Monthly Oil Market Report

12 July 2017

# Feature article: The outlook for the oil market in 2018

0:	1	1 - 4 1		lights	• •
	ımar	V OT 1	าเσท	liontc	- 11
	tillai	NELI	11511	いくいしつ	

Fe	at	ure	ar	tic	le	V

Crude oil price movements 1

Commodity markets 7

World economy 11

World oil demand 28

World oil supply 40

Product markets and refinery operations 56

Tanker market 62

Oil trade 66

Stock movements 74

Balance of supply and demand 81

Monthly endnotes 83



Organization of the Petroleum Exporting Countries

Helferstorferstrasse 17, A-1010 Vienna, Austria

E-mail: prid(at)opec.org Website: www.opec.org

## **Welcome Equatorial Guinea as an OPEC Member**

The 172nd Meeting of the Conference approved Equatorial Guinea's request to join the Organization of the Petroleum Exporting Countries (OPEC), with immediate effect from 25th May 2017.

In line with this development, data for Equatorial Guinea will now be included within the OPEC grouping. As a result, the figures for OPEC crude production, demand for OPEC crude and non-OPEC supply have been adjusted to reflect this change. For comparative purposes, related historical data has also been revised.

## **Equatorial Guinea**

## Oil Market Highlights

#### **Crude Oil Price Movements**

The OPEC Reference Basket declined 8.1% in June to \$45.21/b. Year-to-date, the ORB value was 38.3% higher at \$50.21/b. Crude futures tumbled in a bear market. ICE Brent settled down 7.5% to \$47.55/b and NYMEX WTI dropped 6.9% to \$45.20/b, on concerns about rising global supply. Year-to-date, ICE Brent and NYMEX WTI prices were 28% and 26% higher, respectively. The ICE Brent-NYMEX WTI spread narrowed to \$2.36/b. Money managers embarked on a new cycle of short-selling in June, which added to the downward pressure on prices.

#### **World Economy**

World economic growth in 2018 is forecast at 3.4%, the same level of growth forecast for 2017. This reflects a continued strengthening of the global recovery which is becoming more balanced, with stability in the oil market remaining a key determinant. OECD growth is forecast at a slightly lower level of 1.9% in 2018, compared to 2.0% in 2017. India is forecast to grow by 7.5% in 2018, compared to 7.0% in 2017. Brazil and Russia are both forecast to expand their recovery to 1.5% and 1.4%, respectively, compared to 0.5% and 1.2% in 2017. China will continue to grow at a slightly lower, but still considerable 6.2% in 2018, compared to 6.6% in 2017.

#### **World Oil Demand**

Global growth in 2017 is expected to be around 1.27 mb/d, broadly unchanged from previous month, to average 96.4 mb/d. The latest data shows demand in India and China have remained robust, reflecting healthy manufacturing and road construction activities in the former, and rising demand in the transportation and industrial sectors in the latter. For 2018, world oil demand is anticipated to rise by 1.26 mb/d, slightly below the current year's growth, to average 97.6 mb/d. The OECD is expected to see growth of 0.20 mb/d, while the non-OECD is forecast to increase by 1.07 mb/d.

#### **World Oil Supply**

Non-OPEC oil supply growth was revised marginally lower to 0.80 mb/d in 2017, averaging 57.82 mb/d. The downward revision was mainly driven by expected lower OECD oil supply in 2H17. For 2018, non-OPEC oil supply is expected to grow by 1.14 mb/d to average 58.96 mb/d. US, Brazil, Canada, Russia, Kazakhstan, Congo and the UK are expected to be the main drivers of growth, while declines are foreseen in Mexico, China, Colombia and Azerbaijan. OPEC NGLs production in 2018 is expected to grow by a higher 0.18 mb/d to average 6.49 mb/d, partly due to Equatorial Guinea joining OPEC. In June, OPEC crude production rose by 393 tb/d to average 32.61 mb/d, according to secondary sources.

## **Product Markets and Refining Operations**

Refinery margins in the US declined further in June, as the US gasoline crack spread dropped despite the onset of the summer driving season. High inventory levels added to the weakness in the middle of the barrel, outpacing increases in the gasoil cracks. Meanwhile, in Europe and Asia, margins inched up on healthy demand amid additional export opportunities outpacing plentiful supply.

#### **Tanker Market**

Dirty tanker spot freight rates were weak in general in June. VLCC freight rates declined 6%, while the drop in Suezmax and Aframax spot rates was greater, falling by 20% each, compared to May. The decline in dirty tanker spot freight rates came on the back of growing tonnage availability, as the market was not active enough to absorb the expansion in capacity. Similarly, clean tanker sentiment showed no improvements on average in June.

#### **Stock Movements**

Total OECD commercial oil stocks fell in May to stand at 3,015 mb. At this level, OECD commercial oil stocks are 234 mb above the latest five-year average. Crude and product stocks indicate a surplus of around 148 mb and 86 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.5 days in May, some 3.6 days higher than the latest five-year average.

## **Balance of Supply and Demand**

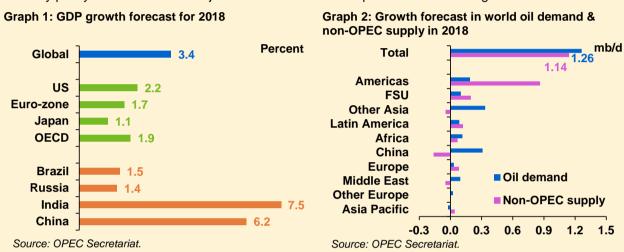
Demand for OPEC crude in 2017 is estimated at 32.3 mb/d, representing an increase of 0.3 mb/d over the 2016 level. In 2018, the demand for OPEC crude is projected at 32.2 mb/d, around 0.1 mb/d less than this year.

## Oil Market Highlights

## **Feature Article**

#### The outlook for the oil market in 2018

The **world economy** is forecast to expand at 3.4% in 2018, the same growth as in 2017 (*Graph 1*). This reflects a continued improvement in the global economy. Given the gradual ongoing recovery, the extraordinary stimulus of the past years is expected to be reduced further on both the fiscal and particularly the monetary side. OECD growth is forecast at a slightly lower level, while non-OECD economies are forecast to see some better growth. India is forecast to successfully improve its GDP growth level due to the implementation of economic reforms. Both Brazil and Russia are forecast to expand their recovery further in 2018. China will see lower growth than in 2017, although still the second-highest growth rate of major emerging economies, with domestic consumption providing a greater contribution. Stability in the oil market remains a key determinant for global economic growth in the coming year. Geopolitical developments and the pace of monetary policy normalisation in major economies will also require close monitoring.



**World oil demand** growth in 2018 is estimated at 1.26 mb/d, slightly less than in the current year and broadly in line with the average growth seen over the last five years, to total 97.65 mb/d (*Graph 2*). Factors driving global oil consumption in 2018 are expected to be the ongoing growth in the world economy; road transportation demand propelled by steady vehicle sales in the US, China and India; capacity additions and expansions in the petrochemical sector, particularly in the US; and new capacities of propane dehydrogenation plants in China. Uncertainties to the 2018 oil demand forecast include the higher level of substitution towards other fuels, efficiency gains, subsidy reductions, and digitalisation and technological developments. OECD consumption is foreseen to rise by around 0.19 mb/d in 2018. Non-OECD demand is expected to increase by 1.07 mb/d, with China and India as the major contributors.

**Non-OPEC oil supply** for 2018 is forecast to grow by 1.14 mb/d, higher than the 0.80 mb/d growth expected for 2017, to average 58.96 mb/d. On a country basis, the main contributors to growth next year are expected to be the US with 0.86 mb/d, Brazil with 0.22 mb/d, Canada with 0.17 mb/d, and Russia with 0.17 mb/d. Leading the declines in non-OPEC oil supply will be Mexico with 0.17 mb/d and China with 0.16 mb/d, mainly due to an absence of new projects and heavy declines in mature fields. US shale output is expected to be somewhat impacted by cost inflation and a decline in well productivity as operators expand production beyond so-called 'sweet spots.' Continued production ramp-ups support supply in Brazil, while Canada is also forecast to expand its oil output, particularly from oil sands. Russia's oil supply growth forecast takes into account the continuation of voluntary production adjustments into 1Q18.

Based on the above forecasts, projected non-OPEC supply and OPEC NGLs growth will slightly outpace incremental world oil demand, resulting in **demand for OPEC crude** in 2018 of 32.2 mb/d. This represents a decline of 0.1 mb/d from the current year, which compares to an expected increase of 0.3 mb/d in 2017 over a year earlier. A better-than-expected improvement in the global economy could contribute further to oil demand growth in the coming year, accelerating the ongoing rebalancing in the oil market and supporting market momentum in 2018.

## **Feature Article**

# **Table of Contents**

Welcome Equatorial Guinea as an OPEC Member	i
Oil Market Highlights	iii
Feature Article	v
The outlook for the oil market in 2018	V
Crude Oil Price Movements	1
OPEC Reference Basket	1
The oil futures market	3
The futures market structure	5
The light sweet/medium sour crude spread	6
Commodity Markets	7
Trends in selected commodity markets	7
Investment flows into commodities	9
World Economy	11
OECD	11
Non-OECD	17
Oil prices, US dollar and inflation	27
World Oil Demand	28
World oil demand in 2017	28
OECD	29
Non-OECD	32
World oil demand in 2018	37
OECD	38
Non-OECD	39
World Oil Supply	40
Non-OPEC supply in 2017 and 2018	40
OECD	44
OECD Asia Pacific	50
Developing Countries	50
OPEC NGLs and non-conventional oils	53
OPEC crude oil production	54
World oil supply	55
Product Markets and Refinery Operations	56
Refinery margins	56
Refinery operations	56
Product markets	57

## **Table of Contents**

Tanker Market	62
Spot fixtures	62
Sailings and arrivals	62
Dirty tanker freight rates	63
Clean tanker freight rates	65
Oil Trade	66
US	66
Japan	68
China	69
India	70
FSU	71
Stock Movements	74
OECD	74
EU plus Norway	76
US	77
Japan	78
China	79
Singapore and Amsterdam-Rotterdam-Antwerp (ARA)	80
Balance of Supply and Demand	81
Balance of supply and demand in 2017	81
Balance of supply and demand in 2018	81
Monthly Endnotes	83
G20 Leaders address Energy & Climate Issues at Hamburg Summit	83
Crude futures markets see expanding share of automated trading	85
Renewables - one solution to reducing energy poverty	86
Despite crude price decline, taxes on petroleum products remain high	88
Appendix	89
Glossary of Terms	94
Abbreviations	94
Acronyms	95
Contributors to the OPEC Monthly Oil Market Report	97

## **Crude Oil Price Movements**

The OPEC Reference Basket (ORB) declined in June to \$45.21/b, down more than 8% to its lowest value for the year. The oil market witnessed a sell-off amid significant bearish sentiment ignited by excess oil supply and still-high oil inventories, despite ongoing high conformity by OPEC and non-OPEC participating producers. Oil continued to be weighed down by the slow pace of inventory drawdown globally amid a rebound in global oil supplies. Since reaching a 2017 peak in early February, the ORB's value dropped 21% by June. Nevertheless, towards the end of the month, its value recovered. Year-to-date (Y-t-d), the ORB's value was 38.3% higher or \$13.90, at \$50.21/b.

Month-on-month (m-o-m), the two main oil futures tumbled into bearish territory in June, with ICE Brent settling below \$50/b for the first time this year amid a new cycle of short-selling on concerns that rising global supply will counter output adjustments by OPEC and non-OPEC producers. US crude inventories remain more than 100 mb above the five-year seasonal average. ICE Brent ended June \$3.85 or 7.5% lower at \$47.55/b, while NYMEX WTI plunged \$3.34 or 6.9%, to stand at \$45.20/b. Y-t-d, ICE Brent is \$11.47, or 27.8%, higher at \$52.68/b, while NYMEX WTI increased by \$10.17, or 25.6%, to \$49.95/b.

The ICE Brent/NYMEX WTI spread narrowed on successive weeks of US crude stock draws and ample light sweet crudes supplies in Europe. This tighter spread has weakened demand for US crude from Asian refiners. The spread narrowed to \$2.36/b, a 50¢ contraction.

Money managers' bearish, or short, bets on crude oil prices have exploded further in June. In the US, crude market short positions doubled in just two months to an equivalent of nearly 180 mb, while in the Brent market investors are sitting on record short positions of nearly 177 mb.

The contango structure widened marginally in the Brent and Dubai markets on ample supplies in Europe and somewhat slower demand in Asia. However, there was a backwardation of forward market structures earlier for the second half of 2017 which has flipped into contango for the entire futures curve of both NYMEX WTI and ICE Brent.

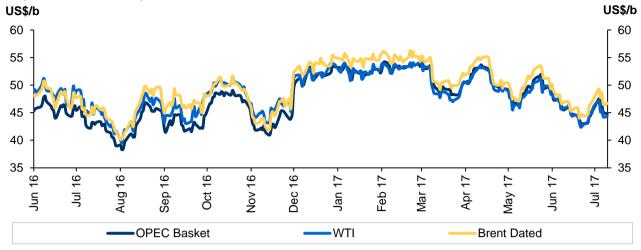
The sweet/sour narrowing differentials trend that began earlier in the year eased on the US Gulf Coast (USGC) and in Asia. However, sour crudes continued to strengthen relative to sweet in the European market as OPEC and non-OPEC supply adjustments limited availability of the sour grade while increasing production in the US and the Atlantic Basin created a glut of light sweet crudes.

## **OPEC Reference Basket**

On a monthly average basis, the **ORB** declined sharply in June for the second month in a row. It was down around 8% m-o-m to its lowest value for the year and remained below \$50/b. The oil market witnessed significant bearish sentiment in June, ignited by excess oil supply and still-high oil inventories, despite ongoing high conformity by OPEC and non-OPEC oil producers. Oil has been weighed down by market exasperation with the slow pace of inventory drawdown globally, even as major oil producers continue to reduce oil production by 1.8 mb/d for the entire first half of 2017. Refinery demand was also good this spring, with crude runs setting twice at weekly all-time highs, pulling crude stocks lower in eleven of the last 13 reporting periods, according to Energy Information Administration (EIA) data. Even with inventories chipping away at the surplus to the five-year average, prices fell to lows not seen since November 2016, revealing some fear that refiners will start scaling back operations, thus removing a key driver. The ORB also ended the second quarter down by a significant 6.6%, the first and largest decline since a fall of nearly 25% quarter-to-quarter in 1Q16. Nonetheless, it remained above \$50/b y-t-d. Furthermore, since the 2017 high of \$54.24/b struck in early February, the ORB value plunged by 21% in June to reach to its lowest value so far this year at \$42.58/b late in the month.

However, toward the end of the month the oil market recovered somewhat with the ORB ending the last session of June at \$45.63/b.

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



Sources: Argus Media, OPEC Secretariat and Platts.

M-o-m, the ORB value declined \$3.99 to settle at \$45.21/b on a monthly average, down 8.1%. Compared to the previous year, the ORB value was 38.3% higher, or \$13.90, at \$50.21/b.

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

			Chang	je	Year-to-date		
	<u>May 17</u>	<u>Jun 17</u>	Jun/May	<u>%</u>	<u>2016</u>	<u>2017</u>	
Basket	49.20	45.21	-3.99	-8.1	36.31	50.21	
Arab Light	49.30	45.21	-4.09	-8.3	36.49	50.36	
Basrah Light	48.56	44.55	-4.01	-8.3	34.94	49.57	
Bonny Light	50.77	46.92	-3.85	-7.6	39.85	52.04	
Es Sider	48.90	44.87	-4.03	-8.2	38.89	50.12	
Girassol	50.36	46.46	-3.90	-7.7	39.65	51.73	
Iran Heavy	49.00	44.62	-4.38	-8.9	34.79	49.91	
Kuwait Export	48.65	44.37	-4.28	-8.8	34.55	49.57	
Qatar Marine	50.24	46.26	-3.98	-7.9	37.07	51.13	
Merey	45.16	42.49	-2.67	-5.9	28.37	45.23	
Murban	51.96	47.86	-4.10	-7.9	40.94	53.12	
Oriente	46.91	43.11	-3.80	-8.1	33.72	47.29	
Rabi Light	49.48	45.45	-4.03	-8.1	38.80	50.64	
Sahara Blend	49.80	46.07	-3.73	-7.5	40.67	51.40	
Zafiro	49.96	45.92	-4.04	-8.1	38.09	51.26	
Other Crudes							
Dated Brent	50.45	46.42	-4.03	-8.0	39.89	51.68	
Dubai	50.47	46.38	-4.09	-8.1	37.01	51.32	
Isthmus	51.85	48.21	-3.64	-7.0	37.59	52.77	
LLS	50.64	47.21	-3.43	-6.8	41.37	51.82	
Mars	47.51	43.95	-3.56	-7.5	36.22	48.24	
Minas	45.96	42.65	-3.31	-7.2	39.11	47.70	
Urals	49.04	45.52	-3.52	-7.2	38.25	50.41	
WTI	48.56	45.17	-3.39	-7.0	39.52	49.94	
Differentials							
Brent/WTI	1.89	1.25	-0.64	-	0.37	1.75	
Brent/LLS	-0.19	-0.79	-0.60	-	-1.48	-0.13	
Brent/Dubai	-0.02	0.04	0.06	-	2.88	0.36	

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

**ORB component values** plunged along with relevant crude oil benchmarks. Crude oil physical benchmarks, namely Dated Brent, WTI and Dubai spot prices, dropped in June by \$4.03, \$3.39 and \$4.09, respectively.

The Latin American ORB components Venezuelan Merey and Ecuador's Oriente edged down to \$42.49/b and \$43.11/b, respectively. They lost \$2.67/b, or 5.9%, and \$3.80, or 8.1%, respectively. As the Atlantic Basin supply glut continued to pressure price differentials for light sweet crude Basket components from West and North Africa, their values deteriorated further alongside crude benchmark Brent outright prices. Saharan Blend, Es Sider, Girassol, Bonny Light and Gabon's Rabi values decreased by \$3.91/b on average, or 8%, to \$45.95/b. Physical crude differentials for these grades have been under pressure for several months as light sweet crude supplies surged. Despite an uplift in OSP offsets and support from healthy global sour markets, the 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 grade values deteriorated by \$4.19/b for the month, or 8.6% to \$44.69/b. Middle Eastern spot components, Murban and Qatar Marine, saw their values decline by \$4.04/b, or 7.9%, to \$47.06/b.

On 11 July, the ORB stood at \$44.79/b.

## The oil futures market

Oil futures in New York and London tumbled in June to become bearish, with ICE Brent settling below the \$50/b mark for the first time this year on concerns that rising global supply will counter output adjustments from OPEC and non-OPEC participating producers. US crude inventories remained more than 100 mb above the five-year seasonal average. Oil futures have also dropped over the month due to concerns that persistent US production growth will translate into crude inventory builds, should seasonal refinery demand back off. Hedge funds have embarked on a new cycle of short-selling in Brent and WTI, which has added to downward pressure on prices. The wider oil complex faced a steep price decline over the month. This started early in the month with an EIA report showing a surprisingly large weekly stock build that helped create a bearish impression. At the same time, US gasoline demand took a turn to the downside just as the summer driving season started. A rebound in Libyan and Nigerian production added pressure to an already amply supplied Atlantic Basin due to a massive increase in US shale oil production, while demand from Asia was weaker on account of upcoming refinery maintenance and unfavourable arbitrage economics. The prospect of increased supply also put some pressure on prices. Nigerian Forcados production ramped up quickly after it resumed in May, increasing to 250 tb/d, creating an overhang as supply surpassed demand. Floating storage also increased amid continuing oversupply in the crude market. Volumes of oil stored at sea are increasing not only around Singapore, but also in the North Sea, with ship-tracking sources indicating a build-up of floating barrels of around 7 mb to 9 mb. Oil futures contracts lost around 7% for the guarter on both sides of the Atlantic.

Towards the end of the month, oil futures recovered slightly amid tightening supply and indications that OPEC and non-OPEC output adjustments adjustment was helping to rebalance the market. Some support for crude prices came from a tighter North Sea market. Demand from Chinese independent refiners for North Sea crudes firmed while floating stocks fell to around 6 mb from 9 mb in this region at the start of the month. August loading of North Sea Light will fall to a three-year low owing to field maintenance, and shipments of other North Sea grades will also decline.

**ICE Brent** ended June \$3.85, or 7.5% lower, to stand at \$47.55/b on a monthly average basis, while **NYMEX WTI** slipped \$3.34, or 6.9%, to \$45.20/b. Y-t-d, ICE Brent is \$11.47, or 27.8% higher at \$52.68/b, while NYMEX WTI increased by \$10.17, or 25.6%, to \$49.95/b.

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

			Chan	ge	Year-to-date		
	<u>May 17</u>	<u>Jun 17</u>	<u>Jun/May</u>	<u>%</u>	<u>2016</u>	<u>2017</u>	
NYMEX WTI	48.54	45.20	-3.34	-6.9	39.78	49.95	
ICE Brent	51.40	47.55	-3.85	-7.5	41.21	52.68	
Transatlantic spread	2.86	2.36	-0.50	-0.59	1.43	2.73	

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

Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

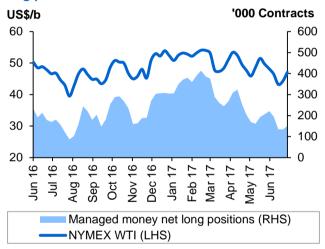
#### Crude Oil Price Movements

Crude oil futures prices improved in the second week of July. On 11 July, ICE Brent stood at \$47.52/b and NYMEX WTI at \$45.04/b.

Bearish, or short, bets on crude oil prices have exploded further in June. In the US crude market, the short position held by **money managers** doubled in just two months to the equivalent of nearly 180 mb, while in the Brent market investors are sitting on a record short position of near 177 mb.

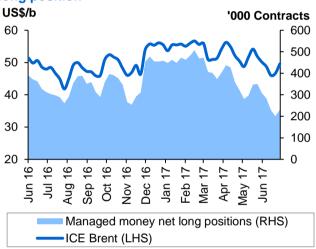
**Fund managers** have added 80 mb of extra short positions in WTI and 65 mb in Brent since 30 May, according to data from regulators and exchanges. Nevertheless, hedge fund long positions still outnumbered short positions by a ratio of 2.11.9 to 1, but this was one of the lowest ratios recorded in recent years. The risk of a short-covering rally when fund managers attempt to lock in profit has increased significantly. And with relatively few long positions left to close, the downside threat from further liquidation has been reduced. All in all, money managers cut their net combined futures and options positions in US crude by 72,497 contracts or 35% to 133,606 lots in the four weeks to 27 June, the lowest level since late September, data from the US Commodity Futures Trading Commission (CFTC) showed. Similarly, speculators lowered net long positions by 149,676 contracts, or 43%, to 200,204 lots in ICE Brent futures and options. The total futures and options open interest volume in the two exchanges was down 0.5% at 5.66 million contracts, and the net length positions share decreased to 5.9% from 9.8%.

**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** 



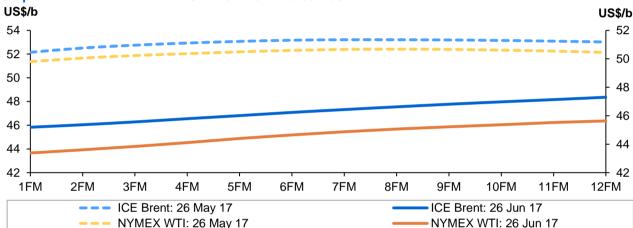
Sources: Intercontinental Exchange and OPEC Secretariat.

The **daily average traded volume** for NYMEX WTI contracts surged further by 73,267 lots, or 5.9%, to 1,324,482 contracts, while that of ICE Brent was 43,709 contracts higher, up by 5.9% at 1,131,272 lots. Daily aggregate traded volume for both crude oil futures markets increased by 116,976 contracts to 2.46 million futures contracts, or near 2.5 bb/d of crude oil. Total traded volume NYMEX WTI and ICE Bent futures in June were significantly higher again at 29.14 and 24.89 million contracts, respectively.

#### The futures market structure

The **contango structure** widened marginally in the Brent and Dubai markets on ample supply in Europe and somewhat slower demand in Asia. However, the earlier 2H17 built up backwardation of the forward market structure has flipped into contango for the entire futures curve for both NYMEX WTI and ICE Brent, and the once-expected return of oil market balance during the 2H17 has now been pushed back beyond 1H18. The market structure has been pressured by rising supplies of light sweet crude and persistently high inventories. A build-up of crude in floating storage in the North Sea, driven by low European and Asia Pacific demand and a rise in the availability of competing light sweet grades from Africa, pressured Brent. Adequate supplies and slower Chinese demand, as independent refiners have bought limited crudes for the past two months. has also caused a glut in Asia. Meanwhile, consecutive weeks of crude inventory draws and higher refinery runs in the US supported easing of the WTI contango.

The Dubai M1 45¢/b discount to M3 increased to 60¢/b. The North Sea Brent M1/M3 discount also widened to 60¢/b on average from around 55¢/b the previous month. In the US, the WTI contango eased 14¢/b as WTI's (M1-M3) narrowed further to 45¢/b.



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

Note: FM = future month.

Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

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

The ICE Brent/NYMEX WTI spread narrowed on successive weeks of US crude stock draws. Ample light sweet crudes supplies from increasing production in Libya and Nigeria as well as floating storage in the Atlantic Basin has pressured the European benchmark relative to that of the US. The first-month ICE Brent/NYMEX WTI spread narrowed to \$2.36/b, a 50¢/b contraction. This tighter spread between European Brent and US futures since the end of May has also weakened demand for US crude from Asian

refiners.

1FM 2FM 3FM 6FM **12FM** 12FM-1FM **NYMEX WTI** 26 May 17 49.80 50.45 0.65 50.05 50.23 50.59 26 Jun 17 43.38 43.61 43.84 44.65 45.64 2.26 -4.81 1.61 Change -6.42 -6.44 -6.39 -5.94 **ICE Brent** 52.51 52.75 53.17 53.02 0.87 26 May 17 52 15 26 Jun 17 45.83 46.04 46.28 47.08 48.36 2.53 -6.09 -4.66 1.66 Change -6.32-6.47 -6.47

Note: FM = future month.

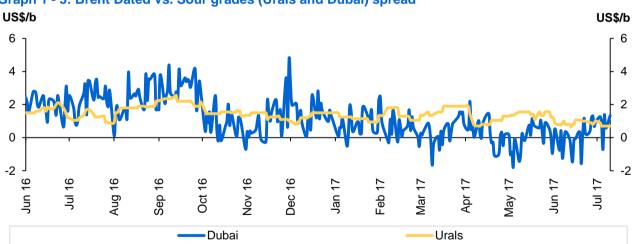
Sources: CME Group and Intercontinental Exchange.

## The light sweet/medium sour crude spread

The sweet/sour narrowing differentials trend that began earlier in the year eased in the USGC and Asia. However, sour crudes continued strengthening relative to sweet in the European market as OPEC and non-OPEC supply adjustments limited the availability of sour grades, while increasing production in the US and the Atlantic Basin created a supply glut of light sweet crude.

In **Asia**, Tapis premium over Dubai increased marginally for the first time since the beginning of the year. The spread widened on healthy demand for Asia Pacific light sweet crudes amid firm refining margins in Asia and late-in-the-month returning regional demand from Chinese independent refiners, which have recently been granted a second batch of import quotas. Meanwhile, the Middle East sour crude benchmark weakened as ample supplies weighed on the market. Unsold supplies from the previous month and lower demand from China were depressing their values this month. Almost 10% of China's refining capacity is set to be shut down during the third quarter. Prices were also pressured down by supplies in storage and geopolitical tension in the region, which could harm the loading schedule. The Tapis/Dubai spread widened by 22¢ to \$2.01/b in June. The Dated Brent/Dubai spread remained almost unchanged, improving by only 6¢ to the advantage of Brent, a 4¢ premium compared with the previous month's three-year low of a 2¢ discount.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude decreased by 50¢ to 90¢. Urals price differentials to Dated Brent strengthened in the Mediterranean amid limited exports of Urals and higher demand for medium sour crude oil. Urals margins also remained remarkable at around \$6.50/b on complex refineries in the Mediterranean. Meanwhile, strong fuel oil margins and tighter supplies of medium and heavy sour crude supported demand for medium and heavy Atlantic Basin crudes such as Urals. On the other hand, North Sea light sweet Brent was pressured on plentiful supply. An increasing supply of light, sweet crude from Libya and Nigeria and offers of North Sea crude from floating storage amid limited demand from Asia for North Sea crude have been weighing on Brent prices.



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 widened slightly from its narrowest level since April 2015 to \$3.26/b. Meanwhile, physical crude prices on the USGC were mostly stable, even as Tropical Storm Cindy threatened to bring heavy rain and winds to production facilities along the coast. Nevertheless, since the beginning of the year, sour crudes continued to firm on increased demand for export and USGC refinery demand due to less availability of Middle East sour crudes. High USGC sour crude prices helped draw in alternative Latin American cargoes as reduced Middle East sour crude exports boosted interest in alternatives.

## **Commodity Markets**

Average energy commodity prices were mixed in June. There were falls in crude oil prices, natural gas prices were mixed across regions, while coal prices, on the other hand, rebounded. In the group of non-energy commodities, prices of agricultural commodities were led down by declines in oilseeds, vegetable oils, sugar and natural rubber but grains advanced as a result of weather related events. Base metals had a mixed performance. While there was support from improved manufacturing conditions in China. However, rising aluminium output and the prospect of higher nickel ore output and exports from Philippines and Indonesia weighed down on prices. Precious metals declined towards the end of the month due to higher real interest rate expectations in the US.

## Trends in selected commodity markets

Two consecutive average m-o-m falls in crude oil prices continued to negatively affect commodity market sentiment. Meanwhile metals found some support as the pace of global manufacturing held steady, as signalled by JP Morgan Manufacturing PMI unchanged at 52.6 in June from the previous month, helped by a slight rebound in China. Agricultural commodities continued to be weakened by large inventories, though some products advanced mainly due to adverse weather conditions, as was the case for wheat in the US and rice in South East Asia. Gold prices declined strongly towards the end of the month due to hawkish talk by Central Bank officials of major developed economies, despite recent soft inflation readings.

Agricultural commodity prices declined with drops in the food, beverage and raw material groups. Food prices declined due to lower vegetable oil and sugar prices; however, grain prices advanced. Plentiful supplies of oilseeds keep adding pressure to oilseeds and vegetable oil prices. During the month, the Brazilian National Food Supply Company (CONAB) increased its estimation of the soybean crop to a record 113.9m Metric Tonnes (MT) versus 95.4m MT the previous year. Meanwhile, the US Department of Agriculture forecast on world ending stocks of soybeans for the marketing year 2017/2018, was raised to just below the 2016/2017 expected level. Sugar prices declined sharply as Brazilian sugar mills are diverting a higher portion of their crops towards sugar production instead of ethanol, given the still favourable international sugar prices, lower fuel prices and exchange rate. Grains, on the other hand, advanced on top of rallying spring wheat prices due to dry weather in the northern plains of the US, while rice prices soared for the second consecutive month as a result of the impact of flooding in South East Asia.

Base metals had a mixed performance in June, though they were supported by some improvement in manufacturing activity in China during the month. Copper prices were also underpinned by inventory drops in the LME system during the month. Aluminium prices declined following increasing production in China, which rose by 5.6% y-o-y in May, and it has risen by 11% y-o-y from January until May, as reported by the International Aluminium Institute. Nickel prices continued to decline due to the resumption of ore exports from Indonesia and the prospect of mines reopening in the Philippines which had been previously closed because of an environmental review. Iron ore was weaker due to rising inventories at Chinese ports but increased towards the end of the month with the recovery in steel prices. World crude steel output increased by 2.0% y-o-y and by 1.8% y-o-y in China - though in absolute terms it was lower than in April, according to the Word Steel Association.

**Energy prices** were led down by a steep fall in oil prices due to increasing crude output from some exporters, rising US inventories at the beginning of the month and an increasing number of bearish bets by money managers. Natural gas prices declined steeply in the US due to lower demand in view of mild temperatures. In Europe, natural gas inventories in the EU-28 countries were at 51.1%full at the end of June versus 60.9% at the same time the previous year, and 40.2% at the end of the previous month, according to Gas Infrastructure Europe. Coal prices advanced mainly due to higher demand for power generation in China. However Chinese coal output continued to improve. It increased by 12% y-o-y in May according to the National Bureau of Statistics of China, recovering from the impact of the previous year's government imposed restrictions.

Table 2 - 1: Commodity price data

Commodity	l lm:4	М	onthly ave	rages	% Change	Ye	Year-to-date	
Commodity	Unit	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Jun 17/May 17	<u>2016</u>	<u>2017</u>	
Energy*		67.1	64.3	60.4	-6.1	49.4	65.9	
Coal, Australia	US\$/mt	84.6	74.5	81.0	8.6	51.4	80.8	
Crude oil, average	US\$/b	52.2	49.9	46.2	-7.5	38.8	51.2	
Natural gas, US	US\$/mbtu	3.1	3.1	2.9	-5.9	2.1	3.0	
Non-energy*		82.8	83.0	82.0	-1.3	78.5	84.1	
Agriculture*		87.7	89.2	87.7	-1.6	87.8	89.4	
Food*		90.8	92.9	91.9	-1.1	90.8	93.1	
Soybean meal	US\$/mt	352.0	350.0	336.0	-4.0	373.3	361.8	
Soybean oil	US\$/mt	791.0	827.0	827.0	0.0	771.8	827.3	
Soybeans	US\$/mt	389.0	388.0	380.0	-2.1	397.2	402.2	
Grains*		79.8	84.4	87.6	3.8	86.1	81.4	
Maize	US\$/mt	156.4	158.6	157.9	-0.4	165.5	159.1	
Wheat, US, HRW	US\$/mt	166.1	180.4	189.6	5.1	184.0	166.4	
Sugar, world	US\$/kg	0.4	0.4	0.3	-13.4	0.3	0.4	
Base metal*		80.1	79.1	79.2	0.2	64.9	80.1	
Aluminum	US\$/mt	1,921.2	1,913.0	1,885.3	-1.4	1,543.1	1,878.8	
Copper	US\$/mt	5,683.9	5,599.6	5,719.8	2.1	4,705.6	5,753.9	
Iron ore, cfr spot	US\$/dmtu	70.2	62.4	57.5	-7.9	52.2	74.6	
Lead	US\$/mt	2,220.6	2,125.1	2,132.9	0.4	1,727.8	2,218.9	
Nickel	US\$/mt	9,609.3	9,155.1	8,931.8	-2.4	8,665.1	9,752.6	
Tin	US\$/mt	19,910.3	20,200.3	19,658.8	-2.7	16,170.4	19,963.8	
Zinc	US\$/mt	2,614.9	2,590.2	2,573.4	-0.6	1,797.1	2,686.0	
Precious metals*		99.4	96.8	97.9	1.1	94.4	96.9	
Gold	US\$/toz	1,266.9	1,246.0	1,260.3	1.1	1,220.4	1,238.5	
Silver	US\$/toz	18.0	16.7	16.9	1.1	15.9	17.4	

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

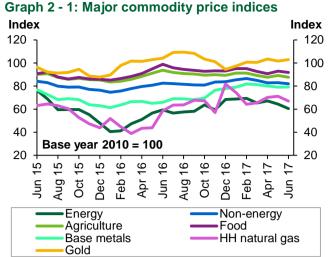
Source: World Bank, Commodity price data.

Average **energy prices** in June decreased by 6.0% m-o-m, mainly due to a 7.5% decrease in average crude oil prices. Natural gas prices decreased in the US by 5.9%, while average import prices in Europe advanced by 1.1%. Australian benchmark thermal coal prices increased by 8.6% m-o-m.

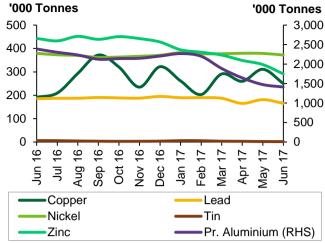
**Agricultural prices** decreased by 1.4% in June, with average food prices decreasing on average by 1.1%. Sugar, palm oil and soybeans decreased by 13.4%, 6.9% and 2.1%, respectively. In the group of raw materials, natural rubber and cotton prices decreased by 5.9% and 4.4%, respectively.

**Average base metal prices** increased by 0.2% in June, with mixed movements across the group. Copper advanced by 2.1%, while aluminum prices declined by 1.4%. Average iron ore prices dropped by 7.9% but recovered towards the end of the month following steel prices.

In the group of **precious metals**, gold prices advanced by 1.1% on average, however they declined steeply towards the end of the month on the expectation of higher interest rates in the US.



Graph 2 - 2: Inventories at the LME



Source: World Bank, Commodity price data.

Sources: London Metal Exchange and Thomson Reuters.

In June, the **Henry Hub natural gas index** declined. The average price was down by 19¢, or 5.9%, to \$2.94 per million British thermal units (mmbtu) after trading at an average of \$3.12/mmbtu the previous month.

The **EIA** said utilities added 72 billion cubic feet (bcf) of **working gas in underground storage** during the week ending 30 June. This was above the median analysts' expectations of a 66 bcf injection. Total working gas in underground storage stood at 2,888 bcf, 9% lower than at the same time the previous year, but 6.9% higher than the previous five-year average.

#### Investment flows into commodities

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

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

	Open in	nterest				
	<u>May 17</u>	<u>Jun 17</u>	<u>May 17</u>	<u>% OI</u>	<u>Jun 17</u>	<u>% OI</u>
Crude oil	2,248	2,167	150	7	147	7
Natural gas	1,532	1,425	215	14	78	5
Agriculture	5,074	5,182	-371	-7	-357	-7
Precious metals	647	670	144	22	154	23
Copper	249	260	44	18	56	21
Livestock	709	716	178	25	206	29
Total	10,460	10,419	360	78	284	79

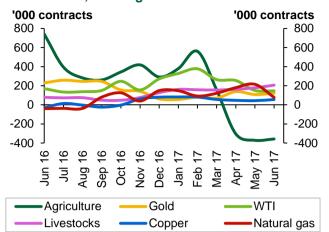
Note: Data on this table is based on monthly average.

Source: US Commodity Futures Trading Commission.

**Agriculture's OI** increased by 2.1% to 5,181,546 contracts in June. Meanwhile, money managers decreased their combined net short position to 357,235 lots. Net short positions increased in the soy complex and sugar, but decreased in corn and wheat.

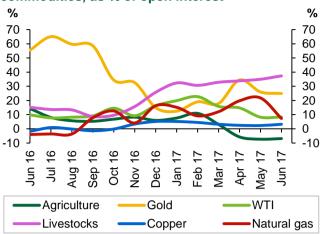
**Henry Hub's natural gas OI** decreased by 7.0% m-o-m to 1424,870 contracts in June. Money managers decreased their net length by 63.7% to 78,078 due to milder weather.

**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** increased by 4.2% m-o-m to 259,888 contracts in June. Money managers increased their net long positions by 27.2% to 55,623 on improving manufacturing conditions in China.

**Precious metals' OI** increased by 3.5% m-o-m to 669,727 contracts in June. Money managers increased their net long positions by 7.6% to 154,471 lots, mainly because of increases in the first two weeks of the month. The trend reversed in the second half of the month.

## **World Economy**

The gradual economic recovery of the past years is forecast to continue in 2018 at 3.4% global GDP growth, the same level of growth that is forecast for 2017. Economic improvements continue in both OECD and non-OECD economies, with the exceptions of the Brexit-impacted UK and potentially temporary dips in the first half of the US and India, which are both expected to rebound in the remainder of the year.

OECD GDP growth in 2018 is forecast at a slightly lower level of 1.9%, compared with a 2017 forecast of 2.0%. While US growth is forecast to remain at this year's level of 2.2%, the Euro-zone is expected to grow at 1.7%, compared with 2017 growth of 1.8% and Japan's economic growth is forecast at 1.1%, compared with 2017 growth of 1.4%. In general, OECD growth levels remain solid and almost unchanged.

In the emerging economies, India is forecast to expand its growth level to 7.5% in 2018, compared with 7.0% in the current year, supported by ongoing structural reforms. Positively, Brazil and Russia will also continue their recovery, though this depends on the development of both commodity prices and politics, as well as the presidential elections in both countries in the coming year. China will continue to grow at a slightly lower rate of 6.2% in 2018, compared with 6.6% in 2017. This still represents a considerable level of expansion, as the country continues to shift its growth drivers from exports and investments to domestic consumption.

While global economic growth is gradually becoming more balanced, some uncertainties remain. Seemingly high valuations in equity and bond markets in combination with low volatility pose one risk at a time, when central banks become more willing to reduce monetary stimulus measures. Also, 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. Moreover, policy issues carry considerable weight, and numerous aspects in the global policy sphere provide room for uncertainty. Finally, sustained stability in commodity prices, particularly oil prices, is viewed as necessary for ongoing improvements in global economic growth.

Table 3 - 1: Economic growth rate and revision, 2017-2018\*, %

	Euro-									
	World	OECD	US J	lapan	zone	UK	China	India	Brazil	Russia
2017	3.4	2.0	2.2	1.4	1.8	1.5	6.6	7.0	0.5	1.2
Change from previous month	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
2018	3.4	1.9	2.2	1.1	1.7	1.4	6.2	7.5	1.5	1.4

Note: \*2017 and 2018 = Forecast. Source: OPEC Secretariat.

## **OECD**

#### **OECD Americas**

#### US

While lacklustre 1Q17 growth was confirmed in the third and final edition of GDP growth numbers by the Bureau of Economic Analysis, the output level was revised up to stand at 1.4% seasonally adjusted annualised rate (SAAR), twice that of the first estimate of 0.7% q-o-q SAAR and also higher than the 1.2% q-o-q SAAR of the second estimate. Most indicators in the US economy point to a rebound in 2Q17 and continued gradual growth amid ongoing improvements in the labour market and solid consumer confidence.

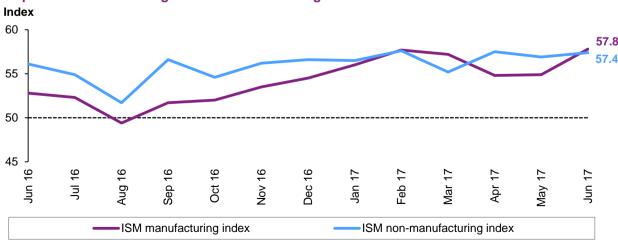
Particularly and importantly, private household consumption has been weak at only 1.1% q-o-q SAAR, though this is much better than in the first estimate, when it stood at only 0.3% and also better than the

second estimate, which was 0.6% q-o-q SAAR. This was to some extent impacted by declines in energy sector-related spending. Motor vehicle and parts expenditures have declined by 14.4% q-o-q SAAR and expenditures on gasoline, fuel oil and other energy goods fell by 5.7% 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 had a large negative impact of 0.4 pp to total 1Q17 GDP growth. Declining demand for energy and oil-related products added another negative impact of 0.1 pp to total 1Q17 GDP growth. To some extent this was positively offset by investments in the energy sector, as ventures into so-called "structures" within a majority of energy-related investments increased by 22.6% q-o-q SAAR, reflecting significant investment activity in the energy sector. Moreover, related expenditures into "equipment", including energy-related equipment, rose by 7.8% q-o-q SAAR. These two energy-related investment categories helped to mitigate the 1Q17 slowdown, adding almost 1.0 pp – or more than 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 farfetched, and as long as no progress becomes visible, the potential upside from particularly the envisaged tax reform will not materialise.

With ongoing momentum and a healthier inflation outlook, the US Federal Reserve (the Fed) may still continue raising interest rates this year. While the labour market continues to improve, some indicators point at increasingly mixed progress and while inflation stands at around 2%, it started to decelerate again. Inflation stood at 1.9% y-o-y in May, the lowest in six consecutive months. Core inflation was the lowest in more than two years in May, when it rose only by 1.7% y-o-y, clearly below the Fed's target for a second consecutive month. So, while inflation levels remain relatively healthy, the trend of rising inflation is slowing again. This is important for the Fed to note as progress in hourly earnings growth, a key component for core inflation, is stalling as well to some extent.

The **labour market's** positive momentum continued, but progress has been mixed lately. While non-farm payroll additions were higher than expected in June, the unemployment rate rose slightly to 4.4% from 4.3% in May. Non-farm payrolls remained healthy, as they grew by 222,000, after being upwardly revised by 152,000 additions. This was the strongest amount of monthly additions since the past February. Average hourly earnings growth, however, decelerated again, as earnings increased by only 2.3% y-o-y, the lowest in more than a year. Some weakness was reconfirmed as well in the duration of unemployment, as long-term unemployment rose again to reach 24.3%, up for a second consecutive month, after standing at 24% in May and hitting 22.6% — a multi-year low — in April. Finally, the participation rate rose to 62.8% in June from 62.7% in May, a slightly positive sign.

On the domestic side, **industrial production** increased in May by 2.2% y-o-y after a rise of 2.1% y-o-y in April. This was the highest rise since the end of 2015. It was again supported by a better situation in the energy sector. Mining – which includes oil sector-related output – rose by 8.3% y-o-y in May, the strongest performance by this sub-group since the beginning of 2015. Manufacturing, another important sub-group of industrial production, rose by 1.7% y-o-y in May, though this is slightly lower than the 1.9% y-o-y in April, but higher than the 0.9% y-o-y seen in March. **Domestic demand** was also supported by retail sales numbers, growth of which stood at 3.8% in May, after rising 4.6% y-o-y in April. The generally positive trend in domestic consumption was also visible in the Conference Board's Consumer Confidence Index, which rose slightly to 118.9 in June, after having reached a level of 117.6 in May.



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

Sources: Institute for Supply Management and Haver Analytics.

April's **Purchasing Managers' Index** (PMI) for the manufacturing sector as provided by the Institute of Supply Management (ISM) also indicated ongoing support in the underlying economy. The manufacturing PMI rose to 57.8 in June, significantly higher than the 54.9 seen in May. This important index for the services sector, which constitutes more than 70% of the US economy, also increased to a level of 57.4 in June from 56.9 in May.

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 remains unchanged at 2.2% for 2017. This is the level also forecast for growth in 2018. Further upside growth may materialise if the government successfully pursues envisaged reforms, particularly tax reforms.

#### Canada

The economy of Canada continues to improve. **Industrial production** increased by 4.2% y-o-y in April, the highest rate since mid-2014 and compared with 3.9% in March. 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 17.7% y-o-y in May after reaching 15.5% y-o-y in April. Retail trade also continued to expand at the considerable level of 4.5% y-o-y in April, which is lower than the March level of 8.8% y-o-y. The **PMI** for manufacturing fell slightly, but remained at the substantial level of 54.7 in June, after reaching 55.1 in May. Taking this positive momentum into consideration, the **GDP growth** forecast for 2017 was revised up to 2.1% from 2.0%. Growth in 2018 is forecast to be slightly lower at 1.9%.

#### **OECD Asia Pacific**

#### Japan

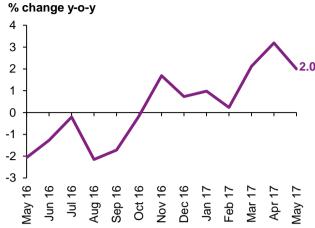
Japan's **economy continues to expand** at a low but solid level of above 1% on a yearly average, supported by monetary and fiscal stimulus, growth in exports and relatively healthy domestic demand. Structural constraints keep the economy from expanding beyond the current level, mainly due to a very tight labour market and capacity utilisation that remains at around 100%. Positively, business sentiment also improved and is supporting the current growth trend. Exports turned out to be an important support factor for the economy's current growth momentum, as via various channels it is also an important driver for domestic demand. While still at a very low rate, inflation remained in positive territory and wages continued their slight expansion. Quarterly productivity gains were only gradual, but remained positive in 1Q17. In the meantime, the Bank of Japan (BoJ) continued its monetary stimulus.

**Inflation** remained unchanged in May, increasing by 0.4% y-o-y for a second consecutive month. Despite tight labour markets, rising wages are only slowly turning into increasing consumption and rising prices. Core inflation (which excludes food and energy) improved but remained in negative territory, falling by 0.2% y-o-y in May, better than the -0.3% seen in April. However, it remained negative for the fourth month in a row. So far, low inflationary or even deflationary trends remain persistent. The **unemployment rate** increased, but remained extremely low at 3.1% in May, moving up from 2.8% in April. Real income also continued to rise modestly with pay increases in May to reach 0.6% y-o-y. As the BoJ target of around 2% inflation remains distant, it may lower this target level in the near term, but it remains determined to reach consistent positive inflation and hence is continuing with its monetary stimulus measures. In the recent past, the BoJ highlighted that it will continue its monetary policy and has kept its overnight interest rates to a cap of minus 0.1% and 10-year bond yields at about zero per cent.

**Japanese exports** in May rose by 14.9% y-o-y, after already having shown strong growth in the previous months of the year. This dynamic has been supported by the relatively weak value of the yen compared with the US dollar. Exports rose across the various product categories, but exports of industrial goods and capital equipment mostly backed this positive trend in trade. Additionally, **industrial production** continued its recovery, rising for the tenth consecutive month, up by 4.9% y-o-y in May, after a rise of 6.9% y-o-y in April and 3.5% y-o-y in March. This was supported again by a strong trend in manufacturing, which climbed by 5.0% y-o-y in May. Positively, manufacturing orders also rebounded, rising by 8.3% y-o-y in May, after a rise of 2.0% y-o-y in April, and a significant decline of 12.3% y-o-y in March.

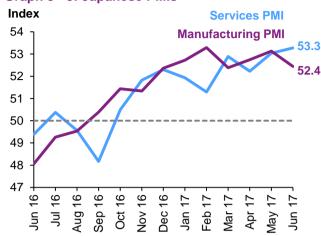
Some improvement was also reflected in **domestic demand**. Retail trade rose by 2.0% y-o-y in May, slightly below the April level of 3.2% y-o-y, after reaching 2.1% y-o-y in March, a solid and rebounding trend from low growth in 2016.

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 a healthy trend, albeit a slightly declining manufacturing index. It fell to 52.4 in June from 53.1 in May. The services sector PMI performed better, rising to 53.3 in June, after reaching 53.0 in May.

The most recent developments confirm a solid underlying growth dynamic in the Japanese economy. This has already been reflected in the 2017 **GDP growth** forecast of 1.4%. However, numerous issues persist, and given the tight labour market situation and high capacity utilisation rates, further advancements in growth seem challenging. With the current strong growth momentum in exports in particular, some softening of this trend is expected in the coming year, leading to a 2018 growth forecast of 1.1%.

#### South Korea

While external political challenges in the region persist, domestic confidence seems to have risen after recent elections and hence the growth dynamic seems to be recovering. GDP growth in 1Q17 showed strength, reaching 3.0% y-o-y on a seasonally adjusted base. Investments and exports were especially driving forces behind the economy's continued solid growth. While investments rose by 12.1% y-o-y in 1Q17, exports rose by 4.0% in 1Q17. In May, the latest available month, exports rose by 10.4% y-o-y, showing a continued strong trend. **Industrial production** rose by 2.4% y-o-y in May, following 3.5% y-o-y in April. The latest **PMI** number for the manufacturing sector in June also indicated a rebound in the sector, with the index moving above the growth-indicating level of 50 for the first time in a year. It stood at 50.1, after reaching 49.2 in May. Solid momentum has been already reflected in the **GDP growth** forecast for 2017, which remained unchanged at 2.5%. Growth in 2018 is forecast at a slightly lower rate of 2.4%.

## **OECD Europe**

#### **Euro-zone**

Euro-zone output continues to show **healthy growth trends**, confirming the underlying improvements in the region's economy. This positive trend is visible in all economies at different rates, and while Germany is leading the growth, dynamic and peripheral economies are supporting this growth trend. While the labour market has constantly improved, it may further support economic growth as the unemployment level still remains high. Also, the capacity utilization rate in the Euro-zone of slightly more than 80% could provide further upside support, while core inflation is still low and is also providing some room for improvement. While the ECB has hinted already that its monetary stimulus will gradually be reduced at some point, the accommodative monetary policy stance may continue for some time. While after the French elections some of the political uncertainty seems to have abated, uncertainty remains regarding the process of the UK's exit

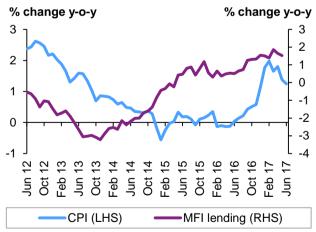
from the EU. Moreover, the debate about sovereign debt levels in some economies has died down somewhat, but sovereign debt remains an issue as well. In some peripheral economies such as Portugal, Greece, Spain and Italy, debt levels remain at considerable levels.

Exports and continuously improving domestic demand are the main drivers for the growth. Inflation fell again in June, and monetary stimulus may continue for at least some more months, albeit some hints from the European Central Bank (ECB) have pointed out that monetary stimulus and ultra-low or negative interest rates will not continue forever. Business sentiment is also reflecting the improving situation, with the European Commission's June economic sentiment index improving to a level of 111.1 from 109.2 in May. This positive sentiment in combination with comments by the ECB's president about a possibility of reduced monetary stimulus has also impacted the euro, which rose to its highest level since the beginning of the year, when it stood at more than \$1.14/€ at the end of June.

Furthermore, the **unemployment rate** in May remained at the previous month's level of 9.3%, still an elevated number, but the lowest since 2009. Wages increased by 1.52% y-o-y in 4Q16 and at the same level in 1Q17, which was the highest level in more than a year. This compares to pre-crisis levels of 2% and more. Hence wages remain low but should be expected to pick up further at a later stage in the recovery. The moderately improving labour market is also a positive driver for inflation and a signal of an improving economic environment. However, the developments differ widely still within the Euro-zone. Germany's unemployment rate stood at 3.9% in May, while in Spain, it was still at 17.7%. Particularly youth unemployment is still a major challenge for the Euro-zone with a current level of 18.9%. These still relatively high unemployment levels also keep wages from increasing quickly and may keep core inflation in check for some time. While inflation has constantly risen since last year's low levels, the recent June numbers have shown a continued slowdown in the inflationary trend. Inflation stood at 1.3% y-o-y in June, compared to 1.4% y-o-y in May. Positively, core inflation – that is, the consumer price index (CPI), excluding energy, tobacco and food – rose to 1.1% y-o-y in June, from 0.9% y-o-y in May.

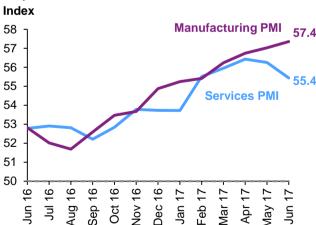
These levels are still far below the ECB's inflation target of around 2%. Thus, this will remain an area that the **ECB** will consider closely in its upcoming monetary policy decision-making meetings. While a major change in monetary support is not likely in the coming months, the ongoing trends in growth, labour market improvements and inflation may lead the ECB to reduce its stimulus at the end of the year as has been indicated already. The latest statements still highlight that underlying inflation pressures continue to remain subdued and have yet to show a convincing upward trend. In May, credit supply to the private non-financial sector increased, but continued its deceleration, as it rose by 1.5% y-o-y, the lowest in three months. Also, banking sector-related issues, particularly in Italy, remain, and while the banking sector in the rest of the Euro-zone seems to be in a relatively better situation, challenges remain.

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



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

Graph 3 - 5: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

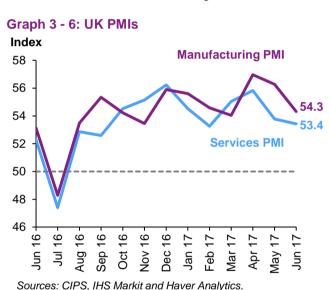
**Industrial production** grew by 1.4% y-o-y in April, after 2.2% in March. Retail sales growth in value terms was again an important support factor for Euro-zone growth, increasing by 3.6% y-o-y in May, after 4.1% in April. While this signals ongoing improvements in the underlying economy, these indicators are also slowing down slightly.

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 57.4 in June, up from already high numbers of 57.0 in May and 56.7 in April. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, retracted slightly to a level of 55.4 in June from 56.3 in May.

The underlying momentum has led to an upward revision in the 2017 **GDP growth** forecast for the Euro-zone, which now stands at 1.8%, compared to 1.7% in the previous month. Given that some momentum is slowing down into the second half of the year, 2018 GDP growth is forecast at 1.7%. Among the political uncertainties, Brexit procedures and the upcoming German elections remain important factors to closely monitor. These factors need to be seen in combination with a potential reduction in monetary stimulus towards the end of the year.

#### UK

While Brexit negotiations have finally intensified after the most recent elections, the uncertainty about details of the procedure remain high. As Article 50 was invoked in March, more than three months of the two-year negotiation period have already passed. In the meantime, the economy is showing some negative impacts due to these uncertainties, but in general, the UK economy remained relatively robust.



Graph 3 - 7: UK industrial production % change y-o-y 5.0 4.0 3.0 2.0 1.0 0.0 -1.0 Dec 16 9 16 9 16 Jan 17 Sep 1 Nov 1 , O

Sources: Office for National Statistics and Haver Analytics.

**Exports** continue to benefit from a relatively weak pound and hence have benefitted from an improving competitive position. Exports increased by 12.6% y-o-y in May, following a 10.2% y-o-y rise in April. In addition, the **PMI** for manufacturing remained at a high level of 54.3 in June, but retraced from the very high level of 56.3 in May. Also, the services sector PMI fell slightly to 53.4 in June, compared to 53.8 in May. **Retail trade** rose considerably again in May, when it increased by 4.1%, but at a lower level than in April, when it rose by 7.2% y-o-y. **Industrial production** continued showing some weakness, falling by 0.3% y-o-y in May, coming from -0.8% y-o-y in April. With indicators supporting the view of a gradual slowdown in the UK economy, the growth forecast remains unchanged at 1.5% for 2017. Growth in 2018 is forecast at 1.4%.

#### Non-OECD

#### **BRICs**

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2017-2018\*

	GDP growth rate		Consumer price index, % change y-o-y		Current a balance,		Government of Go	ance,	Net public debt, % of GDP	
	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2018</u>
Brazil	0.5	1.5	4.0	4.2	-31.5	-49.7	-7.7	-6.1	77.0	81.6
Russia	6.6	6.2	4.1	4.1	50.0	41.5	-2.2	-1.4	11.9	12.8
India	7.0	7.5	4.3	4.9	-23.4	-32.5	-3.2	-3.2	51.6	50.4
China	1.2	1.4	1.7	1.8	187.0	238.7	-4.0	-4.4	18.7	22.2

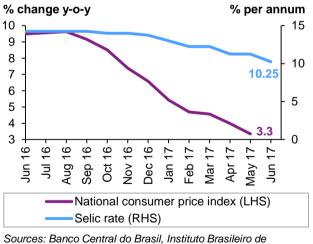
Note: \* 2017 and 2018 = Forecast.

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

#### **Brazil**

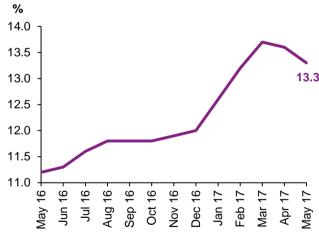
The **trade surplus** of Brazil reached its highest level ever in May at \$7.6 billion due to a record harvest of soy. This represents a 19% y-o-y increase. **Exports** increased by 12.6% y-o-y to nearly \$19.8 billion on acceleration in the export of iron, steel, sugar, corn, crude oil, copper, iron ore, and soybeans. Exports mainly rose in Central America and the Caribbean, Africa, the US and the Middle East at a rate of 36.8%, 23.9%, 21.6% and 18.2%, respectively, while exports to China, Brazil's top trading partner, rose by 10.2%. **Imports**, on the other hand, grew at lower rate of 9% y-o-y. For the first five months of 2017, price increases in iron ore, oil, and soy supported a boost in export values, despite a slight decrease in the volume of exports.

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

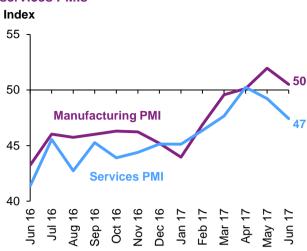


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

**Inflation** continued its easing trend, reaching 3.3% y-o-y in May, its lowest rate since May 2007. Thus, the central bank lowered its benchmark **interest rate** by 10 percentage points in June to 10.25%. The **unemployment rate** posted its second back-to-back fall in May, registering 13.3% vs 13.6% in April.

In June 2017, business conditions in the **manufacturing sector** continued to improve, though at slower pace compared with the previous month, when the respective PMI posted its highest reading since February 2013. The IHS Markit Brazil Manufacturing PMI stood at 50.5 in June from May's 52.0. The index survey showed a continued increase in received new orders, but at a lower rate from a month earlier. The **services sector** was back into contraction in June, as suggested by IHS Markit Brazil Services PMI Business Activity on output contraction across the sector.

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.

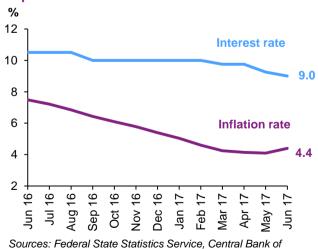
**Brazil's GDP** is expected to grow by 0.5% and 1.5% in 2017 and 2018, respectively. Household consumption and investment is anticipated to pick up next year due to low inflation and reduced interest rate.

#### Russia

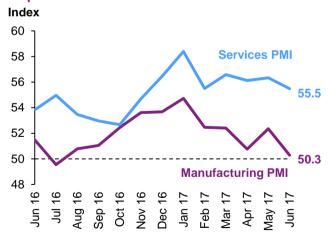
Improvements in **household consumption** and **gross fixed capital formation** (**GFCF**) were larger than the negative impact of lower **net exports** in 1Q17, leading to GDP growth of 0.5% y-o-y. Household consumption posted its first growth in 1Q17 after two consecutive years of contraction, expanding by 2.7% y-o-y compared with a 3.2% y-o-y contraction in the previous quarter. The GFCF increased in 1Q17 for the first time in nearly three years. It expanded by 2.3% y-o-y in 1Q17, from a 0.3% y-o-y drop in 4Q16. Net exports, however, were lower by 17.6% y-o-y in 1Q17, from growth of 21.5% in 4Q16. Imports increased much faster than exports, expanding by 16.5% y-o-y in 1Q17 vs 7.1% y-o-y growth in exports.

The **ruble** depreciated by another 1.3% m-o-m in June, following a similar path one month earlier. Inflation was largely stable at 4.1% y-o-y 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 25 bp to 9% in June.

Graph 3 - 12: Russian inflation vs. Interest rate



Graph 3 - 13: Russian PMIs



Sources: IHS Markit and Haver Analytics.

The IHS Markit Russia **manufacturing** PMI signalled marginal improvement in the sector's business conditions in June, posting 50.3 that month, down from 52.4 in May. Slowing growth in new orders was cited as a main factor behind a relative deceleration in the pace of growth. **Industrial production** rose by 5.6% y-o-y in May, the highest rate of growth since February 2012. The services activity PMI also suggested a strong rate of growth in the **services sector** in June for the seventh consecutive month. The index stood at

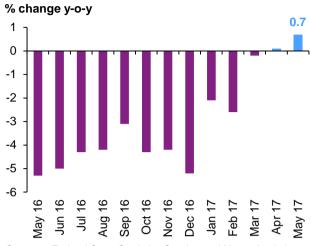
Russia and Haver Analytics.

55.5 in June, down from 56.3 the previous month. The survey highlighted softening inflationary pressure and solid growth in new orders. For the second month in a row, **retail sales** were increasing in May. The rate of increase was 0.7% y-o-y, higher than April's 0.1%.

Graph 3 - 14: Russian industrial production



Graph 3 - 15: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

Sources: Federal State Statistics Service and Haver Analytics.

Continued improvements in Russia's non-oil private sector, in particular the services sector, together with easing trends for inflation and interest rates, confirm that the 1Q17 GDP of 0.5% was the beginning of a positive trend in economic activities for 2017.

The Russian GDP is anticipated to grow by 1.2% and 1.4% y-o-y in 2017 and 2018, respectively.

#### India

**India's GDP growth** is set to accelerate in 2H17, reflecting a balance in economic activity despite a loss of momentum during 4Q17, due to government demonetisation measures taken in November 2016 on domestic demand.

Private consumption will continue to remain India's major growth driver (despite the temporary effects of demonetisation). A steadily rising number of middle and high-income households, rising urbanization, and improving access to credit will all support India's consumer demand. Despite the existing delays in India's economy, investment efficiency will continue to increase as more sectors open up to private investment. For this reason, public investment projects became more selective and better managed. Nevertheless, lifting the rate of investment growth substantially and thus maintaining the upward trend in the overall GDP growth rate will require a much stronger effort to accelerate policy reforms and improve public spending budgeting. In addition to increased capital, a structural transformation of the economy, together with a less unfair investment environment, is essential to stimulate productivity increases by shifting resources from less efficient sectors to more efficient ones. With the currency crunch now largely over, private spending should see a turnaround from April 2017 onwards, supported by a reduction in lending rates post demonetisation, benign inflation, and an improving business environment following the introduction of a single goods and services tax (GST) in July. Public spending will also remain strong, although there will be more pressure on state finances following an announcement on farm loan waivers by several states, which may impose limits on budget spending commitments. On the other hand, a recovery in private investment demand will be delayed by the twin balance sheet problem<sup>a</sup> in the corporate and banking sectors. As a result, overall

\_

<sup>&</sup>lt;sup>a</sup> The Economic Survey of 2015–16 acknowledges that one of the critical challenges confronting the Indian economy is 'the twin balance sheet' problem. The balance sheets of both public sector banks (PSBs) and some corporate houses are in bad shape and this has been seen as a major obstacle to investment and reviving growth. The problems faced by public sector banks are directly linked to the corporate sector. During boom years, some companies borrowed a lot of money from banks to invest in infrastructure and commodity-related businesses, such as steel, power, etc. But now, due to a slump in both these sectors, corporate profits have hit new lows, thus corporates are not able to repay their loans and their debts are rising at an alarming level. They have no option other than to cut back on investment.

growth is expected to improve marginally in 2018. Introduction of the GST in July 2017 is unlikely to change this balance significantly.

Following over a decade of negotiation, the controversial GST finally came into effect. By reducing logistical costs and double taxation, it seeks to transform India's \$2.6-trillion economy into a single market and improve its competitiveness as a manufacturing hub. The GST has the potential to raise India's GDP growth rate by 2 pp. Compromises between numerous stakeholders have complicated introduction of the GST and are likely to dilute its transformative effect. Large manufacturers and retailers will benefit most in the short term; though multiple rates, dual control, and "anti-profiteering" will generate compliance risks. To accommodate numerous stakeholders, the government has settled on six tax brackets, plus a temporary five-year tax to be applied to what the Indian government deems to be luxury goods and services. The rates on goods range from "zero" on staple foods to 28% on white goods and cars. The luxury and demerit goods — including luxury vehicles, tobacco, and aerated drinks — will attract an additional levy, bringing the maximum tax rate to 65% for certain items. Services will now be fitted into the same tax bracket as goods, with hotels and restaurants paying different rates depending on their turnover levels, room tariffs, and even the availability of air conditioning.

Table 3 - 3: India's GST structure

#### Selected goods and services Tax rate Goods Services Basic foods and essential items Grandfathering service, hotels and lodges 0% with tariff below INR1,000 (US\$15.44) (50% of consumer basket) Mass consumption items, coal, renewable Railway and air travel (economy class), 5% energy devices, LPG small restaurants Non-AC hotels, business-class air tickets, 12% Processed food state-run lotterv Telecoms, financial services, restaurants Household and personal care items, 18% with liquor licence, air-conditioned consumer electronics, smartphones restaurants 28% White goods\*, cars Entertainment, five-star hotels Luxury cars, tobacco, aerated drinks, 28% Plus - Max 65% Gambling, luxury hotels and resorts alcohol

Note: \* White goods include heavy consumer durables such as air conditioners, refrigerators, stoves and etc., which used to be painted only in white coating finish.

Sources: Central Statistical Office of India, MOSPI, Haver Analytics and OPEC Secretariat.

Recent weakening of the US dollar has pushed the Indian rupee to its strongest level in more than two years, prompting an end-of-year forecast adjustment from a y-o-y depreciation to a small appreciation.

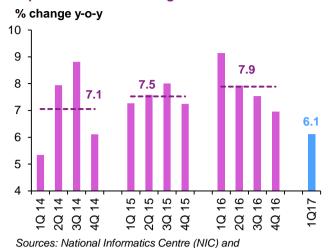
**Fixed investment** will take longer to recover and will have to be pulled by public spending, since private investment continues to suffer from weak capacity utilization and ongoing corporate and banking sector deleveraging. On the other hand, the accelerated transmission of lower interest rates into lending rates and a boost to sentiment following the GST's introduction should support higher investment by non-stressed corporates, aiding a marginal overall investment recovery in 2H17.

Following two years of easing, India's **monetary policy** turned neutral in February. With headline consumer price index (CPI) inflation running below the Reserve Bank of India's (RBI's) target of 4%, pressure on the central bank to further cut interest rates will increase. Nevertheless, the chances of an additional rate cut in 2017 are still not very high, given considerable uncertainty over the inflation outlook. CPI inflation eased to 2.2% y-o-y during May from 2.99% y-o-y the previous month, the lowest rate of inflation in at least five years, since India started publishing its current CPI series. The easing was triggered by a drop in food prices resulting from a bumper crop last year and improved government food procurement policies. WPI inflation also eased to 2.2% y-o-y, down from 3.9% in April, with the food article component of the WPI basket down by 2.3% from the previous year. The pace of increase in fuel and power prices has also moderated slightly, mirroring movements in global commodity prices.

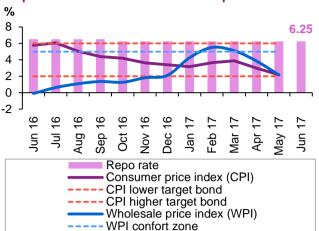
However, core inflation remains sticky, while the direction of food prices depending on the current year's monsoon season. So far rains have been plentiful, but the risk of El Niño weather effects is not over yet.

Graph 3 - 16: Indian GDP growth

Haver Analytics.



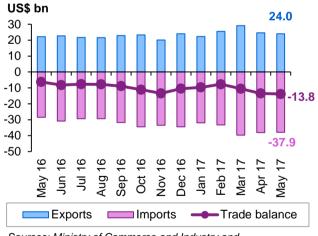
Graph 3 - 17: Indian inflation vs. Repo rate



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

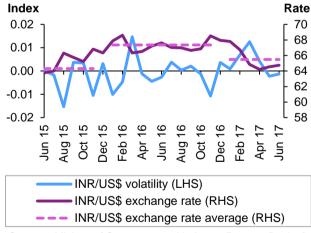
The **trade deficit** will likely widen during the next 12–18 months. Recent appreciation of the rupee will slow the path of export recovery, while improving domestic demand and recovering commodity prices will drive import growth. India's merchandise trade deficit stood at US\$13.8 billion in May, widening from US\$13.2 billion in April. Merchandise **exports** stood at US\$24 billion, up by 8.3% y-o-y. This was substantially lower than the 19.8% y-o-y growth registered in April, while sequentially exports also slowed from the US\$24.6 billion received a month ago. Petroleum exports rose by 24.9% y-o-y. Merchandise imports stood at US\$37.9 billion in May, up 33.1% y-o-y and unchanged in absolute terms from April. Imports of petroleum products rose 30% y-o-y, while gold purchases more than doubled, up by 236.7% y-o-y. Imports of electronic goods were up by 34.2% y-o-y. **Imports** will continue to grow, driven by recovering commodity prices and domestic demand. On the other hand, good recent export growth may somewhat slow, reflecting a stronger Indian rupee. A larger trade and current-account deficit would eventually impose greater pressure on the currency, with the rupee likely to lose some of its recent gains and trade around INR/\$66.7 by the end of 2017.

Graph 3 - 18: Indian trade balance



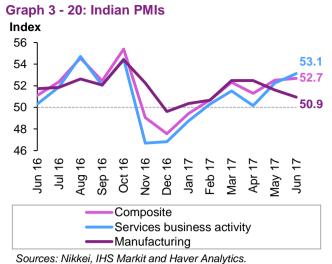
Sources: Ministry of Commerce and Industry and Haver Analytics.

Graph 3 - 19: INR and US\$ exchange rate

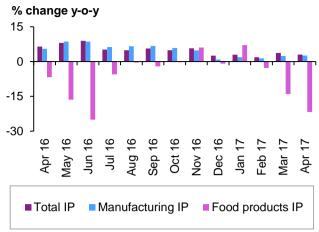


Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

The **Nikkei India Manufacturing PMI** was down from 51.6 in May to a four-month low of 50.9 in June, pointing to a slight improvement in the health of the sector. For the third month in a row production growth in India eased during June. The slowdown occurred due to weak client demand, with order books up at a slight and softer pace. In many cases, businesses indicated that growth was held back as a reflection of water scarcity and the impending introduction of GST. The slowdown occurred due to weak client demand, with order books up at a softer pace. In many cases, businesses indicated that growth was held back due to water scarcity and the impending introduction of the GST.



Graph 3 - 21: Indian industrial breakdown



Sources: Central Statistical Organisation of India and Haver Analytics.

India's GDP growth expectation for 2017 stayed unchanged at 7.0% and that for 2018 is 7.5%.

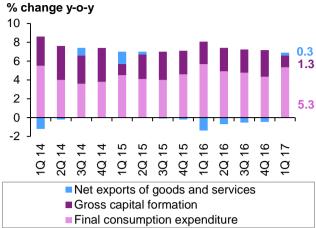
#### China

Weaker real estate growth is behind the most negative data in the monthly release, although industrial stability also hints at slower GDP growth on a quarterly basis. While new data in May appear largely benign compared with April, it continues to indicate a deceleration in GDP growth in the second quarter relative to the first quarter. Growth is certain to decelerate as the year continues, although remaining in the government's comfort zone owing to ample fiscal stimulus (6.0%-6.5%). A more significant correction will come in 2018 as stimulus decreases. Chinese industrial production growth was unchanged in May at 6.5%. Two points are worth highlighting in monthly industrial data. First, an expansion of 10.3% in automobile manufacturing remains unsustainable. While growth in the sector has fallen from 16.2% in December 2016, it remains well ahead of automobile retail sales growth of only 7.0%. Second, industrial production stability in May actually points to slower GDP growth; industrial production during the first quarter was 6.8%, but has been stable at 6.5% during the second quarter and is unlikely to accelerate. Industrial sector growth has slowed by 0.3 pp relative to the first quarter, implying that overall GDP growth would slow by about 0.1% pp. in the second quarter. Fixed-asset investment growth slowed to 8.6% in May from 8.9% in April. The slowdown was overwhelmingly due to less investment in services and marginally weaker investment in agriculture and real estate development, with investment in the industrial and construction sectors slightly improved. There was also a slowdown in public facilities management (i.e., urban infrastructure) investment. The slower growth was primarily seen in state-owned enterprises, although their overall pace of investment expansion continued to rise at about twice that of private sector investment. China's housing sector activity worsened in May, while a monthly index of service sector growth expanded by 8.1% in the same month, unchanged from April. The index reported 8.3% growth during the first quarter of the year. While changes in May data are relatively benign, they still indicate slower GDP growth in 2Q17. Headline indices for industry and services are both growing well below their pace of expansion in the first quarter. Construction and investment sector data also point to deceleration and more stability.

Graph 3 - 22: Chinese GDP growth



Graph 3 - 23: Chinese GDP breakdown



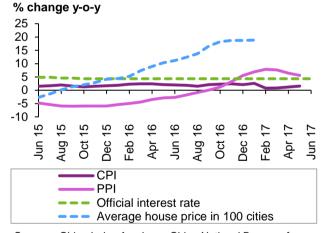
Sources: China National Bureau of Statistics and Haver Analytics.

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

**China's CPI** rose 1.5% y-o-y in May of 2017, following a 1.2% rise in April and matching market consensus. It was the highest rate of inflation seen since January, as the cost of non-food items increased further and that of food fell much less than a month earlier. The **Producer Price Index** (PPI) in China rose by 5.5% y-o-y in May 2017, slightly below the market consensus of 5.7% This represents the ninth straight month of increase, but the lowest rise since December 2016.

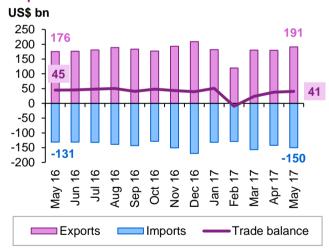
**China's trade** surplus fell to \$40.8 billion in May of 2017 from \$44.7 billion a year earlier, as exports rose less than imports. Exports from China rose by 8.7% y-o-y to \$191.0 billion in May of 2017, faster than an 8% rise from the prior month and beating market estimates of a 7% gain.

Graph 3 - 24: Chinese CPI and PPI



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

Graph 3 - 25: Chinese trade balance



Sources: China Customs and Haver Analytics.

**Exports** were higher to India (17.5%), Japan (6.4%), South Korea (14.2%), Taiwan (7.4%), ASEAN countries (11.2%), EU countries (8.1%), Russia (22.0%), South Africa (15.9%), Brazil (35.4%) and the US (11.5%). In contrast, exports declined to Hong Kong (-4.1%). Imports to China increased by 14.8% y-o-y to \$150.2 billion in May, after a rise of 11.9% was seen a month earlier and higher than market estimates of an 8.5% rise. Japan was the main import partner (46.4%), followed by ASEAN countries (23.3%), the US (21.4%), EU countries (12.0%), South Korea (10.4%), Taiwan (10.4%) and Australia (59.3%).

US\$ bn 40 30 20 10 0 -10 -20 -30 **US** imports EU exports **EU** imports **UK** exports **UK** imports **ASEAN ASEAN** imports exports ■ May 15 ■Jun 15 ■ Jul 15 ■Aug 15 ■Sep 15 Oct 15 ■Nov 15 ■ Dec 15 ■ Jan 16 ■ Feb 16 ■ Mar 16 ■ Apr 16 ■Mav 16 ■Jun 16 ■Jul 16 ■ Sep 16 Oct 16 ■ Aug 16 ■ Nov 16 ■ Dec 16 ■Jan 17 ■Feb 17 ■ Mar 17 ■Apr 17 ■ Mav 17

Graph 3 - 26: Chinese merchandise trade by selected countries, NSA

Sources: China Customs, Haver Analytics and OPEC Secretariat.

The **PMI** climbed back into positive territory in June, with firms noting slightly stronger increases in production and new orders. This prompted companies to increase their purchasing activity, albeit only slightly. However, relatively muted client demand overall led manufacturers to reduce their inventory holdings and trim their workforce numbers again. At the same time, optimism in the business outlook edged down to its lowest level in 2017 to date. The Caixin China General Manufacturing PMI stood at 50.4 in June, up from 49.6 the previous month as manufacturing activity expanded. The headline acceleration came with stronger increases in production and new orders, in addition to renewed increases in input and output prices. Subindices for output and new orders rose marginally from the previous month, while input and output prices showed renewed increases in June, when input prices rose at a faster pace. However, sub-indices for purchase stocks and stocks of finished goods were both in contraction territory, signalling that businesses are more cautious in restocking. The manufacturing sector recovered slightly in June, but based on inventory trends and confidence around future output, the June reading was likely a temporary rebound, with an economic downtrend to be confirmed later.



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 28: Chinese industrial production % change y-o-y 8.0 7.5 7.0 6.5 6.0 5.5 5.0 Jun 16 Aug 16 Nov 16 Sep 16 Oct 16 Dec 16 Jan 17 Feb 17 Mar 17 Apr 17 16 16  $\exists$ Sources: China National Bureau of Statistics and

China's GDP growth expectation stayed unchanged at 6.5% in 2017 and the expectation for 2018 is 6.2%.

Haver Analytics.

#### **OPEC Member Countries**

The non-oil private sector in **Saudi Arabia** showed sustained improvement in its business conditions in June as suggested by Emirates NBD Saudi Arabia PMI. The index registered 54.3 points in June from 55.3 the previous month. The index survey showed strong but slower growth in output and new businesses. The index average of 1H17 stood at 56.0, highlighting a higher rate of growth compared with the first six months of 2016.

In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI survey showed a solid increase in private sector output and new orders in June. The index posted 52.9 in June, from 54.4 in May. It also highlighted a return to growth by for-export orders after contracting for most of the past two years. As a result of output increases, firms increased employment during June for the second month in a row.

In the **United Arab Emirates**, the Emirates NBD UAE PMI increased to 55.8 in June, up from May's 54.3 as output and new businesses witnessed strong growth despite the first fall in seven months of for-export orders. The increase in the number of projects, new order improvements and generally favourable economic conditions notably supported business activities.



Graph 3 - 29: PMIs of Nigeria, Saudi Arabia and the UAE

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

#### Other Asia

In **Indonesia**, the trade surplus widened from \$0.37 billion in May 2016 to \$0.47 billion in May 2017. Exports increased by more than 24% y-o-y in May on a rise in non-oil and gas products by more than 23% and a more than 32% rise in oil and gas products. Indonesia's imports rose by about 24% y-o-y in May as non-oil and gas imports increased by 26.7% y-o-y. Inflation posted a 4.4% y-o-y increase in June, slightly changed from the previous month and at its highest point since May 2016. The Bank of Indonesia kept its benchmark interest rate unchanged in June at 4.75%.

In **Thailand**, GDP grew by 3.3% y-o-y in 1Q17, compared with 3.1% growth in the same period of 2016. Private consumption showed strong growth of 3.3% y-o-y in 1Q17, its second-highest growth level since 1Q13. On the other hand, growth in government consumption and GFCF slowed in 1Q17 to 0.2% and 1.7% y-o-y, respectively.

#### **Africa**

In **Egypt**, the pound was largely stable over the past two months, depreciating by only 0.11% in June after accumulating depreciation of nearly 95% from November 2016 to April 2017. Inflation continued posting readings north of 30% for the fourth consecutive month in May and is expected to rise further in the coming months due to a recent reduction in subsidies for some fuel/energy items. The country's non-oil private sector continued deteriorating in June as suggested by its respective PMI due to a fall in output and new orders.

In **South Africa**, the trade surplus increased in May to \$716 million, up from \$369 million a month earlier. However, this is lower than the \$854 million posted in May one year earlier. Inflation was up by 5.4% y-o-y in May, slightly higher than the previous month. The reserve bank of South Africa left its policy rate unchanged at 7.0% in June. The country's private sector contracted in June, according to the Standard Bank South Africa PMI. The index posted 49.0 in June, down from 50.2 in May due to the decline in employment and new orders.

#### **Latin America**

The economy of **Argentina** showed minor growth of 0.3% y-o-y in 1Q17, following three consecutive months of contraction. Despite a decline in exports and an increase in imports, the GDP accelerated, thanks to expansion in private and government consumption, together with a GFCF rise. Private consumption registered its first growth since 1Q16 at 0.9%. Similarly, government consumption grew by 1.0% and GFCF rose by 3.0% y-o-y. On the other hand, exports plunged by 1.8% y-o-y, accompanied by a rise in imports of 4.3% y-o-y. The Argentinian peso depreciated by 2.7% m-o-m in June.

## **Transition region**

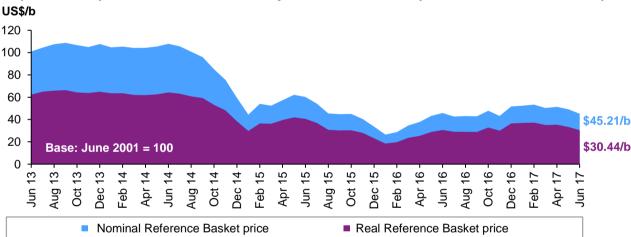
In **Poland**, the GDP expanded by 4.4% y-o-y in 1Q17, highlighting the fastest pace of growth since 4Q15. Household consumption showed its strongest pace of growth since 4Q08, growing by 5.0% y-o-y in 1Q17. Growth in public consumption was modest at 1.1% y-o-y and the GFCF shrank by 0.2% y-o-y in 1Q17. Exports continued to increase by more than 8% y-o-y for the second consecutive quarter of 1Q17, while imports posted an even greater increase of 9.4% y-o-y. The country's manufacturing sector posted solid growth in June as suggested by its respective PMI on the back of notable acceleration in production and received new orders.

# Oil prices, US dollar and inflation

The **US** dollar generally declined in June against both major and emerging market currencies. On average the dollar dropped by 1.6% m-o-m against the euro, helped by improved investor sentiment in the Euro-zone (EZ) following elections results in France and strong expected performance by the EZ economy, while in the US, slow progress in the implementation of the US administration's economic reforms agenda continues to translate into moderate market expectations regarding the path of interest rate increases by the US Fed. US dollar losses accelerated towards the end of the month following statements from European Central Bank and Bank of Canada presidents suggesting tighter-than-anticipated monetary policy, which triggered a sell-off in the governments of developed markets. On average, the dollar lost 1.9% against the Swiss franc, 2.3% against the Canadian dollar and 1.2% against the Japanese Yen. However, the dollar advanced on average by 1.0% against the pound sterling, mainly influenced by UK election results that yielded a hung parliament.

On average, the US dollar declined by 1.2% against the Chinese yuan in June. It was relatively flat m-o-m against the Indian rupee, but is down by 5.1% since the beginning of the year. The dollar advanced by 2.7% m-o-m against the Brazilian real mainly due to political uncertainty surrounding the continuation of the current government. It increased against the Russian rubble m-o-m by 1.3% due to lower oil prices. The US dollar also declined by 3.2% against the Mexican peso, erasing the gains achieved after the US election.

In nominal terms, the price of the **OPEC Reference Basket (ORB)** decreased by \$3.99, or 8.1%, from \$49.20/b in May to \$45.20/b in June. In real terms, after accounting for inflation and currency fluctuations, the ORB decreased to \$30.44/b from \$33.35/b (base June 2001=100). Over the same period, the US dollar declined by 0.8% against the import-weighted modified Geneva I + US dollar basket\*, while inflation declined 0.1%.



Graph 3 - 30: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price<sup>b</sup>

Source: OPEC Secretariat.

<sup>&</sup>lt;sup>b</sup> 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 2017 was unchanged from the previous month's report. Total world oil demand growth is expected at 1.27 mb/d, with total consumption at around 96.4 mb/d. In 2018, world oil demand is projected to grow at a similar pace to the current year, rising by 1.26 mb/d to average 97.6 mb/d. Non-OECD countries are projected to lead oil demand growth with 1.06 mb/d, while OECD nations are anticipated to increase by 0.20 mb/d.

# World oil demand in 2017

Table 4 - 1: World oil demand in 2017\*, mb/d

							Change 20	017/16
	<u>2016</u>	<u>1Q17</u>	<u> 2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>2017</u>	<u>Growth</u>	<u>%</u>
Americas	24.74	24.52	24.83	25.26	24.94	24.89	0.15	0.61
of which US	20.01	19.84	20.12	20.42	20.19	20.15	0.14	0.70
Europe	14.05	13.87	14.06	14.56	14.13	14.16	0.10	0.72
Asia Pacific	8.07	8.57	7.62	7.76	8.29	8.06	-0.01	-0.15
Total OECD	46.86	46.96	46.50	47.58	47.35	47.10	0.24	0.51
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	4.40	4.32	4.81	4.51	0.13	2.91
Latin America	6.47	6.27	6.54	6.82	6.46	6.52	0.05	0.84
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
Total DCs	31.39	31.57	31.93	32.41	32.04	31.99	0.60	1.91
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
Total "Other regions"	16.86	16.90	16.90	17.28	18.08	17.29	0.43	2.54
Total world	95.12	95.44	95.33	97.27	97.48	96.38	1.27	1.33
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.

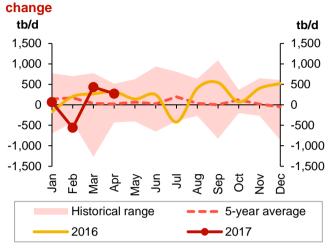
Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## **OECD**

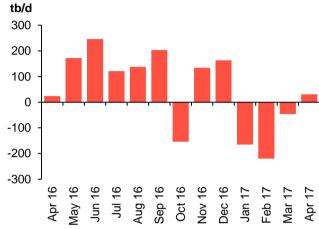
## **OECD Americas**

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



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

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



Source: US Energy Information Administration.

### US

Supported by the continuing lower oil price environment and in line with its growing economy, the latest available **US monthly oil demand** data for April 2017 show a growth of approximately 0.3 mb/d y-o-y. For the first four months of the year, oil requirements are higher by around 0.1 mb/d compared to the same period in 2016.

Table 4 - 2: US oil demand, tb/d

		Change 2017/2016					
	<u>Apr 17</u>	<u>Apr 16</u>	tb/d	<u>%</u>			
LPG	2,376	2,255	121	5.4			
Naphtha	231	220	11	5.0			
Gasoline	9,258	9,227	31	0.3			
Jet/kerosene	1,624	1,565	59	3.8			
Diesel oil	3,791	3,823	-32	-0.8			
Fuel oil	320	481	-161	-33.5			
Other products	2,218	1,970	249	12.6			
Total	19,818	19,541	278	1.4			

Sources: US Energy Information Administration and OPEC Secretariat.

The **key characteristics** for the first four months of 2017 are strong and rising demand for LPG, jet/kerosene, naphtha and diesel, and at the same time declining demand for gasoline and flat y-o-y residual fuel oil requirements. Weak gasoline demand in April 2017, as well as for the y-t-d 2017, is in line with declining car sales following a very strong 2016. Residual fuel oil requirements fell mainly as a result of substitution with other primary commodities.

Preliminary weekly data for May and June suggests a continuation of the increase in oil demand y-o-y, with the product consumption pattern observed for the first four months of 2017 largely unchanged. It should be noted, however, that gasoline demand appears to be stronger in May, while diesel oil demand seems to be bullish for both May and June.

The risks for 2017 US oil demand are most likely skewed to the upside, compared to previous months. As it was the case for 2016, the forecasts for 2017 are mainly dependent on US economic growth and oil price levels, although the impact of the latter are most likely to be lower than in recent years. An additional factor that could further enhance US oil demand in 2017 is the expansion of the petrochemical industry. However, there remain some downside risks, such as potential fuel substitution with other commodities and continuing fuel efficiencies in the road transportation sector.

**Mexican oil demand** in May 2017 remained flat y-o-y for the second month in a row. Residual fuel oil and jet kerosene requirements grew strongly, but this was offset by shrinking demand for LPG, naphtha and gasoline. Gas oil/diesel oil demand remained flat y-o-y. Mexican oil demand for the whole of 2017 is expected to decline slightly y-o-y, although positive economic growth expectations could see oil demand growth push, marginally higher.

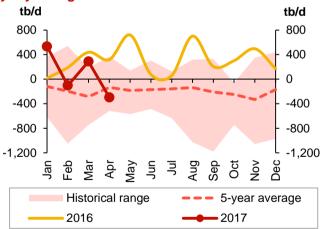
In **Canada**, rising oil demand in the transportation sector and industrial fuel requirements, in combination with declining requirements for all other main petroleum product categories, have led to an overall 1.3% drop in Canadian oil demand for the first four months of 2017. Projections for Canadian oil demand in 2017 remain unchanged from those in previous months, with oil requirements during 2017 slightly lower than those in 2016. Transportation fuels are expected to account for the bulk of the growth, with risks being balanced towards the upside and downside.

In 2016, **OECD Americas oil demand** grew by 0.14 mb/d, compared to 2015. In 2017, OECD Americas oil demand is projected to be higher by 0.15 mb/d, compared to 2016.

## **OECD Europe**

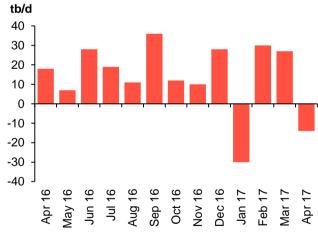
**OECD Europe oil demand** in April 2017 declined by almost 0.3 mb/d y-o-y. This follows a healthy 1Q17, as well as generally strong demand in both 2015 and 2016. For April 2017, increases were only witnessed in naphtha and automotive diesel for the industrial and road transportation sectors respectively. This growth was more than offset by declines in light and middle industrial fuels, notably LPG, and diesel oil, while jet/kerosene demand also fell during the same month y-o-y.





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

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



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

## Big 4

Early indications for May 2017 show continuing oil demand losses for the **Big European 4** as a whole. Oil demand in Germany, France and the UK shrank, although requirements in Italy increased y-o-y. It is also worth noting that in May 2017, auto sales in Europe rose strongly, by almost 8% y-o-y, with all major auto markets being in the positive, except for the UK that saw a decline. Germany (13%) and Spain (11%) showed the largest gains, followed by France (9%) and Italy (8%). Y-t-d auto sales grew by a robust 5% in the region. The general expectations for the region's oil demand during the remainder of 2017 offer some downside risks. This is the result of uncertainties relating to the region's traditional oil demand structure,

which is perhaps the greatest uncertainty in all the main demand regions. On the one hand, the projected improvements in the economy are indicating an increase in oil requirements, but on the other, the high historical baseline, the potential weaker impact of lower oil prices on road transportation fuels and high taxation on oil usage pose considerable risks to the downside. Other factors that may cap oil demand in the region include fuel substitution and efficiencies.

Table 4 - 3: Europe Big 4\* oil demand, tb/d

			Change 2017/2016				
	<u>May 17</u>	<u>May 16</u>	tb/d	<u>%</u>			
LPG	457	460	-3	-0.7			
Naphtha	624	735	-111	-15.1			
Gasoline	1,032	1,044	-12	-1.1			
Jet/kerosene	588	576	12	2.1			
Diesel oil	3,039	3,050	-11	-0.4			
Fuel oil	252	242	10	4.2			
Other products	644	619	25	4.1			
Total	6,636	6,726	-90	-1.3			

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

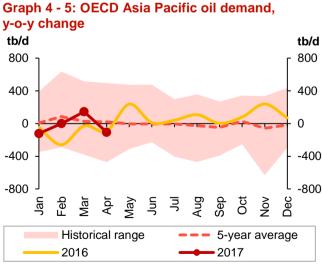
Sources: JODI, UK Department of Energy and Climate Change, Unione Petrolifera and OPEC Secretariat.

**European oil demand** oil grew strongly in 2016, increasing by 0.31 mb/d. In 2017, the region's oil demand is projected to increase slightly y-o-y by 0.10 mb/d.

## **OECD** Asia Pacific

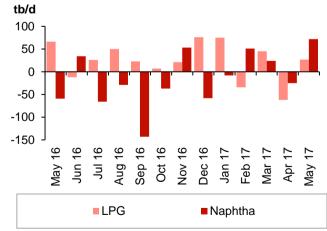
## Japan

In **Japan**, preliminary oil demand data for May 2017 indicates the first monthly y-o-y slightly increase so far this year. The gains originated in diesel, naphtha, as well as LPG, while decreasing volumes were once again largely due to direct fuel and crude usage for electricity generation, as a result of the ongoing substitution with other primary commodities. May 2017 gasoline demand remained flat y-o-y, while diesel requirements were bullish in line with rising Japanese auto sales during the same month. Drops in demand of all other product categories were observed, resulting in overall oil demand growth in May 2017 of 0.03 mb/d y-o-y.



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 Initiave and OPEC Secretariat.

As far as the outlook for Japanese oil demand in 2017, current estimations remain roughly unchanged from last month's forecast, with risks generally skewed to the downside. Oil demand projections for 2017 take into

consideration that more nuclear plants are expected to resume operations, although some improvements in the country's economy mean that the expected slow contraction in oil demand requirements is only around 0.1 mb/d.

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

		Change 2017/2016				
	<u>May 17</u>	<u>May 16</u>	<u>tb/d</u>	<u>%</u>		
LPG	430	403	27	6.6		
Naphtha	743	671	72	10.7		
Gasoline	875	879	-4	-0.5		
Jet/kerosene	322	363	-41	-11.3		
Diesel oil	741	701	40	5.7		
Fuel oil	238	261	-23	-8.7		
Other products	328	373	-45	-12.0		
Total	3,677	3,651	26	0.7		

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

#### South Korea

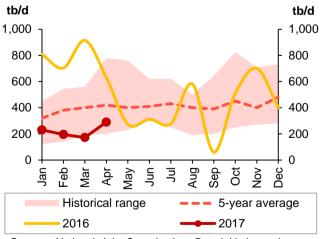
In **South Korea**, April 2017 data showed a strong oil demand increase of 0.1 mb/d, y-o-y, with the bulk of growth in industrial fuels, particularly for the petrochemical industry. The outlook for South Korean oil demand for the remainder of 2017 remains strong. This is unchanged from last month's projections.

**OECD Asia Pacific oil demand** expanded marginally by 0.03 mb/d in 2016, while 2017 oil demand is expected to decline by 0.01 mb/d, y-o-y.

## Non-OECD

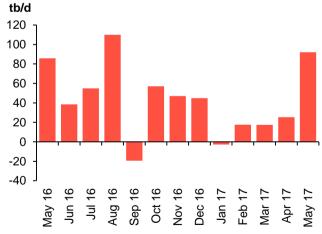
### Other Asia

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.

#### India

In May 2017, **Indian** oil demand growth grew by a firm 0.22 tb/d. This is a growth of around 5%, compared to the same period in 2016, with total consumption standing above 4.3 mb/d. From the product point of view,

diesel oil, gasoline and LPG were the products that witnessed the greatest expansion during the month, while fuel oil saw a drop.

Diesel oil requirements increased strongly in May, with product higher by a firm 0.12 mb/d compared to the same month of 2016. Total diesel oil consumption was at a record of 1.68 mb/d. Support stemmed from several factors, specifically healthy manufacturing and road construction activities, as well as the extreme hot conditions in parts of the country that limited hydropower generation and allowed for additional usage of diesel oil power generators. Gasoline demand increased by a firm 92 tb/d, or close to 15% y-o-y. According to the May 2017 industry sales review of the Petroleum Planning & Analysis Cell vehicle sales increased by around 9% y-o-y. Passenger car sales added around 5% y-o-y, while growth in Sport Utility Vehicles (SUV) recorded a healthy 19% rise y-o-y, which is considered the strongest May performance on record. Total two-wheeler sales rose just shy of 12% y-o-y, to reach to 1.69 million units. This was largely driven by scooters, which rose by 24% y-o-y. Motorcycle sales were higher by around 8% y-o-y.

Table 4 - 5: Indian oil demand by main products, tb/d

		Change 2017/2016					
	<u>May 17</u>	<u>May 16</u>	<u>tb/d</u>	<u>%</u>			
LPG	770	690	80	11.6			
Naphtha	302	306	-4	-1.2			
Gasoline	692	600	92	15.3			
Jet/kerosene	302	337	-36	-10.6			
Diesel oil	1,681	1,558	123	7.9			
Fuel oil	225	229	-4	-1.9			
Other products	379	406	-27	-6.6			
Total	4,350	4,125	224	5.4			

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

LPG demand saw an increase of 80 tb/d, or 12% y-o-y, which was broadly the result of the government's expansion of LPG outlets to reach to wider end-users. Fuel oil was flat y-o-y, despite healthy bunkering activities. Jet/kerosene dropped by 36 tb/d, the eighth consecutive monthly fall, with total consumption at 0.30 mb/d. This is mainly due to kerosene usage in the residential sector being replaced by LPG. However, jet fuel kept growing in line with the higher y-o-y air travel activities.

#### Indonesia

In **Indonesia**, the latest available April 2017 data shows rising demand for LPG, naphtha and diesel oil, which increased rose by around 6%, 4% and 3% y-o-y, respectively. Total consumption reached 1.67 mb/d, an uptick of 28 tb/d, or 2% y-o-y.

### **Thailand**

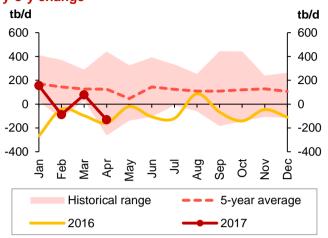
In **Thailand**, oil demand in April 2017 declined by a 45 tb/d, or 3% y-o-y compared to the same month in 2016. The bulk of the declines were seen in fuel oil, naphtha and jet/kerosene. LPG, gasoline and diesel oil, on the other hand, grew marginally.

The uncertainties for 2017 oil demand in Other Asia are currently balanced. The major upside potential relates to further economic improvement in the largest oil consumer in the region, as well as the general economic performance of other countries in the region.

Other Asia's oil demand grew by 0.57 mb/d in 2016, and expected to increase at the rate of 0.33 mb/d in 2017.

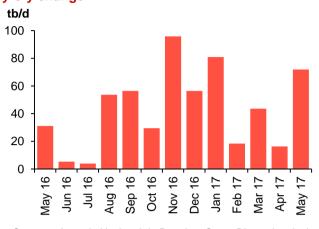
## Latin America

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.

#### **Brazil**

In **Brazil**, the latest available data for May 2017 for imply oil demand growth of 1.4% y-o-y. The bulk of the gains were for gasoline and diesel oil requirements, while demand for LPG and naphtha remained flat y-o-y. On the other hand, ethanol demand fell sharply, which partly offset the other increases. May 2017 marked the third month in which indicators pointed towards a possible recovery for the remainder of 2017, particularly in terms of oil usage in the transportation and industrial sectors. Expectations for 2017 Brazilian oil demand remain unchanged from last month, with oil demand growth dependent on the country's economic recovery during the remainder of the year.

Table 4 - 6: Brazilian oil demand\*, tb/d

		Change 2017/2016				
	<u>May 17</u>	17 <u>May 16</u> <u>tb/d</u>		<u>%</u>		
LPG	238	232	6	2.7		
Naphtha	144	143	1	0.7		
Gasoline	768	697	72	10.3		
Jet/kerosene	109	112	-3	-2.3		
Diesel oil	936	913	23	2.5		
Fuel oil	88	96	-8	-8.1		
Other products	255	311	-56	-18.1		
Total	2,539	2,503	36	1.4		

Note: \* = Inland deliveries.

Sources: JODI, Agencia Nacional do Petroleo, Gas Natural e Biocombustiveis and OPEC Secretariat.

## **Argentina**

In **Argentina**, oil demand in April 2017 fell slightly y-o-y. As for March 2017, gains for lighter products and middle distillates, particularly gasoline and jet/kerosene, were largely offset by declining demand for residual fuel oil.

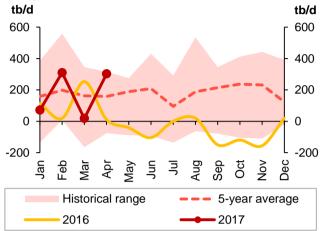
#### **Ecuador**

The latest **Ecuadorian** oil demand data for April 2017 show declines y-o-y. This is dominated by shrinking residual fuel oil demand. However, demand for gasoline grew strongly, while requirements for all other product categories remained flat.

**Latin America's oil demand** fell by 0.09 mb/d in 2016. During 2017, Latin American oil demand is projected to increase by 0.05 mb/d.

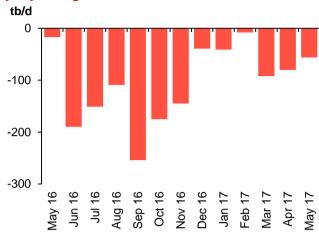
### Middle East

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.

## Saudi Arabia

In **Saudi Arabia**, oil demand growth figures for May returned to the declining trend seen in the first three months of the year. Oil requirements fell by 0.10 mb/d, or 4%, compared to the same month in 2016. Within the products, however, the performance rather mixed, with firm growth for gasoline, fuel oil and LPG outweighed by slower than expected growth in middle distillates and direct crude for the purpose of burning.

The steepest decline was for diesel oil in the transportation and industrial sector, shedding 0.13 mb/d, or around 17% y-o-y. Crude oil for direct burning in power generators declined by 56 tb/d, or 9 % y-o-y. The drop in usage of these products was a result of a slower than expected momentum in manufacturing activities, a less than expected growth in trading activities, a fall in truck movements and lower weather temperatures, compared to May 2016, which led to a lower usage of air conditioning. Furthermore, jet/kerosene also declined by 1% y-o-y, as a result of fewer air travel activities ahead of the summer holiday. Gasoline, on the other hand, grew by a solid 55 tb/d, or 10% y-o-y, due to an increase in the miles travelled across the country. Fuel oil also added 7% y-o-y, compared to May 2016, mainly to supply new power generation plants in the southern part of the country. On a y-t-d basis, with data till May, the overall oil demand picture for 2017 remains unchanged, with a decline of around 13% y-o-y. Declines in diesel oil demand, as well as a number of other product categories, outpace growth in fuel oil, gasoline, LPG and jet/kerosene.

Going forward, potential positives for oil demand projections are the upward possibilities for overall economic performance, which is anticipated to accelerate in the 2H17, in addition to the uptick expected from the transportation, power and industrial sectors, due to summer peak demand. The downward risks are linked to the higher level of substitution towards natural gas, as well as the process of economic reforms that include the partial removal of subsidies.

#### Kuwait

Solid jet/kerosene, gasoline, gas/diesel oil and LPG demand in Kuwait contributed to an overall increase in oil requirements in May 2017.

### Other countries

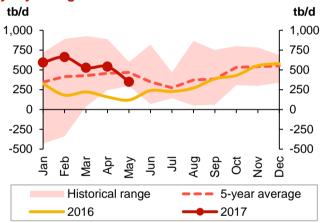
Oil demand also grew in IR of Iran, Iraq, UAE and Qatar, with transportation fuels, notably jet fuel and gasoline, dominating the increase in all countries.

In the **Middle East**, oil demand remained flat y-o-y during 2016. In 2017, oil demand is anticipated to expand by 0.11 mb/d.

## China

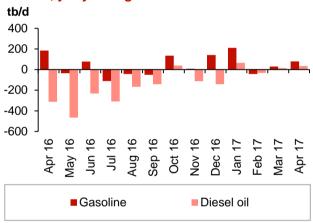
The pace of growth in **Chinese oil demand** in May 2017 has been lowered to approximately 3% y-o-y. However, it remains relatively robust and in line with continuing strong economic growth, which is mainly reflected in rising oil demand for the transportation and industrial sectors.

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 recent months and quarters, demand for LPG and naphtha grew substantially in line with healthy growth in the petrochemical industry, as well as the road transportation sector. Furthermore, jet/kerosene continued to be bullish supporting a flourishing aviation sector. Gasoline requirements rose 9% y-o-y, in line with an increase in auto sales. Residual fuel oil demand rose approximately 1% y-o-y, while diesel demand increased for the third consecutive month, as a result of usage in the transportation and industrial sectors. The overall risk outlook is skewed to the upside, unchanged from last month. The factors pointing to the upside are the expected economic growth, in combination with a healthy petrochemical industry, as well as upside potentials in the transportation sector. Some downside risks pertain to fuel substitution in the industrial sector, as well as efficiencies and alternative vehicle penetration in the road transportation sector.

For 2016, **Chinese oil demand** grew by 0.31 mb/d, while oil demand in 2017 is projected to increase again by 0.34 mb/d.

## World oil demand in 2018

**World oil demand** growth for 2018 is estimated at 1.26 mb/d, broadly in line with the growth seen the last five-years-average. The major assumptions accounted for in the MOMR's 2018 oil demand outlook are: world economic activities are projected to increase by 3.4% y-o-y; road transportation fuels – gasoline, jet fuel and diesel oil – are anticipated to provide the bulk of the growth in 2018 propelled by steady vehicle sales in US, China and India; and capacity additions and expansions in petrochemical sector projects are expected to provide support to light distillate requirements, mostly in the US, as a result of the shale gas revolution, but also in China, due to new propane dehydrogenation plants.

Conversely, it is assumed that oil demand is limited by such issues as: a higher level of substitution towards other fuels, mostly in the OECD Asia Pacific, America and the Middle East; efficiency gains that increase steadily in line with historical norms; the reduction of subsidies aimed at reducing oil consumption, particularly in the Middle East; and the role of digitalization and technological development in various sectors is also expected to cap oil demand growth in 2018.

As a result, **OECD oil demand** is foreseen to rise by around 0.20 mb/d. OECD Americas is projected to be firmly in the positive, OECD Europe rising marginally, and OECD Asia Pacific declining.

**Non-OECD oil demand** growth is expected to be at 1.06 mb/d, with Other Asia being the major regional contributor to growth, followed by China.

Table 4 - 7: World oil demand in 2018\*, mb/d

							Change 2	018/17
	<u>2017</u>	<u>1Q18</u>	<u> 2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	<u>Growth</u>	<u>%</u>
Americas	24.89	24.69	25.01	25.45	25.14	25.07	0.19	0.76
of which US	20.15	19.97	20.32	20.64	20.36	20.32	0.18	0.88
Europe	14.16	13.92	14.06	14.61	14.17	14.19	0.03	0.23
Asia Pacific	8.06	8.56	7.61	7.70	8.27	8.04	-0.02	-0.29
Total OECD	47.10	47.16	46.68	47.76	47.58	47.30	0.20	0.42
Other Asia	13.18	13.29	13.65	13.34	13.80	13.52	0.33	2.54
of which India	4.51	4.73	4.61	4.41	4.94	4.67	0.16	3.51
Latin America	6.52	6.36	6.62	6.91	6.55	6.61	0.09	1.30
Middle East	8.08	8.20	7.99	8.56	7.95	8.17	0.10	1.18
Africa	4.20	4.35	4.30	4.25	4.38	4.32	0.12	2.76
Total DCs	31.99	32.19	32.56	33.05	32.68	32.62	0.63	1.97
FSU	4.73	4.67	4.53	4.90	5.23	4.83	0.10	2.11
Other Europe	0.72	0.73	0.69	0.73	0.82	0.74	0.03	3.48
China	11.84	11.93	12.11	12.09	12.48	12.15	0.31	2.62
Total "Other regions"	17.29	17.33	17.33	17.72	18.53	17.73	0.44	2.52
Total world	96.38	96.68	96.57	98.53	98.79	97.65	1.26	1.31

Note: \* 2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## **OECD**

## **OECD America**

The major assumptions considered in 2018 projections for OECD America pertain to a firm growth in economic activities that lend support to industrial and construction fuels. Expansion in the transportation sector, including aviation, is anticipated to provide the bulk of oil demand growth in the region, mostly in the US. In Mexico, transportation fuels are anticipated to moderate in line with recent trends, while in Canada they are expected to increase marginally. Sizable new NGL capacities are projected to start up in the US and this will provide solid support to light distillates in the US petrochemical sector. Assumptions restraining oil demand growth in OECD America in 2018 include substitution with natural gas and other fuels; fuel efficiency gains due to higher consumption per gallon; technological advancements in alternative fuels vehicles; and the use of new car sharing applications, related to digitalization. In terms of products, growth is expected to be led by the transportation fuels, gasoline and jet, followed by light distillates as petrochemical feedstocks.

**OECD Americas oil demand** in 2018 is projected to be higher by 0.19 mb/d, compared to 2017.

## **OECD Europe**

For OECD Europe, the major assumptions for oil demand growth in 2018 evolve around steady economic conditions, a healthy transportation sector and stable petrochemical margins. Given this, on-road diesel is projected to rise the most, along with petrochemical feedstocks. The industrial sector is projected to be supported by the Big European 4 consuming countries and to a lesser extent by Turkey, Portugal, Spain and the Netherlands. Factors that may cap oil demand in the region are fuel substitution and efficiencies in the road transportation sector. In terms of products, diesel oil and gasoline are the products anticipated to lead demand in 2018.

**OECD Europe oil demand** growth in 2018 is anticipated to slightly increasing by 30 tb/d y-o-y.

## **OECD Asia Pacific**

The major assumptions for oil demand growth in the Asia Pacific in 2018 are mainly focused around the following: the petrochemical sector is projected to be the fastest growing sector in the region with demand for petrochemical feedstocks estimated to show healthy growth in both Japan and South Korea; and industrial development and activities are projected to further support oil demand growth, mainly in South Korea. However, these positive assumptions are anticipated to be outweighed by declining factors in a number of sectors. These issues include: a continuous process of substitution from fossil fuels, primarily fuel oil and direct crude burning for the purpose of power generation; governmental policies to limit oil demand consumption; the advancement of efficiency gains across sectors, especially in the vehicle fleet; and technological development in various sectors. In terms of products, light distillates and middle distillates are anticipated to be in positive territory in 2018.

OECD Asia Pacific oil demand is anticipated to fall by 24 tb/d y-o-y in 2018.

## Non-OECD

## Other Asia

Other Asia's oil demand growth in 2018 is anticipated to continue the healthy pace exhibited in recent years, with oil demand growth potential remaining similar to 2017. In 2018, assumptions revolve around a continuous healthy development in the region's overall economic picture, particularly India. Additionally, expanding economic activities in other countries in the region, such as Indonesia, Thailand, Singapore and the Philippines are projected to contribute positively to oil demand growth. The transportation sector is projected to lead growth as a further expansion in the vehicle fleet supports demand. LPG in India's residential sector and the petrochemical sector across the region are also projected to encourage oil demand in 2018. In contrast, fuel substitution in the power generation sector along with government policies to limit oil consumption, most notably electric vehicle sales targets, are anticipated to dampen oil demand growth in the region. In terms of products, light distillate, which includes LPG, naphtha and gasoline, are anticipated to be the products leading oil demand.

Other Asia oil demand is anticipated to rise solidly in 2018, by 0.33 tb/d y-o-y.

### Latin America

Oil demand growth in Latin America in 2018 is envisaged to be in positive territory again. Growth is expected to be driven by better economic projections for most countries in the region, in addition to the lower base line for comparison. Development in various sectors, agriculture, transportation, industrial, and power are projected to provide the major support to oil demand. As usual, Brazil is projected to by the main source of oil demand growth in 2018 with an estimated share of more than 50%. In terms of products, diesel oil and gasoline have the highest growth potential, helping fuel the industrial and transportation sectors.

In **Latin America**, oil demand growth in 2018 is foreseen to rise at a higher pace than the current year, with growth estimated at 85 tb/d y-o-y.

#### Middle East

In the Middle East, oil demand growth is foreseen growing positively in 2018 albeit at a marginally slower pace from the current year. The oil demand growth will be primarily linked to assumed improvement in overall economy of the regions, particularly in Saudi Arabia. The petrochemical sector along with transportation sector should provide the bulk of improvement in demand, while projected partial removal of subsides, gains in efficiency standards chiefly in the power sector and geopolitical concerns are estimated to limit demand growth. In terms of products, transportation fuels – gasoline and diesel oil – are anticipated to be the products leading oil demand growth.

Middle East oil demand growth in 2018 is foreseen rising at an estimated 95 tb/d, y-o-y.

## China

In China, oil demand growth is foreseen rising firmly in 2018, roughly at a similar level of growth as in 2017 despite slightly slower economic developments. Transportation sector will continue its robustness and grow the largest. Demand for gasoline and jet fuel oil rise as a result and provide the bulk of growth in 2018. Petrochemical sector is estimated to continue rising as new propane dehydrogenation plants (PDH) are expected be commissioned in 2018 providing support to LPG demand growth. Conversely, a continuation of fuel qualities programs targeting fewer emissions, further usage of new digital applications/software promoting vehicle/bicycle sharing and the ongoing fuel substitution with natural gas and coal are also assumed limit demand growth in 2018.

China oil demand growth in 2018 is foreseen reaching 0.31 mb/d.

# **World Oil Supply**

Non-OPEC oil supply in 2017 was revised down by 0.05 mb/d from the previous MOMR to average 57.82 mb/d, an increase of 0.80 mb/d y-o-y. The main reason for this downward revision is a lower assessment of oil supply in the OECD in the 2H17.

Non-OPEC oil supply in 2018 is projected to grow by 1.14 mb/d, to average 58.96 mb/d. The US, Brazil, Canada, Russia, Kazakhstan, Congo and the UK are the main growth drivers, while Mexico, China, Colombia and Azerbaijan are expected to see declines. The 2018 forecast is subject to many uncertainties, such as; oil prices, hedging in the US, cost inflation, production taxes, etc.

OPEC NGLs production in 2017 and 2018 is expected to grow by 0.17 mb/d and 0.18 mb/d to average 6.31 mb/d and 6.49 mb/d, respectively. In June, OPEC production increased by 393 tb/d to average 32.61 mb/d, according to secondary sources, also non-OPEC supply including OPEC NGLs up by 270 tb/d to average 63.98 mb/d. As a result, preliminary data indicates that global oil supply increased by 0.66 mb/d in June, to average 96.59 mb/d.

# Non-OPEC supply in 2017 and 2018

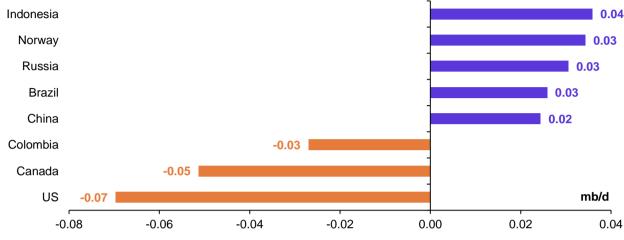
Table 5 - 1: Non-OPEC oil supply in 2017, mb/d

							Change 2	2017/16
	<u>2016</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>2017</u>	<u>Growth</u>	<u>%</u>
Americas	20.60	21.10	21.08	21.47	21.78	21.36	0.76	3.71
of which US	13.62	13.81	14.20	14.53	14.84	14.35	0.73	5.33
Europe	3.80	3.94	3.80	3.58	3.87	3.80	-0.01	-0.17
Asia Pacific	0.42	0.39	0.39	0.44	0.41	0.41	-0.02	-4.21
Total OECD	24.82	25.43	25.27	25.49	26.06	25.56	0.74	2.98
Other Asia	3.71	3.72	3.65	3.67	3.65	3.67	-0.04	-0.95
Latin America	5.10	5.19	5.18	5.26	5.36	5.25	0.14	2.84
Middle East	1.28	1.24	1.24	1.22	1.22	1.23	-0.05	-3.90
Africa	1.82	1.83	1.86	1.89	1.91	1.87	0.05	2.92
Total DCs	11.91	11.97	11.94	12.04	12.13	12.02	0.11	0.95
FSU	13.86	14.13	13.99	13.80	13.80	13.93	0.07	0.49
of which Russia	11.08	11.25	11.08	10.98	10.98	11.07	-0.01	-0.11
Other Europe	0.13	0.12	0.12	0.13	0.13	0.13	0.00	-1.79
China	4.10	4.02	3.99	3.92	3.94	3.97	-0.13	-3.10
Total "Other regions"	18.09	18.27	18.11	17.85	17.88	18.03	-0.06	-0.34
Total non-OPEC								
production	54.82	55.68	55.31	55.38	56.07	55.61	0.79	1.44
Processing gains	2.19	2.21	2.21	2.21	2.21	2.21	0.01	0.50
Total non-OPEC supply	57.01	57.89	57.52	57.58	58.28	57.82	0.80	1.41
Previous estimate	57.02	57.83	57.37	57.73	58.54	57.87	0.85	1.49
Revision	0.00	0.05	0.15	-0.14	-0.27	-0.05	-0.05	-0.08

Note: \*2017 = Forecast. Source: OPEC Secretariat.

Non-OPEC oil supply is forecast to grow by 0.80 mb/d in 2017 to average 57.82 mb/d (*Table 5 - 1*), revised down by 0.05 mb/d from the previous MOMR. It is estimated that OECD oil supply will increase by 0.74 mb/d to average 25.56 mb/d, a downward revision of 0.12 mb/d compared with the June publication. This adjustment was made following output disruptions in 2Q17 in Canada due to explosion and fire in

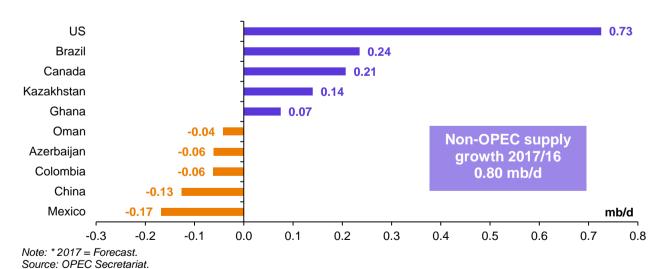
Syncrude's Mildred Lake oilsands upgrader north of Fort McMurray. Canadian oil supply growth in 2017 was revised down by 51 tb/d, to now average 0.21 mb/d. Moreover, lower than expected US crude oil output in 2Q17, due to weak WTI prices, rising costs and the breakeven levels for tight crude producers, further added to a downward revision in the OECD's oil supply in the 2H17. In the North Sea, the UK production forecast has also been revised down by 54 tb/d following a new assessment carried out for the 2H17. However, according to latest estimates, by the end of June, compared to the previous month, oil supply for 2017 was revised up in developing countries (DCs), FSU and China, by 20 tb/d, 41 tb/d and 24 tb/d, respectively.



Graph 5 - 1: Revisions in annual non-OPEC supply change for selected countries in 2017

Sources: OPEC Secretariat.

Overall, growth is expected for total non-OPEC supply in 2017 following the strong return of US tight oil production after last year's downturn. US tight oil has come back with higher drilling efficiencies, better well performance and lower wellhead breakeven prices that are now more attractive for investment. Non-OPEC supply is predicted to show a mild growth of 0.23 mb/d in 2H17 versus 1H17, while oil supply in the US is expected to increase by 0.68 mb/d over the same period. The main factors for higher growth expectations in 2017 compared to last year are the current higher oil prices (despite the slight drop recently), and the increasing number of active rigs in North America as well as the remarkable investment.



Graph 5 - 2: Annual non-OPEC supply change for selected countries in 2017\*

Non-OPEC oil supply in 2018 is expected to grow by 1.14 mb/d compared to 2017, to average 58.96 mb/d. This is slightly less than the expected increase in global demand. A 'bottom-up' field-by-field analysis of new projects indicates that non-OPEC liquids production growth will strengthen next year given current global upstream activities, particularly those in the North America. Nevertheless, the forecast for non-

OPEC supply in 2018 is associated with a high level of uncertainties.

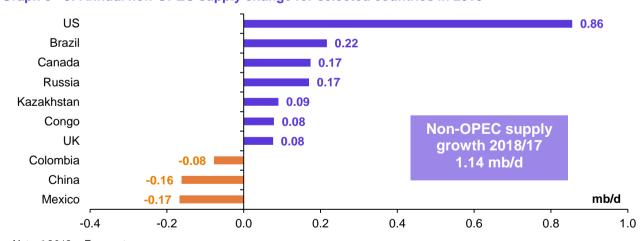
Table 5 - 2: Non-OPEC oil supply in 2018\*, mb/d

							Change 20	18/17
	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	Growth	<u>%</u>
Americas	21.36	22.03	22.04	22.23	22.58	22.22	0.86	4.04
of which US	14.35	15.05	15.09	15.21	15.45	15.20	0.86	5.96
Europe	3.80	3.93	3.81	3.75	4.03	3.88	0.08	2.17
Asia Pacific	0.41	0.42	0.45	0.46	0.45	0.45	0.04	10.26
Total OECD	25.56	26.39	26.31	26.44	27.06	26.55	0.99	3.86
Other Asia	3.67	3.64	3.64	3.62	3.60	3.62	-0.05	-1.29
Latin America	5.25	5.37	5.35	5.35	5.41	5.37	0.12	2.32
Middle East	1.23	1.20	1.19	1.18	1.16	1.18	-0.05	-3.90
Africa	1.87	1.93	1.94	1.94	1.95	1.94	0.07	3.65
Total DCs	12.02	12.14	12.11	12.09	12.12	12.12	0.09	0.79
FSU	13.93	13.79	14.10	14.19	14.42	14.13	0.20	1.42
of which Russia	11.07	10.98	11.21	11.29	11.47	11.24	0.17	1.54
Other Europe	0.13	0.13	0.13	0.13	0.12	0.13	0.00	-2.37
China	3.97	3.90	3.81	3.76	3.76	3.81	-0.16	-4.08
Total "Other regions"	18.03	17.82	18.04	18.07	18.30	18.06	0.03	0.18
Total non-OPEC								
production	55.61	56.34	56.47	56.61	57.47	56.73	1.11	2.00
Processing gains	2.21	2.23	2.23	2.23	2.23	2.23	0.03	1.32
Total non-OPEC supply	57.82	58.58	58.70	58.84	59.71	58.96	1.14	1.98

Note: \* 2018 = Forecast. Source: OPEC Secretariat.

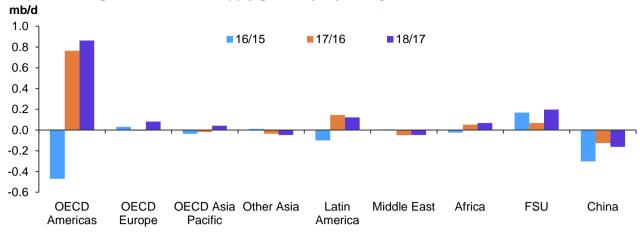
The expected growth in most non-OPEC regions in 2017 is expected to continue in 2018, led by OECD Americas with 0.86 mb/d, FSU with 0.20 mb/d, Latin America with 0.12 mb/d, OECD Europe with 0.08 mb/d, Africa with 0.07 mb/d and OECD Asia Pacific with 0.04 mb/d. However, declines in 2018 are anticipated in China, Other Asia and the Middle East at 0.16 mb/d, 0.05 mb/d and 0.05 mb/d, respectively.

Graph 5 - 3: Annual non-OPEC supply change for selected countries in 2018\*



Note: \*2018 = Forecast. Source: OPEC Secretariat.

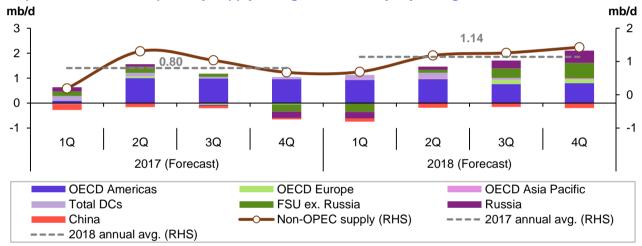
Graph 5 - 4: Regional non-OPEC supply growth, y-o-y change



Note: 2017 and 2018 = Forecast. Source: OPEC Secretariat.

On a **country basis**, the US is the **main contributor to the growth** with 0.86 mb/d, followed by Brazil with 0.22 mb/d, Canada with 0.17 mb/d, Russia with 0.17 mb/d, Kazakhstan with 0.09 mb/d, the UK with 0.08 mb/d, Congo with 0.08 mb/d, Australia with 0.05 mb/d and Ghana with 0.04 mb/d.

Graph 5 - 5: Non-OPEC quarterly supply change, 2017-2018, y-o-y change



Source: OPEC Secretariat.

In terms of the **major declines**, these are led by Mexico at 0.17 mb/d, China at 0.16 mb/d, Colombia at 0.08 mb/d, Azerbaijan at 0.05 mb/d, Oman at 0.04 mb/d, and Vietnam and Indonesia, at 0.03 mb/d.

Table 5 - 3: Non-OPEC supply forecast comparison in 2017\* and 2018\*, mb/d

		Change		Change
Region	<u>2017</u>	<u>2017/16</u>	<u>2018</u>	<u>2018/17</u>
OECD Americas	21.36	0.76	22.22	0.86
OECD Europe	3.80	-0.01	3.88	0.08
OECD Asia Pacific	0.41	-0.02	0.45	0.04
Total OECD	25.56	0.74	26.55	0.99
Other Asia	3.67	-0.04	3.62	-0.05
Latin America	5.25	0.14	5.37	0.12
Middle East	1.23	-0.05	1.18	-0.05
Africa	1.87	0.05	1.94	0.07
Total DCs	12.02	0.11	12.12	0.09
FSU	13.93	0.07	14.13	0.20
Other Europe	0.13	0.00	0.13	0.00
China	3.97	-0.13	3.81	-0.16
Non-OPEC production	55.61	0.79	56.73	1.11
Processing gains	2.21	0.01	2.23	0.03
Non-OPEC supply	57.82	0.80	58.96	1.14

Note: \*2017 and 2018 = Forecast. Source: OPEC Secretariat.

## **OECD**

**Total OECD oil supply** in 2017 is expected to grow by 0.74 mb/d to average 25.56 mb/d. This is revised down by 0.12 mb/d from the last MOMR. OECD Americas is forecast to see an increase of 0.76 mb/d y-o-y, while oil supply in OECD Europe and OECD Asia Pacific will show a contraction of 80 tb/d and 40 tb/d to average 3.80 mb/d and 0.41 mb/d, respectively.

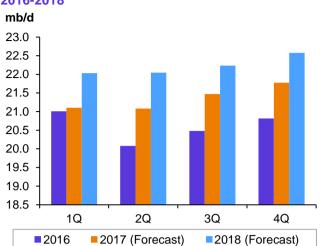
For 2018, a yearly growth of 0.99 mb/d is anticipated for OECD oil supply, with an average of 26.55 mb/d. OECD Americas, Europe and the Asia Pacific are all expected to grow next year by 0.86 mb/d, 0.08 mb/d and 0.04 mb/d, with averages of 22.22 mb/d, 3.88 mb/d and 0.45 mb/d, respectively.

## **OECD** Americas

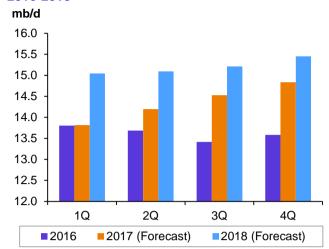
**OECD Americas' oil supply** in 2017 is estimated to grow by 0.76 mb/d y-o-y to average 21.36 mb/d. This is a downward revision of 115 tb/d from the previous MOMR report. Supply from the US and Canada is expected to increase in 2017, while that of Mexico is anticipated to decline by 0.17 mb/d, y-o-y.

Oil supply growth will continue in 2018 at 0.86 mb/d y-o-y to average 22.22 mb/d. Estimated growth of 0.86 mb/d and 0.17 mb/d is anticipated for the US and Canada, respectively, but a further contraction of 0.17 mb/d is anticipated for Mexico.

Graph 5 - 6: OECD Americas quarterly oil supply, 2016-2018



Graph 5 - 7: US quarterly oil supply, 2016-2018



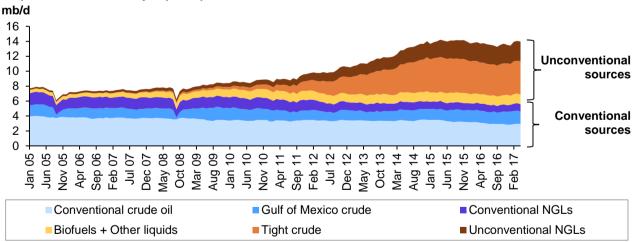
Source: OPEC Secretariat.

### US

Source: OPEC Secretariat.

**US liquids supply** in 2017 is anticipated to grow by 0.73 mb/d to average 14.35 mb/d. This is revised down by 70 tb/d from the previous MOMR. US liquids output in April witnessed a drop of 88 tb/d m-o-m to 13.97 mb/d, but it was higher by 0.27 mb/d y-o-y. US crude oil production reached an average of 9.08 mb/d in April – 24 tb/d lower than a month ago – according to the US Energy Information Administration (EIA). Crude oil output in April increased by 0.14 mb/d, compared to the same month in April 2016, yet up by more than 0.5 mb/d since it bottomed out in September 2016. Crude oil output in April declined by 35 tb/d and 101 tb/d in Texas and to Gulf of Mexico (GoM), to average 3.34 mb/d and 1.66 mb/d, respectively, while production increased in both North Dakota and New Mexico. It is expected that June production in the GoM will be affected due to the shut-in of approximately 17% of its production or about 0.3 mb/d, ahead of Tropical Storm Cindy, the Bureau of Safety and Environmental Enforcement (BSEE) reported.

Graph 5 - 8: US monthly liquids production breakdown



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

**Total NGLs output** in April was reported at 3.63 mb/d, representing a minor downward revision for April vs. March, albeit higher by 129 tb/d compared to the average of April 2016. This was mainly due to unconventional sources of tight formations. Capital spending for 22 US natural gas producers increased y-o-y in 1Q17, following almost two years of annual declines. It is expected that the production of condensate and other NGLs will grow continuously after natural gas future prices rose from average \$1.98/million BTU in 1Q16 to \$3.06/million BTU in 1Q17. The EIA's forecast is for dry natural gas production to rise to an average of 76.6 Bcf/d in 2018, up from an expected 73.3 Bcf/d in 2017. In the GoM, 0.68 mb/d of oil production out of a total of 1.68 mb/d in 2017 is expected to come from 21 fields that are in the process of ramping up production. These fields are expected to push production up from an average of 1.61 mb/d in 2016, to

#### 1.68 mb/d in 2017 and then 1.75 mb/d in 2018.

In the US, there are a number of factors to consider. The general consensus among analysts is that operational cost inflation will rise by around 20% in 2017 and it has also been noted that average well productivity will not be the same as in the recent past as operators shift from sweet spots to the surrounding area. Moreover, current oil prices below \$50/b are likely to limit drilling activities and spending. Despite these developments, the pace of growth is expected to remain steady, with a minor upward trend expected in 2018. Although tight crude production is sensitive to price, US shale and tight oil producers have become more capable of producing in marginal breakeven prices. Surprisingly, the decline of tight crude production from unconventional sources in 2016 despite low oil prices was lower than (-312 tb/d) the decline of conventional crude production.

Tight crude and GoM production is forecast to grow by 0.62 mb/d and 0.07 mb/d, respectively, while production of crude oil from onshore conventional sources is expected to see a decline of 0.15 mb/d. These developments are expected to result in US crude oil average output at 0.55 mb/d for 2018. Growth for NGLs and biofuels is expected at 0.30 mb/d and 15 tb/d, respectively, based on the current trend for NGLs output.

Table 5 - 4: US liquids production breakdown

			Change		Change		Change
	<u>2015</u>	<u>2016</u>	<u>2016/15</u>	<u>2017</u> *	<u>2017/16</u>	<u>2018</u> *	<u>2018/17</u>
Tight crude	4,568	4,256	-312	4,794	538	5,419	625
Gulf of Mexico crude	1,515	1,607	92	1,684	77	1,749	65
Conventional crude oil	3,332	3,011	-321	2,871	-140	2,726	-145
Unconventional NGLs	2,347	2,538	191	2,712	174	2,913	201
Conventional NGLs	995	940	-55	1,013	73	1,107	94
Biofuels + Other liquids	1,283	1,268	-15	1,272	4	1,287	15
US total supply	14,041	13,621	-420	14,347	726	15,202	855

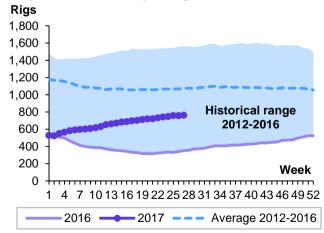
Note: \* 2017 and 2018 = Forecast.

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

#### **US** oil rig count

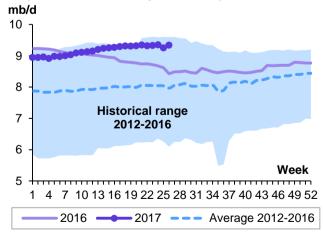
According to Baker Hughes' latest survey, for the week ending 7 July, **total US rig count** increased by 12 rigs w-o-w to 952 units. This includes additional five gas rigs, taking the total number to 189 units, and seven oil rigs, taking the total to 763 units. This means that the US oil rig count has risen by 512 y-o-y.

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.

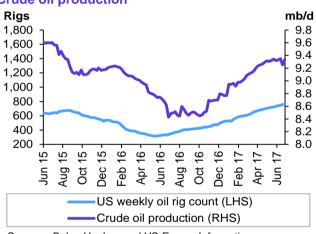
On a monthly basis, the total US oil rig count in June was at 750 rigs, an increase of 32 rigs m-o-m, up by 412 rigs y-o-y. The oil rig count in the Permian Basin was at 369, representing a decline of 1, w-o-w although higher by 211 y-o-y. In the Eagle Ford shale, Williston Basin and DJ-Niobrara, the oil rig count remained unchanged w-o-w at 84, 52 and 27, respectively. The number of active rigs in the GoM was at 21 rigs, split between 18 offshore oil rigs and three gas rigs, unchanged w-o-w.

Table 5 - 5: US rotary rig count on 7 July 2017

						Change	
		<u>7 Jul 17</u>	Month ago	Year ago	<u>M-o-m</u>	<u>Y-o-y</u>	<u>Y-o-y, %</u>
Oil and gas split	Oil	763	741	351	22	412	117%
	Gas	189	185	88	4	101	115%
Location	Onshore	931	905	421	26	510	121%
	Offshore	21	22	19	-1	2	11%
Basin	Williston	52	46	28	6	24	86%
	Eagle Ford	84	84	27	0	57	211%
	Permian	369	368	158	1	211	134%
Drilling trajectory	Directional	74	66	36	8	38	106%
	Horizontal	804	780	343	24	461	134%
	Vertical	74	81	61	-7	13	21%
US total rig count		952	927	440	25	512	116%

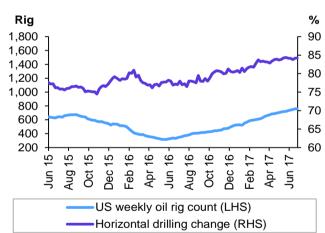
Sources: Baker Hughes and OPEC Secretariat.

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** 



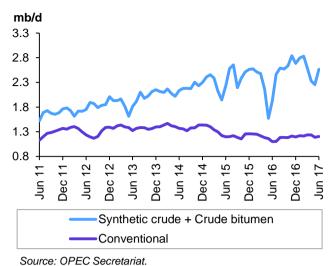
Source: Baker Hughes.

In terms of **drilled but uncompleted (DUCs) wells**, 176 wells were added to the inventory in May 2017. This is the sixth straight monthly increase. The US total now stands at 5,946 DUCs, up from a post-downturn low of 4,913 in November 2016. Operators started building up an inventory of DUCs in 2014 as oil prices collapsed. It made more financial sense to delay the most productive early life of a well until prices moved higher.

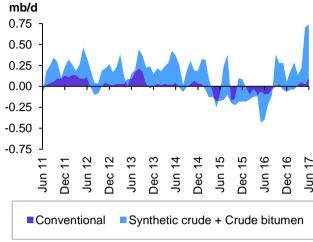
#### Canada

Following a wildfire in one of Canada's upgraders and weaker-than-expected output in 2Q17, at 4.57 mb/d compared to 4.96 mb/d in 1Q17, Canada's production in 2017 is predicted to grow at a slower pace than was expected in the previous MOMR. Growth is now expected at 0.21 mb/d y-o-y, a downward revision of 51 tb/d. Syncrude Canada cut its production forecast for the month of June to 5.8 mb/month compared to the full capacity of 11 mb/month. The 350 tb/d Syncrude project has been operating at reduced rates since a fire in March damaged the facility.

Graph 5 - 13: Canada production by crude type



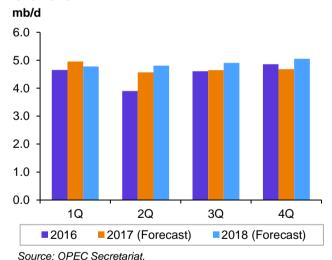
**Graph 5 - 14: Canada production by crude type, y-o-y change** 



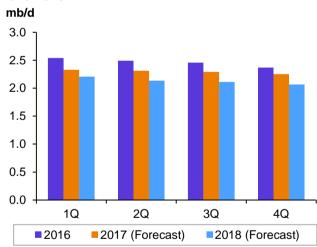
Source: OPEC Secretariat.

Canada is expanding its oil production mainly through various oil sands projects in Alberta. In 2018, Surmont phase 2 is expected to start up production and plateau at 118 tb/d in 2019, following a peak output of 27 tb/d from phase 1 in 2017. The production ramp up of Syncrude in stage 1 and 2 in the Mildred Lake & Auora project is also anticipated to add 47 tb/d in 2018, before reaching an estimated plateau level of 427 tb/d in 2019. In 2018, production expansions also include the ramp up in Sunrise, MacKay River phase 1 operated by PetroChina, Kearl phase 2, Horizon phase 3, Foster Creek phase F, Duvernay, Cold Lake phase 14-16, Christian Lake phase 1F, the thermal project of Lloyd, as well as the start-up of the new project of Fort Hills phase 1. It is anticipated that Canadian oil supply will grow by 0.17 mb/d to average 4.89 mb/d in 2018.

Graph 5 - 15: Canada quarterly oil supply, 2016-2018



Graph 5 - 16: Mexico quarterly oil supply, 2016-2018



Source: OPEC Secretariat.

### **Mexico**

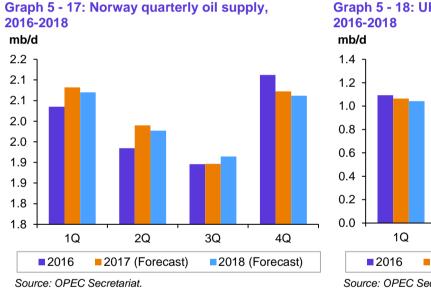
**Mexican liquids production** in 2017 is expected to witness a significant decline, dropping by 0.17 mb/d to average 2.30 mb/d. Mexican crude oil production in May was lower y-o-y by 154 tb/d at 2.02 mb/d, weighed down by high decline rates, while NGLs output, despite a minor decline m-o-m in May, is at an average y-t-d level of 0.3 mb/d, a similar level to last year's average. Mexico's total liquids output in May increased by 10 tb/d, to reach an average of 2.32 mb/d. It is expected that the production ramp up of the offshore Ku-Maloob-Zaap Project (K.M.Z.) field will continue in 2017 and 2018, increasing by 43 tb/d and 37 mb/d, respectively. There are also expected to minor increases in 2017 from smaller fields such as; Ayatsil-Tekel-Utsil, Roza Rica, Chicontepec, Veracruz and Apertura. However, the outlook for Mexico liquids supply in 2018 indicates a further decline of 0.17 mb/d, with annual average output at 2.13 mb/d.

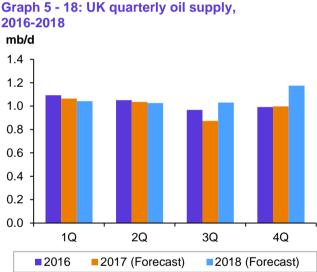
## **OECD Europe**

Total OECD Europe oil supply, which grew by 0.03 mb/d to average 3.80 mb/d in 2016, is expected to decline by 10 tb/d to around 3.80 mb/d in 2017. This is revised down by 12 tb/d compared to the previous MOMR. For 2018, a growth of 0.08 mb/d is expected y-o-y, mainly from the UK, with an average annual level of 3.88 mb/d.

## **Norway**

Norway's oil supply is expected to grow by 20 tb/d y-o-y, to average 2.01 mb/d in 2017. This is revised up by 34 tb/d compared to the previous MOMR. Preliminary production figures for May 2017 show an average daily production of 1.98 mb/d from oil, NGLs and condensate, which indicates a drop of 128 tb/d compared to April. In terms of the breakdown, crude oil output in May was down by 91 tb/d, to average 1.61 mb/d, with NGLs and condensate down by 0.35 mb/d and 18 tb/d, respectively. Oil production is about 2.8% higher than in May 2016, about 1.9% above the Norwegian Petroleum Directorate (NPD's ) prognosis for May 2017. According to the seasonal pattern for the maintenances, another m-o-m decline is expected for June. The Statoil-operated 60 tb/d field Gina Krog on the Utsira High in the North Sea started producing 30 June. The recoverable reserves in Gina Krog total about 106 mb of oil, 11.8 billion standard m<sup>3</sup> of gas and 3.2 million tonnes of NGLs. This means that three out of the four fields on Utsira High are producing. The Edvard Grieg field started in November 2015, while Ivar Aasen followed in December last year. Johan Sverdrup field is expected to start producing in late 2019. For 2018, Norway's oil supply is forecasted to see no growth next year. Total production is expected to be around the same level as 2017 at 2.01 mb/d. The decline rate in 2018 is anticipated to offset the new volume added from production ramp ups.





Source: OPEC Secretariat.

#### UK

UK's oil supply is predicted to decline by 30 tb/d y-o-y to average 0.99 mb/d in 2017. This is revised down by 54 tb/d compared to the previous MOMR. UK's liquids production in May 2017 increased by 36 tb/d m-o-m, to average 1.07 mb/d, with crude oil accounting for 0.94 mb/d. However, crude oil output in May was lower y-o-y by 32 tb/d. The recent start-ups include the redevelopment of the Montrose Area and Quad 204 project in May. These have also helped compensate the production outages from some small fields in April. The production trend indicates lower output by 20 tb/d in 2Q17, with an average of 1.04 mb/d. This is partially the result of June maintenance in the Forties, Alma, and some other oil fields.

The production ramp ups in 2018 are expected to come from fields such as; Alma/Galia, Britannia, Kraken, Monarb redevelopment project, Ninian, Quad 201, Scoty/Crathes and Solan, while the expected growth of 80 tb/d in 2018 will also maintain from these two fields - Greater Catcher and Greater Stella Area. UK's oil supply is expected to reach an average of 1.07 mb/d in 2018.

## **OECD** Asia Pacific

**OECD Asia Pacific's oil supply** is expected to decline by 20 tb/d in 2017 to average 0.41 mb/d. This unchanged from the previous month's report. Australia's oil supply is anticipated to decline by 20 tb/d to average 0.33 mb/d. This is due to weak output in the 1Q17 and the 2Q17, compared to the 4Q16. Oil production in 1H17 was down by 40 tb/d, compared to the same period last year. Nevertheless, for 2018, through the development of gas/condensate fields such as Great Gorgon, Ichthys, Kipper Tuna Turrum, North West Shelf Venture and Greater Western, Prelude, Wheatstone and other small fields, it is expected that the output of condensate and NGLs will expand the Australian oil supply by 50 tb/d to average 0.39 mb/d. However, production is expected to decline by 10 tb/d to 0.06 mb/d in Other OECD Asia Pacific (New Zealand, South Korea and Japan). Overall, OECD Asia Pacific's oil supply is estimated to increase by 40 tb/d, to average 0.45 mb/d in 2018.

# **Developing Countries**

**Total oil output from developing countries (DCs)** is expected to reach an average of 12.02 mb/d in 2017. This represents a growth of 0.11 mb/d, compared with a contraction of 0.11 mb/d in 2016. The expected growth for 2017 was revised up by 20 tb/d from the previous MOMR. The main reason for this revision is due to higher estimated output coming from Indonesia, with a lower decline rate assumed for 2017. With continued field development in Africa in 2018, a growth of 0.09 mb/d is anticipated for DCs' oil supply next year, with an average of 12.12 mb/d.

## **Other Asia**

**Other Asia's oil production** is estimated to decline by 40 tb/d in 2017 to average 3.67 mb/d. This is revised up by 15 tb/d from the previous MOMR. It is expected that oil output in Brunei, Indonesia, Malaysia and Vietnam will decline by a total of 60 tb/d, while oil production in India and Other Asia is anticipated to grow by 20 tb/d and 10 tb/d, respectively. In Indonesia, production ramp ups from the Banyu Urip and Bukit Tua oil fields, as well as NGLs and condensate from Donggi-Senoro, will likely add new output in 2017 and 2018. Other countries in this region are expected to remain unchanged from a year earlier. In 2018, the contraction will be more or less at the same level, with anticipated production growth of 40 tb/d in India and 10 tb/d in Asia others, while other countries in the region are expected to see declines.

## **Latin America**

**Latin America's oil supply** is estimated to increase by 0.14 mb/d to average 5.25 mb/d in 2017. This is unchanged from the previous MOMR. Latin America is the second-highest growth driver in 2017, among the non-OPEC regions. Brazil is the only country in the region set to witness growth this year. Oil production in Colombia is expected to decline by 60 tb/d, to average 0.84 mb/d, with declines also forecast in Argentina (10 tb/d) to average 0.67 mb/d, Trinidad and Tobago (10 tb/d), and Latin America others (20 tb/d).

For 2018, oil supply in the region is estimated to grow by 0.12 mb/d, mainly from Brazil, with average output at 5.37 mb/d. It is expected that there will be a further y-o-y decline in Colombia, where the mature oil fields are in heavy decline and where no new fields are expected to bring additional volumes on stream.

#### **Brazil**

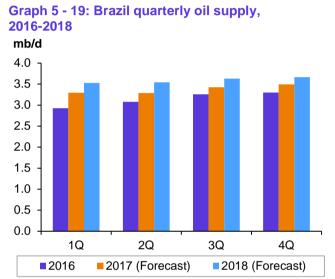
**Brazil's liquids supply** is expected to average 3.38 mb/d in 2017, an increase of 0.24 mb/d over the previous year. This is an upward revision of 24 tb/d from the previous MOMR. The growth is expected to come from production ramp ups in the Lapa field, Lula (the most growth in 2017), Parque das Baleia, Roncador-2, Sapinhoa, Tartaruga Verde & Mestica, as well as new Libra project. Through an increase in crude oil output in May of 82 tb/d, total liquids production increased to 3.30 mb/d, with 2.62 mb/d from crude oil, 0.11 mb/d from NGLs and 0.57 m/d from biofuels.

Petrobras registered its first domestic 2017 production increase in May, with the company completing maintenance work at several offshore platforms. This maintenance, however, meant that crude exports slowed in April, official data showed. While FPSO Cidade De Angra Dos Reis ramped up in April, which

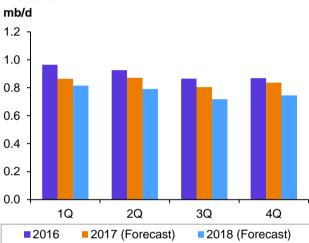
meant sub-salt output showed an increase of 415 tb/d y-o-y, at the same time, oil output from post-salt reservoirs in the Campos Basin dropped to 1.35 mb/d, indicating a decline of 120 tb/d over the last year. The Campos Basin's production includes several sub-salt prospects, and accounts for nearly two-thirds of Brazil's crude oil output.

It should also be noted that an accident in June saw an oil leak cause a production shutdown at Petrobras' P-35 floating production, storage and offloading vessel in the Marlim Field in Brazil's Campos Basin. Petrobras did not say how long production from the FPSO would be shut in. The P-35 produced 23,807 b/d of oil and 366,850 cu m/d of natural gas in March, according to the latest production data from the National Petroleum Agency (ANP).

For 2018, Brazil's total liquids supply is expected to grow at a slower pace compared to 2017. Growth is estimated at 0.22 mb/d, with an output average of 3.59 mb/d.



Graph 5 - 20: Colombia quarterly oil supply, 2016-2018



Source: OPEC Secretariat.

## Africa

Source: OPEC Secretariat.

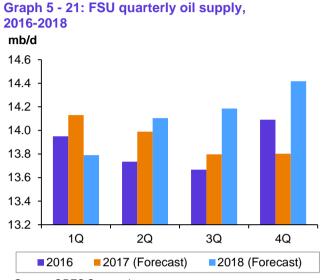
Africa's oil supply is projected to grow by 50 tb/d to average 1.87 mb/d in 2017 (excluding Equatorial Guinea that joined OPEC on 25 May 2017). It is expected that oil production in 2017 will grow in Congo by 40 tb/d, to average 0.35 mb/d, Ghana by 70 tb/d, to average 0.17 mb/d and Chad by 20 tb/d, to average 0.13 mb/d. Production in Egypt, Sudans, and Africa other is anticipated to decline in 2017, while oil output in South Africa is estimated not to change compared to a year earlier. For 2018, oil supply in non-OPEC countries in Africa is expected to grow by 70 tb/d, mainly from Congo and Ghana.

In **Congo**, French group Total has started production from the Moho Nord deepwater project, 75 km offshore of Pointe-Noire. The production capacity is 100 tboe/d. Moho Nord is the biggest oil development to date in Congo. The development involves the drilling of 34 wells tied back to a new tension leg platform, the first for Total in offshore Africa, and to Likouf, a new floating production unit. Oil is processed on Likouf then exported by pipeline to the Djeno onshore terminal, also operated by Total. In addition, production from Nene Marine and Benguela-Belize satellite (Lianzi) is estimated to boost Congo's oil production by 40 tb/d and 80 tb/d in 2017 and 2018, respectively, with average output of 0.42 mb/d next year.

**Ghana's oil output** is expected to continue to rise to reach an average of 0.17 mb/d this year. Production from the integrated oil and gas development project on the Offshore Cape Three Points (OCTP) block 60 km offshore western Ghana by Eni SPA began on 22 June. The OCTP development comprises Sankofa Main, Sankofa East, and Gye-Nyame fields, which altogether have 770 million boe in place, of which 500 mb is oil and 270 million boe is non-associated gas, or about 40 billion cu m. Production is carried out through the John Agyekum Kufuor floating production, storage, and offloading unit, which is expected to produce as much as 85,000 boe/d via 18 underwater wells. Production ramp up from the 'TEN' project not only offsets losses from the Jubilee field, but also adds new capacity. Oil output in Ghana is estimated to expand by 40 tb/d in 2018, to reach a level of 0.21 mb/d.

## **FSU**

Oil production in the **FSU** is expected to grow by 70 tb/d to average 13.93 mb/d in 2017. This indicates an upward revision of 41 tb/d compared to the previous MOMR. Russia's oil output is expected to see a contraction of 10 tb/d in 2017, to average 11.07 mb/d, with a contraction of 60 tb/d also anticipated in Azerbaijan. Output from Kazakhstan is expected to grow by 0.14 mb/d this year. For 2018, FSU oil supply is estimated to grow by 0.2 mb/d, mainly coming from Russia (0.17 mb/d) and Kazakhstan (0.09 mb/d). Azerbaijan and FSU others are expected to see a contraction of 50 tb/d and 20 tb/d, respectively.



Graph 5 - 22: Russia quarterly oil supply. 2016-2018 mb/d 11.6 11.5 11.4 11.3 11.2 11.1 11.0 10.9 10.8 10.7 1Q 2Q 3Q 4Q 2016 2017 (Forecast) 2018 (Forecast)

Source: OPEC Secretariat. Source: OPEC Secretariat.

#### Russia

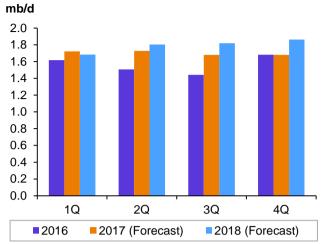
**Russian oil output** fell to 11.06 mb/d in May and June. It is expected that the country's 2017 liquids production (including NGLs) will average 11.07 mb/d, indicating a contraction of 10 tb/d y-o-y. Crude oil output was at 10.30 mb/d in May and June 2017, lower by 44 tb/d compared to April 2017. This is also 209 tb/d lower than the level 10.51 mb/d in October 2016. NGLs output was stagnant at 0.76 mb/d in April, May and June 2017.

Higher spending and more drilling activities were witnessed in 2015 and 2016, which led to a growth in oil production, leading to a decrease of the approximated annual decline rate by 2.5%. According to the OPEC production adjustment agreement, Russian production is expected to maintain its production adjustment up to 1Q18, thus increasing its oil supply by 0.17 mb/d to average 11.24 mb/d for the year.

## Caspian

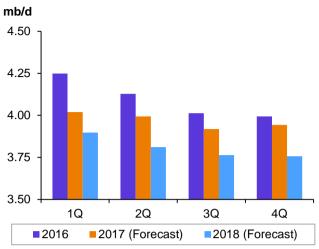
In the **Caspian**, by continuation of the production ramp up of Kazakhstan's Kashagan offshore field that sees estimated output growth of 0.14 mb/d in 2017, it is expected that the country's average annual output will expand by 90 tb/d in 2018, to reach a level of 1.79 mb/d. This forecast is based on the assumption that their oil output remains unchanged at the level of 1.68 mb/d until 1Q18. In Azerbaijan, due to a lack of new project start-ups, the annual oil production decline, which witnessed in 2017 will likely continue at more or less the same level of around 50-60 tb/d, to average 0.74 mb/d. It is estimated that the country's oil supply will decline by 60 tb/d, to average 0.79 mb/d. The main oil output in Azerbaijan currently comes from the Azeri-Chirag-Guneshli field.

Graph 5 - 23: Kazakhstan quarterly oil supply, 2016-2018



Source: OPEC Secretariat.

Graph 5 - 24: China quarterly oil supply, 2016-2018



Source: OPEC Secretariat.

## China

China's supply in 2017 is expected to decline by 0.13 mb/d over the previous year to average 3.97 mb/d. This will be the first year the country's production fell below 4.0 mb/d since 2009. The overall number has been revised up by 24 tb/d from the previous MOMR. Crude oil output in May 2017 fell by 62 tb/d to average 3.83 mb/d, the lowest level since December 2009, a decrease of 0.14 mb/d, y-o-y. China's total liquids supply in May decreased by 58 tb/d to 3.97 mb/d. It is expected that the output in 2H17 will decline by 80 tb/d compare to 1H17, and average 3.93 mb/d for the year. For 2018, it is expected that the annual decline will be even higher at 0.16 mb/d, with output averaging 3.81 mb/d.

## **OPEC NGLs and non-conventional oils**

**OPEC NGLs and non-conventional liquids** in 2017 have been revised up by 90 tb/d following Equatorial Guinea's joining OPEC to average 6.31 mb/d. This highlights a growth of 0.17 mb/d, y-o-y. In 2018, due to the number of planned projects, a growth of 0.18 mb/d y-o-y is anticipated, with average output at 6.22 mb/d. These projects are expected to be mainly in IR Iran and Saudi Arabia.

Table 5 - 6: OPEC NGLs + non-conventional oils, 2015-2018\*, mb/d

			Change						Change		Change	
	<u>2015</u>	<u>2016</u>	<u>16/15</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>2017</u>	<u>17/16</u>	<u>2018</u>	<u>18/17</u>	
Total OPEC	6.04	6.14	0.10	6.20	6.26	6.35	6.42	6.31	0.17	6.49	0.18	

Note: \*2017-2018 = Forecast. Source: OPEC Secretariat.

# **OPEC crude oil production**

According to secondary sources, **total OPEC-14 crude oil production** averaged 32.61 mb/d in June, an increase of 393 tb/d over the previous month. Crude oil output increased mostly in Libya, Nigeria, Angola, Iraq and Saudi Arabia, while production showed declines in Venezuela.

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

	<u>2015</u>	<u>2016</u>	<u>4Q16</u>	<u>1Q17</u>	<u>2Q17</u>	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	<u>Jun/May</u>
Algeria	1,107	1,090	1,091	1,053	1,059	1,056	1,061	1,060	-0.9
Angola	1,755	1,725	1,623	1,630	1,645	1,667	1,602	1,668	66.0
Ecuador	543	546	542	530	528	526	529	527	-2.1
<b>Equatorial Guinea</b>	210	190	184	174	170	174	168	170	1.4
Gabon	225	220	211	200	202	205	205	197	-7.7
Iran, I.R.	2,836	3,518	3,741	3,796	3,785	3,792	3,774	3,790	16.7
Iraq	3,961	4,390	4,604	4,447	4,441	4,381	4,441	4,502	60.6
Kuwait	2,764	2,853	2,874	2,712	2,708	2,705	2,709	2,709	-0.2
Libya	404	390	574	656	710	552	725	852	127.0
Nigeria	1,839	1,557	1,553	1,511	1,622	1,496	1,637	1,733	96.7
Qatar	663	656	642	625	617	613	619	618	-1.2
Saudi Arabia	10,142	10,406	10,541	9,887	9,927	9,934	9,898	9,950	51.3
UAE	2,906	2,975	3,079	2,935	2,901	2,906	2,899	2,898	-0.7
Venezuela	2,375	2,159	2,057	1,996	1,952	1,967	1,951	1,938	-13.6
Total OPEC	31,730	32,676	33,317	32,152	32,267	31,974	32,217	32,611	393.5

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

	<u>2015</u>	<u>2016</u>	<u>4Q16</u>	<u>1Q17</u>	<u> 2Q17</u>	<u>Apr 17</u>	May 17	<u>Jun 17</u>	Jun/May
Algeria	1,157	1,146	1,168	1,087	1,072	1,075	1,069	1,071	2.0
Angola	1,767	1,722	1,610	1,638	1,635	1,651	1,593	1,662	69.0
Ecuador	543	549	543	533		528			
<b>Equatorial Guinea</b>									
Gabon									
Iran, I.R.	3,152	3,651	3,993	3,894	3,878	3,862	3,893	3,880	-13.0
Iraq	3,504	4,648	4,802	4,589	4,549	4,531	4,564	4,550	-14.0
Kuwait	2,859	2,954	2,915	2,705	2,710	2,710	2,715	2,705	-10.0
Libya									
Nigeria	1,748	1,427	1,401	1,388	1,520	1,404	1,494	1,663	168.8
Qatar	656	652	632	595	608	619	594	611	17.0
Saudi Arabia	10,193	10,460	10,602	9,882	9,965	9,946	9,880	10,070	190.0
UAE	2,989	3,088	3,201	3,010		2,988	2,981		
Venezuela	2,654	2,373	2,265	2,244	2,180	2,194	2,189	2,156	-33.0
Total OPEC									

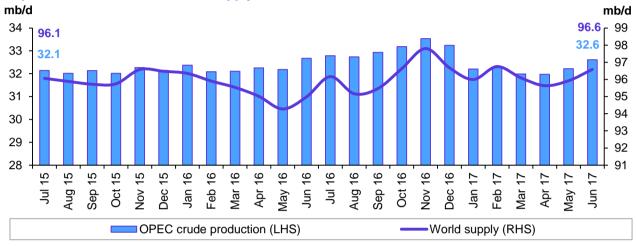
Note: Totals may not add up due to independent rounding.

.. Not available. Source: OPEC Secretariat.

# World oil supply

Preliminary data indicates that **global oil supply** increased by 0.66 mb/d to average 96.59 mb/d in June 2017, compared with the previous month. The increase of non-OPEC supply (including OPEC NGLs) by 0.27 mb/d mainly driven by Canada production returning from the wildfire as well as OPEC crude oil production by 0.39 mb/d in June led to an increase global oil output. The share of OPEC crude oil in total global production increased slightly by 0.2 pp to 33.8% in June compared with the previous month at 33.6%. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

Graph 5 - 25: OPEC and world oil supply



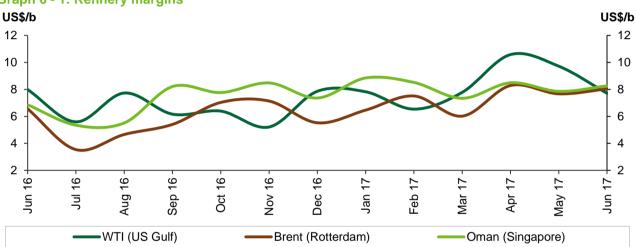
Source: OPEC Secretariat.

# **Product Markets and Refinery Operations**

Product markets in the US weakened slightly in June on high supply offsetting the typical seasonal draw in inventory levels, despite the onset of the summer driving season. Product markets in Europe and Asia saw slight increases in refining margins, as product categories in the top and middle of the barrel continued to be pressured by high supply. Fuel oil markets strengthened across the globe.

# **Refinery margins**

High refinery runs, with refineries' crude intake hitting an all-time high of 17.5 mb/d in the first week of the month, contributed to high stock levels pressuring **product markets in the US**, despite healthy demand at the onset of the summer driving season. In particular the top and middle of the barrel were impacted by excess supply. US refining margins dropped further by \$2.01/b to \$7.71/b.



**Graph 6 - 1: Refinery margins** 

Sources: Argus Media and OPEC Secretariat.

**European product markets** showed some improvement in June, with support coming mainly from the top and bottom of the barrel. Healthy demand for gasoline and fuel oil in addition to export opportunities was mostly offset by plentiful supply, especially of middle distillates. Brent margins for Brent crude in Northwest Europe inched up by 37¢ to \$8.04/b in June from a month earlier.

**Asian product markets** showed some slight improvements in middle distillates and fuel oil, which was offset by weak gasoline cracks. Strong regional demand and depleting stocks supported margins while additional supplies in China contributed to weakness. Refining margins for Oman increased by 40¢ to \$8.26/b in June from a month earlier.

# **Refinery operations**

The refinery utilization rate in the **US** averaged almost 93% in June, corresponding to 17.1 mb/d. This represents a slight drop of 37 tb/d from the previous month but a hike of around 650 tb/d from the same month a year earlier. An all-time high crude intake of up to 17.5 mb/d in the first week of the month led to counter-seasonal stock builds exerting pressure on the margins, which was not offset by the higher demand at the onset of the summer driving season.

**European** refinery utilization rate averaged around 90% in June, corresponding to a throughput of 10.5 mb/d. Refinery runs were about 300 tb/d higher than in the previous month and around 500 tb/d higher than in the same month a year earlier, despite some by unexpected outages in the region. High US gas

oil/diesel inventories will likely continue to weigh on USGC cracks, leading to an outflow of US cargoes, which could impact European refiners, pressuring European crude runs over the coming weeks.

% % 100 100 90 90 80 80 70 70 Jan 17 May 17 Mar 17 Apr 17 1 Sep 1 Feb 1 Aug ` , S Dec. , unf  $\equiv$ oct O Jun -US EU-16 Japan Singapore

**Graph 6 - 2: Refinery utilisation rates** 

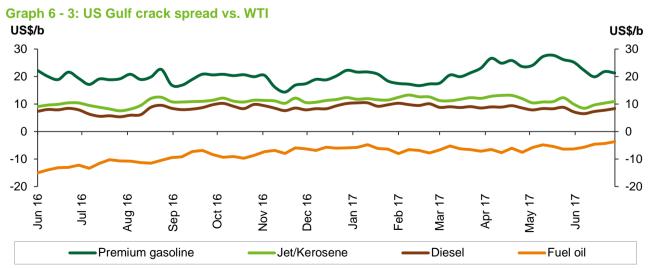
Sources: Argus Media and OPEC Secretariat.

In **Asia**, refinery runs in India averaged around 4.9 mb/d in May, broadly unchanged from the previous month. Chinese refinery utilization averaged almost 90%, which translates into 11.2 mb/d, and is around 450 tb/d up from the previous month, leading to increased gasoline production during the month. Refinery runs in Singapore stayed flat in May from the month before at 1.2 mb/d, or around 86% of capacity. Japanese refinery runs declined to 2.8 mb/d, or 80.7% of capacity, as refinery maintenance continues.

## **Product markets**

## **US** market

US **gasoline** demand remained at around 9.5 mb/d in June, broadly unchanged from the previous month, but down by 110 tb/d from the same month a year earlier, based on preliminary weekly data. The gasoline crack dropped substantially in June, despite the onset of the summer driving season. An outage in Mexico's 330 tb/d Salina Cruz refinery in the middle of the month opened the door for additional export opportunities rendering some support to gasoline, as did a temporary perceived tightening on news of tropical storm Cindy, which helped to regain some of the earlier losses. Nevertheless, prospects of continued high supply in the US and Europe left the product seasonally weak. The gasoline crack spread dropped by around \$4.5 over the previous month to average \$21.7/b in June.



Sources: Argus Media and OPEC Secretariat.

**Middle distillate** demand rose to around 4 mb/d in June, some 130 tb/d higher than in the previous month and around 200 tb/d above the same month a year earlier. However, the gasoil crack spreads continued their downward trend seen since the beginning of the year on already-high inventory levels, sluggish seasonal demand from domestic agriculture and ongoing high refining runs. Even a slight uptick towards the end of the month on perceived export potential to Brazil and Europe could do little to lift overall sentiment.

The gasoil crack spread dropped by around 80¢ to average \$7.4/b in June from a month earlier.

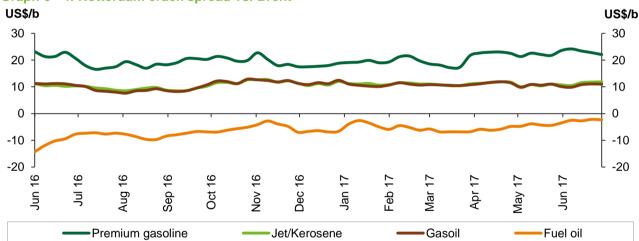
At the **bottom of the barrel**, the fuel oil market continued to show strength as global inventory levels dipped to lows not seen since January 2015. Strong competition from Europe limited additional export opportunities to Asia. The fuel oil crack spread rose by \$1.04 to average minus \$4.71/b in June from the previous month.

## European market

Product markets in Europe recovered slightly in June from the previous month on support from the top and bottom of the barrel, with middle distillates broadly unchanged.

**Gasoline** margins in Europe continued healthy over the last three months supported by export opportunities to Mexico and West Africa, while reduced arbitrage to the USEC on high gasoline stocks capped gains.

The gasoline crack spread rose by about \$1 to average above \$23/b in June from a month earlier.



Graph 6 - 4: Rotterdam crack spread vs. Brent

Sources: Argus Media and OPEC Secretariat.

**Naphtha** firmed slightly on improved petrochemical demand and prospects of blending opportunities arising from lower US Atlantic Coast gasoline inventories. Yet pressure from oversupply limited the potential for further gains.

The naphtha crack spread firmed by 29¢ to average minus \$1.7/b in June, reversing a three-month trend.

**Middle distillates** continued to be pressured by plentiful supply and expected additional inflows from Russia and the US. On the other hand, an unexpected outage at a German refinery lent some support to the diesel market.

The gasoil crack spread remained broadly unchanged to average \$10.6/b in June from the previous month.

At the **bottom of the barrel**, fuel oil cracks continued to be supported by a range of factors including healthy demand from Asia Pacific, and a heavy refinery maintenance season in Russia. High power generation requirements in the Middle East added to the plentiful export opportunities. In addition, the low-sulfur straight-run fuel oil discount firmed to its narrowest in 3 years on healthy regional demand.

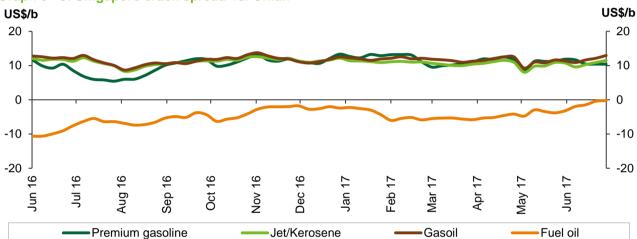
The fuel oil crack spread continued its strengthening trend, improving by \$1.7 to average minus \$2.5/b in June from minus \$4.2/b a month earlier.

## **Asian market**

The Asian market remained steady in June, mostly on gains in the middle and bottom of the barrel on the back of healthy demand amid regional refining maintenance. Refining margins went up by 40¢ to \$8.26/b in June from a month earlier, despite a slight drop in gasoline cracks.

The **gasoline** market continued its weakness seen the previous month on high regional monthly supply, particularly in China, and healthy gasoline stock levels in Japan. Stronger demand for travel during the month of Ramadhan and regional demand from India and Indonesia were not enough to support gasoline margins over the month. Developments in the Atlantic Basin also continued to exert pressure on Asian gasoline cracks.

The gasoline crack spread inched down further by 18¢/b to average \$11.03/b in June from the previous month.



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

Sources: Argus Media and OPEC Secretariat.

The **naphtha** market improved slightly in Asia from a month earlier, on the back of seasonally healthy regional demand. Low stock levels in Japan added further support.

The naphtha crack spread increased by 32¢/b to average around minus \$1.4/b in June from a month earlier.

In the **middle of the barrel**, strong regional demand caused gasoil cracks to reverse the previous month's declining trend. Strong import requirements from India amid tighter domestic fuel specifications and higher maintenance lent ample support. Looking ahead, the arrival of the monsoon season is expected to lower demand, however lower levels of inventories may continue to offer support.

The gasoil crack spread rose by 44¢ to average \$11/b in June from the previous month.

At the **bottom of the barrel**, the fuel oil crack spread continued to strengthen in June amid tightening supply on the back of maintenance coupled with higher utility and bunker demand and dropping fuel oil stock levels. Towards the end of the month margins hit a five-year high and HSFO reached parity to crude per barrel.

The fuel oil crack spread increased further by over \$2 to average minus \$1.05/b in June, the narrowest crack since February 2012.

Table 6 - 1: Refinery operations in selected OECD countries

Refinery throughput, mb/d Refinery utilization, % Change Change May 17 Jun/May **Apr 17 Jun 17** Jun/May **Apr 17 May 17** <u>Jun 17</u> US -0.04 -0.19 17.02 17.17 17.13 92.23 93.01 92.82 Euro-16 10.42 10.18 10.47 0.30 89.93 87.61 90.35 2.74 **France** 1.12 1.07 1.13 0.06 89.66 85.82 90.71 4.89 Germany 1.90 1.68 1.73 0.04 86.75 76.97 78.98 2.01 0.05 61.58 64.81 3.23 Italy 1.27 1.27 1.33 61.83 UK 1.08 1.00 1.08 0.08 77.80 5.38 83.18 83.18 -0.16 90.70 83.88 -3.22 Japan 3.00 80.65 3.19 2.84

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

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

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2Q16</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>	<u>2Q17</u> **
Total OECD	36.95	38.00	38.01	37.19	38.77	38.04	38.27	38.40
OECD America	19.00	19.19	19.21	19.24	19.65	18.82	19.05	19.43
of which US	15.82	16.11	16.24	16.27	16.68	16.07	15.95	17.11
OECD Europe	11.43	12.11	11.91	11.18	12.20	12.23	11.88	11.75
of which:								
France	1.12	1.17	1.14	0.94	1.19	1.24	1.05	1.11
Germany	1.86	1.91	1.90	1.81	1.94	1.91	1.82	1.77
Italy	1.20	1.35	1.30	1.28	1.36	1.32	1.34	1.28
UK	1.14	1.14	1.09	1.07	1.12	1.09	1.04	1.06
OECD Asia Pacific	6.51	6.70	6.88	6.78	6.93	6.99	7.33	7.22
of which Japan	3.13	3.14	3.15	3.17	3.24	3.23	3.49	2.99
Total Non-OECD	41.68	42.70	43.93	41.75	42.16	41.74	41.82	42.32
of which:								
China	10.16	11.00	11.55	10.76	10.59	11.16	11.22	11.00
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	5.46
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	4.89
Africa	2.30	2.16	2.14	2.05	2.06	2.16	2.25	2.28
Total world	78.62	80.70	81.94	78.94	80.93	79.78	80.08	80.71

Note: \* Data includes Mexico and Chile.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

<sup>\*\*</sup> OPEC Secretariat's estimate.

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

				Change	Year-to	-date
		<u>May 17</u>	<u>Jun 17</u>	Jun/May	<u>2016</u>	<u>2017</u>
US Gulf (Cargoes FOB)	•					
Naphtha*		50.00	45.41	-4.59	42.16	52.53
Premium gasoline	(unleaded 93)	74.72	66.86	-7.86	60.03	71.93
Regular gasoline	(unleaded 87)	66.65	62.35	-4.30	53.55	66.04
Jet/Kerosene	,	59.56	54.98	-4.58	47.96	61.66
Gasoil	(0.2% S)	56.80	52.58	-4.22	45.04	58.91
Fuel oil	(3.0% S)	43.69	41.80	-1.89	26.13	44.51
Rotterdam (Barges Fo	3):					
Naphtha	•	48.43	44.69	-3.74	39.64	50.87
Premium gasoline	(unleaded 98)	72.61	69.62	-2.99	60.64	72.86
Jet/Kerosene		61.13	57.81	-3.32	48.90	62.90
Gasoil/Diesel	(10 ppm)	61.11	57.06	-4.05	48.54	62.61
Fuel oil	(1.0% S)	46.26	43.95	-2.31	27.38	47.06
Fuel oil	(3.5% S)	40.64	39.68	-0.96	23.25	41.36
Mediterranean (Cargoe	es FOB):					
Naphtha	,	47.31	43.57	-3.74	38.53	49.96
Premium gasoline**		63.74	59.92	-3.82	53.26	64.89
Jet/Kerosene		59.91	56.53	-3.38	47.16	61.38
Diesel		62.28	58.01	-4.28	49.74	63.79
Fuel oil	(1.0% S)	47.10	45.56	-1.54	27.85	48.26
Fuel oil	(3.5% S)	42.85	42.13	-0.72	25.96	43.80
Singapore (Cargoes FC	)B):					
Naphtha	,	48.71	44.94	-3.77	40.37	51.51
Premium gasoline	(unleaded 95)	64.40	59.78	-4.62	53.34	65.92
Regular gasoline	(unleaded 92)	61.68	57.41	-4.27	50.31	63.36
Jet/Kerosene		60.82	57.03	-3.79	48.21	62.52
Gasoil/Diesel	(50 ppm)	61.74	58.31	-3.43	48.00	63.56
Fuel oil	(180 cst 2.0% S)	51.58	45.33	-6.25	29.14	47.85
Fuel oil	(380 cst 3.5% S)	46.01	44.60	-1.41	28.83	47.19

Note: \* Barges.

Sources: Argus Media and OPEC Secretariat.

<sup>\*\*</sup> Cost, insurance and freight (CIF).

# **Tanker Market**

Dirty tanker market sentiment was generally weaker in June, as average spot freight rates dropped on all reported routes. On average, dirty tanker freight rates declined by 17% from the previous month and spot rates for all classes went down. These negative developments came as the market suffered from limited activity prior to the summer months, while the increase in vessel supply remained a main influence on freight rate movements.

Clean spot freight rates had a mixed performance, with some routes showing higher freight rates; however, these were relatively minor. On average, clean tanker spot freight rates were almost flat compared with those of the previous month.

# **Spot fixtures**

Preliminary data for June shows that **OPEC spot fixtures** went up by 5.6%, compared with the previous month, to average 13.18 mb/d. Global spot fixtures rose as well by 1.9%, to average 18.03 mb/d. Fixtures on the Middle East-to-East route were up by 12% and on the Middle East-to-West routes by 7%. In general, global chartering activities were higher than the same month a year ago on all reported destinations.

Table 7 - 1: Spot fixtures, mb/d

				Change
	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	<u>Jun 17/May 17</u>
All areas	17.04	17.69	18.03	0.34
OPEC	11.67	12.48	13.18	0.70
Middle East/East	5.34	5.38	6.03	0.65
Middle East/West	2.72	3.10	3.31	0.21
Outside Middle East	3.61	4.00	3.84	-0.16

Sources: Oil Movements and OPEC Secretariat.

# Sailings and arrivals

**OPEC sailings** rose by 0.2 mb/d, or 0.8%, in June from the previous month, reflecting a gain of 1.7% from the year before. **Middle East sailings** rose from the previous month by 0.31 mb/d and from the previous year by 0.42 mb/d. According to preliminary data, arrivals at the main importing regions in North American and Far Eastern ports showed an increase from a month earlier, rising by 8.5%, and 2.1%, respectively.

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

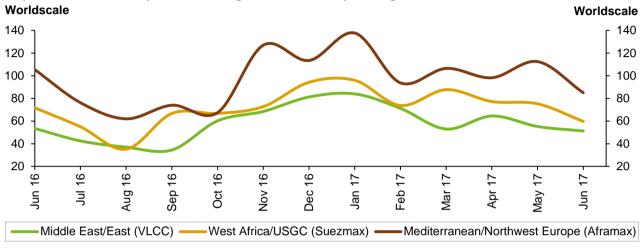
Sailings	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Change Jun 17/May 17
OPEC	23.86	24.21	24.41	0.20
Middle East	17.28	17.53	17.83	0.31
Arrivals				
North America	9.82	9.88	10.72	0.84
Europe	12.59	12.62	12.00	-0.62
Far East	8.72	8.56	8.74	0.18
West Asia	4.55	4.66	4.49	-0.18

Sources: Oil Movements and OPEC Secretariat.

**Vessel arrivals** in West Asian and European ports declined from the previous month by 3.8% and 4.9%, respectively.

## Dirty tanker freight rates

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



Sources: Argus and Platts.

### **VLCC**

**VLCC** freight rates weakened in June despite an active start to the month, with enhanced freight rates in both Middle East and West Africa chartering markets, although the gains remained limited. VLCC markets weakened thereafter despite some steady mid-month activity. Market activity was insufficient to support any rate increase as the tonnage supply remained abundant even allowing the main monthly chartering requirements. As a result, spot freight rates declined in several regions, showing monthly and annual drops. VLCC spot freight rates for tankers trading on the Middle East-to-East routes dropped by 7%, to stand at WS51 points. Middle East-to-West freight rates followed the same pattern, though reflecting a higher drop of 10%, to stand at WS26 points. Freight rates for tankers operating on the West Africa-to-East route were also lower, showing a decline of 3% from the previous month.

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

	Size				Change
	1,000 DWT	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Jun 17/May 17
Middle East/East	230-280	65	55	51	-4
Middle East/West	270-285	34	29	26	-3
West Africa/East	260	68	58	56	-2

Sources: Argus Media and OPEC Secretariat.

### Suezmax

As was the case with the bigger vessels, **Suezmax spot freight rates** also experienced negative developments in June. Spot freight rates edged down as the Suezmax market suffered from high vessels supply versus limited requirements. Suezmax rates hit year lows, as prompt vessel availability reached its highest level as a result of new deliveries and low operational delays. Low returns were exhibited on many voyages which took profitability to a very low end. In West Africa, spot freight rates for tankers operating on the West Africa-to-US Gulf Coast (USGC) route dropped by 21% to stand at WS60 points. Spot freight rates for tankers operating on the Northwest Europe (NWE)-to-USGC route dropped by 18% to average WS57 points. Suezmax rates on both routes showed a greater decline compared with freight rates registered on the same routes the previous year by 17% and 7%, respectively.

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

	Size				Change
	1,000 DWT	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	<u>Jun 17/May 17</u>
West Africa/US Gulf Coast	130-135	77	75	60	-16
Northwest Europe/US Gulf Coast	130-135	66	69	57	-13

Sources: Argus Media and OPEC Secretariat.

### **Aframax**

As was the case with other vessel sizes in the dirty tanker segment, **Aframax freight rates** dropped in June from the previous month, showing an average 19% decline m-o-m. The Aframax freight rates decline came as a result of drops experienced on all reported routes. The downward pressure affected voyage profitability.

Freight rates for tankers operating on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes went down by 21% and 24% to average WS91 and WS85 points, respectively, as a result of increased availability, even for spot requirements. Aframax rates in the Mediterranean turned flat in many cases as they suffered from limited enquiries.

Spot freight rates went down on the Caribbean-to-US East Coast (USEC) route by 25% from the previous month as no rush of activity was detected prior to the holidays. Additionally, the market in the Caribbean did not benefit from storm and weather disruptions. Aframax freight rates to eastern destinations were not an exception, dropping by 4% for tankers trading on the Indonesia-to-East route to average WS93 points.

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

	<b>Size</b> 1,000 DWT	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Change Jun 17/May 17
Indonesia/East	80-85	101	97	93	-4
Caribbean/US East Coast	80-85	103	123	93	-31
Mediterranean/Mediterranean	80-85	104	116	91	-25
Mediterranean/Northwest Europe	80-85	98	113	85	-28

Sources: Argus Media and OPEC Secretariat.

# Clean tanker freight rates

Clean tanker market sentiment continued to be weak in June. On average, clean spot tanker freight rates were almost flat from the previous month and stood at WS134 points. Average spot freight rates dropped despite some enhancement detected on certain routes, although these enhancements were relatively minor. The clean tanker market had an uneventful June with mostly flat rates in different regions. Long and medium-range markets lacked activity and no improvements in rates were seen even during the days of relative tight tonnage availability.

Worldscale Worldscale 220 220 200 200 180 180 160 160 140 140 120 120 100 100 80 80 60 60 16 16 16 16 16 16 17 17 17 17 17 Aug Dec Feb. May Oct Mar H ₹ è Jun Jan Middle East/Far East Northwest Europe/USEC Mediterranean/Mediterranean

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

Sources: Argus Media and OPEC Secretariat.

In the **West of Suez**, freight rates experienced some decline on average as they were affected by the freight rate drops in the Mediterranean, where rates registered on both Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes dropped by 6% each.

Freight rates for medium-range vessels in the **East** reflected minor changes from the previous month where rates remained primarily unchanged before improving at end of the month, with higher vessel demand led by steady fixing. Thus, freight rates for tankers operating on the Middle East-to-East route remained primarily unchanged to average WS107 points. Rates for the Singapore-to-East route rose by 2% in June compared with the previous month and they averaged WS138 points.

**Clean tankers freight rates** in both the eastern and western direction of Suez were higher than those of the same month a year before.

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

East of Suez	<b>Size</b> 1,000 DWT	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Change Jun 17/May 17
Middle East/East Singapore/East	30-35 30-35	107 144	106 134	107 138	1 3
West of Suez				<u>'</u>	
Northwest Europe/US East Coast	33-37	175	132	138	6
Mediterranean/Mediterranean	30-35	187	147	139	-8
Mediterranean/Northwest Europe	30-35	197	158	149	-10

Sources: Argus Media and OPEC Secretariat.

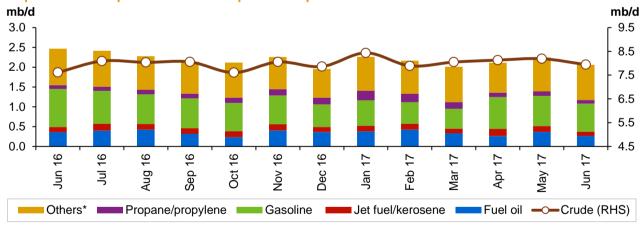
## Oil Trade

June preliminary data shows that US crude oil imports dropped by 247 tb/d from the previous month to average 7.9 mb/d. However, annually US crude imports were 332 tb/d higher from a year earlier. US product imports fell by 189 tb/d or 8% to average 2 mb/d m-o-m, and dropped by 407 tb/d, or 17%, y-o-y. Japan crude oil imports dropped in May by 747 tb/d, or 21%, m-o-m, to average 2.8 mb/d, reaching their lowest annual level in May, down by 16% or 542 tb/d, y-o-y. Japan's product imports showed a decline in May of 42 tb/d to average 588 tb/d, mainly as naphtha figures were down in May by 61 tb/d or 11%. In the same month, China's crude oil imports rose from the previous month to their second-highest levels since March 2017, up by 391 mb/d or 5% from the previous month to average 8.8 mb/d. On an annual basis, China's crude imports rose by a remarkable 1.2 mb/d, or 15%. China's product imports were up in the month by 304 tb/d from the previous month and 179 tb/d from a year earlier to average 1.6 mb/d. Meanwhile, Indian crude imports averaged 4.2 mb/d, which was 259 tb/d, or 6%, less from the previous month. Crude imports were down as the country entered refinery maintenance season. On an annual basis this reflects a small increase of 58 tb/d or 1%. Product imports rose by 44 tb/d, or 6%, from a month earlier to average 828 tb/d, reflecting a slight drop of 13 tb/d, or 2%, y-o-y.

## US

June preliminary data shows that **US crude oil imports** dropped by 247 tb/d from the previous month to average 7.9 mb/d. However, annually, US crude imports were 332 tb/d higher than a year before.

**US product imports** went down by 189 tb/d, or 8%, to average 2 mb/d m-o-m, dropping y-o-y by 407 tb/d, or 17%.

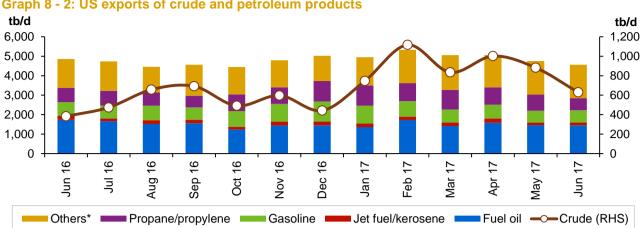


**Graph 8 - 1: US imports of crude and petroleum products** 

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 Secretatiat.

**US product exports** fell by 185 tb/d or 4% from the previous month to average 4.6 mb/d.



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 Secretatiat.

In an annual comparison, figures showed a drop of 295 tb/d, or 6%. As a result, US total net imports averaged 4.8 mb/d, stable from the previous month's level.

Canada remained the top supplier in April as seen earlier, accounting for 41% of total US crude imports, although its exports to the US were lower by 5%, or 153 tb/d, from the previous month. Saudi Arabia came in as second-largest supplier to the US with a share of 14% of total crude imports, while Venezuela was the third-largest supplier with a share of 10%. Imports from Saudi Arabia were down 19 tb/d, while those from Venezuela were up from the previous month by 111 tb/d.

Total crude imports from OPEC Member Countries rose in April from the previous month by 153 tb/d or 5%, as they accounted for 43% of total US crude imports. At the same time, US product imports from OPEC Member Countries dropped from a month before by 9 tb/d to stand at 227 tb/d, representing 10% of total products imported by the US. Canada and Russia maintained their positions as first - and second-largest suppliers to the US with shares of 25% and 13%, respectively. Imports from both countries were lower from the previous month by 21 tb/d and 79 tb/d, respectively. South Korea came in as third-largest product supplier to the US, up by 67 tb/d from the previous month's imports.

In April, **US crude imports** from North America averaged 3.4 mb/d, maintaining the top spot as it had earlier. Latin America came in as the second source of imports to the US, averaging 2.2 mb/d in April, while the Middle East was the third-biggest importing region with an average of 2 mb/d. Imports from Africa increased from the previous month to stand at 533 tb/d, while no imports from Asia were registered.

As to crude imports by PADD, the highest crude imports to PADD 1 on the East Coast were sourced from Africa, with an average of 469 tb/d, followed by imports from the Middle East, which averaged 186 tb/d. Imports from North America were down by 96 tb/d to stand at 137 tb/d. PADD 2 imports were mostly imported from North America and averaged 2.3 mb/d in April, down by 42 tb/d from a month earlier. PADD 2 imported 42 tb/d from the Middle East. PADD 3 imports its largest volumes from Latin America and the Middle East. Imports from both regions rose from March by 98 tb/d and 48tb/d, respectively. PADD 4 imports came solely from North America and were down by 12 tb/d, averaging 274 tb/d. In PADD 5, the West Coast's top importing region was the Middle East, followed by Latin America and North America, averaging 472 tb/d, 433 tb/d and 214 tb/d, respectively, in April.

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

Total crude and products	4,178	4,807	4,811	3
Total products	-2,952	-2,500	-2,504	-4
Crude oil	7,130	7,308	7,315	7
	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	Change Jun 17/May 17

Sources: US Energy Information Administration and OPEC Secretariat.

## **Japan**

**Japan's crude oil imports** dropped in May by 747 tb/d or 21% from the previous month to average 2.8 mb/d, reaching the lowest level. Annually crude imports were lower in May by 16% or 542 tb/d. The drop in crude imports came on the back of lower refinery throughput in the country.

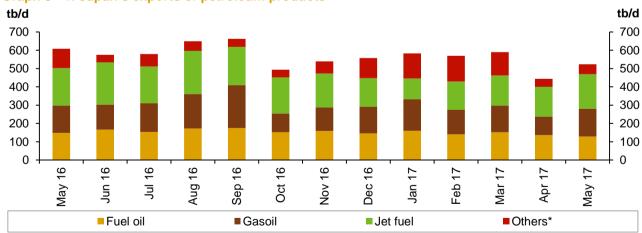
tb/d mb/d 1,200 5 1,000 4 800 3 600 2 400 1 200 0 0 Jun 16 Dec 16 Jul 16 Jan 17 Aug 16 Nov 16 Feb 17 Mar 17 May 17 , O Sep. Apr ■LPG Naphtha Fuel oil Others\* -Crude oil

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' share**, Saudi Arabia remained the premier crude supplier to Japan, holding a share of 40% of total crude exports despite lower monthly volumes, which dropped by 262 tb/d from the previous month. The UAE came in as second-largest supplier to Japan with a share of 22% of total crude imports. Kuwait came in third, with a share of 8%. Japan's imports from the UAE were higher than the previous month by 208 t/d, while imports from Kuwait were down by 34 tb/d.

**Japan's product imports** showed a decline in May by 42 tb/d to average 588 tb/d. The country saw less overall product being imported mainly due to less naphtha imports in May, while **product exports** were higher from the previous month by 80 tb/d to average 523 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** dropped by 869 tb/d to average 2.8 mb/d reflecting a monthly and annual drop of 23% and 11%, respectively.

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

	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	Change May 17/Apr 17
Crude oil	3,203	3,530	2,782	-747
Total products	-56	187	65	-122
Total crude and products	3,148	3,716	2,847	-869

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

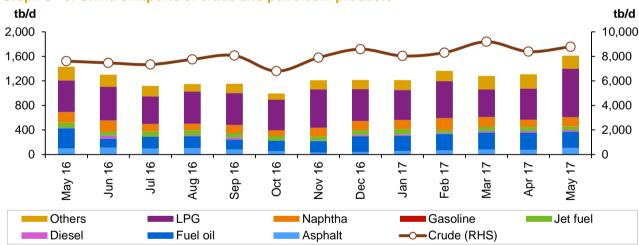
## China

In May, **China's crude oil imports** rose from the previous month to their second-highest levels since March. The country's crude imports rose by 391 mb/d or 5% from one month earlier to average 8.8 mb/d. On the same time China's refinery runs were down from the previous month. In an annual comparison, Chinese crude imports were up by a remarkable 1.2 mb/d or 15%, while on a year-to-date analysis, figures reflect an increase of 1 mb/d or 14%.

In terms of **crude oil suppliers' share** Russia, Angola and Saudi Arabia were the top crude suppliers to China in June, with shares of 15%, 15% and 12%, respectively. In May, China crude imports saw increased volumes from the top suppliers by 203 tb/d, 195 tb/d and 81 tb/d, respectively, from the previous month.

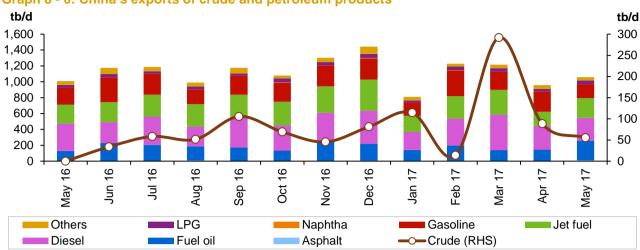
**China's product imports** were also up in May by 304 tb/d from the previous month and higher by 179 tb/d from a year earlier to average 1.6 mb/d, supported by the product demand in the country.

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 product exports rose from the previous month, up by 100 tb/d to average 1.1 mb/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** were up by 628 tb/d or 7% from the previous month and stayed 1.2 mb/d higher than the level from one year before.

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

				Change
	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	May 17/Apr 17
Crude oil	8,906	8,304	8,728	424
Total products	65	350	554	204
Total crude and products	8,971	8,653	9,282	628

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

## India

In May, **India's crude imports** averaged 4.2 mb/d, which is 259 tb/d or 6% down from the previous month. The country's crude imports were down as it entered refinery maintenance season. On an annual basis, this reflects a small increase by 58 tb/d or 1%. However, **product imports** rose by 44 tb/d, or 6%, from a month earlier to average 828 tb/d, reflecting a slight drop of 13 tb/d or 2%, y-o-y. Monthly increases in total product imports came mainly as a result of diesel increases; it was up by 102 tb/d, though this was offset by lower imports of LPG.

tb/d tb/d 1000 5,000 800 4,000 600 3,000 400 2,000 200 1,000 0 0 16 16 16 16 16 16 16 16 May 17 Jun Aug 1 Dec. Sep May Oct Š Jan Feb Mar Apr 马

■ Naphtha —— Gasoline —— Kerosene —— Gasoil —— Fuel oil —— Crude (RHS)

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

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

LPG =

India's product exports dropped in May by 76 tb/d, or 6%, from the previous month to average 1.3 mb/d, while from a year before they increased by 88 tb/d, or 8%. Monthly exports of diesel were lower in May, dropping by 84 tb/d from the previous month. However, total exports were compensated by higher exports of gasoline.

tb/d tb/d 1.800 1.800 1,600 1,600 1,400 1,400 1,200 1,200 1,000 1,000 800 800 600 600 400 400 200 200 0 n Aug 16 Jul 16 9 Jun 16 **Sep 16** 16 **Nov 16** Dec 16 Jan 17 Feb 17 May 17 **Mar 17** Sct Apr ■Jet Fuel Gasoil Others Naphtha Gasoline ■ Fuel Oil

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

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

Consequently, India's net imports declined by 138 tb/d m-o-m to average 3.8 mb/d.

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

	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	Change May 17/Apr 17
Crude oil	4,301	4,455	4,196	-259
Total products	-748	-555	-435	120
Total crude and products	3,553	3,900	3,762	-138

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 May, total crude oil exports from the former Soviet Union declined by 166 tb/d, or 2%, to average 7.2 mb/d. Crude exports through the Russian pipeline also declined by 230 tb/d, or 5%, to average 4.3 mb/d.

Total shipments from the Black Sea through Novorossiysk rose by 17 tb/d m-o-m, or 2%, to average 702 tb/d. Total Baltic Sea exports dropped by 221 tb/d in May as shipments from Primorsk and UST Luga port terminals dropped by 128 tb/d and 93 tb/d, respectively. Druzhba pipeline total shipments fell by 30 tb/d to average 974 tb/d. Kozmino shipments dropped by a slight 3 tb/d, or 0.4%, to average 697 tb/d.

Exports through the Lukoil System declined from the previous month in the Barents Sea as the Varandey offshore platform reported a drop of 164 tb/d, while the drop in the Baltic Sea was less, as the Kalinigrad port terminal only declined by a slight 2 tb/d.

Russian Far East total exports were down by 18 tb/d, or 5%, from the previous month as exports from Aniva Bay port terminal declined by 11 tb/d and de Kastri port terminal exports were down by 8 tb/d from a month before. Central Asian total exports stood at 288 tb/d, higher by 6 tb/d. Black Sea total exports rose by 25 tb/d as a result of higher exports from Supsa port terminal and Batumi port terminal.

In the Mediterranean Sea, BTC supplies increased from the previous month by 65 tb/d, or 10%, to average 736 tb/d.

### Oil Trade

**FSU total products exports** increased by 70 tb/d or 2% from the previous month to average 3.2 mb/d. This gain in product exports came as a result of increased exports of gasoline, naphtha, jet and fuel oil, while this was offset by lower exports of VGO and gasoil, which declined from the previous month by 121 tb/d and 98 tb/d, respectively.

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

		2016	4Q16	1Q17	Apr 17	May 17
		2010	<u> 40,10</u>	10(17	<u> </u>	iviay 11
Transneft system	Disable as a total	200	F 4F	550	000	700
Europe	Black sea total	600	545	558	686	702
	Novorossiysk port terminal - total	600	545	558	686	702
	of which: Russian oil	443	386	387	487	544
	Others	157	159	172	198	159
	Baltic sea total	<b>1,593</b> 1,000	<b>1,668</b> 1,010	<b>1,650</b> 1,011	<b>1,801</b> 1,081	<b>1,580</b> 954
	Primorsk port terminal - total of which: Russian oil	1,000	1,010	1,011	1,081	954 954
	Others	0	0	0	0	954
	Ust-Luga port terminal - total	593	658	639	720	627
	of which: Russian oil	388	446	464	528	487
	Others	205	212	175	192	139
	Druzhba pipeline total	1,072	1,098	987	1,004	974
	of which: Russian oil	1,040	1,066	954	972	942
	Others	32	32	32	32	32
Asia	Pacific ocean total	646	666	617	694	697
	Kozmino port terminal - total	646	666	617	694	697
	China (via ESPO pipeline) total	335	332	342	305	307
	China Amur	335	332	342	305	307
Total Russian o		4,246	4,309	4,153	4,491	4,261
	•	ĺ	,	ĺ	,	,
Lukoil system	Paranta san total	159	154	183	201	185
Europe & North America	Barents sea total	159	154	183	201	185
Europe	Varandey offshore platform  Baltic sea total	159	134	14	14	100
Europe	Kalinigrad port terminal	15	13	14	14	12
	Kallingiau port terrilliai	13	13	14	14	12
Other routes						
Asia	Russian Far East total	360	372	381	383	364
	Aniva bay port terminal	119	135	138	124	113
	De Kastri port terminal	241	236	243	259	251
	Central Asia total	194	195	230	283	288
_	Kenkiyak-Alashankou	194	195	230	283	288
Europe	Black sea total	1,078	1,226	1,239	1,315	1,340
	Novorossiysk port terminal (CPC)	957	1,113	1,144	1,242	1,245
	Supsa port terminal	79	64	74	65	87
	Batumi port terminal	42	49	21	7	8
	Kulevi port terminal	0	0	0	0	0
	Mediterranean sea total	668	615	674	671	736
	ВТС	668	615	674	671	736
Russian rail						
	Russian rail	34	37	44	31	36
	of which: Russian oil	30	36	44	31	36
	Others	4	2	0	0	0
Total FSU crud	e exports	6,754	6,921	6,919	7,388	7,223
Products	•		·		·	·
Fioducis	Gasoline	189	173	188	186	243
	Naphtha	509	510	594	497	564
	Jet	40	30	32	45	46
	Gasoil	971	877	1,188	1,055	957
	Fuel oil	1,044	1,023	1,162	1,001	1,165
	VGO	305	333	346	357	236
Total FSU prod		3,058	2,945	3,510	3,141	3,211
<u>-</u>		9,812				
Total FSU oil exports		9,812	9,866	10,429	10,529	10,434

Sources: Argus Nefte Transport and Argus Global Markets.

## **Stock Movements**

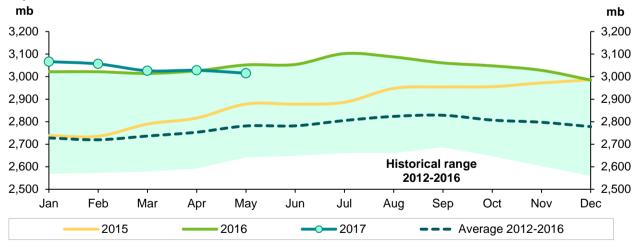
OECD commercial oil stocks fell in May to stand at 3,015 mb, which is around 234 mb above the latest five-year average. Crude and products indicated surpluses of 148 mb and 86 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.5 days in May, which is 3.6 days higher than the latest five-year average. Preliminary data for June shows that US total commercial oil stocks fell by 7.7 mb m-o-m to stand at 1,339 mb, indicating a surplus of 163 mb above the latest five-year average. Within the components, crude fell by 10.3 mb, while products rose by 2.6 mb, m-o-m. The latest information for China showed that total commercial oil inventories fell by 5.3 mb in May to stand at 376.6 mb. Within the components, crude stocks rose by 1.0 mb, while product stocks fell by 6.3 mb, m-o-m.

## **OECD**

Preliminary data for May shows that total **OECD commercial oil stocks** fell by 12.9 mb to stand at 3,015 mb, which is around 37 mb lower than the same time one year ago, but 234 mb above the latest five-year average. Within the components, crude and products fell by 11.6 mb and 1.3 mb, m-o-m, respectively. All OECD regions witnessed stock draws.

**OECD commercial crude stocks** fell by 11.6 mb m-o-m May for the second consecutive month to stand at 1,529 mb, which is 3.6 mb above the same time a year ago and around 148 mb higher than the latest five-year average. While OECD Europe stocks witnessed a build, OECD Americas and OECD Asia Pacific experienced stock draws in commercial crude.

**OECD product inventories** fell by 1.3 mb m-o-m in May to stand at 1,486 mb, which is 40 mb below the same time a year ago, but 86 mb above the seasonal norm. OECD Europe witnessed astock draw, while OECD Americas and OECD Asia Pacific saw stock builds.



Graph 9 - 1: OECD's commercial oil stocks

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

In terms of **days of forward cover**, OECD commercial stocks fell by 1.0 mb in May to stand at 63.5 days, which is 1.2 days less than the same period in 2016, but 3.6 days higher than the latest five-year average. Within the regions, OECD Americas had 5.1 more days of forward cover than the historical average to stand at 63.0 days in May. OECD Europe stood 3.4 days higher than the seasonal average to finish the month at 70.2 days, while OECD Asia Pacific indicated a deficit of 0.9 days below the seasonal norm, averaging 53.1 days in May.

## **OECD Americas**

**Total commercial stocks** in OECD Americas fell by 9.9 mb in May for the fourth consecutive month to stand at 1,595 mb, which is 6.7 mb below a year ago, but 171 mb higher than the seasonal norm. Within the components, crude fell by 10.6 mb, while product stocks rose by 0.8 mb, m-o-m.

At the end of May, **commercial crude oil stocks** in OECD Americas fell, ending the month at 853 mb, which is 16 mb above the same time one year ago and 131 mb above the latest five-year average. The decline was mainly driven by higher US 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 percentage points higher than the April rate.

In contrast, **commercial product stocks** in OECD Americas rose by 0.8 mb m-o-m in May, the second consecutive monthly build, to stand at 742 mb, which is 22 mb less than the same time one year ago but 40 mb higher than the seasonal norm. This build was mainly driven by lower US demand compared to the previous month.

## **OECD Europe**

OECD Europe's **total commercial stocks** fell by 1.0 mb in May, ending the month at 1,012 mb, which is 4.0 mb lower than the same time a year ago, but 77 mb above the latest five-year average. Crude rose by 2.0 mb, while product stocks fell by 3.0 mb, m-o-m.

OECD Europe's **commercial crude stocks** rose in May to stand at 426 mb, which is 0.9 mb higher than a year earlier and 22.0 mb higher than the latest five-year average. This build was driven by lower refinery throughput, which declined by around 250 tb/d to stand at 10.2 mb/d in May.

In contrast, OECD Europe's **commercial product stocks** fell by 3.0 mb to end May at 586 mb, which is 4.9 mb lower than the same time a year ago, but 55 mb higher than the seasonal norm. The drop in product stocks could be attributed to higher demand in the European countries.

### **OECD** Asia Pacific

OECD Asia Pacific's **total commercial oil stocks** fell by 2.0 mb m-o-m in May to stand at 408 mb, which is 26 mb lower than a year ago and 14 mb lower than the five-year average. Within the components, crude fell by 2.9 mb, while product stocks rose by 0.9 mb, m-o-m, in May.

**Crude inventories** ended the month of May at 250 mb, which is 13.0 mb below a year ago and 4.4 mb below the seasonal norm.

OECD Asia Pacific's **total product inventories** ended May at 158 mb, standing 13.2 mb lower than the same time a year ago and 9.2 mb below the seasonal norm.

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

				Change	
	<b>Mar 17</b>	<u>Apr 17</u>	<b>May 17</b>	May 17/Apr 17	<b>May 16</b>
Crude oil	1,549	1,541	1,529	-11.6	1,525
Products	1,477	1,487	1,486	-1.3	1,527
Total	3,026	3,028	3,015	-12.9	3,052
Days of forward cover	65.1	64.6	63.5	-1.0	64.8

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 May shows that **total European stocks** fell slightly, by 1.0 mb, following a massive drop of 19.0 mb in April. At 1,160.0 mb, European stocks are 5.7 mb, or 0.5%, lower than the same time a year ago, but 62.7 mb, or 5.7%, higher than the latest five-year average. Within the components, crude stocks went up by 2.0 mb, while product stocks fell by 3.0 mb, m-o-m.

European **crude inventories** rose in May, reversing the drop in April, to stand at 491.3 mb, which is 0.9 mb, or 0.2%, higher than the same period a year ago. Compared to the seasonal average, they were 12.8 mb, or 2.7%, higher. The build in crude oil stocks was driven by lower refinery throughput as European refiners were running at around 10.18 mb/d in May, which is about 250 tb/d lower than during April.

mb mb 1,200 1,200 1,180 1,180 1,160 1,160 1,140 1,140 1,120 1,120 1,100 1,100 1,080 1,080 Historical range 2012-2016 1,060 1,060 1,040 1,040 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2015 2016 **-**2017 --- Average 2012-2016

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

Source: Euroilstock.

By contrast, European **product stocks** fell by 3.0 mb, ending May at 668.7 mb, which is 6.5 mb, or 1.0%, lower than the same time a year ago and 49.8 mb, or 8.1%, above the seasonal norm. Within products, distillate and residual fuel stocks saw builds, while gasoline and naphtha inventories witnessed draws.

**Distillate stocks** rose by 1.2 mb in May to end the month at 453.9 mb, which is 6.2 mb, or 1.4%, higher than the same time a year ago, and 52.3 mb, or 13.0%, above the latest five-year average. This build was driven mainly by lower demand.

**Residual fuel oil stocks** also rose by 0.1 mb in May to stand at 69.7 mb, which is 10.9 mb, or 13.5%, less than the same month a year ago, and 10.7 mb, or 13.3%, lower than the latest five-year average.

By contrast, **gasoline stocks** fell by 2.6 mb in May, ending the month at 119.6 mb, which is 1.7 mb, or 1.4%, lower than the same time one year ago, and 8.7 mb, or 7.8%, higher than the seasonal norm. Higher demand combined with lower output was behind the drop in gasoline stocks.

**Naphtha stocks** also fell by 1.8 mb in May to stand at 25.5 mb, which is 0.2 mb, or 0.7%, less than the same month a year ago, and 0.4 mb, or 1.6%, lower than the latest five-year average.

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

				Change	
	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	May 17/Apr 17	<u>May 16</u>
Crude oil	494.6	489.3	491.3	2.0	490.4
Gasoline	125.2	122.2	119.6	-2.6	121.3
Naphtha	26.8	27.3	25.5	-1.8	25.7
Middle distillates	462.8	452.7	453.9	1.2	447.7
Fuel oils	70.6	69.6	69.7	0.1	80.6
Total products	685.4	671.7	668.7	-3.0	675.2
Total	1,180.0	1,161.0	1,160.0	-1.0	1,165.6

Sources: Argus and Euroilstock.

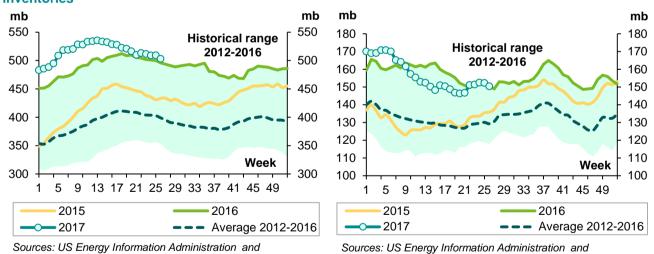
## US

Preliminary data for June shows that US **total commercial oil stocks** fell by 7.7 mb, reversing the build of the last two months. At 1,339 mb, US commercial stocks stood at 13.0 mb, or 1.0%, lower than the same period a year ago, but 163 mb, or 13.9%, higher than the latest five-year average. Within the components, crude fell by 10.3 mb, while products rose by 2.6 mb, m-o-m.

US **commercial crude stocks** fell in June for the third consecutive month, to stand at 503 mb, which is 4.9 mb, or 1.0%, above the same time one year ago and 102.5 mb, or 25.6%, above the latest five-year average. The bulk of the fall in commercial crude stocks happened in the last week of June, dropping by 6.3 mb, which was much larger than expected. Crude oil inventories have fallen 11 of the last 13 reporting periods by 33 mb. The decline was mainly driven by lower crude imports, which declined by nearly 250 tb/d to average 7.9 mb/d in June. Higher crude runs at the end of the week ending June reaching 17.1 mb/d, an increase of 251 tb/d from last week, also contributed to the build in crude oil stocks.

Graph 9 - 3: US weekly commercial crude oil inventories

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



In contrast, **total product stocks** rose by 2.6 mb in June, following a build of 12.4 mb in May, to stand at 835.9 mb. At this level, they were 17.9 mb, or 2.1%, down from the level seen at the same time in 2016, but 60.6 mb, or 7.8%, above the seasonal average. Within products, with the exception of propylene, all other products experienced stock draws.

OPEC Secretariat.

**Gasoline stocks** fell by 3.0 mb in June for the second consecutive month to stand at 237.3 mb, which is 4.8 mb, or 2.0%, lower than the same period a year ago, but 14.4 mb, or 6.5%, above the latest five-year average. The drop came mainly from higher gasoline consumption averaging nearly 9.6 mb/d.

OPEC Secretariat.

**Distillate stocks** also fell by 0.7 mb in June to stand at 150.4 mb, indicating a surplus of 1.2 mb, or 0.8%, over the same period a year ago, and 19.9 mb, or 15.2%, above the latest five-year average. The fall in middle distillate stocks mainly came as a result of higher consumption, which increased by about 100 tb/d to stand at 4.14 mb/d.

**Residual fuel stocks** also fell by 3.2 mb, ending June at 36.7 mb, which is 3.6 mb, or 8.9%, below the same period a year ago and 2.0 mb, or 5.1%, lower than the latest five-year average.

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

				Change	
	<u>Apr 17</u>	<u>May 17</u>	<u>Jun 17</u>	<u>Jun 17/May 17</u>	<u>Jun 16</u>
Crude oil	523.8	513.2	502.9	-10.3	498.0
Gasoline	243.7	240.3	237.3	-3.0	242.1
Distillate fuel	154.6	151.1	150.4	-0.7	149.2
Residual fuel oil	39.8	39.9	36.7	-3.2	40.3
Jet fuel	44.5	44.6	41.0	-3.6	40.4
Total	1,344.6	1,346.5	1,338.8	-7.7	1,351.8
SPR	688.8	685.0	682.0	-3.0	695.1

Sources: US Energy Information Administration and OPEC Secretariat.

# **Japan**

In Japan, **total commercial oil stocks** fell by 4.1 mb in May, reversing the stock build of last month to stand at 141.2 mb. At this level, they were 14.6 mb, or 9.4%, less than the same time a year ago and 22.9 mb, or 14.0%, below the five-year average. Within the components, crude fell by 5.9 mb, while product stocks rose by 1.8 mb, m-o-m.

Japanese **commercial crude oil stocks** fell in May to stand at 81.6 mb, which is 11.6 mb, or 12.4%, below the same period a year ago, and 16.8 mb, or 17.1%, below the seasonal norm. The drop was driven by lower crude imports, which declined by around 750 tb/d, or 21%, to average 2.8 mb/d. Lower crude throughputs limited further declines in crude oil stocks. Indeed, crude runs fell by around 190 tb/d, or 8.0%, to stand at 3.0 mb/d.

mb mb 190 190 180 180 Historical range 170 2012-2016 170 160 160 150 150 140 140 130 130 120 120 Feb Jul Oct Jan Mar Apr May Jun Sep Nov Dec Aug

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

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

2015

In contrast, Japan's **total product inventories** rose by 1.8 mb in May to stand at 59.6 mb, which is 3.0 mb, or 4.8%, lower than the same month the previous year, and 6.1 mb, or 9.3%, less than the seasonal norm. This stock build came on the back of lower oil product sales, which fell by around 258 b/d m-o-m to stand at 2.7 mb/d. Within products, all products witnessed stock builds, except naphtha.

**2017** 

2016

--- Average 2012-2016

**Gasoline stocks** rose in May by 0.4 mb to stand at 11.9 mb, which is 0.8 mb, or 7.3%, higher than the same time a year ago, but 0.9 mb, or 6.7%, below the latest five-year average. The build was driven by higher output, which increased by 4.0% from the previous month.

**Distillate stocks** also rose, increasing by 1.2 mb in May, to stand at 24.8 mb, which is 2.1 mb, or 8.0%, below one year ago at the same time, and 2.7 mb, or 9.9%, below the seasonal average. Within the distillate components, jet fuel and kerosene rose by 10.2% and 19.8%, respectively, while gasoil fell by 8%, m-o-m.

**Total residual fuel oil stocks** rose by 0.7 mb in May to stand at 14.0 mb, which is 1.0 mb, or 7.5%, higher than the same period a year ago, but 1.1 mb, or 7.1%, below the latest five-year average. Within the fuel oil components, fuel oil A stocks fell by 0.2%, while fuel B.C rose by 8.3%. The fall in fuel oil A was driven by lower output, which fell by almost 15%, while the build in fuel B.C was attributed to lower domestic sales as output declined.

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

				Change	
	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	May 17/Apr 17	<u>May 16</u>
Crude oil	78.5	87.4	81.6	-5.9	93.2
Gasoline	10.9	11.5	11.9	0.4	11.1
Naphtha	8.9	9.4	9.0	-0.5	11.6
Middle distillates	20.5	23.6	24.8	1.2	26.9
Residual fuel oil	13.1	13.3	14.0	0.7	13.0
Total products	53.3	57.8	59.6	1.8	62.6
Total**	131.8	145.3	141.2	-4.1	155.8

Note: \* At the end of the month.

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

## China

The latest information for China showed that **total commercial oil inventories** fell by 5.3 mb in May for the third consecutive month to settle at 376.6 mb, which is 20.1 mb lower than the previous year. Within the components, crude stocks rose by 1.0 mb, while product stocks fell by 6.3 mb, m-o-m.

In May, **commercial crude stocks** rose by 1.0 mb, for the second consecutive month to stand at 222.3 mb, which is 8.8 mb below last year at the same time. This build was driven mainly by higher crude imports as an increase in crude runs and domestic crude production limited further builds in crude oil stocks.

In contrast, **total product stocks** in China fell by 6.3 mb in May to stand at 154.2 mb, which is 11.3 mb below the same time a year ago. Within products, diesel and kerosene inventories saw declines, while gasoline stocks witnessed builds.

**Diesel inventories** fell sharply in May by 6.1 mb for the third consecutive month to stand at 64.2 mb, which is 11.7 mb below a year ago at the same time. The decline was mainly driven by strong demand, which increased by a massive 7% supported by heavy industry, mining and infrastructure activities.

**Kerosene stocks** also fell in May by 0.5 mb to stand at 18.7 mb, which is 0.4 mb lower than the same time last year.

In contrast, **gasoline stocks** rose by 0.3 mb in May to stand at 71.3 mb, which is 0.8 mb higher than the same period a year ago. The build was driven by higher gasoline output due to the increase in crude oil throughput.

<sup>\*\*</sup> Includes crude oil and main products only.

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

				Change	
	<u>Mar 17</u>	<u>Apr 17</u>	<u>May 17</u>	May 17/Apr 17	<u>May 16</u>
Crude oil	217.8	221.3	222.3	1.0	231.1
Gasoline	71.2	71.0	71.3	0.3	70.5
Diesel	82.1	70.3	64.2	-6.1	75.9
Jet kerosene	19.8	19.2	18.7	-0.5	19.1
Total products	173.1	160.6	154.2	-6.3	165.5
Total	390.9	381.9	376.6	-5.3	396.7

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

# Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

## **Singapore**

At the end of May, **product stocks** in Singapore fell by 5.2 mb to stand at 44.1 mb, which is 13.7 mb, or 23.7%, below the same period a year ago. Within products, light distillates and fuel oil witnessed stock draws, while middle distillates saw builds.

**Middle distillate stocks** rose by 1.4 mb in May to end the month at 13.3 mb, which is 1.4 mb, or 11.8%, higher than the same period a year ago.

In contrast, **residual fuel oil stocks** and **light distillate stocks** fell in May by 4.4 mb and 2.1 mb to stand at 19.0 mb and 11.8 mb, respectively. Both product stocks remained below the same time one year ago.

## **Amsterdam-Rotterdam-Antwerp (ARA)**

**Product stocks** in ARA fell by 5.9 mb in May to end the month at 43.0 mb, which is 4.4 mb, or 9.3%, higher than at the same time a year ago. Within products, with the exception of naphtha, all other products witnessed stock draws.

**Gasoline and gasoil stocks** fell by 1.2 mb and 3.2 mb in May to stand at 8.1 and 20.2 mb, respectively. Gasoline stocks remained 0.6 mb, or 6.5%, below the same time a year ago, while gasoil stood at 3.8 mb, or 15.8%, above last year at the same time.

**Fuel oil inventories** fell by 2.0 mb to stand at 5.6 mb, which is 2.0 mb, or 26%, below the same time a year ago. In contrast, naphtha inventories went up by 0.8 mb to stand at 3.1 mb in May, which is 1.5 mb or nearly double the level at the same time a year ago.

# **Balance of Supply and Demand**

Demand for OPEC crude in 2017 is estimated at 32.3 mb/d, which is 0.3 mb/d higher than the 2016 level. In 2018, the demand for OPEC crude is projected at 32.2 mb/d, which is around 0.1mb/d less than this year.

# Balance of supply and demand in 2017

**Demand for OPEC crude in 2017** was revised up by 0.2 mb/d from the previous month's report. This upward adjustment came mainly from the downward revision to non-OPEC supply, with world oil demand remaining unchanged. Within the quarters, the first quarter was revised up by 0.1 mb/d, while the second quarter was unchanged. The third and the fourth quarters were revised up by 0.3 mb/d and 0.5 mb/d, respectively.

Compared to the same quarters of last year, the demand for OPEC crude is projected to increase by 0.3 mb/d to average 32.3 mb/d. The first quarter is expected to increase by 1.0 mb/d, while the second quarter is estimated to fall by 0.2 mb/d. The third and the fourth quarter are projected to increase by 0.1 mb/d and 0.3 mb/d, respectively.

Table 10 - 1: Supply/demand balance for 2017\*, mb/d

							Change
	<u>2016</u>	<u>1Q17</u>	2Q17	<u>3Q17</u>	4Q17	<u>2017</u>	2017/16
(a) World oil demand	95.12	95.44	95.33	97.27	97.48	96.38	1.27
Non-OPEC supply	57.01	57.89	57.52	57.58	58.28	57.82	0.80
OPEC NGLs and non-conventionals	6.14	6.20	6.26	6.35	6.42	6.31	0.17
(b) Total non-OPEC supply and OPEC NGLs	63.16	64.09	63.78	63.93	64.70	64.12	0.97
Difference (a-b)	31.96	31.35	31.55	33.34	32.78	32.26	0.30
OPEC crude oil production	32.68	32.15	32.27				
Balance	0.72	0.80	0.71				

Note: \* 2017 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

# Balance of supply and demand in 2018

Based on the first forecast for demand and non-OPEC supply (including OPEC NGLs and non-conventional oil) for the **year 2018**, the **demand for OPEC crude** next year is projected to decline slightly by 0.1 mb/d y-o-y to average 32.2 mb/d.

Compared to the same quarters of last year, the first quarter is expected to increase by 0.3 mb/d, while other quarters are forecast to drop by 0.2 mb/d.

Table 10 - 2: Supply/demand balance for 2018\*, mb/d

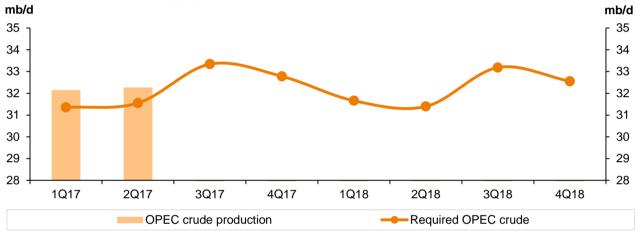
							Change
	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	<u>2018/17</u>
(a) World oil demand	96.38	96.68	96.57	98.53	98.79	97.65	1.26
Non-OPEC supply	57.82	58.58	58.70	58.84	59.71	58.96	1.14
OPEC NGLs and non-conventionals	6.31	6.44	6.47	6.50	6.53	6.49	0.18
(b) Total non-OPEC supply and OPEC NGLs	64.12	65.02	65.17	65.34	66.24	65.45	1.32
Difference (a-b)	32.26	31.66	31.40	33.18	32.55	32.20	-0.06

Note: \* 2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Graph 10 - 1: Balance of supply and demand, 2017-2018\*



Note: \*2017 - 2018 = Forecast. Source: OPEC Secretariat.

# **Monthly Endnotes**

# G20 Leaders address Energy & Climate Issues at Hamburg Summit

Germany concluded its G20 Presidency this year with a Summit in Hamburg on 7-8 July 2017. The Summit Communique<sup>2</sup> covered a range of initiatives, announcing "concretion actions to advance the three aims of building resilience, improving sustainability and assuming responsibility."

With regard to this year's initiative energy and climate initiative proposed by Germany, G20 Leaders were able to find some common ground but not on all issues.

According to the Communique, the G20 collectively recognised the "opportunities for innovation, sustainable growth, competitiveness, and job creation of increased investment into sustainable energy sources and clean energy technologies and infrastructure". Leaders also remained "collectively committed to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency, and work towards low greenhouse-gas emission energy systems". Additionally, they welcomed "international cooperation on the development, deployment, and commercialisation of sustainable and clean energy technologies and support financing by Multilateral Development Banks to promote universal access to affordable, reliable, sustainable and clean energy."

However, they were unable to arrive at a full consensus on supporting the G20 Hamburg Climate and Energy Action Plan for Growth. The Communique noted the decision of the United State of America to withdraw from the Paris Agreement and to immediately cease the implementation of its current nationally-determined contribution. At the same time, the US stated that it would "endeavour to work closely with other countries to help them access and use fossil fuels more cleanly and efficiently and help deploy renewable and other clean energy sources, given the importance of energy access and security in their nationally-determined contributions."

Expressing their view that the Paris Agreement "is irreversible", the other nineteen G20 Members reaffirmed their "strong commitment to the Paris Agreement, moving swiftly towards its full implementation in accordance with the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." To this end, these countries agreed to the G20 Hamburg Climate and Energy Action Plan.

The Action Plan consists of five areas of collaboration, namely:

#### Nationally determined contributions:

Increasing cooperation among participating G20 Members as well as non-G20 Members to facilitate mutual learning, good practise sharing and capacity-building.

#### Long-term low greenhouse gas emission development strategies:

Consider long-term low greenhouse gas emission development strategies as a opportunity for national, country-specific approaches, while recognising different national circumstances and domestic procedures, capacities, needs, challenges and starting points.

#### A reliable and secure framework for the energy section transition:

Jointly work to transform national energy systems into affordable, reliable, sustainable and low greenhouse gas emission energy systems as soon as feasible and consistent with the Paris Agreement,

<sup>&</sup>lt;sup>2</sup> https://www.g20.org/gipfeldokumente/G20-leaders-declaration.pdf

<sup>&</sup>lt;sup>3</sup> https://www.g20.org/Content/DE/\_Anlagen/G7\_G20/2017-g20-climate-and-energy-en.pdf?\_\_blob=publicationFile&v=4

### **Monthly Endnotes**

while taking into account national circumstances, needs, priorities and challenges as outlined in the NDCs. This includes promoting energy efficiency; scaling up renewable energy and other sustainable energy sources, such as the use carbon capture, use and storage (CCUS); and realising access to modern and sustainable energy services for all such as improving investments in energy for productive use, transportation, clean cooking, and heating and cooling.

#### Enhancing climate resilience and adaption efforts:

Promote adaption efforts and cooperation on climate resilience within the G20 and beyond, including appropriate risk finance and insurance solutions.

### Aligning finance flows:

Spur public and private investments in low-emission and climate resilient developments and encourage the sharing good practices and experiences on domestic mitigation and adaptation policies, including domestic economic and market-based instruments as well as emission-to-value approaches. Other areas include recognising the role of Multilateral Development Banks in climate finance and the reaffirming the commitment to to rationalise and phase out, over the medium-term, inefficient fossil fuel subsidies that encourage wasteful consumption, recognising the need to support the poor.

### Global action and transformation in other fora and processes:

Recognise the potential to generate synergies through countries' engagement in various other fora, while at the same time, while respecting countries' different levels of engagement and national procedures, and without any intention to duplicate processes.

More broadly, the G20 Hamburg Action Plan stated that participating G20 members "share a common understanding of the energy system as the backbone of our economies." The Action Plan goes on to recognise that:

Diverse energy systems rely on affordable, secure and sustainable energy sources and clean technologies such as energy efficiency, renewable energy, natural gas and nuclear power for those countries that opt to use it, and advanced and cleaner fossil fuel technologies, employed in a sustainable manner. Such energy systems can contribute greatly to achieving energy services for all at affordable prices and prosperity for future generations. We recognise that our actions contribute substantially to global greenhouse gas emission reductions, global energy developments and global prosperity, leaving no one behind.

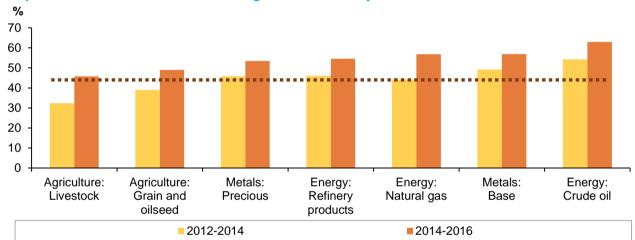
Next year's presidency will be hosted by Argentina. The Communique also announced that Japan will host the presidency in 2019 and Saudi Arabia in 2020.

# Crude futures markets see expanding share of automated trading

Automated trading continues to increase its share of activity in US energy futures markets, according to a white paper by two researchers at the US Commodity Futures Trading Commission (CFTC)<sup>4</sup>. Automated trading – the use of computers to execute trading strategies – represented more than 60% of energy futures trading activity in the period 2014-2016, up from 54% in the period 2012-2014.

Manual crude futures trading – trades executed by actual traders – on electronic platforms has fallen to 33.6% from 40.2% previously. The remaining 3.5% of activity is carried out via non-electronic trading, a category that includes the traditional 'open-outcry' floor trades.

The growth in automated trading in the commodity markets has been made possible by the shift since the mid-2000s from open outcry trading on the floor of an exchange toward electronic trading more broadly. NYMEX introduced electronic trading in energy futures in 2006 and within a year electronic trading had captured some 70% of NYMEX volume. More complex activity such as options contracts continued to trade in open outcry until last December when NYMEX closed floor trading due to low volumes. Floor trading for the Brent futures contract ended in 2005 when trading on the International Petroleum Exchange (IPE) became fulling electronic and the exchange was renamed ICE Futures Europe.



Graph 11 - 1: Share of automated trading in US commodity futures markets

Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

The study by the CFTC researchers also looked into who was on both sides of trades on the electronic commodity exchanges. In the crude futures market, trades between automated traders represent 38.1% of all trades, up from 30.2% in the previous period. Trades between automated and manual traders represented 44.5%, down from 45.5% earlier, while manual-to-manual trades fell to 14.2% from 19.5% previously.

Automated trading also includes activity such as High Frequency Trading (HFT), which seeks to profit from trading a large number of orders at very high speeds. In 2010, CFTC commissioner Bart Chilton stated that HFT represented around a third of the volume on regulated US futures exchanges. The study finds that the fast time range (0-100ms) has seen "fairly consistent increases", providing a sign "that markets have indeed gotten progressively faster."

<sup>&</sup>lt;sup>4</sup> "Automated Trading in Futures Markets – Update," Richard Haynes and John S. Roberts, White Paper, Office of the Chief Economist, Commodity Futures Trading Commission, 2017.

# Renewables - one solution to reducing energy poverty

Fossil fuels have been the dominant source for world energy for more than 100 years. They have powered a global engine, which has driven industrial, economic and social development and contributed to progress and prosperity for society. Today, oil and gas still account for more than half of global energy consumption and this is forecast to continue for the decades to come.

In recent years, increasing awareness of looming climate change and ongoing challenges faced in alleviating energy poverty in many areas of the globe have left the door open for new technologies and energy sources to step in and provide additional sources of ever-needed supply. Renewable energy sources – predominantly hydro, wind, biomass and solar energy – are commonly expected to be the world's fastest growing energy sources over the next decades.

Table 11 - 1: Comparative forecast of fuel share in global energy mix

		OP	EC	IE	A	В	Р	EIA		
		World Oil Outlook 2016		World Ener		Energy 20		International Energy Outlook 2016		
Υ	ear	Share of fossil fuels	share of renewables		share of renewables	share of fossil fuels	share of renewables	share of fossil fuels	share of renewables	
2	014	81.20%	13.95%	81.01%	14.16%	85.5% <sup>*</sup>	10.01% <sup>*</sup>	83.93%**	11.61%**	
2	020	80.13%	14.67%	79.04%	15.50%	83.01%	11.41%	81.26%	13.83%	
2	030	78.46%	15.86%	76.34%	17.47%	79.10%	14.92%	79.33%	15.07%	
2	040	76.68%	17.25%	74.04%	19.34%	78.0%***	17%***	78.24%	16.12%	

Note:

Sources: BP, IEA, US EIA and OPEC Secretariat.

What challenges and opportunities does this present? On the one hand, the countries and regions that are endowed with the sources and materials critical to the development of technology and supply of renewable energy could be at an advantage. For example, so-called "rare earth" elements (including dysprosium, neodymium, terbium, europium and yttrium), which are necessary for the production of wind turbines and solar panels, are mined, produced and processed almost exclusively in China. At the same time, China and Russia alone hold 57% of global reserves of all rare earth elements. Other regions of the world benefit from unlimited solar capacity, which can be increasingly stored and channelled into effective power generation.

On the other hand, countries with sophisticated research capacities and access to investment capital will find themselves at an advantage when it comes to research and development of technology and infrastructure necessary to further explore renewable energy. In 2015, China led the list of nations investing in renewable energy with \$83.3 billion, followed by the US with \$38.3 billion and Japan with \$35.7 billion, Already back in 2006, OPEC Member Country the United Arab Emirates embarked on an ambitious project called "Masdar" – a leading developer and operator of utility-scale, grid-tied projects, small-scale applications and carbon abatement projects. Masdar has invested around \$2.7 billion in projects around the world over the last ten years that span renewable energy projects in Abu Dhabi, Oman, Jordan, Mauritania, Egypt, Morocco, the UK, Spain, the Seychelles and the Pacific Islands.

\_

<sup>\*</sup> Figures are for 2016, BP Statistical Review of World Energy 2017.

<sup>\*\*</sup> Figures are for 2012, EIA Energy Outlook 2016.

<sup>\*\*\*</sup> Figures are for 2035, BP Energy Outlook 2017.

<sup>&</sup>lt;sup>5</sup> US Geological Survey. 2016. Rare Earths. US Geological Survey: Mineral Commodity Summaries. https://minerals.usgs.gov/minerals/pubs/commodity/rare\_earths/mcs-2016-raree.pdf

<sup>&</sup>lt;sup>6</sup> Bloomberg New Energy Finance. "Global Trends in Renewable Energy Investment 2015." Frankfurt School-UNEP Centre/BNEF, 2015; Rebecca Harrington, "The US is actually leading the way on clean energy" 6 May 2016. http://www.businessinsider.com/us-2015-renewable-energy-investments-2016-5

In this regard, another important characteristic of renewable energy to consider is its potential for modularity and its ability to work on a small scale – for example in the case of solar or wind energy. These sources of renewable energy are exceedingly suitable for addressing the issue of energy poverty and the lack of access to energy, especially in remote rural areas of developing countries. Here renewable energy can step in to offer a viable alternative to support economic and social development at a relatively low overhead cost and with shorter lead times than conventional energy sources.

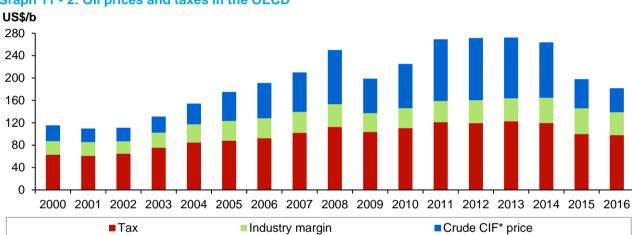
There is no doubt that fossil fuels will continue to remain the single-most important global source of energy for the decades to come. Yet renewable energy, with its potential to supplement existing infrastructure systems and its largely neutral role with regard to climate change issues, is being increasingly considered a viable complementary source of energy. This long-term diversification prospect of the global energy portfolio could benefit not only the energy industry, but the world economy of the future.

# Despite crude price decline, taxes on petroleum products remain high

Taxes on petroleum products remain at high levels despite the decline in crude prices seen over the last five years, according to data from the *OPEC Annual Statistical Bulletin*<sup>7</sup>.

In the majority of OECD countries, petroleum usage undergoes certain levels of taxation, which varies by petroleum product and by country. The most common form of taxation is imposed on the petroleum usage for the road transportation sector.

Broadly speaking, there are typically two types of taxes imposed on oil-derived fuels at pump stations. The first is a fixed fee added to the fuel on a per litre basis. This is referred to as an excise tax, fuel tax or a CO<sub>2</sub>-related tax. The second is a given percentage taxation share imposed on both the raw fuel price and the fixed tax component called Value Added Tax (VAT). Within such tax schemes, when the raw fuel price decreases, the share of tax in percentage terms rises. A significant amount of the final retail price of petroleum products can be attributed to high taxation rates. In fact, during 2016, the share of the total tax in the final retail price amounted to more than 54%, compared to 44% in 2011. As **Graph 11 - 2** shows, taxes have been consistently higher than crude oil prices. Furthermore, during periods of crude oil declines taxes tend to decline less or even increase.



Graph 11 - 2: Oil prices and taxes in the OECD

Note: \* CIF = Cost, insurance and freight.

Source: OPEC Secretariat.

Through this VAT taxation scheme, from 2012 to 2016, OECD economies earned \$2,333 billion/year on average. This was about \$1,498 billion/year more than OPEC Member Countries made from oil revenues.

It should be noted that oil export revenues of OPEC Member Countries are used to cover the costs of exploration, production and transportation of oil, while for OECD governments, oil-related taxes are pure income. Between 2012 and 2016, the share of crude oil prices in the composite barrel<sup>8</sup> plummeted by 41%, while taxes increased by 20%.

\_

<sup>&</sup>lt;sup>7</sup> The interactive version of the ASB can be retrieved under http://asb.opec.org/; a Smart App is also publicly available for iOS and Android devices.

<sup>&</sup>lt;sup>8</sup> A consumption weighted average of retail prices (and taxes) of the main petroleum product categories.

# **Appendix**

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

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	3Q18	<u>4Q18</u>	<u>2018</u>
World demand													
OECD	45.8	46.4	46.9	47.0	46.5	47.6	47.4	47.1	47.2	46.7	47.8	47.6	47.3
Americas	24.2	24.6	24.7	24.5	24.8	25.3	24.9	24.9	24.7	25.0	25.4	25.1	25.1
Europe	13.5	13.7	14.1	13.9	14.1	14.6	14.1	14.2	13.9	14.1	14.6	14.2	14.2
Asia Pacific	8.1	8.0	8.1	8.6	7.6	7.8	8.3	8.1	8.6	7.6	7.7	8.3	8.0
DCs	30.1	30.8	31.4	31.6	31.9	32.4	32.0	32.0	32.2	32.6	33.0	32.7	32.6
FSU	4.6	4.6	4.7	4.6	4.4	4.8	5.1	4.7	4.7	4.5	4.9	5.2	4.8
Other Europe	0.7	0.7	0.7	0.7	0.7	0.7	8.0	0.7	0.7	0.7	0.7	8.0	0.7
China	10.8	11.2	11.5	11.6	11.8	11.8	12.2	11.8	11.9	12.1	12.1	12.5	12.2
(a) Total world demand	92.0	93.7	95.1	95.4	95.3	97.3	97.5	96.4	96.7	96.6	98.5	98.8	97.6
Non-OPEC supply													
OECD	24.3	25.3	24.8	25.4	25.3	25.5	26.1	25.6	26.4	26.3	26.4	27.1	26.6
Americas	20.1	21.1	20.6	21.1	21.1	21.5	21.8	21.4	22.0	22.0	22.2	22.6	22.2
Europe	3.6	3.8	3.8	3.9	3.8	3.6	3.9	3.8	3.9	3.8	3.7	4.0	3.9
Asia Pacific	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4
DCs	11.8	12.0	11.9	12.0	11.9	12.0	12.1	12.0	12.1	12.1	12.1	12.1	12.1
FSU	13.5	13.7	13.9	14.1	14.0	13.8	13.8	13.9	13.8	14.1	14.2	14.4	14.1
Other Europe	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
China	4.3	4.4	4.1	4.0	4.0	3.9	3.9	4.0	3.9	3.8	3.8	3.8	3.8
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Total non-OPEC supply	56.2	57.7	57.0	57.9	57.5	57.6	58.3	57.8	58.6	58.7	58.8	59.7	59.0
OPEC NGLs + non-conventional oils	5.9	6.0	6.1	6.2	6.3	6.3	6.4	6.3	6.4	6.5	6.5	6.5	6.5
(b) Total non-OPEC supply and OPEC NGLs	62.1	63.8	63.2	64.1	63.8	63.9	64.7	64.1	65.0	65.2	65.3	66.2	65.4
OPEC crude oil production (secondary sources)	30.5	31.7	32.7	32.2	32.3								
Total supply	92.7	95.5	95.8	96.2	96.0								
Balance (stock change and	<u> </u>	00.0		00.2	00.0								
miscellaneous)	0.7	1.8	0.7	0.8	0.7								
OECD closing stock levels, n	ıb												
Commercial	2,704	2,986	2,985	3,026									
SPR	1,580	1,587	1,598	1,598									
Total	4,285	4,573	4,583	4,624									
Oil-on-water	924	1,017	1,102	1,043									
Days of forward consumption	n in OEC	D, <i>days</i>											
Commercial onland stocks	58.3	63.7	63.4	64.2									
SPR	34.1	33.9	33.9	33.9									
Total	92.4	97.6	97.3	98.0									
Memo items													
FSU net exports	8.9	9.1	9.2	9.6	9.6	9.0	8.7	9.2	9.1	9.6	9.3	9.2	9.3
(a) - (b)	29.9	29.9	32.0	31.4	31.6	33.3	32.8	32.3	31.7	31.4	33.2	32.6	32.2

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

Table 12 - 2: 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>	3Q15	<u>4Q15</u>	<u>1Q16</u>	<u>2Q16</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>
Closing stock	c levels, mb												
OECD onland	l commercial	2,704	2,986	2,985	2,789	2,878	2,954	2,986	3,014	3,054	3,061	2,985	3,026
	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	1,018
	Asia Pacific	405	435	415	392	430	445	435	421	438	450	415	403
OECD SPR		1,580	1,587	1,598	1,583	1,585	1,579	1,587	1,593	1,591	1,594	1,598	1,598
	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
OECD total		4,285	4,573	4,583	4,372	4,463	4,533	4,573	4,608	4,645	4,655	4,583	4,624
OLOD IOIAI		.,	7,010	7,000	.,0.2	7,700	.,000	.,0.0	.,000	.,	.,000	.,	
Oil-on-water		924	1,017	1,102	864	916	924	1,017	1,055	1,094	1,068	1,102	1,043
Oil-on-water	ard consumptio	924	1,017	1,102	,					,			
Oil-on-water		924	1,017	1,102	,					,			
Oil-on-water  Days of forwa		924 n in OEC	1,017 D, days	1,102	864	916	924	1,017	1,055	1,094	1,068	1,102	1,043
Oil-on-water  Days of forwa	l commercial	924 n in OEC 58	1,017 D, days 64	1,102	864	916	924	1,017	1,055	1,094	1,068	1,102	1,043
Oil-on-water  Days of forwa	I commercial Americas	924 n in OEC 58 58	1,017 D, days 64 64	<b>1,102 64</b> 65	<b>864 61</b> 60	<b>916 61</b> 60	<b>924 64</b> 63	<b>64</b> 64	<b>65</b> 64	<b>1,094 65</b> 64	<b>65</b>	<b>64</b> 65	<b>1,043 65</b> 65
Oil-on-water  Days of forwa	Americas Europe	924 n in OEC 58 58 66	1,017 D, days 64 64 72	<b>64</b> 65 70	<b>864 61</b> 60 69	916 61 60 66	<b>924 64</b> 63 70	<b>64</b> 64 72	<b>65</b> 64 72	<b>65</b> 64 70	<b>65</b> 65 71	<b>64</b> 65 70	<b>65</b> 65 72
Oil-on-water  Days of forwa  OECD onland	Americas Europe	924 n in OEC 58 58 66 47	1,017 D, days 64 64 72 51	<b>64</b> 65 70 48	864 61 60 69 52	916 61 60 66 56	<b>924 64</b> 63 70 54	<b>64</b> 64 72 51	<b>65</b> 64 72 55	<b>65</b> 64 70 56	<b>65</b> 65 71 54	<b>64</b> 65 70 48	<b>65</b> 65 72 53
Oil-on-water  Days of forwa  OECD onland	Americas Europe Asia Pacific	924 n in OEC 58 58 66 47 34	1,017 D, days 64 64 72 51 34	1,102 64 65 70 48 34	864 61 60 69 52 35	916 61 60 66 56 34	924 64 63 70 54 34	1,017 64 64 72 51 34	1,055 65 64 72 55 34	1,094 65 64 70 56 34	1,068 65 65 71 54 34	1,102 64 65 70 48 34	1,043 65 65 72 53 34
Oil-on-water  Days of forwa  OECD onland	Americas Europe Asia Pacific  Americas	924 n in OEC 58 58 66 47 34 28	1,017 D, days 64 64 72 51 34 28	1,102 64 65 70 48 34 28	864 61 60 69 52 35 28	916 61 60 66 56 34 28	924 64 63 70 54 34 28	1,017 64 64 72 51 34 28	1,055 65 64 72 55 34 28	1,094 65 64 70 56 34 28	1,068 65 65 71 54 34 28	1,102 64 65 70 48 34 28	1,043 65 65 72 53 34 28

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

Table 12 - 3: Non-OPEC supply and OPEC natural gas liquids, mb/d

							Change						Change
	2014	2015	2016	3Q17	4Q17	2017	•	1Q18	2Q18	3Q18	4Q18	2018	18/17
US	13.0	14.0	13.6	14.5	14.8	14.3	0.7	15.0	15.1	15.2	15.5	15.2	0.9
Canada	4.3	4.4	4.5	4.6	4.7	4.7	0.7	4.8	4.8	4.9	5.1	4.9	0.9
Mexico	2.8	2.6	2.5	2.3	2.3	2.3	-0.2	2.2	2.1	2.1	2.1	2.1	-0.2
OECD Americas	20.1	21.1	20.6	21.5	21.8	21.4	0.8	22.0	22.0	22.2	22.6	22.2	0.9
Norway	1.9	1.9	2.0	1.9	2.1	2.0	0.0	2.1	2.0	1.9	2.1	2.0	0.0
UK	0.9	1.0	1.0	0.9	1.0	1.0	0.0	1.0	1.0	1.0	1.2	1.1	0.1
Denmark	0.2	0.2	0.1	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	0.6	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	3.6	3.8	3.8	3.6	3.9	3.8	0.0	3.9	3.8	3.7	4.0	3.9	0.1
Australia	0.4	0.4	0.3	0.4	0.3	0.3	0.0	0.4	0.4	0.4	0.4	0.4	0.1
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
OECD Asia Pacific	0.5	0.5	0.4	0.4	0.4	0.4	0.0	0.4	0.5	0.5	0.5	0.4	0.0
Total OECD	24.3	25.3	24.8	25.5	26.1	25.6	0.7	26.4	26.3	26.4	27.1	26.6	1.0
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	0.9	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	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Malaysia	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
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	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.2	0.3	0.0
Asia others	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
Other Asia	3.6	3.7	3.7	3.7	3.6	3.7	0.0	3.6	3.6	3.6	3.6	3.6	0.0
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	2.9	3.1	3.1	3.4	3.5	3.4	0.2	3.5	3.5	3.6	3.7	3.6	0.2
Colombia	1.0	1.0	0.9	0.8	0.8	0.8	-0.1	0.8	0.8	0.7	0.7	0.8	-0.1
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	0.2	0.2	0.2	0.2	0.0
Latin America	5.0	5.2	5.1	5.3	5.4	5.2	0.1	5.4	5.4	5.4	5.4	5.4	0.1
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	1.0	1.0	1.0	1.0	1.0	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Syria Yemen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.1	0.0	0.0	0.0	0.0 <b>1.2</b>	0.0 <b>1.2</b>	0.0	0.0	0.0	0.0 <b>1.2</b>	0.0 <b>1.2</b>	0.0 <b>1.2</b>	0.0
Middle East	1.3	1.3	1.3	1.2			0.0	1.2	1.2				0.0
Chad Congo	0.1	0.1	0.1	0.1 0.4	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.0 0.1
	0.3	0.3	0.3	0.4	0.4	0.3	0.0	0.4	0.4	0.4	0.6	0.4	0.0
Egypt Ghana	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0
South Africa	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Sudans*	0.1	0.1	0.3	0.3	0.1	0.3	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Africa other	0.2	0.2	0.2	0.2	0.1	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.0
Africa	1.8	1.8	1.8	1.9	1.9	1.9	0.1	1.9	1.9	1.9	1.9	1.9	0.1
Total DCs	11.8	12.0	11.9	12.0	12.1	12.0	0.1	12.1	12.1	12.1	12.1	12.1	0.1
FSU	13.5	13.7	13.9	13.8	13.8	13.9	0.1	13.8	14.1	14.2	14.4	14.1	0.2
Russia Kazakhstan	10.7	10.8	11.1	11.0	11.0	11.1	0.0	11.0 1.7	11.2	11.3	11.5 1.9	11.2	0.2
Azerbaijan	1.6 0.9	0.9	1.6 0.8	1.7 0.8	1.7 0.8	1.7 0.8	0.1 -0.1	0.8	1.8	1.8	0.7	1.8 0.7	0.1 0.0
FSU others	0.9	0.9	0.6	0.8	0.6	0.6	0.0	0.6	0.7	0.7	0.7	0.7	0.0
Other Europe	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
China	4.3	4.4	4.1	3.9	3.9	4.0	-0.1	3.9	3.8	3.8	3.8	3.8	-0.2
Non-OPEC production	54.0	55.5	54.8	55.4	56.1	55.6	8.0	56.3	56.5	56.6	57.5	56.7	1.1
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	0.0	2.2	2.2	2.2	2.2	2.2	0.0
Non-OPEC supply	56.2	57.7	57.0	57.6	58.3	57.8	0.8	58.6	58.7	58.8	59.7	59.0	1.1
OPEC NGL	5.7	5.8	5.9	6.1	6.1	6.1	0.2	6.2	6.2	6.2	6.3	6.2	0.2
OPEC Non-conventional	0.3	0.3	0.2	0.3	0.3	0.2	0.0	0.3	0.3	0.3	0.3	0.3	0.0
OPEC (NGL+NCF)	5.9	6.0	6.1	6.3	6.4	6.3	0.2	6.4	6.5	6.5	6.5	6.5	0.2
Non-OPEC &													
OPEC (NGL+NCF)	62.1	63.8	63.2	63.9	64.7	64.1	1.0	65.0	65.2	65.3	66.2	65.4	1.3

Note: \* OECD Americas includes Chile.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 12 - 4: World rig count, units

				Change							Change
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2016/15</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>	<u>2Q17</u>	May 17	<u>Jun 17</u>	Jun/May
US	1,862	977	509	-468	479	586	739	892	893	931	38
Canada	380	192	131	-61	122	180	299	115	85	150	65
Mexico	86	52	26	-26	25	19	17	23	23	24	1
OECD Americas	2,327	1,221	665	-556	626	785	1,054	1,030	1,001	1,105	104
Norway	17	17	17	-1	18	13	14	17	18	15	-3
UK	16	14	9	-5	9	9	9	9	10	9	-1
OECD Europe	145	117	96	-21	94	94	100	92	95	91	-4
OECD Asia Pacific	26	17	7	-11	5	6	14	17	18	14	-4
Total OECD	2,499	1,355	768	-587	724	885	1,168	1,139	1,114	1,210	96
Other Asia*	228	202	180	-22	185	181	184	182	179	180	1
Latin America	172	145	68	-77	64	64	61	62	62	70	8
Middle East	108	102	88	-14	85	75	74	76	74	78	4
Africa	45	29	17	-12	14	16	15	17	18	17	-1
Total DCs	553	478	353	-125	348	336	334	337	333	345	12
Non-OPEC rig count	3,052	1,833	1,121	-712	1,072	1,222	1,502	1,477	1,447	1,555	108
Algeria	48	51	54	3	55	53	51	56	53	57	4
Angola	15	11	6	-5	4	3	3	3	3	2	-1
Ecuador	24	12	4	-8	5	6	7	8	9	7	-2
Eqatorial Guinea**	1	1	1	0	1	1	1	1	1	1	0
Gabon	7	4	1	-3	0	0	0	1	1	1	0
Iran**	54	54	59	5	60	61	61	61	61	61	0
Iraq**	79	52	43	-9	39	41	41	49	51	51	0
Kuwait**	38	47	44	-2	47	46	55	55	55	56	1
Libya**	10	3	1	-2	1	1	1	1	1	1	0
Nigeria	34	30	25	-5	24	23	27	28	27	27	0
Qatar	10	8	8	0	7	10	11	11	10	10	0
Saudi Arabia	134	155	156	1	155	157	152	150	150	150	0
UAE	34	42	51	8	51	52	50	51	50	51	1
Venezuela	116	110	100	-10	93	92	95	95	96	91	-5
OPEC rig count	604	579	552	-27	543	547	554	568	568	566	-2
World rig count***	3,656	2,412	1,673	-740	1,615	1,769	2,056	2,045	2,015	2,121	106
of which:											
Oil	2,795	1,727	1,170	-557	1,135	1,235	1,446	1,484	1,462	1,559	97
Gas	743	563	370	-193	343	400	477	441	432	447	15
Others	95	100	113	14	119	116	115	101	102	96	-6

Note: \* Other Asia includes Indonesia.

Totals may not add up due to independent rounding.

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

<sup>\*\*</sup> Estimated data when Baker Hughes Incorporated did not reported the data.

<sup>\*\*\*</sup> Data excludes China and FSU.

# **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)

### Glossary of Terms

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 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

# Contributors to the OPEC Monthly Oil Market Report

## **Editor-in-Chief**

Hojatollah Ghanimi Fard, Head, Petroleum Studies Department, In Charge of Research Division email: h.ghanimifard(at)opec.org

### **Editor**

Hojatollah Ghanimi Fard, Head, Petroleum Studies Department email: h.ghanimifard(at)opec.org

## **Analysts**

World Oil Demand

World Oil Supply

Stock Movements

Monthly Endnotes

**Product Markets and Refinery Operations** 

Tanker Market and Oil Trade

Crude Oil Price Movements Eissa Alzerma

email: ealzerma(at)opec.org

Commodity Markets Hector Hurtado

email: hhurtado(at)opec.org

World Economy Afshin Javan

email: ajavan(at)opec.org

Imad Al-Khayyat

email: ial-khayyat(at)opec.org

Joerg Spitzy

email: jspitzy(at)opec.org

Hassan Balfakeih

email: hbalfakeih(at)opec.org Mohammad Ali Danesh email: mdanesh(at)opec.org

Eissa Alzerma

email: ealzerma(at)opec.org

Anisah Almadhayyan

email: aalmadhayyan(at)opec.org

Aziz Yahyai

email: ayahyai(at)opec.org

Hossein Hassani

email: hhassani(at)opec.org

**Douglas Linton** 

email: dlinton(at)opec.org Pantelis Christodoulides

email: pchristodoulides(at)opec.org

Viveca Hameder

email: vhameder(at)opec.org

Aziz Yahyai

email: ayahyai(at)opec.org

**Douglas Linton** 

email: dlinton(at)opec.org

### Statistical services

Technical and editorial team

Adedapo Odulaja, Head, Data Services Department (aodulaja(at)opec.org),

Hossein Hassani, Statistical Systems Coordinator (hhassani(at)opec.org),

Pantelis Christodoulides (World Oil Demand), Klaus Stoeger (World Oil Supply),

Mouhamad Moudassir (World Economy),

Mohammad Sattar (Crude Oil Price Movements, Commodity Markets, Tanker Market, Oil Trade),

Ryszard Pospiech (Commodity Markets, Stock Movements)

Mihni Mihnev (Product Markets and Refinery Operations)

## Editing, production, design and circulation

James Griffin, Alvino-Mario Fantini, Maureen MacNeill, Scott Laury, Matthew Quinn, Hataichanok Leimlehner, Liane-Sophie Hamamciyan, Andrea Birnbach

## Disclaimer

The data, analysis and any other information contained in the Monthly Oil Market Report (the "MOMR") is for informational purposes only and is not intended as a substitute for advice from your business, finance, investment consultant or other professional. The views expressed in the MOMR are those of the OPEC Secretariat and do not necessarily reflect the views of its Governing Bodies and/or individual OPEC Member Countries.

Whilst reasonable efforts have been made to ensure the accuracy of the MOMR's content, the OPEC Secretariat makes no warranties or representations as to its accuracy, currency reference or comprehensiveness, and assumes no liability or responsibility for any inaccuracy, error or omission, or for any loss or damage arising in connection with or attributable to any action or decision taken as a result of using or relying on the information in the MOMR.

The MOMR may contain references to material(s) from third parties whose copyright must be acknowledged by obtaining necessary authorization from the copyright owner(s). The OPEC Secretariat shall not be liable or responsible for any unauthorized use of third party material(s). All rights of the Publication shall be reserved to the OPEC Secretariat, including every exclusive economic right, in full or per excerpts, with special reference but without limitation, to the right to publish it by press and/or by any communications medium whatsoever, including Internet; translate, include in a data base, make changes, transform and process for any kind of use, including radio, television or cinema adaptations, as well as sound-video recording, audio-visual screenplays and electronic processing of any kind and nature whatsoever.

Full reproduction, copying or transmission of the MOMR is not permitted in any form or by any means by third parties without the OPEC Secretariat's written permission, however the information contained therein may be used and/or reproduced for educational and other non-commercial purposes without the OPEC Secretariat's prior written permission, provided that OPEC is fully acknowledged as the copyright holder.

_	

down 3.99 in June

June 2017 45.21 May 2017 49.20

# June OPEC crude production

mb/d, according to secondary sources

50.21



up 0.39 in June

June 2017

Year-to-date

32.61

May 2017

32.22

Economic growth rate per cent										
	World	OECD	US	Japan	Euro-zone	China	India			
2017	3.4	2.0	2.2	1.4	1.8	6.6	7.0			
2018	3.4	1.9	2.2	1.1	1.7	6.2	7.5			

Supply and demand mb/d									
2017		17/16	2018		18/17				
World demand	96.4	1.3	World demand	97.6	1.3				
Non-OPEC supply	57.8	8.0	Non-OPEC supply	59.0	1.1				
OPEC NGLs	6.3	0.2	OPEC NGLs	6.5	0.2				
Difference	32.3	0.3	Difference	32.2	-0.1				

OECD commercial stocks					mb
	Mar 17	Apr 17	May 17	May 17/ Apr 17	May 16
Crude oil	1,549	1,541	1,529	<b>–</b> 11.6	1,525
Products	1,477	1,487	1,486	-1.3	1,527
Total	3,026	3,028	3,015	-12.9	3,052
Days of forward cover	65.1	64.6	63.5	-1.0	64.8