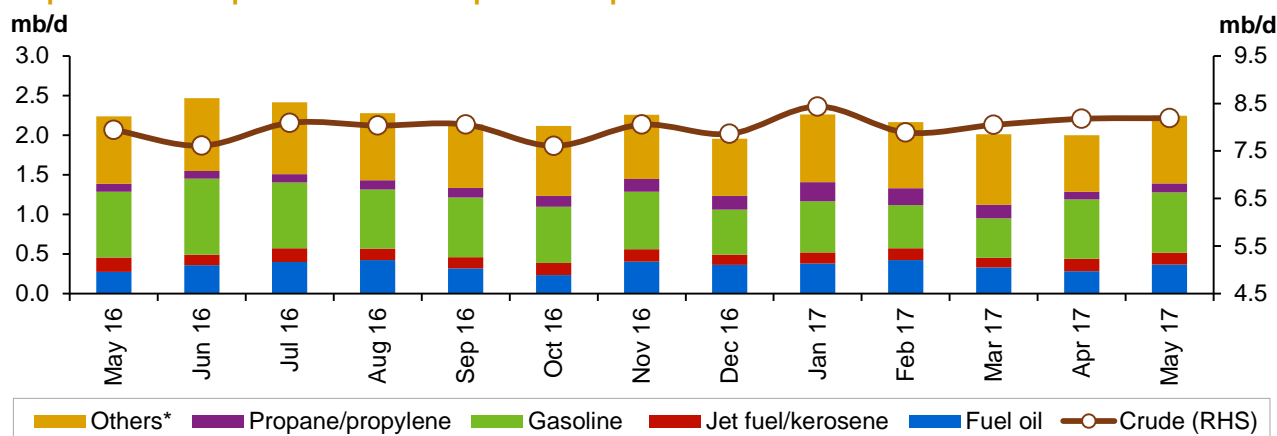
In April, India's crude imports rose to their highest level since November 2016, as they averaged 4.4 mb/d, up by 120 tb/d from the previous month. Y-o-y India's crude imports in April remained almost stable compared to last year. India's product imports declined by 124 tb/d or 14% from last month to average 793 tb/d. This reflected, y-o-y, a drop of 64 tb/d or 7%. The decline in product imports was mainly driven by lower imports of LPG.

## US

Preliminary data shows that **US crude oil imports** in May rose slightly, by 14 tb/d, from the previous month to average 8.2 mb/d. On an annual basis, US crude imports went up by 244 tb/d compared to last year.

**US products imports** also increased by 247 tb/d, or 12%, to average 2.25 mb/d m-o-m, while y-o-y they remained almost at last year's level. On a year-to-date comparison, crude imports were higher by 306 tb/d while product imports rose by 25 tb/d.

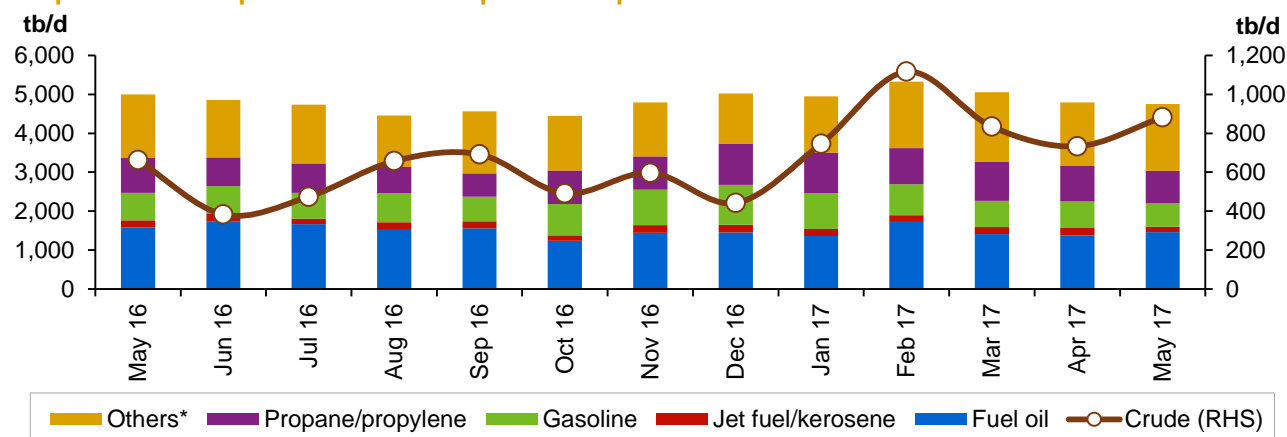
**Graph 8 - 1: US imports of crude and petroleum products**



Note: \*Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.

Sources: US Energy Information Administration and OPEC Secretariat.

**US product exports** went down by 41 tb/d, or 1%, to average 4.8 mb/d compared to the previous year.

**Graph 8 - 2: US exports of crude and petroleum products**

Note: \*Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.

Sources: US Energy Information Administration and OPEC Secretariat.

As a result, **US total net imports increased in May to average 4.8 mb/d, down by 152 tb/d from the previous month and up by 282 tb/d from last year.**

In March, Canada remained the **top supplier**, as was the case in previous months, accounting for 44% of total US crude imports. Canadian exports to the US in March were almost stable compared to the previous month. Saudi Arabia was the second largest supplier to the US, holding a share of 15% of total crude imports while Venezuela was the third largest supplier to the US, accounting for 9% of total US crude imports. Imports from Saudi Arabia were 165 tb/d less than those in the previous month while imports from Venezuela increased from the previous month by 22 tb/d.

**Total crude imports from OPEC Member Countries** increased in March from the previous month by 181 tb/d or 6%, and imports from OPEC Member Countries accounted for 42% of total US crude imports. US product imports from OPEC Member Countries went down from the previous month to stand at 236 tb/d, thereby constituting 12% of the total products imported by the US, which was 33 tb/d less than the same month last year.

As for **product supplier share**, Canada and Russia maintained their positions as the first and second largest suppliers to the US, accounting for 28% and 18% respectively. Algeria was the third largest product supplier to the US, with average imports amounting to 141 tb/d.

With regard to **US crude imports by region**, in March, US crude imports from North America averaged 3.5 mb/d. North America was the leading region for US crude imports, followed by Latin America which averaged 2.1 mb/d in March. The Middle East came in as the third largest region for crude imports, with an average of 2 mb/d. Imports from Africa increased, while there were no imports reported from Asia.

**Table 8 - 1: US crude and product net imports, tb/d**

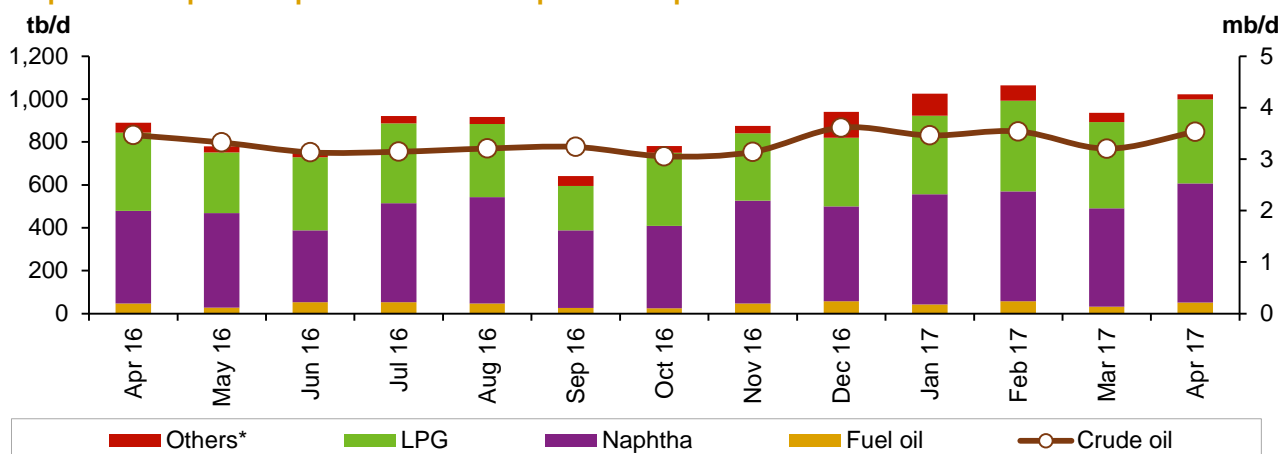
	Mar 17	Apr 17	May 17	Change May 17/Apr 17
Crude oil	7,214	7,443	7,308	-135
Total products	-3,041	-2,788	-2,500	288
<b>Total crude and products</b>	<b>4,173</b>	<b>4,655</b>	<b>4,807</b>	<b>152</b>

Sources: US Energy Information Administration and OPEC Secretariat.

## Japan

**Japan's crude oil imports** rose in April by 326 tb/d, or 10%, to average 3.5 mb/d. On an annual basis, crude imports were higher in April by 63tb/d or 2%. Despite higher volumes of imports, Japan's refinery throughput dropped from the previous month.

**Graph 8 - 3: Japan's imports of crude and petroleum products**



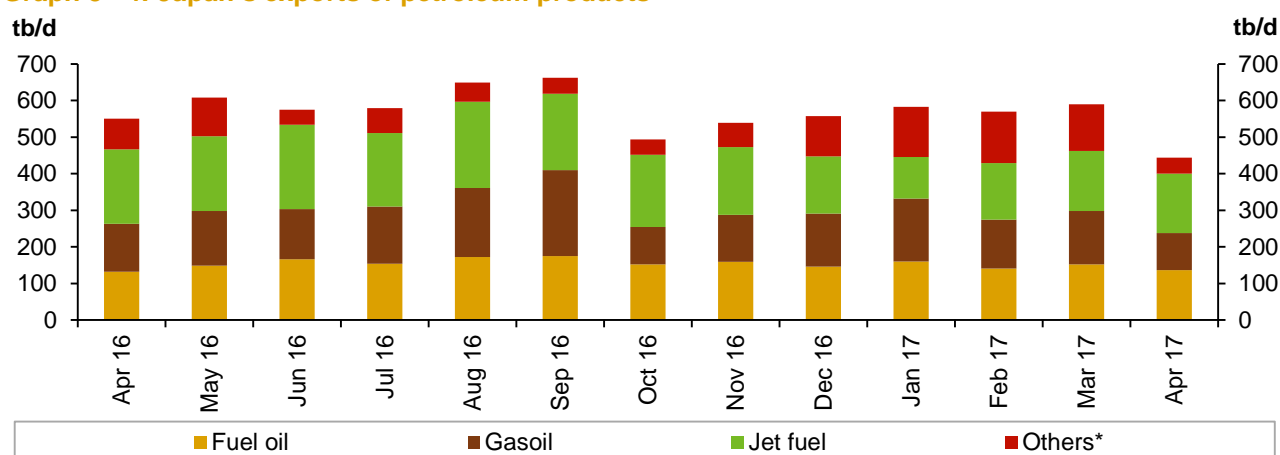
Note: \*Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.  
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

With regard to **crude suppliers' shares**, Saudi Arabia, as was the case in previous months, maintained its position as the leading crude supplier to Japan, holding a share of 45% of total crude exported to Japan, with an increase of 43 tb/d compared to the previous month. UAE was the second largest supplier to Japan with a share of 13% of total crude exports, although Japan's imports from UAE decreased by 337 tb/d in April m-o-m. Qatar came in third place, holding a share of 8%. Japan's imports from Qatar were down from the previous month by 29 tb/d.

**Japan's product imports** went up in April by 97 tb/d to average 630 tb/d, despite Japan's product sales declining by 2.3% from last year.

**Japan's product exports** in April were down from the previous month by 146 tb/d to average 444 tb/d.

**Graph 8 - 4: Japan's exports of petroleum products**



\*Others: Contains LPG, gasoline, naphtha, kerosene, lubricating oil, asphalt and paraffin wax.  
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

Accordingly, **Japan's net imports** rose in April by 568 tb/d to average 3.7 mb/d, reflecting higher monthly and annual imports.



**Table 8 - 2: Japan's crude and product net imports, tb/d**

	Feb 17	Mar 17	Apr 17	Change Apr 17/Mar 17
Crude oil	3,539	3,203	3,530	326
Total products	72	-56	187	242
<b>Total crude and products</b>	<b>3,610</b>	<b>3,148</b>	<b>3,716</b>	<b>568</b>

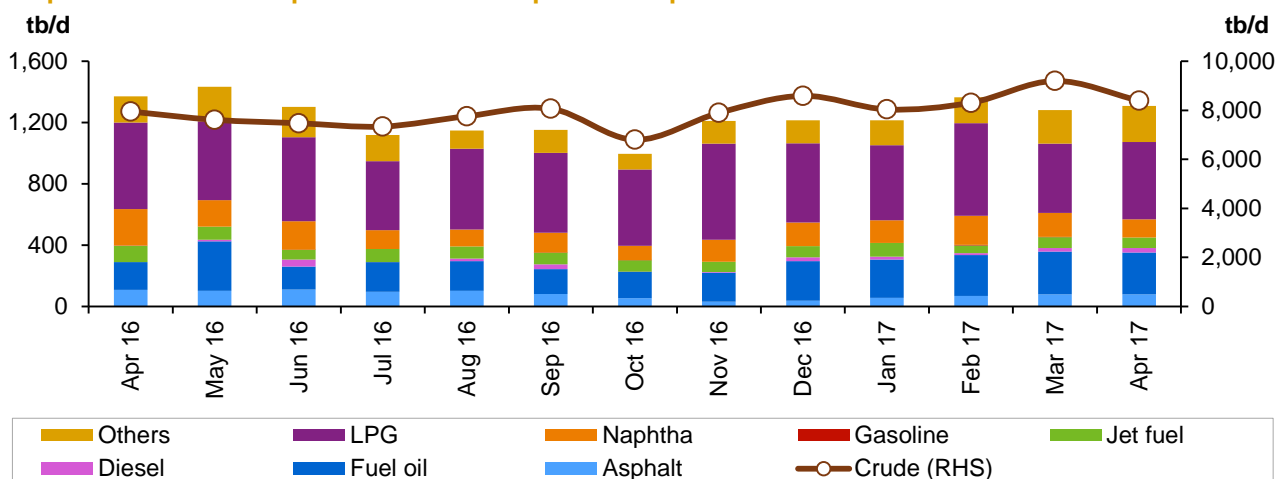
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

## China

Following the peak reached in the previous month, **China's crude oil imports** dropped in April by 806 tb/d to average 8.4 mb/d. Despite the drop, China's crude imports maintained a high level in April, up by 444 tb/d compared to the same month last year. At the same time, refinery throughput in China was higher in April than March.

In terms of **crude oil suppliers' share**, Russia, Angola and Saudi Arabia were the top crude suppliers to China in April holding a share of 14% 13% and 12% respectively. Imports from Russia and Angola were up from one month before by 43 tb/d and 14 tb/d respectively, while imports from Saudi Arabia declined by 110 tb/d from the previous month.

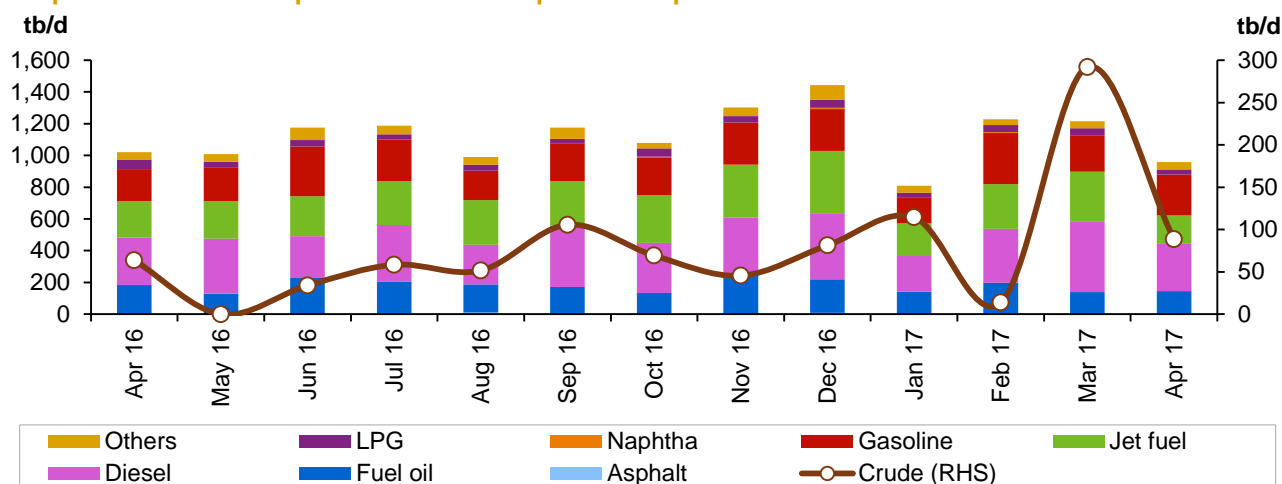
With regard to **China's product imports**, they rose slightly in April by 27 tb/d from the previous month while declining by 64 tb/d compared to the previous year to average 1.3 mb/d.

**Graph 8 - 5: China's imports of crude and petroleum products**

Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

**China's crude exports** dropped in April from the high level seen in March to average 89 tb/d, down by 203 tb/d from a month ago while remaining above the figure from last year by 25 tb/d.

Graph 8 - 6: China's exports of crude and petroleum products



Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

As a result, **China's net oil imports** dropped by 318 mb/d, or 4%, from the previous month however they showed an increase by 417 mb/d, or 5%, compared to a year ago.

Table 8 - 3: China's crude and product net imports, tb/d

	Feb 17	Mar 17	Apr 17	Change Apr 17/Mar 17
Crude oil	8,295	8,906	8,304	-602
Total products	137	65	350	284
<b>Total crude and products</b>	<b>8,432</b>	<b>8,971</b>	<b>8,653</b>	<b>-318</b>

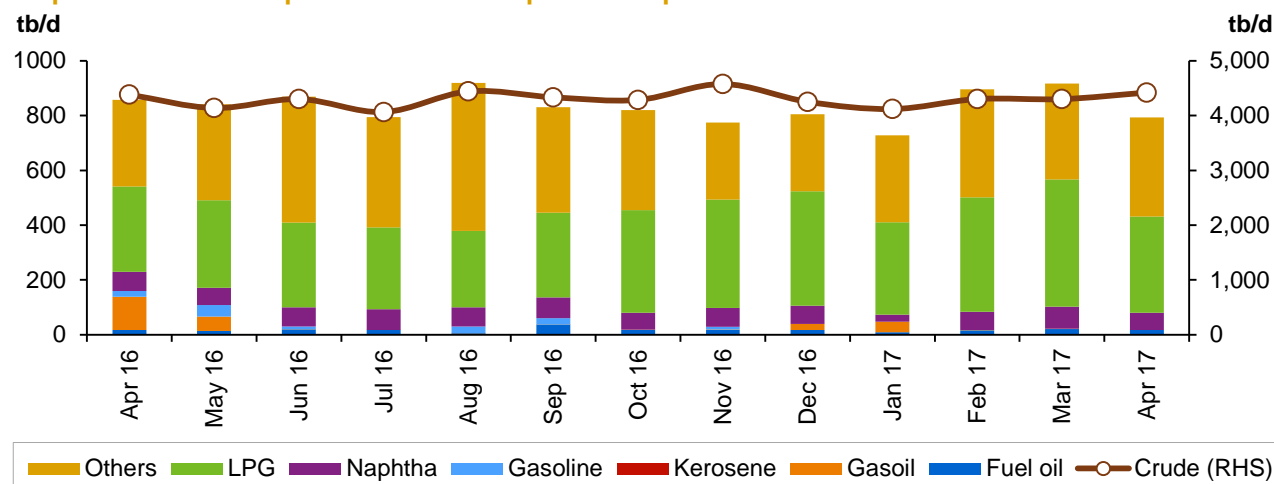
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

## India

In April, **India's crude oil imports** rose to their highest level since November 2016 as they averaged 4.4 mb/d, which is an increase of 120 tb/d compared to the previous month. This increase came despite the country approaching high maintenance season in May. Annual Indian crude imports in April remained almost stable compared to last year's level. India's refinery throughput dropped in April from the previous month.

**India's product imports** declined by 124 tb/d, or 14%, from a month ago to average 793 tb/d. Y-o-y, this reflects a drop of 64 tb/d, or 7%. The decline in product imports was mainly driven by lower imports of LPG.

Graph 8 - 7: India's imports of crude and petroleum products

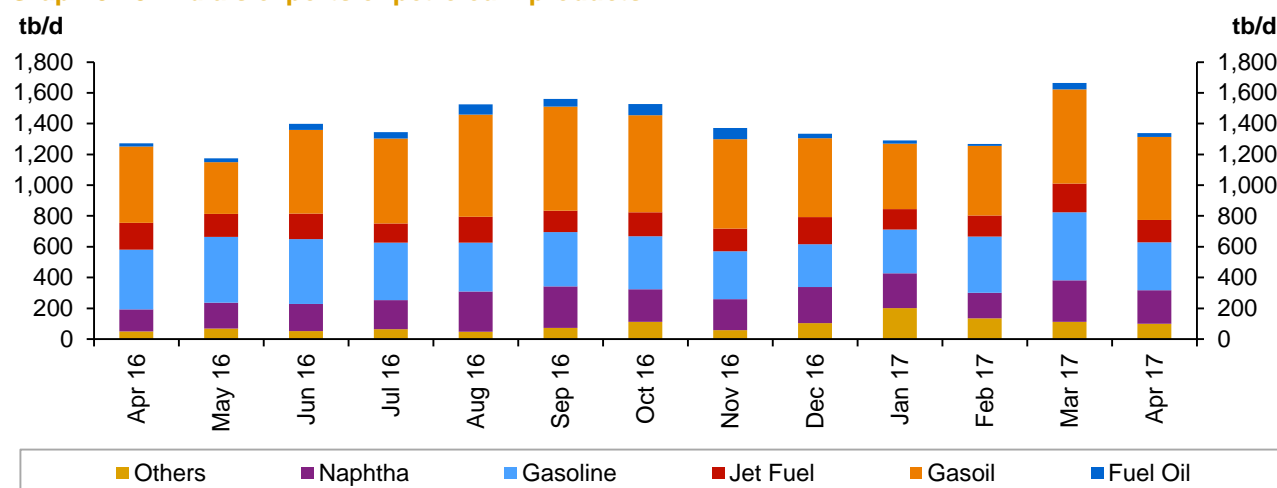


Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

## Oil Trade

With regard to Indian **product exports**, they went down compared to the previous month by 326 tb/d, or 20%, to average 1.3 tb/d, mainly as exports of diesel and gasoline dropped relative to the previous month.

**Graph 8 - 8: India's exports of petroleum products**



Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

Therefore, **India's net imports** dropped by 322 tb/d to average 3.9 mb/d.

**Table 8 - 4: India's crude and product net imports, tb/d**

	<u>Feb 17</u>	<u>Mar 17</u>	<u>Apr 17</u>	<u>Change</u> <u>Apr 17/Mar 17</u>
Crude oil	4,302	4,301	4,420	120
Total products	-371	-748	-545	202
<b>Total crude and products</b>	<b>3,931</b>	<b>3,553</b>	<b>3,875</b>	<b>322</b>

Note: India data table does not include information for crude import and product export by Reliance Industries.

Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

## FSU

In April, total **crude oil exports** from the former Soviet Union went up by 420 tb/d, or 6%, to average 7.4 mb/d. Total Russian crude exports increased by 294 tb/d, or 7%, to average 4.5 mb/d.

Total shipments from the **Black Sea** rose by 71 tb/d, or 12%, from last month to average 686 tb/d. Total **Baltic Sea** exports increased by 105 tb/d in April, as shipments from the Primorsk port terminal increased. The Druzhba pipeline's total shipment increased by 51 tb/d to average 1 mb/d. Kozmino shipments increased by 91 tb/d, or 15%, to average 694 tb/d.

Exports through the **Lukoil System** rose from the previous month in the Barents Sea and the Baltic Sea where they went up by 32 tb/d and 4 tb/d, respectively.

**Russian Far East** total exports were down by 7 tb/d, or 2%, from the previous month and **Black Sea** total exports dropped by 34 tb/d as a result of lower volumes of shipment from the Novorossiysk (cbc) and Batumi port terminals. In the **Mediterranean**, BTC supplies increased from the previous month by 83 tb/d, or 14%, to average 671 tb/d.

**FSU total products exports** dropped by 238 tb/d, or 7%, from the previous month to average 3.4 mb/d. This drop in product exports came as a result of a drop in all exports, with jet and VGO being the exception.

Table 8 - 5: Recent FSU exports of crude and petroleum products by sources, tb/d

		2016	4Q16	1Q17	Mar 17	Apr 17
<b>Transneft system</b>						
<b>Europe</b>	<b>Black sea total</b>	<b>600</b>	<b>545</b>	<b>558</b>	<b>614</b>	<b>686</b>
	Novorossiysk port terminal - total	600	545	558	614	686
	of which: Russian oil	443	386	387	431	487
	Others	157	159	172	184	198
	<b>Baltic sea total</b>	<b>1,593</b>	<b>1,668</b>	<b>1,650</b>	<b>1,697</b>	<b>1,801</b>
	Primorsk port terminal - total	1,000	1,010	1,011	977	1,081
	of which: Russian oil	1,000	1,010	1,011	977	1,081
	Others	0	0	0	0	0
	Ust-Luga port terminal - total	593	658	639	720	720
	of which: Russian oil	388	446	464	534	528
	Others	205	212	175	186	192
	<b>Druzhba pipeline total</b>	<b>1,072</b>	<b>1,098</b>	<b>987</b>	<b>953</b>	<b>1,004</b>
	of which: Russian oil	1,040	1,066	954	922	972
	Others	32	32	32	32	32
<b>Asia</b>	<b>Pacific ocean total</b>	<b>646</b>	<b>666</b>	<b>617</b>	<b>604</b>	<b>694</b>
	Kozmino port terminal - total	646	666	617	604	694
	<b>China (via ESPO pipeline) total</b>	<b>335</b>	<b>332</b>	<b>342</b>	<b>328</b>	<b>305</b>
	China Amur	335	332	342	328	305
<b>Total Russian crude exports</b>		<b>4,246</b>	<b>4,309</b>	<b>4,153</b>	<b>4,196</b>	<b>4,491</b>
<b>Lukoil system</b>						
<b>Europe &amp; North America</b>	<b>Barents sea total</b>	<b>159</b>	<b>154</b>	<b>183</b>	<b>169</b>	<b>201</b>
	Varandey offshore platform	159	154	183	169	201
<b>Europe</b>	<b>Baltic sea total</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>10</b>	<b>14</b>
	Kalinigrad port terminal	15	13	14	10	14
<b>Other routes</b>						
<b>Asia</b>	<b>Russian Far East total</b>	<b>360</b>	<b>372</b>	<b>381</b>	<b>389</b>	<b>383</b>
	Aniva bay port terminal	119	135	138	139	124
	De Kastri port terminal	241	236	243	250	259
	<b>Central Asia total</b>	<b>194</b>	<b>195</b>	<b>230</b>	<b>224</b>	<b>283</b>
	Kenkiyak-Alashankou	194	195	230	224	283
<b>Europe</b>	<b>Black sea total</b>	<b>1,078</b>	<b>1,226</b>	<b>1,239</b>	<b>1,349</b>	<b>1,315</b>
	Novorossiysk port terminal (CPC)	957	1,113	1,144	1,259	1,242
	Supsa port terminal	79	64	74	65	65
	Batumi port terminal	42	49	21	25	7
	Kulevi port terminal	0	0	0	0	0
	<b>Mediterranean sea total</b>	<b>668</b>	<b>615</b>	<b>674</b>	<b>588</b>	<b>671</b>
	BTC	668	615	674	588	671
<b>Russian rail</b>						
	<b>Russian rail</b>	<b>34</b>	<b>37</b>	<b>44</b>	<b>42</b>	<b>31</b>
	of which: Russian oil	30	36	44	42	31
	Others	4	2	0	0	0
<b>Total FSU crude exports</b>		<b>6,754</b>	<b>6,921</b>	<b>6,919</b>	<b>6,968</b>	<b>7,388</b>
<b>Products</b>						
	Gasoline	189	173	188	179	177
	Naphtha	509	510	594	606	534
	Jet	40	30	32	30	43
	Gasoil	971	877	1,188	1,290	1,198
	Fuel oil	1,044	1,023	1,162	1,245	1,041
	VGO	305	333	346	246	365
<b>Total FSU product exports</b>		<b>3,058</b>	<b>2,945</b>	<b>3,510</b>	<b>3,596</b>	<b>3,358</b>
<b>Total FSU oil exports</b>		<b>9,812</b>	<b>9,866</b>	<b>10,429</b>	<b>10,564</b>	<b>10,746</b>

Sources: Argus Nefte Transport and Argus Global Markets.

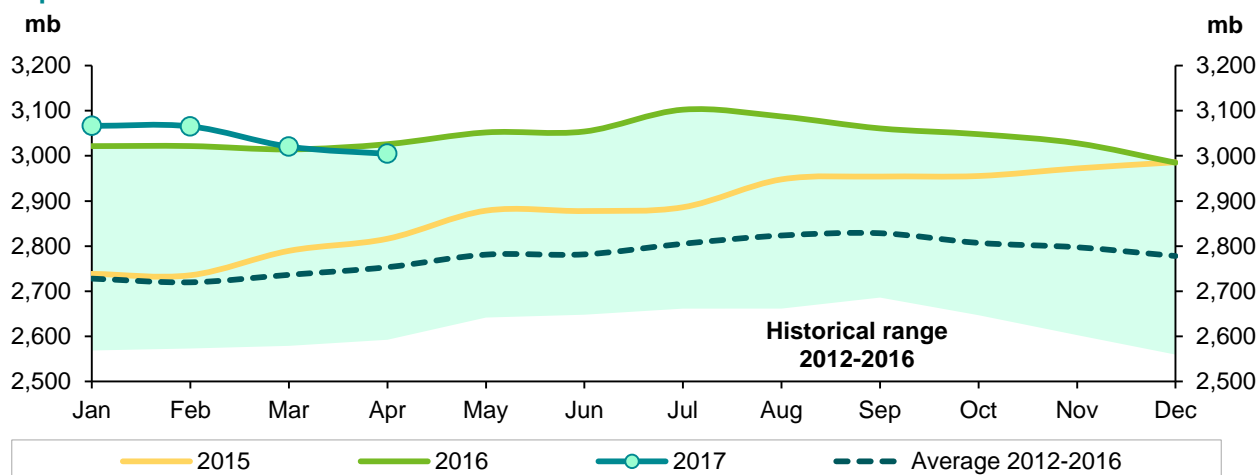
## Stock Movements

OECD commercial oil stocks fell in April to stand at 3,005 mb, which is around 251 mb above the latest five-year average. Crude and products indicated a surplus of around 171 mb and 80 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 64.1 days in April, 4.1 days higher than the latest five-year average. Preliminary data for May shows that US total commercial oil stocks rose to stand at 1,346 mb, indicating a surplus of 159 mb above the latest five-year average. Within the components, crude fell by 14.6 mb, while products rose by 22.0 mb, m-o-m. The latest information for China shows that total commercial oil inventories fell in April to 381.9 mb, which is 15.1 mb lower than the previous year. Within the components, crude rose by 3.6 mb, while product stocks fell by 12.5 mb.

### OECD

Preliminary data for April shows that **total OECD commercial oil stocks** fell by 15.9 mb for the third consecutive month to stand at 3,005 mb, which is around 21 mb lower than the same time one year ago, but 251 mb above the latest five-year average. Within the components, crude and products fell by 9.9 mb and 6.0 mb, respectively. OECD Americas and OECD Europe witnessed stock draws, while OECD Asia Pacific saw a stock build.

**Graph 9 - 1: OECD's commercial oil stocks**



Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.

**OECD commercial crude** stocks fell by 9.9 mb in April, reversing the build of the last three months to stand at 1,537 mb, which is 22 mb above the same time a year ago and around 171 mb higher than the latest five-year average. While OECD Asia Pacific witnessed a stock build, OECD Americas and OECD Europe experienced stock draws in commercial crude stocks.

**OECD product inventories** also fell by 6.0 mb in April to stand at 1,468 mb, which is 44 mb below the same time a year ago, but 81 mb above the seasonal norm. OECD Americas and OECD Europe witnessed stock draws, while OECD Asia Pacific saw a stock build.

In terms of **days of forward cover**, OECD commercial stocks fell by 0.9 mb in April to stand at 64.1 days, which is 1.2 days less than the same period in 2016, and 4.1 days higher than the latest five-year average. Within the regions, OECD Americas had 5.5 more days of forward cover than the historical average to stand at 63.4 days in April. OECD Asia Pacific stood 0.9 days higher than the seasonal average to finish the month at 53.7 days, while OECD Europe indicated a surplus of 3.2 days above the seasonal norm, averaging 70.8 days in April.

## OECD Americas

**Total commercial stocks** in OECD Americas fell by 13.1 mb in April for the third consecutive month to stand at 1,592 mb, which is 6.8 mb below a year ago and 182 mb higher than the seasonal norm. Within the components, crude and product stocks fell by 10.1 mb and 3.0 mb, respectively.

At the end of April, **commercial crude oil stocks** in OECD Americas fell, ending the month at 862 mb, which is 25 mb above the same time one year ago and 144 mb above the latest five-year average. The decline was mainly driven by higher crude throughput, which increased by nearly 1.0 mb/d in April to average 17.0 mb/d. However, higher crude imports limited further drops.

**Commercial product stocks** in OECD Americas also fell by 3.0 mb in April, the third consecutive monthly drop, to stand at 730 mb, which is 32 mb less than the same time one year ago, but 38 mb higher than the seasonal norm. This drop was mainly driven by higher US demand compared to the previous month.

## OECD Europe

OECD Europe's **total commercial stocks** fell by 9.5 mb in April, ending the month at 1,005 mb, which is 2.3 mb lower than the same time a year ago, but 68 mb above the latest five-year average. Crude and product stocks fell by 4.2 mb and 5.2 mb, respectively.

OECD Europe's **commercial crude stocks** fell in April to stand at 424 mb, which is 2.3 mb higher than a year earlier and 19.7 mb higher than the latest five-year average. This drop was driven by higher refinery throughput, which increased by around 210 tb/d to stand at 10.6 mb/d in April.

OECD Europe's **commercial product stocks** also fell by 5.2 mb to end April at 581 mb, which is 4.5 mb lower than the same time a year ago, but 48 mb higher than the seasonal norm. The drop in product stocks could be attributed to higher demand in the region.

## OECD Asia Pacific

In contrast, OECD Asia Pacific's **total commercial oil stocks** rose by 6.7 mb in April to stand at 408 mb, which is 12.3 mb lower than a year ago, but 1.6 mb higher than the five-year average.

Within the components, **crude and products** rose in April by 4.5 mb and 2.3 mb from March, respectively. **Crude inventories** ended the month of April at 251 mb, which is 5.3 mb below a year ago, but 7.1 mb higher than the seasonal norm.

OECD Asia Pacific's **total product inventories** ended April at 157 mb, standing 7.0 mb lower than the same time a year ago and 5.5 mb lower than the seasonal norm.

**Table 9 - 1: OECD's commercial stocks, mb**

	<u>Feb 17</u>	<u>Mar 17</u>	<u>Apr 17</u>	<u>Change</u> <u>Apr 17/Mar 17</u>	<u>Apr 16</u>
<b>Crude oil</b>	1,537	1,547	1,537	-9.9	1,515
<b>Products</b>	1,528	1,474	1,468	-6.0	1,511
<b>Total</b>	<b>3,065</b>	<b>3,021</b>	<b>3,005</b>	<b>-15.9</b>	<b>3,026</b>
<b>Days of forward cover</b>	<b>65.8</b>	<b>65.0</b>	<b>64.1</b>	<b>-0.9</b>	<b>65.3</b>

*Note: Totals may not add up due to independent rounding.*

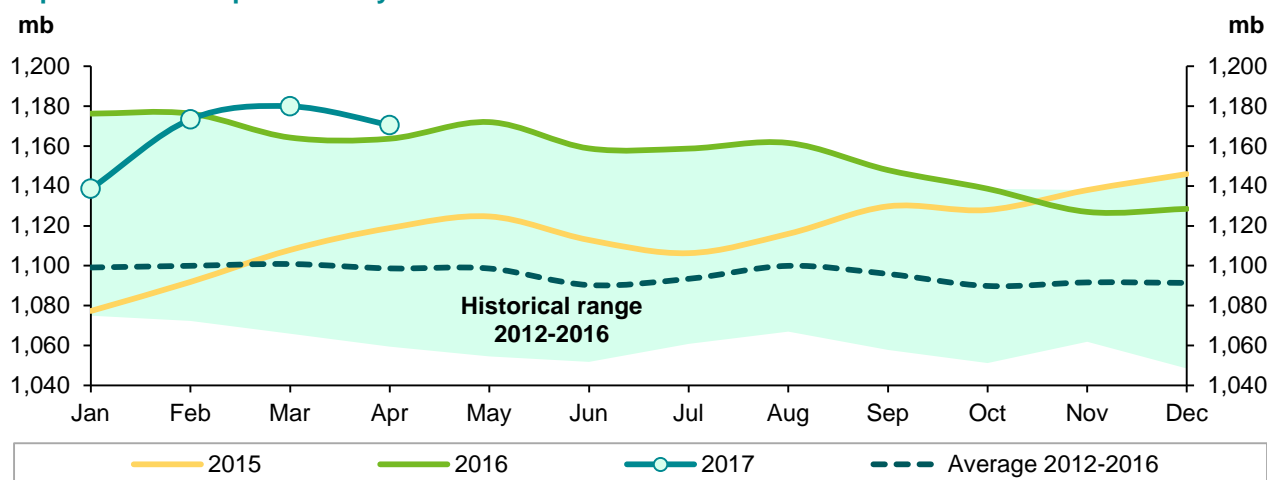
*Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.*



## EU plus Norway

Preliminary data for April shows that **total European stocks** fell by 9.5 mb, reversing the build of the last four months, to settle at 1,170 mb, which is 6.8 mb, or 0.6%, higher than the same time a year ago, and 71.8 mb, or 6.5%, higher than the latest five-year average. Crude and product stocks fell by 4.2 mb and 5.2 mb, respectively.

**Graph 9 - 2: EU-15 plus Norway's total oil stocks**



Source: Euroilstock.

European **crude inventories** fell in April to stand at 490.3 mb, which is 1.9 mb, or 0.4%, higher than the same period a year ago. Comparing to the seasonal average, they were 15.6 mb, or 3.3%, higher. The drop in crude oil stocks was driven by higher refinery throughput as European refiners were running at around 10.4 mb/d in April, about 80 tb/d higher than during March.

European **product stocks** also fell by 5.2 mb, ending April at 680.2 mb, which is 4.9 mb, or 0.7%, higher than the same time a year ago and 56.3 mb, or 9.0%, above the seasonal norm. Within products, distillate and gasoline stocks dropped, while naphtha and residual fuel oil inventories witnessed draws.

**Gasoline stocks** fell by 1.7 mb in April, ending the month at 123.5 mb, which is 1.1 mb, or 0.9%, higher than the same time one year ago, and 8.7 mb, or 7.6%, higher than the seasonal norm. **Distillate stocks** fell by 4.1 mb in April to end the month at 458.7 mb, which is 8.4 mb, or 1.9%, higher than the same time a year ago, and 59.3 mb, or 14.9%, above the latest five-year average. For both products, the fall was driven mainly by higher demand combined with higher output. In contrast, **residual fuel oil stocks** fell by 0.1 mb in April to stand at 70.7 mb, which is 6.9 mb, or 8.9%, less than the same month a year ago, and 10.3 mb, or 12.7%, lower than the latest five-year average.

**Table 9 - 2: EU-15 plus Norway's total oil stocks, mb**

	Feb 17	Mar 17	Apr 17	Change Apr 17/Mar 17	Apr 16
<b>Crude oil</b>	<b>493.9</b>	<b>494.6</b>	<b>490.3</b>	<b>-4.2</b>	<b>488.4</b>
<b>Gasoline</b>	125.7	125.2	123.5	-1.7	122.4
<b>Naphtha</b>	26.4	26.8	27.3	0.4	25.1
<b>Middle distillates</b>	455.3	462.8	458.7	-4.1	450.3
<b>Fuel oils</b>	72.2	70.6	70.7	0.1	77.6
<b>Total products</b>	<b>679.5</b>	<b>685.4</b>	<b>680.2</b>	<b>-5.2</b>	<b>675.3</b>
<b>Total</b>	<b>1,173.4</b>	<b>1,180.0</b>	<b>1,170.5</b>	<b>-9.5</b>	<b>1,163.7</b>

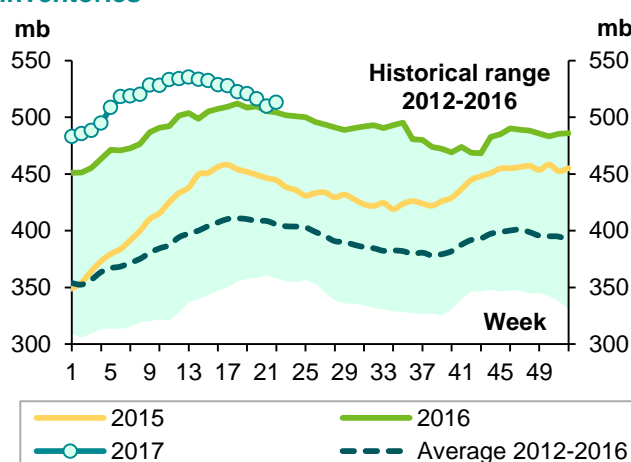
Sources: Argus and Euroilstock.

# US

Preliminary data for May shows that US **total commercial oil stocks** rose by 7.5 mb, reversing the fall of last three months, to settle at 1,346 mb, which is 6.1 mb, or 0.5%, lower than the same period a year ago, but 176.1 mb, or 15.1%, higher than the latest five-year average. Within the components, crude fell by 14.6 mb, while products rose by 22.0 mb, m-o-m.

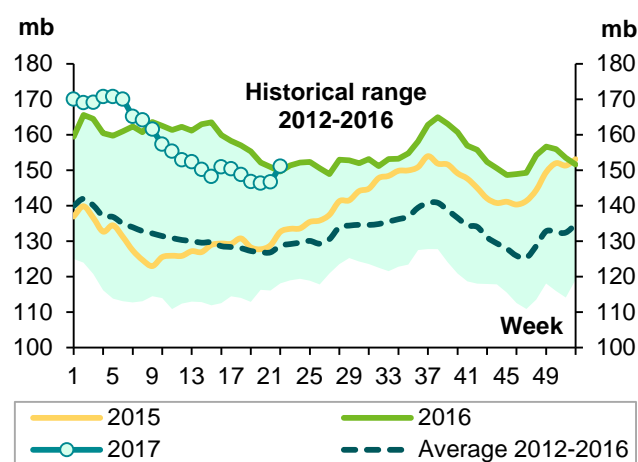
US **commercial crude stocks** fell in May for the second consecutive month, to stand at 513.2 mb, which is 4.2 mb, or 0.8%, above the same time one year ago and 103.1 mb, or 25.1%, above the latest five-year average. The decline was mainly driven by higher crude throughput, which increased by nearly 300 tb/d to average 17.2 mb/d in May. This corresponds to a refinery utilisation rate of 93%, which is 0.8 pp higher than April's rate. Lower crude imports limited further drops. It should be noted that during the week ending 2 June, crude oil stocks rose by 3.3 mb against market expectations, reversing the declining trend of the last eight consecutive weeks.

**Graph 9 - 3: US weekly commercial crude oil inventories**



Sources: US Energy Information Administration and OPEC Secretariat.

**Graph 9 - 4: US weekly distillates inventories**



Sources: US Energy Information Administration and OPEC Secretariat.

In contrast, **total product stocks** rose by 22.0 mb in May, following a build of 8.1 mb in April, to stand at 833.3 mb, which is 10.4 mb, or 1.2%, down from the level seen at the same time in 2016, but 72.9 mb, or 9.6%, above the seasonal average. Within products, with the exception of gasoline, all other products experienced stock builds.

**Distillate stocks** rose by 0.7 mb in May to stand at 151.1 mb, indicating a deficit of 3.3 mb, or 2.1%, below the same period a year ago, yet 20.1 mb, or 15.3%, above the latest five-year average. The build in middle distillate stocks mainly came as a result of lower consumption combined with higher distillation production.

**Residual fuel stocks** also rose by 0.5 mb, ending May at 39.9 mb, which is 0.5 mb, or 1.1%, below the same period a year ago and 1.5 mb, or 3.9%, higher than the latest five-year average.

By contrast, **gasoline stocks** fell by 0.9 mb in May, reversing the build of the last month, to settle at 240.3 mb, which is 2.3 mb, or 0.9%, lower than the same period a year ago, but 18.4 mb, or 8.3%, above the latest five-year average. The drop came mainly as a result of higher consumption, which increased by more than 380 tb/d from the previous month to stand at 9.5 mb/d.

**Table 9 - 3: US onland commercial petroleum stocks, mb**

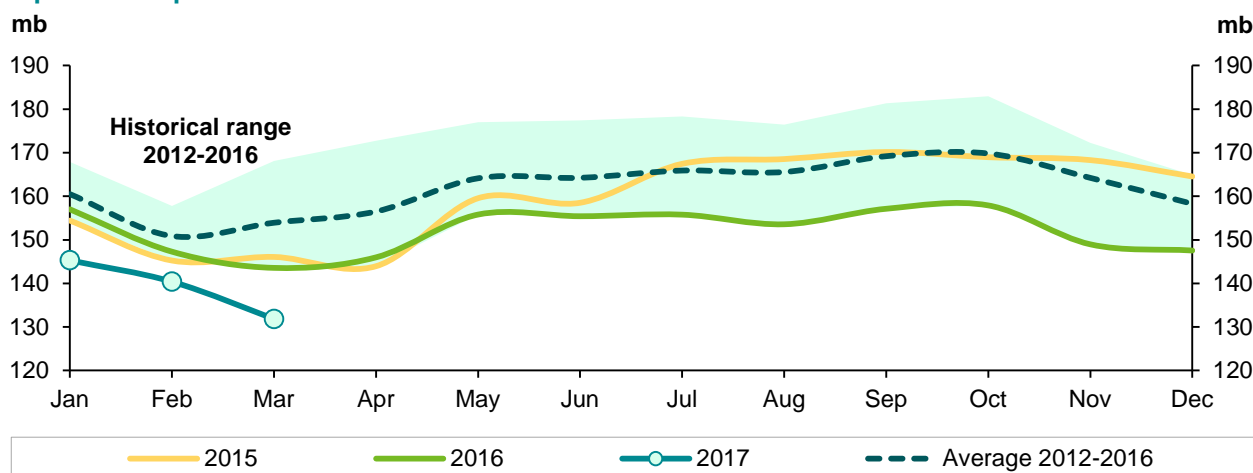
	Mar 17	Apr 17	May 17	Change May 17/Apr 17	May 16
<b>Crude oil</b>	<b>537.9</b>	<b>527.8</b>	<b>513.2</b>	<b>-14.6</b>	<b>509.0</b>
<b>Gasoline</b>	239.0	241.2	240.3	-0.9	242.6
<b>Distillate fuel</b>	151.1	150.4	151.1	0.7	154.4
<b>Residual fuel oil</b>	40.8	39.4	39.9	0.5	40.4
<b>Jet fuel</b>	42.3	43.4	44.6	1.2	44.5
<b>Total</b>	<b>1,341.0</b>	<b>1,339.0</b>	<b>1,346.5</b>	<b>7.5</b>	<b>1,352.6</b>
<b>SPR</b>	<b>691.5</b>	<b>689.3</b>	<b>685.0</b>	<b>-4.3</b>	<b>695.1</b>

Sources: US Energy Information Administration and OPEC Secretariat.

## Japan

In Japan, **total commercial oil stocks** rose by 13.4 mb in April, reversing the stock draws of the last five consecutive months, to settle at 145.3 mb, which is 0.7 mb, or 0.5%, less than the same time a year ago and 11.2 mb, or 7.2%, below the five-year average. Within the components, crude and product stocks rose by 8.9 mb and 4.5 mb, respectively.

**Graph 9 - 5: Japan's commercial oil stocks**



Source: Ministry of Economic, Trade and Industry of Japan.

Japanese **commercial crude oil stocks** rose in April to stand at 87.4 mb, which is 0.7 mb, or 0.8%, below the same period a year ago, and 5.7 mb, or 6.2%, below the seasonal norm. The build was driven by higher crude imports, which increased by 326 tb/d, or 10.2%, to average 3.5 mb/d. Lower crude throughputs also contributed to the build in crude oil stocks, dropping by around 90 tb/d, or 2.7%, to stand at 3.21 mb/d.

Japan's **total product inventories** rose by 4.5 mb in April to stand at 57.8 mb, which is in line with the same month one year ago, but is 5.5 mb, or 8.7%, less than the seasonal norm. This stock build came on the back of lower oil product sales, which fell by around 310 b/d to stand at 2.9 mb/d. All products witnessed stock builds.

**Gasoline stocks** rose in April by 0.7 mb to stand at 11.5 mb, which is 0.3 mb, or 2.3%, higher than the same time a year ago, but 1.2 mb, or 9.5%, below the latest five-year average. The build was driven by lower domestic sales, which decreased by 5% from the previous month.

**Distillate stocks** also rose, increasing by 3.1 mb in April, to stand at 23.6 mb, which is 0.5 mb, or 1.9%, below one year ago at the same time, and 2.3 mb, or 8.9%, below the seasonal average. Within the distillate components, **gasoil** and **kerosene** rose by 16.5% and 17.1%, respectively, while **jet fuel** rose by 9.8%. Lower domestic sales were behind the builds in distillate component stocks.

**Total residual fuel oil** stocks rose slightly by 0.2 mb in April to stand at 13.3 mb, which is in line with a year ago, but is 1.8 mb, or 11.7%, below the latest five-year average. Within the fuel oil components, fuel oil A and fuel B.C rose by 2.0% and 1.4%, respectively. The build in fuel oil A was driven by lower domestic sales, which fell by almost 30%. The build in fuel B.C was attributed to higher imports as domestic sales increased.

**Table 9 - 4: Japan's commercial oil stocks\*, mb**

	<u>Feb 17</u>	<u>Mar 17</u>	<u>Apr 17</u>	<u>Change</u> <u>Apr 17/Mar 17</u>	<u>Apr 16</u>
<b>Crude oil</b>	<b>83.1</b>	<b>78.5</b>	<b>87.4</b>	<b>8.9</b>	<b>88.2</b>
<b>Gasoline</b>	11.2	10.9	11.5	0.7	11.3
<b>Naphtha</b>	9.0	8.9	9.4	0.6	9.3
<b>Middle distillates</b>	24.0	20.5	23.6	3.1	24.0
<b>Residual fuel oil</b>	13.1	13.1	13.3	0.2	13.3
<b>Total products</b>	<b>57.3</b>	<b>53.3</b>	<b>57.8</b>	<b>4.5</b>	<b>57.8</b>
<b>Total**</b>	<b>140.4</b>	<b>131.8</b>	<b>145.3</b>	<b>13.4</b>	<b>146.0</b>

Note: \* At the end of the month.

\*\* Includes crude oil and main products only.

Source: Ministry of Economy, Trade and Industry of Japan.

## China

The latest information for China showed that **total commercial oil inventories** fell by 9.0 mb in April for the second consecutive month, to settle at 381.9 mb, which is 15.1 mb lower than the previous year. Within the components, crude stocks rose by 3.6 mb, while products stocks fell by 12.5 mb.

**Table 9 - 5: China's commercial oil stocks, mb**

	<u>Feb 17</u>	<u>Mar 17</u>	<u>Apr 17</u>	<u>Change</u> <u>Apr 17/Mar 17</u>	<u>Apr 16</u>
<b>Crude oil</b>	<b>222.7</b>	<b>217.8</b>	<b>221.3</b>	<b>3.6</b>	<b>229.1</b>
<b>Gasoline</b>	64.8	71.2	71.0	-0.2	69.6
<b>Diesel</b>	88.6	82.1	70.3	-11.8	80.3
<b>Jet/Kerosene</b>	20.1	19.8	19.2	-0.6	18.1
<b>Total products</b>	<b>173.5</b>	<b>173.1</b>	<b>160.6</b>	<b>-12.5</b>	<b>167.9</b>
<b>Total</b>	<b>396.2</b>	<b>390.9</b>	<b>381.9</b>	<b>-9.0</b>	<b>397.0</b>

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

In April, **commercial crude stocks** rose by 3.6 mb, reversing the stock draws of the last two months, to settle at 221.3 mb, which is 7.8 mb below last year at the same time. This build was driven mainly by lower crude runs as a decline in crude output limited further builds in crude oil stocks. Indeed, crude runs and crude oil output fell by 3.5% and 6.4%, m-o-m, respectively.

In contrast, **total commercial product stocks** in China fell by 12.5 mb in April to stand at 160.6 mb, which is 7.3 mb below the same time a year ago. Within products, all products witnessed stock draws.

**Diesel** inventories fell sharply in April, by 11.8 mb, for the second consecutive month to settle at 70.3 mb, which is 9.9 mb below a year ago at the same time. The decline was mainly driven by higher demand supported by higher industrial, mining and infrastructure activities.

**Gasoline** and **kerosene** fell in April by 0.2 mb and 0.6 mb to stand at 71.0 mb and 19.2 mb, respectively. The fall in both products could be attributed to lower refinery output.

## Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

### Singapore

At the end of April, **product stocks** in Singapore fell by 2.4 mb to stand at 49.3 mb, which is 3.1 mb, or 5.9%, below the same period a year ago. Within products, all products witnessed stock draws.

**Middle distillate stocks** fell by 0.6 mb in April to end the month at 11.9 mb, which is 2.9 mb, or 32%, higher than the same period a year ago.

**Residual fuel oil stocks** also fell in April by 1.5 mb in Singapore to stand at 23.5 mb, which is 4.4 mb, or 15.8%, lower than the same time a year ago. The stock draw could be attributed to higher marine bunker demand in the region along with higher exports.

**Light distillate stocks** fell by 0.3 mb in April to stand at 13.9 mb, which is 1.6 mb, or 10.1%, below the same time one year ago.

### Amsterdam-Rotterdam-Antwerp (ARA)

**Product stocks** in ARA fell by 1.8 mb in April, reversing the build of the previous month, to settle at 48.9 mb, which is 1.8 mb, or 3.8%, higher than at the same time a year ago. Within products, the picture was mixed with fuel oil, gasoil and naphtha experiencing stock draws, while jet oil and gasoline saw builds.

**Gasoline and jet oil stocks** rose by 0.8 mb and 1.5 mb in April to stand at 24.3 mb and 6.3 mb, respectively. Gasoline stocks remained 0.1 mb, or 1.5%, below the same time a year ago, while jet fuel stood at 0.9 mb, or 16.2%, above last year at the same time.

In contrast, **gasoil and fuel oil inventories** fell by 0.9 mb and 2.4 mb, respectively. At 23.4 mb, gasoil stocks were 1.0 mb, or 4.3%, below the same time a year ago. Fuel oil stocks ended the month of April at 7.6 mb, which is 1.1 mb, or nearly 17%, above the same time a year ago.

## Balance of Supply and Demand

Demand for OPEC crude in 2016 stood at 31.8 mb/d, which is 2.0 mb/d higher than the 2015 level. In 2017, the demand for OPEC crude is projected at 32.0 mb/d, around 0.3 mb/d higher than last year.

### Balance of supply and demand in 2016

**Demand for OPEC crude in 2016** stood at 31.8 mb/d, unchanged from the previous report, which represents an increase of 2.0 mb/d from the 2015 level. All of the quarters are unchanged from the previous report.

Compared to the same quarters of last year, the first and second quarters increased by 1.4 mb/d and 2.5 mb/d, respectively, while the third quarter grew by 2.2 mb/d. The fourth quarter rose by 2.0 mb/d.

**Table 10 - 1: Supply/demand balance for 2016, mb/d**

	2015	1Q16	2Q16	3Q16	4Q16	2016	Change 2016/15
<b>(a) World oil demand</b>	<b>93.68</b>	<b>94.12</b>	<b>94.13</b>	<b>96.00</b>	<b>96.19</b>	<b>95.12</b>	<b>1.44</b>
Non-OPEC supply	58.00	57.97	56.49	56.85	57.88	57.30	-0.71
OPEC NGLs and non-conventionals	5.94	5.95	6.08	6.15	6.02	6.05	0.11
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>63.95</b>	<b>63.93</b>	<b>62.57</b>	<b>63.00</b>	<b>63.90</b>	<b>63.35</b>	<b>-0.60</b>
<b>Difference (a-b)</b>	<b>29.73</b>	<b>30.20</b>	<b>31.56</b>	<b>33.00</b>	<b>32.29</b>	<b>31.77</b>	<b>2.03</b>
<b>OPEC crude oil production</b>	<b>31.52</b>	<b>31.96</b>	<b>32.17</b>	<b>32.63</b>	<b>33.13</b>	<b>32.47</b>	<b>0.95</b>
<b>Balance</b>	<b>1.79</b>	<b>1.76</b>	<b>0.61</b>	<b>-0.37</b>	<b>0.84</b>	<b>0.71</b>	<b>-1.08</b>

*Note: Totals may not add up due to independent rounding.*

*Source: OPEC Secretariat.*

### Balance of supply and demand in 2017

**Demand for OPEC crude in 2017** was revised up by 0.1 mb/d from the previous month. This upward adjustment was mainly due to the downward revision in non-OPEC supply as world oil demand remained unchanged. Within the quarters, the first quarter remained unchanged, while the second quarter was revised down by 0.1 mb/d. Both the third and the fourth quarters were each revised up by 0.2 mb/d. Demand for OPEC crude this year is projected to increase by 0.3 mb/d to average 32.0 mb/d.

Compared to the same quarters of last year, the first quarter is expected to increase by 1.0 mb/d, while all other quarters are estimated to remain unchanged.



## Balance of Supply and Demand

**Table 10 - 2: Supply/demand balance for 2017\*, mb/d**

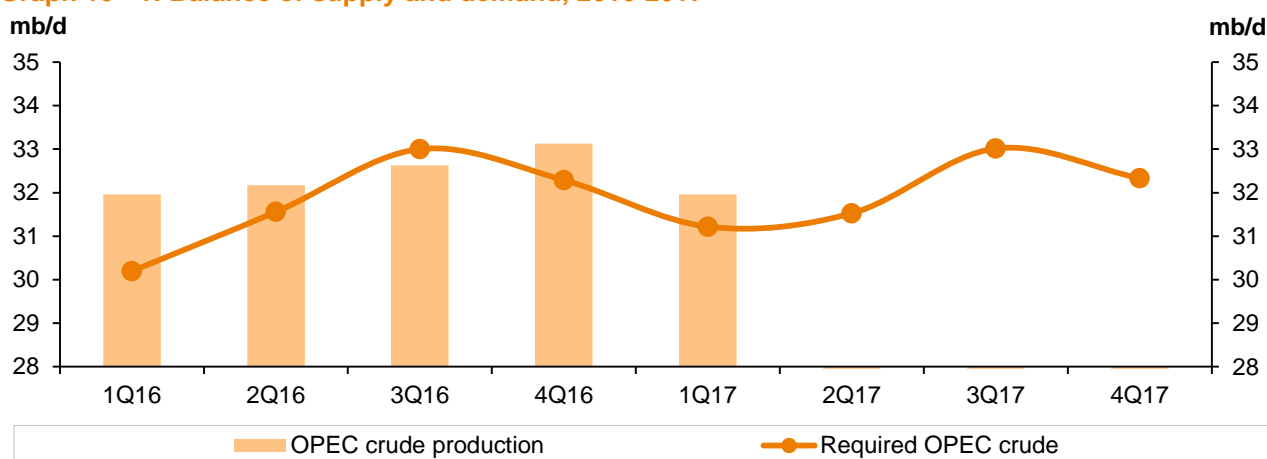
	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16
<b>(a) World oil demand</b>	<b>95.12</b>	<b>95.44</b>	<b>95.33</b>	<b>97.27</b>	<b>97.47</b>	<b>96.38</b>	<b>1.27</b>
Non-OPEC supply	57.30	58.11	57.63	58.00	58.81	58.14	0.84
OPEC NGLs and non-conventionals	6.05	6.12	6.17	6.26	6.33	6.22	0.17
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>63.35</b>	<b>64.22</b>	<b>63.80</b>	<b>64.26</b>	<b>65.14</b>	<b>64.36</b>	<b>1.01</b>
<b>Difference (a-b)</b>	<b>31.77</b>	<b>31.22</b>	<b>31.53</b>	<b>33.01</b>	<b>32.33</b>	<b>32.02</b>	<b>0.26</b>
<b>OPEC crude oil production</b>	<b>32.47</b>	<b>31.96</b>					
<b>Balance</b>	<b>0.71</b>	<b>0.74</b>					

Note: \* 2017 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

**Graph 10 - 1: Balance of supply and demand, 2016-2017\***



Note: \* 2017 = Forecast.

Source: OPEC Secretariat.

# Monthly Endnotes

## OPEC and non-OPEC extend production adjustment

OPEC Members and participating non-OPEC countries decided to extend production adjustments for a further period of nine months at the conclusion of the 2nd OPEC and non-OPEC Ministerial Meeting held at the OPEC Secretariat on 25 May 2017.

The decision capped a series of meetings to analyse oil market developments since 171st Meeting of the OPEC Conference on 30 November 2016 and the Declaration of Cooperation between OPEC and non-OPEC decided on 10 December 2016. In addition to the 172nd OPEC Ministerial Conference held earlier that day, this included meetings of the Joint OPEC-Non-OPEC Ministerial Monitoring Committee (JMMC), OPEC's Economic Commission Board (ECB) and the Joint OPEC-Non-OPEC Technical Committee (JTC) held in 1H17.

During the OPEC non-OPEC Ministerial Meeting, a review of oil market developments highlighted the changes that had taken place in market fundamentals since the two landmark meetings in November and December 2016 (**Graph 11 – 5**). Regarding the world economy, it was noted that the recent growth dynamic had been confirmed, with the only exception being the US growth figures for 1Q17. However, a rebound in growth is expected in the remainder of this year. Given the better-than-expected performance, the forecast for global growth in 2017 had been revised up from the 3.1% forecast in the December *MOMR* to 3.3% for the May *MOMR*, which served as the basis for the meetings. The June *MOMR* has further revised up the global growth figure to now stand at 3.4%.

During the deliberations, the 2017 oil demand growth forecast was anticipated to be around 1.27 mb/d, some 0.12 mb/d higher than in December 2016. The upward adjustment came from the non-OECD, but OECD countries, mainly in Europe, were also showing some upside potential. Meanwhile, non-OPEC supply growth experienced a notable upward revision of 0.71 mb/d over the same period to stand at 0.95 mb/d at the time of the meeting. The bulk of the upward adjustment in non-OPEC oil supply since December has come from the US and mainly tight crude oil. Non-supply has been revised lower in the June *MOMR* to take into account the extension of the production adjustments. The meeting noted that the revisions to non-OPEC supply growth have been much greater than the upward adjustments to world oil demand growth, accentuating the imbalance in the market.

**Graph 11 - 1: Oil market fundamentals: 2017 forecast revisions**

<b>Growth</b>	<b>Units</b>	<b>MOMR Jan 17</b>	<b>MOMR Feb 17</b>	<b>MOMR Mar 17</b>	<b>MOMR Apr 17</b>	<b>MOMR May 17</b>	<b>Revision May/Apr 17</b>
<b>GDP global</b>	%	3.2	3.2	3.2	3.3	3.3	0.0
<b>World oil demand</b>	mb/d	1.16	1.19	1.26	1.27	1.27	0.00
<b>Non-OPEC supply</b>	mb/d	0.12	0.24	0.4	0.58	0.95	0.37
- Non-OPEC participants	mb/d	-0.21	-0.22	-0.21	-0.14	-0.08	0.05
- Others non-OPEC	mb/d	0.33	0.46	0.61	0.71	1.03	0.32
<b>Demand for OPEC crude</b>	mb/d	<b>32.13</b>	<b>32.14</b>	<b>32.35</b>	<b>32.22</b>	<b>31.92</b>	<b>-0.30</b>

Source: OPEC Secretariat.

In contrast, OPEC crude production over the same period has fallen by 1.3 mb/d. This has helped support the draw in both onshore and offshore inventories since the implementation of the Declaration of Cooperation. Between December 2016 and May 2017, floating storage had declined by nearly 40 mb, while OECD commercial inventories had dropped by 21 mb in absolute terms and 53 mb compared to the five-year average. These trends indicated that the rebalancing of the market was underway, but at a slower pace than originally anticipated back in December 2016 due to changes in fundamentals, especially the shift in US supply from a forecast contraction to positive growth. This was despite the very high overall conformity to the production adjustments in the first four months of 2017. In light of the existing market situation, as well as the outlook for the remainder of the year and the beginning of 2018, OPEC and the participating non-OPEC countries decided to extend their production adjustments, which originally started 1 January 2017, for a further period of nine months, beginning 1 July 2017.

## Monthly Endnotes

Additionally, OPEC Members and participating non-OPEC producing countries decided to continue to regularly review the status of their cooperation at the technical and ministerial levels, and to further strengthen their cooperation, including facilitating the exchange of joint analyses and outlooks, with a view to ensuring a sustainable oil market for the benefit of producers, consumers, the industry and the global economy.

On that same day during the 172nd Meeting of the Ministerial Conference, Equatorial Guinea was officially welcomed as OPEC's newest Member, expanding the number of Member Countries in the Organization to 14.<sup>2</sup> Equatorial Guinea is sub-Saharan Africa's third-largest oil producer, after OPEC Members Nigeria and Angola. The country's first large oil reserve – the 1.1 billion barrel Zafiro field – was discovered in 1995.

The ten participating non-OPEC producers are Azerbaijan, Kingdom of Bahrain, Brunei Darussalam, Kazakhstan, Malaysia, Mexico, Sultanate of Oman, the Russian Federation, Republic of Sudan, and the Republic of South Sudan.

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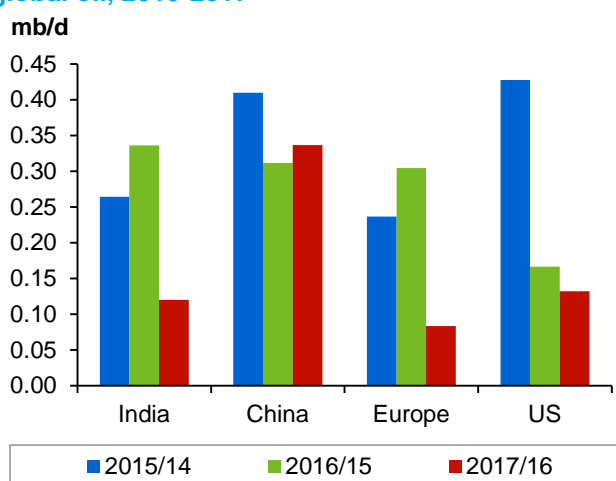
<sup>2</sup> *Equatorial Guinea will be included in the OPEC grouping starting with the July OPEC MOMR.*

## OPEC and India discuss energy partnership

India looks forward to intensifying its dialogue with OPEC Member Countries to change the nature of engagement from a buyer-seller relationship to an energy partnership, the country's Minister of Petroleum & Natural Gas, H.E. Dharmendra Pradhan, said during a high-level meeting at the OPEC Secretariat.

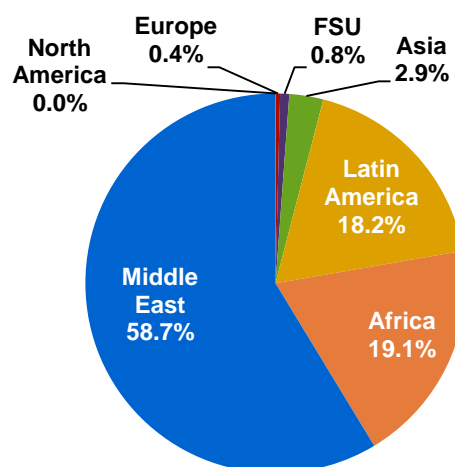
With some 87% of the country's crude oil imports coming from OPEC nations, the Minister underlined the importance of energy dialogue and cooperation between OPEC Member Countries and India. He also emphasized the important role of India's expanding refining and petrochemicals sector in the global oil market. His delegation included seven Chief Executives, from both the public and private sectors, who head all 23 refineries in India that process around 4.7 mb/d.

**Graph 11 - 2: Key contributors to growth in global oil, 2015-2017**



Source: OPEC Secretariat.

**Graph 11 - 3: India crude oil imports by region**



Source: OPEC Secretariat.

In his remarks to the Meeting, the OPEC Secretary General, H.E. Mohammad Sanusi Barkindo, appreciated the bold economic reforms undertaken by India's Prime Minister Narendra Modi. He applauded the demonetisation and the General Service Tax initiatives and the way India had managed to overcome the global economic slowdown.

He also highlighted the fact that with India's high growth rates and its dynamic services and strong manufacturing sectors, the country has become a global economic powerhouse. He stated that he saw tremendous value and substance in the Energy Dialogue, particularly when looking at the ever-expanding cooperation between India and OPEC's Member Countries. "With OPEC home to over 80% of the world's proven crude oil reserves, and with many of its Member Countries well-positioned for exports to India, it is clear that this cooperation will expand further," he said. He further noted that India led global oil demand growth for the first time in 2017 (**Graph 11 - 2**).

The second High-Level Meeting builds on the first that took place in New Delhi, India, on 15 December 2015. The next High-level meeting will be held in India in 2018.

A technical meeting of experts from OPEC and India was also held later in the day. OPEC focused on the long-term oil demand outlook in the Asia-Pacific, with a particular emphasis on India. India provided a presentation on the country's long-term energy demand, as well as its energy mix, in the light of energy and climate change policies. Oil is expected to represent around 26% of India's energy mix in 2030 compared to 28% in 2016.

## US withdraws from Paris Agreement

The US President Donald Trump announced on 1 June 2017 that the US will withdraw from the Paris Climate Agreement. Additionally, the US would also immediately cease all implementation of the agreement, including the implementation of the nationally determined contribution (NDCs) and pledged contributions to the Green Climate Fund. At the same time, the US would “begin negotiations to re-enter either the Paris [Agreement] or a really entirely new transaction on terms that are fair to the United States, its businesses, its workers, its people, its taxpayers,” the President said. He stated that compliance with the terms of the Paris Agreement placed “draconian financial and economic burdens” on the country, while “imposing no meaningful obligations on the world’s leading polluters.”

In response, the Heads of State of Italy, France and Germany issued a joint statement reaffirming their “strongest commitment to swiftly implement the Paris Agreement, including its climate finance goals.” The statement added that the three Heads of State “deem the momentum generated in Paris in December 2015 irreversible and we firmly believe that the Paris Agreement cannot be renegotiated, since it is a vital instrument for our planet, societies and economies.” Additionally, they viewed the Paris Agreement as offering “substantial economic opportunities for prosperity and growth” rather than as providing a financial burden. “We deem the momentum generated in Paris in December 2015 irreversible and we firmly believe that the Paris Agreement cannot be renegotiated, since it is a vital instrument for our planet, societies and economies.” As a result, Italy, France and Germany “take note with regret of the decision by the United States of America to withdraw from “the universal agreement on climate change.”

In its response, China said that it “will stay committed to upholding and promoting the global governance on climate change” and would “work with all relevant parties to safeguard the outcomes of the Paris Agreement, press ahead with the negotiation and implementation of the enforcement rule,” according to a spokesperson for China’s Ministry of Foreign Affairs. China viewed the Paris Agreement as a “hard-won result which represents the broadest consensus of the international community and sets the target for the global campaign against climate change.”

India’s Prime Minister Narendra Modi said that his country would “continue working above and beyond” the Paris Agreement on climate change. He said the Agreement represented “sanjhi virasat” (shared heritage) of the whole world.

The Paris Agreement came into force on 4 November 2016. The Agreement seeks to enhance the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) by calling for a stabilisation in the rise of the global average temperature to well below 2°C above pre-industrial levels. To achieve this objective, a bottom-up approach has been agreed by UNFCCC Parties, as their participation takes the form of NDCs. The Agreement calls for “equity” among all Parties, with each country to develop in a sustainable manner, guided by the principle of “common but differentiated responsibilities and respective capabilities”.

The Green Climate Fund was established by the 194 countries party to the UNFCCC in 2010. The Fund is a financial mechanism under the UNFCCC to assist developing countries in adaptation and mitigation practices to counter climate change by mobilising funding at scale to invest in low-emission and climate-resilient development.

As active parties in climate change negotiations, OPEC Member Countries joined the global consensus to bring forward the Paris Agreement. All OPEC Member Countries have signed the Agreement, and five have already ratified it, namely Algeria, Gabon, Nigeria, the Kingdom of Saudi Arabia and the United Arab Emirates.

## Appendix



Table 12 - 1: World oil demand and supply balance, mb/d

	2013	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
<b>World demand</b>													
<b>OECD</b>	46.1	45.8	46.4	46.7	46.3	47.3	47.1	46.9	46.9	46.5	47.6	47.3	47.1
Americas	24.2	24.2	24.6	24.5	24.7	25.0	24.8	24.7	24.6	24.8	25.3	24.9	24.9
Europe	13.6	13.5	13.7	13.7	14.0	14.5	14.1	14.1	13.8	14.1	14.6	14.1	14.1
Asia Pacific	8.3	8.1	8.0	8.5	7.6	7.8	8.3	8.1	8.6	7.6	7.8	8.3	8.1
<b>DCs</b>	29.4	30.1	30.8	31.1	31.3	31.8	31.3	31.4	31.6	31.9	32.4	32.0	32.0
<b>FSU</b>	4.5	4.6	4.6	4.5	4.4	4.7	5.1	4.7	4.6	4.4	4.8	5.1	4.7
<b>Other Europe</b>	0.6	0.7	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7
<b>China</b>	10.4	10.8	11.2	11.1	11.5	11.5	11.9	11.5	11.6	11.8	11.8	12.2	11.8
<b>(a) Total world demand</b>	<b>91.1</b>	<b>92.0</b>	<b>93.7</b>	<b>94.1</b>	<b>94.1</b>	<b>96.0</b>	<b>96.2</b>	<b>95.1</b>	<b>95.4</b>	<b>95.3</b>	<b>97.3</b>	<b>97.5</b>	<b>96.4</b>
<b>Non-OPEC supply</b>													
<b>OECD</b>	22.3	24.3	25.3	25.4	24.2	24.6	25.1	24.8	25.4	25.3	25.7	26.4	25.7
Americas	18.2	20.1	21.1	21.0	20.1	20.5	20.8	20.6	21.0	21.1	21.6	22.1	21.5
Europe	3.6	3.6	3.8	3.9	3.7	3.6	3.9	3.8	3.9	3.7	3.6	3.9	3.8
Asia Pacific	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<b>DCs</b>	11.9	12.1	12.3	12.1	12.1	12.3	12.4	12.2	12.3	12.3	12.3	12.3	12.3
<b>FSU</b>	13.6	13.5	13.7	14.0	13.7	13.7	14.1	13.9	14.1	13.8	13.8	13.8	13.9
<b>Other Europe</b>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>China</b>	4.3	4.3	4.4	4.2	4.1	4.0	4.0	4.1	4.0	3.9	3.9	3.9	3.9
<b>Processing gains</b>	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
<b>Total non-OPEC supply</b>	<b>54.2</b>	<b>56.5</b>	<b>58.0</b>	<b>58.0</b>	<b>56.5</b>	<b>56.8</b>	<b>57.9</b>	<b>57.3</b>	<b>58.1</b>	<b>57.6</b>	<b>58.0</b>	<b>58.8</b>	<b>58.1</b>
<b>OPEC NGLs + non-conventional oils</b>	5.6	5.8	5.9	6.0	6.1	6.1	6.0	6.1	6.1	6.2	6.3	6.3	6.2
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>59.8</b>	<b>62.3</b>	<b>63.9</b>	<b>63.9</b>	<b>62.6</b>	<b>63.0</b>	<b>63.9</b>	<b>63.3</b>	<b>64.2</b>	<b>63.8</b>	<b>64.3</b>	<b>65.1</b>	<b>64.4</b>
<b>OPEC crude oil production (secondary sources)</b>	30.5	30.3	31.5	32.0	32.2	32.6	33.1	32.5	32.0				
<b>Total supply</b>	90.3	92.6	95.5	95.9	94.7	95.6	97.0	95.8	96.2				
<b>Balance (stock change and miscellaneous)</b>	-0.8	0.6	1.8	1.8	0.6	-0.4	0.8	0.7	0.7				
<b>OECD closing stock levels, mb</b>													
Commercial	2,559	2,704	2,986	3,014	3,054	3,061	2,985	2,985	3,021				
SPR	1,584	1,580	1,587	1,593	1,591	1,594	1,598	1,598	1,598				
<b>Total</b>	<b>4,144</b>	<b>4,285</b>	<b>4,573</b>	<b>4,608</b>	<b>4,645</b>	<b>4,655</b>	<b>4,583</b>	<b>4,583</b>	<b>4,618</b>				
<b>Oil-on-water</b>	909	924	1,017	1,055	1,094	1,068	1,102	1,102	1,043				
<b>Days of forward consumption in OECD, days</b>													
Commercial onland stocks	55.9	58.3	63.7	65.1	64.6	64.9	63.6	63.4	65.0				
SPR	34.6	34.1	33.9	34.4	33.6	33.8	34.0	33.9	34.4				
<b>Total</b>	<b>90.4</b>	<b>92.4</b>	<b>97.6</b>	<b>99.5</b>	<b>98.2</b>	<b>98.7</b>	<b>97.6</b>	<b>97.3</b>	<b>99.3</b>				
<b>Memo items</b>													
<b>FSU net exports</b>	9.0	8.9	9.1	9.5	9.4	8.9	9.0	9.2	9.5	9.4	9.0	8.7	9.2
<b>(a) - (b)</b>	<b>31.2</b>	<b>29.7</b>	<b>29.7</b>	<b>30.2</b>	<b>31.6</b>	<b>33.0</b>	<b>32.3</b>	<b>31.8</b>	<b>31.2</b>	<b>31.5</b>	<b>33.0</b>	<b>32.3</b>	<b>32.0</b>

Note: Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 12 - 2: World oil demand/supply balance: changes from last month's table\*, mb/d

	2013	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
<b>World demand</b>													
<b>OECD</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	0.1	-	-	-	-
<b>DCs</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>FSU</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(a) Total world demand</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>World demand growth</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-OPEC supply</b>													
<b>OECD</b>	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>DCs</b>	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
<b>FSU</b>	-	-	-	-	-	-	-	-	-	-	-0.2	-0.3	-0.1
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Processing gains</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total non-OPEC supply</b>	-	-	-	-	-	-	-	-	-	0.1	-0.2	-0.2	-0.1
<b>Total non-OPEC supply growth</b>	-	-	-	-	-	-	-	-	-	0.1	-0.2	-0.2	-0.1
<b>OPEC NGLs + non-conventionals</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	-	-	-	-	-	-	-	-	-	0.1	-0.2	-0.2	-0.1
<b>OPEC crude oil production (secondary sources)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total supply</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Balance (stock change and miscellaneous)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>													
Commercial	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Oil-on-water</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>													
Commercial onland stocks	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Memo items</b>													
<b>FSU net exports</b>	-	-	-	-	-	-	-	-	-	-	-0.2	-0.3	-0.1
<b>(a) - (b)</b>	-	-	-	-	-	-	-	-	-	-0.1	0.2	0.2	0.1

Note: \* This compares Table 12 - 1 in this issue of the MOMR with Table 12 - 1 in the May 2017 issue.

This table shows only where changes have occurred.

Source: OPEC Secretariat.

Table 12 - 3: OECD oil stocks and oil on water at the end of period

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>1Q15</u>	<u>2Q15</u>	<u>3Q15</u>	<u>4Q15</u>	<u>1Q16</u>	<u>2Q16</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>
<b>Closing stock levels, mb</b>												
<b>OECD onland commercial</b>	<b>2,704</b>	<b>2,986</b>	<b>2,985</b>	<b>2,789</b>	<b>2,878</b>	<b>2,954</b>	<b>2,986</b>	<b>3,014</b>	<b>3,054</b>	<b>3,061</b>	<b>2,985</b>	<b>3,021</b>
Americas	1,414	1,561	1,600	1,458	1,508	1,542	1,561	1,589	1,609	1,617	1,600	1,605
Europe	885	990	971	939	940	967	990	1,004	1,007	994	971	1,014
Asia Pacific	405	435	415	392	430	445	435	421	438	450	415	401
<b>OECD SPR</b>	<b>1,580</b>	<b>1,587</b>	<b>1,598</b>	<b>1,583</b>	<b>1,585</b>	<b>1,579</b>	<b>1,587</b>	<b>1,593</b>	<b>1,591</b>	<b>1,594</b>	<b>1,598</b>	<b>1,598</b>
Americas	693	697	697	693	696	697	697	697	697	697	697	694
Europe	470	473	480	470	471	467	473	477	473	476	480	482
Asia Pacific	417	416	421	420	418	415	416	419	421	421	421	422
<b>OECD total</b>	<b>4,285</b>	<b>4,573</b>	<b>4,583</b>	<b>4,372</b>	<b>4,463</b>	<b>4,533</b>	<b>4,573</b>	<b>4,608</b>	<b>4,645</b>	<b>4,655</b>	<b>4,583</b>	<b>4,618</b>
<b>Oil-on-water</b>	<b>924</b>	<b>1,017</b>	<b>1,102</b>	<b>864</b>	<b>916</b>	<b>924</b>	<b>1,017</b>	<b>1,055</b>	<b>1,094</b>	<b>1,068</b>	<b>1,102</b>	<b>1,043</b>
<b>Days of forward consumption in OECD, days</b>												
<b>OECD onland commercial</b>	<b>58</b>	<b>56</b>	<b>64</b>	<b>61</b>	<b>61</b>	<b>64</b>	<b>64</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>64</b>	<b>65</b>
Americas	55	53	65	60	60	63	64	64	64	65	65	65
Europe	67	65	70	69	66	70	72	72	70	71	70	72
Asia Pacific	49	48	48	52	56	54	51	55	56	54	48	53
<b>OECD SPR</b>	<b>34</b>	<b>35</b>	<b>34</b>	<b>35</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>
Americas	29	29	28	28	28	28	28	28	28	28	28	28
Europe	32	35	35	35	33	34	35	34	33	34	35	34
Asia Pacific	50	51	49	55	54	51	49	55	54	51	49	55
<b>OECD total</b>	<b>91</b>	<b>90</b>	<b>98</b>	<b>96</b>	<b>95</b>	<b>98</b>	<b>98</b>	<b>100</b>	<b>98</b>	<b>99</b>	<b>98</b>	<b>99</b>

Sources: Argus Media, Euroilstock, IEA, JODI, METI, OPEC Secretariat and US Energy Information Administration.

Table 12 - 4: Non-OPEC supply and OPEC natural gas liquids, mb/d

							Change					Change	
	2013	2014	2015	3Q16	4Q16	2016	16/15	1Q17	2Q17	3Q17	4Q17	2017	17/16
US	11.2	13.0	14.0	13.4	13.6	13.6	-0.4	13.8	14.3	14.6	15.0	14.4	0.8
Canada	4.0	4.3	4.4	4.6	4.9	4.5	0.1	4.9	4.5	4.7	4.9	4.8	0.3
Mexico	2.9	2.8	2.6	2.5	2.4	2.5	-0.1	2.3	2.3	2.3	2.3	2.3	-0.2
<b>OECD Americas*</b>	<b>18.2</b>	<b>20.1</b>	<b>21.1</b>	<b>20.5</b>	<b>20.8</b>	<b>20.6</b>	<b>-0.5</b>	<b>21.0</b>	<b>21.1</b>	<b>21.6</b>	<b>22.1</b>	<b>21.5</b>	<b>0.9</b>
Norway	1.8	1.9	1.9	1.9	2.1	2.0	0.0	2.1	1.9	1.9	2.0	2.0	0.0
UK	0.9	0.9	1.0	1.0	1.0	1.0	0.1	1.1	1.0	1.0	1.1	1.0	0.0
Denmark	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Other OECD Europe	0.7	0.7	0.7	0.6	0.7	0.6	-0.1	0.7	0.6	0.6	0.6	0.6	0.0
<b>OECD Europe</b>	<b>3.6</b>	<b>3.6</b>	<b>3.8</b>	<b>3.6</b>	<b>3.9</b>	<b>3.8</b>	<b>0.0</b>	<b>3.9</b>	<b>3.7</b>	<b>3.6</b>	<b>3.9</b>	<b>3.8</b>	<b>0.0</b>
Australia	0.4	0.4	0.4	0.4	0.3	0.3	0.0	0.3	0.4	0.4	0.3	0.3	0.0
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
<b>OECD Asia Pacific</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>
<b>Total OECD</b>	<b>22.3</b>	<b>24.3</b>	<b>25.3</b>	<b>24.6</b>	<b>25.1</b>	<b>24.8</b>	<b>-0.5</b>	<b>25.4</b>	<b>25.3</b>	<b>25.7</b>	<b>26.4</b>	<b>25.7</b>	<b>0.9</b>
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.9	0.8	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Indonesia	0.9	0.9	0.9	0.9	0.9	0.9	0.1	0.9	0.9	0.9	0.8	0.9	-0.1
Malaysia	0.6	0.7	0.7	0.7	0.7	0.7	0.0	0.8	0.7	0.7	0.7	0.7	0.0
Thailand	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Vietnam	0.3	0.3	0.4	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Asia others	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.3	0.3	0.3	0.3	0.0
<b>Other Asia*</b>	<b>3.6</b>	<b>3.6</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>0.0</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>3.6</b>	<b>3.7</b>	<b>0.0</b>
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.6	2.9	3.1	3.3	3.3	3.1	0.1	3.3	3.3	3.4	3.4	3.3	0.2
Colombia	1.0	1.0	1.0	0.9	0.9	0.9	-0.1	0.9	0.9	0.8	0.9	0.9	0.0
Trinidad & Tobago	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Latin America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
<b>Latin America</b>	<b>4.8</b>	<b>5.0</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>	<b>5.1</b>	<b>-0.1</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>	<b>5.3</b>	<b>5.2</b>	<b>0.1</b>
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	0.9	0.9	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Syria	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle East</b>	<b>1.4</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>0.0</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>-0.1</b>
Chad	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Congo	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.4	0.3	0.0
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Equatorial Guinea	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
South Africa	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Sudans	0.2	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.2	0.3	0.0
Africa other	0.3	0.3	0.3	0.3	0.4	0.3	0.0	0.3	0.3	0.3	0.4	0.3	0.0
<b>Africa</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>0.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.1</b>	<b>0.0</b>
<b>Total DCs</b>	<b>11.9</b>	<b>12.1</b>	<b>12.3</b>	<b>12.3</b>	<b>12.4</b>	<b>12.2</b>	<b>-0.1</b>	<b>12.3</b>	<b>12.3</b>	<b>12.3</b>	<b>12.3</b>	<b>12.3</b>	<b>0.1</b>
<b>FSU</b>	<b>13.6</b>	<b>13.5</b>	<b>13.7</b>	<b>13.7</b>	<b>14.1</b>	<b>13.9</b>	<b>0.2</b>	<b>14.1</b>	<b>13.8</b>	<b>13.8</b>	<b>13.8</b>	<b>13.9</b>	<b>0.0</b>
Russia	10.6	10.7	10.8	11.0	11.2	11.1	0.2	11.2	11.0	11.0	11.0	11.0	0.0
Kazakhstan	1.6	1.6	1.6	1.4	1.7	1.6	0.0	1.7	1.7	1.7	1.7	1.7	0.1
Azerbaijan	0.9	0.9	0.9	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	-0.1
FSU others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
<b>Other Europe</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>
<b>China</b>	<b>4.3</b>	<b>4.3</b>	<b>4.4</b>	<b>4.0</b>	<b>4.0</b>	<b>4.1</b>	<b>-0.3</b>	<b>4.0</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>	<b>-0.2</b>
<b>Non-OPEC production</b>	<b>52.1</b>	<b>54.3</b>	<b>55.8</b>	<b>54.7</b>	<b>55.7</b>	<b>55.1</b>	<b>-0.7</b>	<b>55.9</b>	<b>55.4</b>	<b>55.8</b>	<b>56.6</b>	<b>55.9</b>	<b>0.8</b>
Processing gains	2.1	2.2	2.2	2.2	2.2	2.2	0.0	2.2	2.2	2.2	2.2	2.2	0.0
<b>Non-OPEC supply</b>	<b>54.2</b>	<b>56.5</b>	<b>58.0</b>	<b>56.8</b>	<b>57.9</b>	<b>57.3</b>	<b>-0.7</b>	<b>58.1</b>	<b>57.6</b>	<b>58.0</b>	<b>58.8</b>	<b>58.1</b>	<b>0.8</b>
OPEC NGL	5.4	5.6	5.7	5.9	5.8	5.8	0.1	5.9	5.9	6.0	6.1	6.0	0.2
OPEC													
non-conventional	0.2	0.3	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.3	0.3	0.2	0.0
<b>OPEC (NGL+NCF)</b>	<b>5.6</b>	<b>5.8</b>	<b>5.9</b>	<b>6.1</b>	<b>6.0</b>	<b>6.1</b>	<b>0.1</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.3</b>	<b>6.2</b>	<b>0.2</b>
<b>Non-OPEC &amp; OPEC (NGL+NCF)</b>	<b>59.8</b>	<b>62.3</b>	<b>63.9</b>	<b>63.0</b>	<b>63.9</b>	<b>63.3</b>	<b>-0.6</b>	<b>64.2</b>	<b>63.8</b>	<b>64.3</b>	<b>65.1</b>	<b>64.4</b>	<b>1.0</b>

Note: \* OECD Americas includes Chile.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 12 - 5: World rig count, units

	2014	2015	2016	Change 2016/15	2Q16	3Q16	4Q16	1Q17	Apr 17	May 17	Change May/Apr
US	1,862	977	509	-468	420	479	586	739	853	893	40
Canada	380	192	131	-61	49	122	180	299	109	85	-24
Mexico	86	52	26	-26	22	25	19	17	22	23	1
OECD Americas	2,327	1,221	665	-556	490	626	785	1,054	984	1,001	17
Norway	17	17	17	-1	17	18	13	14	17	18	1
UK	16	14	9	-5	9	9	9	9	8	10	2
OECD Europe	145	117	96	-21	92	94	94	100	91	95	4
OECD Asia Pacific	26	17	7	-11	6	5	6	14	19	18	-1
<b>Total OECD</b>	<b>2,499</b>	<b>1,355</b>	<b>768</b>	<b>-587</b>	<b>588</b>	<b>724</b>	<b>885</b>	<b>1,168</b>	<b>1,094</b>	<b>1,114</b>	<b>20</b>
Other Asia*	228	202	180	-22	178	185	181	184	186	179	-7
Latin America	172	145	68	-77	62	64	64	61	55	62	7
Middle East	108	102	88	-14	92	85	75	74	77	74	-3
Africa	47	30	18	-12	19	15	17	16	17	19	2
<b>Total DCs</b>	<b>555</b>	<b>479</b>	<b>354</b>	<b>-126</b>	<b>351</b>	<b>349</b>	<b>337</b>	<b>335</b>	<b>335</b>	<b>334</b>	<b>-1</b>
<b>Non-OPEC rig count</b>	<b>3,053</b>	<b>1,834</b>	<b>1,122</b>	<b>-712</b>	<b>939</b>	<b>1,073</b>	<b>1,223</b>	<b>1,503</b>	<b>1,429</b>	<b>1,448</b>	<b>19</b>
Algeria	48	51	54	3	54	55	53	51	57	53	-4
Angola	15	11	6	-5	9	4	3	3	4	3	-1
Ecuador	24	12	4	-8	3	5	6	7	7	9	2
Gabon	7	4	1	-3	1	0	0	0	1	1	0
Iran**	54	54	59	5	59	60	61	61	61	61	0
Iraq**	79	52	43	-9	42	39	41	41	46	51	5
Kuwait**	38	47	44	-2	42	47	46	55	53	55	2
Libya**	10	3	1	-2	1	1	1	1	1	1	0
Nigeria	34	30	25	-5	25	24	23	27	29	27	-2
Qatar	10	8	8	0	7	7	10	11	12	10	-2
Saudi Arabia	134	155	156	1	154	155	157	152	150	150	0
UAE	34	42	51	8	50	51	52	50	51	50	-1
Venezuela	116	110	100	-10	103	93	92	95	98	96	-2
<b>OPEC rig count</b>	<b>603</b>	<b>578</b>	<b>551</b>	<b>-27</b>	<b>551</b>	<b>542</b>	<b>546</b>	<b>553</b>	<b>570</b>	<b>567</b>	<b>-3</b>
<b>World rig count***</b>	<b>3,656</b>	<b>2,412</b>	<b>1,673</b>	<b>-740</b>	<b>1,490</b>	<b>1,615</b>	<b>1,769</b>	<b>2,056</b>	<b>1,999</b>	<b>2,015</b>	<b>16</b>
<i>of which:</i>											
Oil	2,795	1,727	1,170	-557	1,043	1,135	1,235	1,446	1,430	1,462	32
Gas	743	563	370	-193	315	343	400	477	443	432	-11
Others	95	100	113	14	112	119	116	115	106	102	-4

Note: \* Other Asia includes Indonesia.

\*\* Estimated data when Baker Hughes Incorporated did not reported the data.

\*\*\* Data excludes China and FSU.

Totals may not add up due to independent rounding.

Sources: Baker Hughes Incorporated and OPEC Secretariat's estimates.

# Glossary of Terms

## Abbreviations

b	barrels
b/d	barrels per day
bp	basis points
bb	billion barrels
bcf	billion cubic feet
cu m	cubic metres
mb	million barrels
mb/d	million barrels per day
mmbtu	million British thermal units
mn	million
m-o-m	month-on-month
q-o-q	quarter-on-quarter
pp	percentage points
tb/d	thousand barrels per day
tcf	trillion cubic feet
y-o-y	year-on-year
y-t-d	year-to-date



## Acronyms

ARA	Amsterdam-Rotterdam-Antwerp
BoE	Bank of England
BoJ	Bank of Japan
BOP	Balance of payments
BRIC	Brazil, Russia, India and China
CAPEX	capital expenditures
CFTC	Commodity Futures Trading Commission
CIF	cost, insurance and freight
CPI	consumer price index
DCs	developing countries
DUC	drilled, but uncompleted (oil well)
ECB	European Central Bank
EIA	US Energy Information Administration
Emirates NBD	Emirates National Bank of Dubai
EMs	emerging markets
EV	electric vehicle
FAI	fixed asset investment
FCC	fluid catalytic cracking
FDI	foreign direct investment
Fed	US Federal Reserve
FID	final investment decision
FOB	free on board
FPSO	floating production storage and offloading
FSU	Former Soviet Union
FX	Foreign Exchange
FY	fiscal year
GDP	gross domestic product
GFCF	gross fixed capital formation
GoM	Gulf of Mexico
GTLs	gas-to-liquids
HH	Henry Hub
HSFO	high-sulphur fuel oil
ICE	Intercontinental Exchange
IEA	International Energy Agency
IMF	International Monetary Fund
IOCs	international oil companies
ISM	Institute of Supply Management
LIBOR	London inter-bank offered rate
LLS	Light Louisiana Sweet
LNG	liquefied natural gas
LPG	liquefied petroleum gas
LR	long-range (vessel)
LSFO	low-sulphur fuel oil
MCs	(OPEC) Member Countries
MED	Mediterranean
MENA	Middle East/North Africa
MOMR	(OPEC) Monthly Oil Market Report
MPV	multi-purpose vehicle
MR	medium-range or mid-range (vessel)

NBS	National Bureau of Statistics
NGLs	natural gas liquids
NPC	National People's Congress (China)
NWE	Northwest Europe
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
OPEX	operational expenditures
OIV	total open interest volume
ORB	OPEC Reference Basket
PADD	Petroleum Administration for Defense Districts
PBoC	People's Bank of China
PMI	purchasing managers' index
PPI	producer price index
RBI	Reserve Bank of India
REER	real effective exchange rate
ROI	return on investment
SAAR	seasonally-adjusted annualized rate
SIAM	Society of Indian Automobile Manufacturers
SRFO	straight-run fuel oil
SUV	sports utility vehicle
ULCC	ultra-large crude carrier
ULSD	ultra-low sulphur diesel
USEC	US East Coast
USGC	US Gulf Coast
USWC	US West Coast
VGO	vacuum gasoil
VLCC	very large crude carriers
WPI	wholesale price index
WS	Worldscale
WTI	West Texas Intermediate
WTS	West Texas Sour

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## OPEC Basket average price

US\$/b



down 2.17 in May

May 2017	49.20
April 2017	51.37
<b>Year-to-date</b>	<b>51.25</b>

## May OPEC crude production

mb/d, according to secondary sources



up 0.34 in May

May 2017	32.14
April 2017	31.80

## Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
<b>2016</b>	3.1	1.8	1.6	1.1	1.7	6.7	7.9
<b>2017</b>	3.4	2.0	2.2	1.4	1.7	6.5	7.0

## Supply and demand

mb/d

<b>2016</b>		<b>16/15</b>	<b>2017</b>		<b>17/16</b>
World demand	95.1	1.4	World demand	96.4	1.3
Non-OPEC supply	57.3	-0.7	Non-OPEC supply	58.1	0.8
OPEC NGLs	6.1	0.1	OPEC NGLs	6.2	0.2
<b>Difference</b>	<b>31.8</b>	<b>2.0</b>	<b>Difference</b>	<b>32.0</b>	<b>0.3</b>

## OECD commercial stocks

mb

	<b>Feb 17</b>	<b>Mar 17</b>	<b>Apr 17</b>	<b>Apr 17/ Mar 17</b>	<b>Apr 16</b>
Crude oil	1,537	1,547	1,537	-9.9	1,515
Products	1,528	1,474	1,468	-6.0	1,511
<b>Total</b>	<b>3,065</b>	<b>3,021</b>	<b>3,005</b>	<b>-15.9</b>	<b>3,026</b>
Days of forward cover	65.8	65.0	64.1	-0.9	65.3

Next report to be issued on 12 July 2017.