Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket rose in February for the third consecutive month, ending up about 2% to average $53.37/b. Crude futures, traded in a relatively narrow range for the second month in a row. High compliance with supply adjustments by OPEC and some non-OPEC producers supported gains. In the crude futures markets, ICE Brent ended 1% higher to average $56/b in February and NYMEX WTI increased 1.6% to $53.46/b. The Brent-WTI spread narrowed at $2.53/b, which is supporting arbitrage economics to the US. Speculative activity hit a fresh record high for the third month in a row, providing additional support to oil prices.

World Economy

Global economic growth expectations remain at 3.0% in 2016 and 3.2% in 2017. OECD growth in 2017 is unchanged at 1.9%, with growth in US, Euro-zone and Japan seeing no revisions. China is expected to grow by 6.2% in 2017, unchanged from the previous report. India is now expected to see a slight deceleration, following a marginal downward revision to 7.0% in 2017. Russia's 2017 growth remains at 1.0%, while the forecast for Brazil was revised slightly higher to 0.5%.

World Oil Demand

The world oil demand growth estimate for 2016 was revised marginally higher by around 50 tb/d to now show growth of 1.38 mb/d to average 95.05 mb/d. Revisions were driven primarily by higher-than-anticipated 4Q16 oil demand in OECD Europe, and Asia Pacific, as well as China, partially offset by minor downward adjustments in the Middle East. For 2017, oil demand growth is anticipated to be around 1.26 mb/d, higher by 70 tb/d from previous month projections, to average 96.31 mb/d. The upward adjustments were due to more optimistic expectations for oil demand in OECD Europe, as well as Asia Pacific.

World Oil Supply

Non-OPEC oil supply growth is estimated to show a contraction of 0.66 mb/d in 2016, in line with the previous report, to average 57.34 mb/d. Higher 4Q16 growth in Canada and Other OECD Europe was offset by downward revisions in the US, Norway, Australia, Brunei and Azerbaijan. In 2017, non-OPEC oil supply is projected to grow by 0.40 mb/d, following an upward revision of 0.16 mb/d to average 57.74 mb/d. An improving outlook for Canadian oil sands and US supply were the main contributors to the revision. OPEC NGLs production in 2017 was revised down by 20 tb/d to now show growth of 0.13 mb/d. In February, OPEC production decreased by 0.14 mb/d, according to secondary sources, to average 31.96 mb/d.

Product Markets and Refining Operations

Product markets exhibited a mixed performance in the Atlantic Basin. Higher export opportunities for gasoline and strong middle distillates demand supported the European market, while margins fell in the US due to the weakening seen at the top and bottom of the barrels. Meanwhile, refinery margins in Asia continued to be healthy ahead of the spring refinery maintenance season, despite a slight fall due to some bearish signals in the gasoline market.

Tanker Market

Dirty tanker spot freight rates declined in February, with rates falling for all vessels on all reported routes. Lower freight rates were registered on the back of limited activity, the Chinese New Year holidays in the East and fleet expansions. VLCC, Suezmax and Aframax rates declined 21% on average from a month before.

Stock Movements

OECD commercial oil stocks rose in January to stand at 3,006 mb. At this level, OECD commercial oil stocks were 278 mb above the five-year average. Crude and products showed a surplus of around 209 mb and 69 mb above the seasonal norm respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.8 days, some 4.9 days higher than the five-year average.

Balance of Supply and Demand

Demand for OPEC crude in 2016 stands at 31.6 mb/d, some 1.9 mb/d higher than in the previous year. For 2017, demand for OPEC crude is projected at 32.4 mb/d, around 0.7 mb/d higher than in the current year.

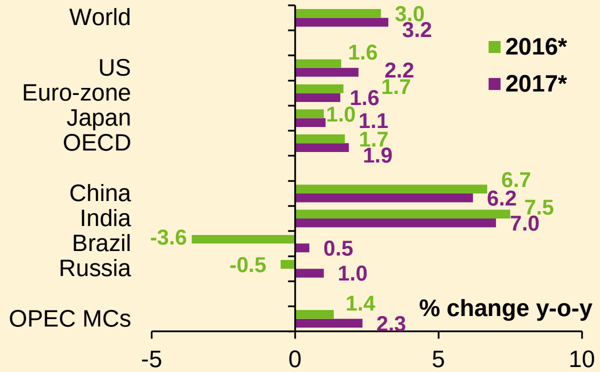
Feature Article

Assessment of the global economy

Improvements in the global economy that have started in the second half of 2016 are likely to continue in 2017. After estimated growth of 3.0% in 2016, global economic growth is expected to pick up in 2017 to reach 3.2% (***Graph 1***). Support is coming from the OECD group of countries with growth of 1.9% in 2017, compared to 1.7% in the previous year. GDP growth in China and India are forecast to slightly decelerate, yet still remain strong. The stabilisation of oil markets seen since the OPEC – Non-OPEC Declaration of Cooperation has helped to support upstream Capex spending and improve oil producers' income, adding to global economic growth.

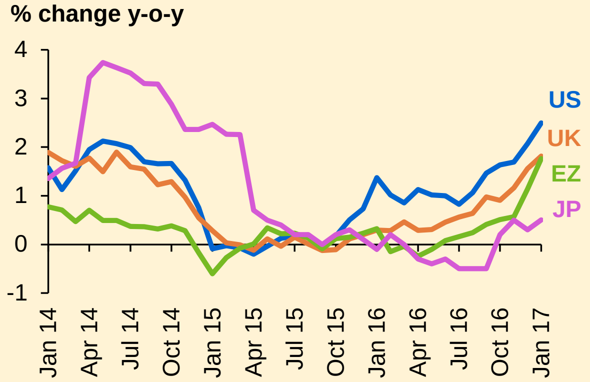
Higher-than-anticipated economic growth may come from the US and the Euro-zone, as well as Japan to some extent. Upside potential also exists in the emerging economies of China, India, Brazil and Russia. At the same time, political and economic uncertainties could hamper the global economy from further and faster improvements, including upcoming elections in major European economies, developments regarding Brexit, and fiscal, monetary and trade policies.

Graph 1: Global economic growth



*Note: * 2016 = Estimate and 2017 = Forecast.*
Source: OPEC Secretariat.

Graph 2: CPI in advanced economies



Sources: Haver Analytics and OPEC Secretariat.

In the US, labour market improvements have continued to support the economy and significantly lifted consumer sentiment. At the same time, industrial production has started to pick up, while being supported by the recovery in oil prices. In recent months, US domestic consumption has turned out to be particularly supportive for the economy and the return of the investments in the oil industry is expected. However, uncertainties regarding both the consequences of new economic programmes, as well as the impact of the normalisation of monetary policies remain. In this respect, upcoming budgetary discussions in combination with the expiry of the debt-ceiling suspension in mid-March will need close monitoring. In the Euro-zone, the economic recovery continues, supported by domestic improvements, but also by the ECB's extraordinary monetary stimulus. The ongoing weakness in the banking sector – including continuing sovereign debt-related issues in Greece – may weigh on the region's near-term growth. Meanwhile, Japan's government-led stimulus has lifted momentum, with most economic indicators pointing to the upside. As a result, GDP is expected to rise marginally in 2017.

Within emerging and developing countries, growth trends are likely to vary once again in 2017. Brazil and Russia are expected to recover at different levels from two years' recession, partly due to the lower commodity prices. Despite a somewhat slowing momentum, GDP growth in both China and India is holding up well. The rise in commodity prices has provided vital support to the economies of several developing countries. Meanwhile, the increase in commodity prices has positively lifted inflation in advanced economies to healthier levels, providing major central banks some room to normalise their monetary policies (***Graph 2***). Global trade is also likely to benefit from more stable commodity prices in 2017.

The rebalancing of the oil market, driven by the recent successful OPEC – Non-OPEC Declaration of Cooperation, is likely to further enhance the global oil industry, leading to even more global economic growth and hence higher oil demand growth in 2017.

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Crude Oil Price Movements

The OPEC Reference Basket (ORB) ended about 2% up at $53.37/b in February for the third consecutive month, with support garnered from the ongoing positive market sentiment initiated at the end of last year when OPEC and Non-OPEC producers agreed to adjust oil supplies. Y-t-d, the ORB value was significantly higher, by 91%, or $25.23, at $52.87/b.

Oil futures were up m-o-m to their highest levels in more than a year-and-a-half, while trading in a relatively narrow range for two months now. The high level of conformity with the supply adjustment among OPEC and other producers has greatly supported the gains. But stock builds in the US and elsewhere, as well as an increase in the US oil rig count, capped these gains. ICE Brent ended February 55¢, or 1.0%, higher, at $56.00/b, on a monthly average basis, while NYMEX WTI increased 85¢, or 1.6%, to $53.46/b. Y-t-d, ICE Brent was a hefty $22.97, or 70%, higher, at $55.72/b, while NYMEX WTI surged by $21.84, or 70%, to $53.02/b.

The ICE Brent/NYMEX WTI spread narrowed, supporting arbitrage economics to the US. Limited US crude oil export opportunities buoyed the US market, while ample supply pressured Brent. The spread narrowed despite an increase in US shale production and a month-long build in crude inventories, dropping to $2.53/b.

With no sign of an easing of the bullish build-up of net long managed money positions, bets on crude oil prices rising have hit a new record high for the third month in a row, giving additional support to oil prices.

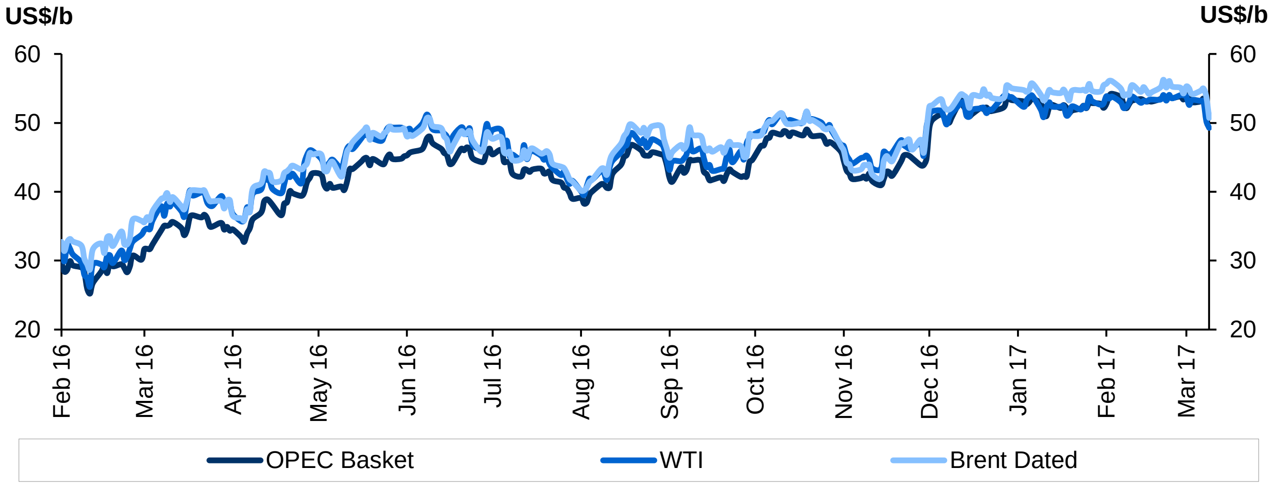
The ongoing conformity by OPEC and Non-OPEC producers with the production adjustment is causing the prolonged contango structure to ease in all markets. Moreover, further down the futures curve, the backwardation remained noticeable as of 2H17 onward.

Sweet/sour differentials narrowed in Asia and the US Gulf Coast (USGC), while in Europe, they bucked the trend by widening despite the start of the supply adjustment agreement in the region, which should greatly affect the sour crude balance.

OPEC Reference Basket

The **ORB** ended the month of February gaining for the third consecutive month, with support coming from the continued positive market momentum that started at the end of last year when OPEC and Non-OPEC producers decided to address an oil glut that has weighed on the market for more than two years. M-o-m, the ORB closed February at its highest since July 2015, adding almost 2% on top of more than 20% accumulated increases since the start of the current price recovery cycle. Reinforcing this improvement in prices was another month of historically strong conformity with the agreed supply adjustments by OPEC and Non-OPEC producers. Support also came as investor optimism over the effectiveness of the production adjustments encouraged record bets on a sustained rally, although growing US output and stubbornly high stockpiles kept price gains in check and contained prices within a tight range. Prices also received a lift from a weaker US dollar.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

M-o-m, the ORB value improved by 97¢ to settle at $53.37/b on a monthly average, up 1.9%. On a yearly basis compared to 2016, the year-to-date ORB value was significantly higher, rising by 91%, or $25.23, to reach $52.87/b.

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

			Change		*Year-to-date*	
	Jan 17	Feb 17	Feb/Jan	%	2016	2017
Basket	**52.40**	**53.37**	**0.97**	**1.9**	**27.64**	**52.87**
Arab Light	52.29	53.63	1.34	2.6	27.59	52.94
Basrah Light	51.66	52.66	1.00	1.9	25.93	52.15
Bonny Light	54.98	55.24	0.26	0.5	31.34	55.11
Es Sider	53.08	53.46	0.38	0.7	30.63	53.27
Girassol	54.41	55.21	0.80	1.5	31.15	54.80
Iran Heavy	51.90	53.16	1.26	2.4	25.72	52.51
Kuwait Export	51.48	52.85	1.37	2.7	25.38	52.15
Qatar Marine	53.44	54.14	0.70	1.3	28.21	53.78
Merey	46.81	47.03	0.22	0.5	21.10	46.92
Murban	55.97	56.31	0.34	0.6	32.89	56.14
Oriente	48.64	50.08	1.44	3.0	24.37	49.35
Rabi Light	53.13	54.04	0.91	1.7	30.58	53.58
Sahara Blend	54.84	55.06	0.22	0.4	32.29	54.95
Other Crudes						
Brent	54.58	55.06	0.48	0.9	31.63	54.82
Dubai	53.71	54.41	0.70	1.3	28.16	54.05
Isthmus	54.98	56.09	1.11	2.0	29.34	55.52
LLS	54.05	55.15	1.10	2.0	32.51	54.58
Mars	49.91	51.30	1.39	2.8	27.61	50.59
Minas	50.63	51.19	0.56	1.1	30.13	50.90
Urals	53.42	53.67	0.25	0.5	30.03	53.54
WTI	52.50	53.40	0.90	1.7	30.88	52.94
Differentials						
Brent/WTI	2.08	1.66	-0.42	-	0.74	1.88
Brent/LLS	0.53	-0.09	-0.62	-	-0.88	0.23
Brent/Dubai	0.87	0.65	-0.22	-	3.47	0.77

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

ORB component values improved at varying levels over the month, along with the relevant crude oil benchmarks and the monthly changes in their respective official selling price (OSP) differentials. Dated Brent, WTI and Dubai spot prices increased in January by 48¢/b, 90¢/b and 70¢/b, respectively.

Finding additional support from the uplift in OSP offsets, the multiple region destination grades, Arab light, Basrah light, Iran Heavy and Kuwait Export values increased by $1.24 on average, or 2.4%, for the month to reach $53.08/b. These grades continue to be supported by the healthy sour crude oil market in Asia and Europe. The Middle Eastern spot components, Murban and Qatar Marine, saw their values lifted by only 52¢, or 1%, to reach $55.23/b. As for the Latin American ORB components, Venezuelan Merey increased by 22¢, or 0.5%, to settle at $47.03/b, while Ecuador's Oriente improved the most among all ORB grades, rising by $1.44, or 3%, to reach $50.08/b. Pressured by plentiful Atlantic Basin supply and despite a wide open arbitrage to Asia, values of the light sweet crudes from West and North African Basket components, Saharan Blend, Es Sider, Girassol, Bonny Light and Gabon's Rabi, gained the least at $54.60/b, up 51¢, or 1%. Physical crude differentials for these grades have come under noticeable pressure as supply has surged, and the increased volumes, which had to be sold in the Asian market at lower prices.

On 13 March, the ORB stood at $49.00/b, $4.37 below the February average.

The oil futures market

Oil futures on both sides of the Atlantic were up m-o-m to their highest levels in more than a year-and-a-half. Oil futures have continued to trade in a relatively narrow range for two months now, with the front month prices of crude benchmarks in a bandwidth of $53.00/b to $57.50/b for ICE Brent, and $50.00/b to $54.00/b for NYMEX WTI. Monthly price ranges have been very narrow, with no monthly price range of more than $5/b since November. Prompt prices have not seen this kind of stability for several years, with the last two years having been shaken by significantly higher levels of volatility. Nevertheless, oil prices tested the upper limit of this range during the month, on the back of evidence of high conformity with the supply adjustment among OPEC and other producers. These gains were capped by several bearish market indicators. Despite the supply adjustment, stocks have continued to rise, not just in the US, but also in Europe. Moreover, the increase in the US oil rig count, which reached its highest level since October 2015 at 756 rigs on the 3 March, created a tough environment for the oil market bulls. Crude curves also remain in contango at the front end, and physical crude differentials have come under marked pressure in many places as West of Suez supply has surged. Nevertheless, prices have undoubtedly been provided a floor by the production accords. The speculative community is heavily stacked to the bullish side, buoyed by OPEC's renewed willingness to correct market oversupply and underpinned by early indications of historically high conformity. Position data for crude oil futures and options from both futures exchanges shows that outright prices are retaining speculative support, with net length among money managers having increased further as of the last week of February.

ICE Brent ended February 55¢, or 1.0%, higher, at $56.00/b on a monthly average basis, while NYMEX WTI increased by 85¢, or 1.6%, to reach $53.46/b. Y-t-d, ICE Brent was a hefty $22.97, or 70%, higher, at $55.72/b, while NYMEX WTI surged by $21.84, or 70%, to settle at $53.02/b.

On 13 March, ICE Brent stood at $51.35/b and NYMEX WTI at $48.40/b.

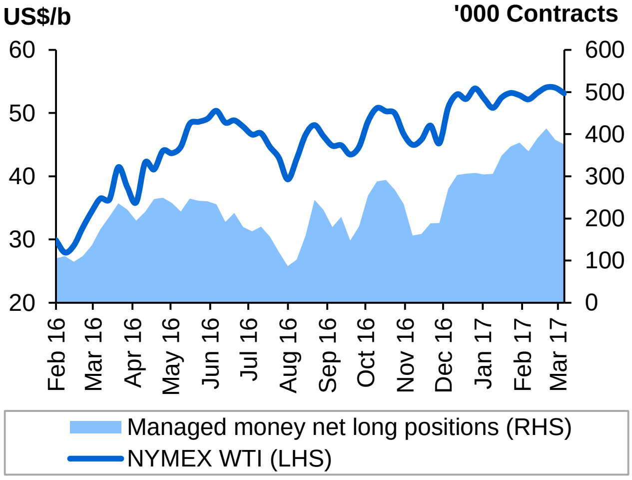
Table 1 - 2: Crude oil futures, US$/b

			Change		*Year-to-date*	
	Jan 17	Feb 17	Feb/Jan	%	2016	2017
NYMEX WTI	52.61	53.46	0.85	1.6	31.18	53.02
ICE Brent	55.45	56.00	0.55	1.0	32.75	55.72
Transatlantic spread	**2.84**	**2.53**	**-0.31**	**-0.64**	**1.56**	**2.69**

Note: Totals may not add up due to independent rounding.
Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

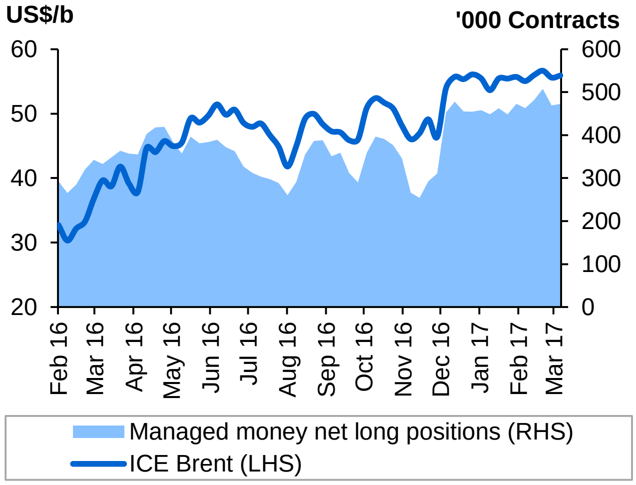
With no sign of an easing of the bullish build-up of **net long managed money positions**, bets on crude oil prices rising have hit a new record high for the third month in a row, giving additional support to prices. Hedge funds and other institutional investors' betting on higher oil price increased significantly again in February as indicated by the traders' commitment data from both the ICE and NYMEX exchanges. On the back of both an increase in long positions and a decrease in short positions, money managers' net lengths in NYMEX WTI crude surged further by 33,710 contracts, or 9%, from its level in the last week of January, to 413,637 contracts in the week to 21 February. Similarly, in ICE Brent futures and options, speculators increased net long positions by 34,742 contracts, or 7.3%, to 507,609 lots. The ratio of long to short positions continued to creep up in both exchanges, nearly reaching a hefty 10:1. The total futures and options open interest volume in the two exchanges decreased by 3%, or about 174,687 contracts, to 5.58 million contracts, with the net length positions share reaching its highest level since July 2014, back when WTI was trading in triple digits.

Graph 1 - 2: NYMEX WTI vs. Speculative activity



Sources: CFTC and CME Group.

Graph 1 - 3: ICE Brent vs. Speculative activity



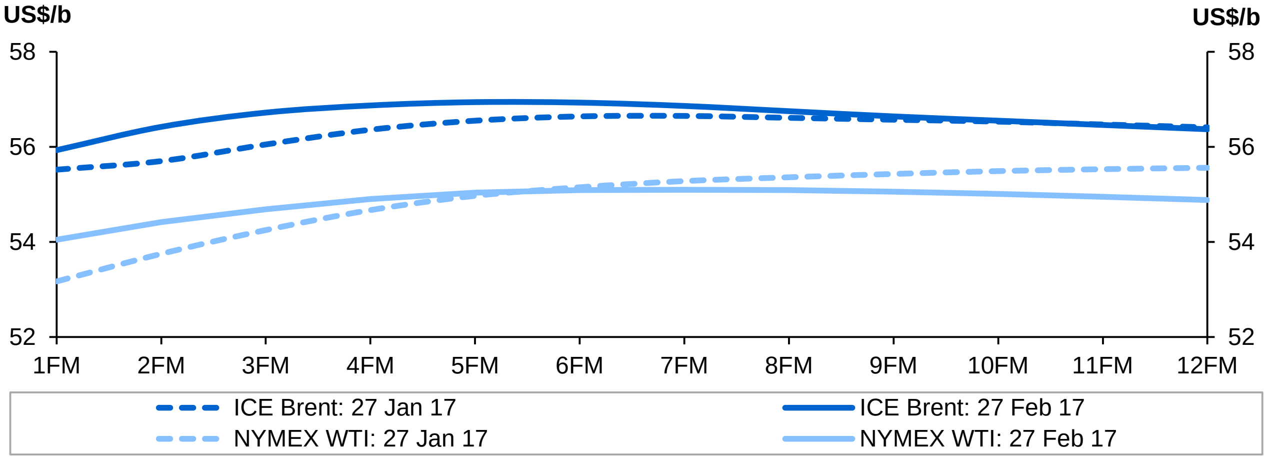
Source: IntercontinentalExchange.

The **daily average traded volume** for NYMEX WTI contracts dropped 39,305 lots, or 3.5%, to 1,080,338 contracts, while that of ICE Brent was 4,701 contracts higher, up 0.5%, at 894,442 lots. The daily aggregate traded volume for both crude oil futures markets decreased 34,605 contracts to 1.97 million futures contracts, or nearly 2 billion b/d of crude oil. The total traded volume of NYMEX WTI futures in February was lower at 20.53 million contracts, mainly due to a holiday, while that of ICE Bent futures decreased to 17.89 million contracts.

The futures market structure

The ongoing conformity by OPEC and Non-OPEC producers with their agreed production adjustment are causing the prolonged contango structure to continue to ease in all markets, supporting outright prices. The contango on Brent has narrowed, as tighter supply supports prompt prices relative to forward prices. The Dubai crude structures flipped into backwardation during the last trading session of the month, with prompt prices at a premium to those further forward. But on average for the month, the market remained in contango. In the US, consecutive weeks of inventory builds have contributed to further improvements in the WTI crude structure. Meanwhile, further down the futures curve, backwardation remained noticeable for all crudes as of 2H17 onward, when the market is expected to start balancing or even see the start of a drawdown in oil inventories.

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



Note: FM = future month.
Sources: CME Group and Intercontinental Exchange.

The **Dubai** contango eased further on a monthly average basis amid strong Asian demand and lesser sour crude supplies. The Dubai M1 30¢/b discount to M3 decreased to 10¢/b. The **North Sea Brent** contango also narrowed more, where the M1/M3 discount decreased to 63¢/b on average, from 86¢ in the previous month. In the US, the **WTI** contango eased 63¢/b over the month. The WTI contango (M1-M3) narrowed to 87¢/b.

The **ICE Brent/NYMEX WTI spread** inverted its narrowing trend as limited US crude oil export opportunities buoyed the US market relative to Brent, despite an increase in US production of shale oil and a month long build in crude oil stocks and refined products. In contrast, ample Atlantic Basin supply and subdued refinery demand restrained gains in the Brent market. The first-month ICE Brent/NYMEX WTI $2.90/b spread narrowed to $2.53/b, down 37¢. Theoretically, this support comes from the arbitrage economics to the US of Brent-related crudes such as WAF crudes.

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

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	27 Jan 17	53.17	53.75	54.25	55.15	55.56	2.39
	27 Feb 17	54.05	54.42	54.69	55.09	54.88	0.83
	Change	**0.88**	**0.67**	**0.44**	**-0.06**	**-0.68**	**-1.56**
ICE Brent	27 Jan 17	55.52	55.70	56.05	56.64	56.41	0.89
	27 Feb 17	55.93	56.42	56.72	56.93	56.37	0.44
	Change	**0.41**	**0.72**	**0.67**	**0.29**	**-0.04**	**-0.45**

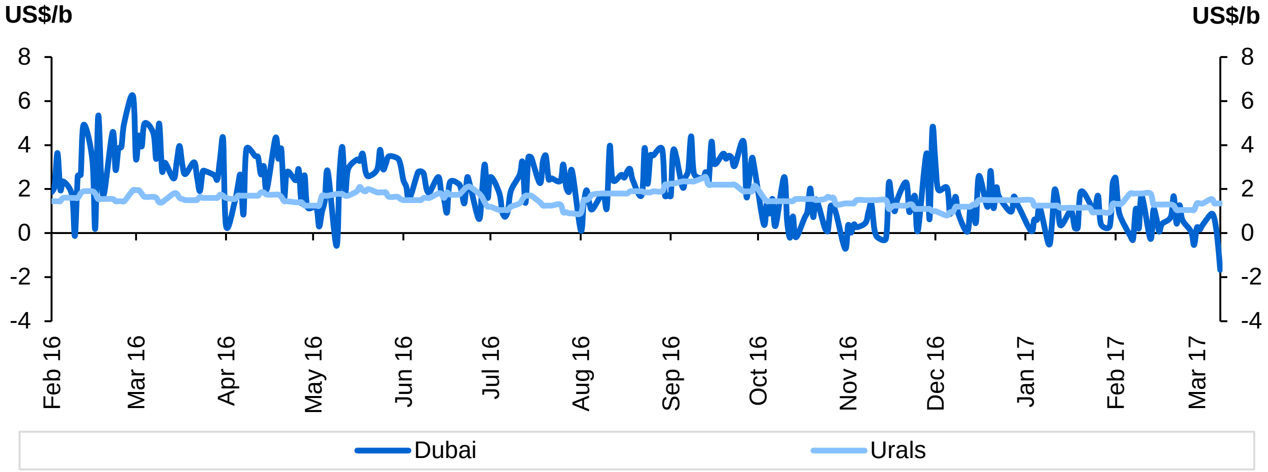
Note: FM = future month.
Sources: CME Group and Intercontinental Exchange.

The light sweet/medium sour crude spread

Sweet/sour differentials narrowed in Asia and the USGC, while in Europe, they bucked the trend by widening despite the start of OPEC and Non-OPEC implementation of supply balancing in the region, which should greatly affect the sour crude balance.

In **Europe**, the Urals medium sour crude discount to light sweet North Sea Brent widened 23¢ to $1.40/b in February. Despite mass arbitrage of Russian Urals to Asia, the Urals discount to North Sea Dated Brent came under pressure from plentiful second-half February supplies in NWE, while demand in the region was limited. Windy weather in the Black Sea also kept the port of Novorossiysk out of operation. On the other hand, despite ample supplies, North Sea crudes found support from larger volumes of crude heading out of the region to Asia.

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



Sources: Argus Media, OPEC Secretariat and Platts.

In **Asia**, the Tapis/Dubai spread narrowed by 23¢ on a monthly average basis to $2.80/b. The Dated Brent/Dubai spread narrowed 22¢ to 65¢/b, its narrowest in more than 18 months. The chief reason behind both narrow spreads was a combination of strong Asian sour crude demand and lower Middle Eastern supplies on the back of a sizeable OPEC and Non-OPEC production adjustment agreed in December 2016. The Asia Pacific light sweet crudes, such as Tapis, were being pressured again by a narrowing Brent-Dubai spread, which encouraged the arbitrage flow of Bent-related light sweet crudes to the region, particularly West African grades.

In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium sour Mars narrowed to $3.85/b, its narrowest since June 2015. Sour crudes firmed on the prospect of increased demand for exports amid Mideast Gulf production adjustments and a regional shut-in. Nearly 100 tb/d of GoM production went offline following a Louisiana terminal fire. The high USGC sour crude prices helped draw in alternative Latin American cargoes, which are also going to the Asia Pacific region as reduced Middle East sour crude exports boost interest in alternative cargoes.

Commodity Markets

In February, energy commodities showed mixed trends. There were increases in crude oil, natural gas prices were mixed across regions, while coal prices generally declined. In the category of non-energy commodities, base metals experienced a broad-based advance, underpinned by strong global manufacturing readings and disruptions affecting key copper suppliers as well as potential output curbs in heavy industry in China. Meanwhile, agricultural prices showed mixed intragroup movements. Precious metals advanced firmly as market participants' expectations of real interest rates in US dollars were lower on average for the second consecutive month.

Trends in selected commodity markets

In February, market participants expected a lower path for interest rate increases by the US Federal Reserve (the Fed) and are awaiting further clarity regarding the economic proposal of the new US administration. This generally translated into weakness in the US dollar and support for commodities, particularly for the group of precious metals, which were heavily sold in the fourth quarter of last year. However, this trend reversed at the end of the month as the Fed officially signalled increasing certainty of a March hike. Meanwhile, a further expansion in global manufacturing, as shown by JP Morgan's global manufacturing PMI, which is at a 69-month high, together with supply disruption for key copper suppliers, supported further increases in base metals.

Agricultural commodities showed different trends with larger declines in the group of beverages, led by a further drop in cocoa prices, which have steadily declined since mid-2016 on persistent oversupply. On the other hand, raw material prices were underpinned by a continuing increase in natural rubber prices, which are currently around 60% higher than their 2016 lows, buoyed by strong exports to China. Food prices were relatively stable on average. The US Department of Agriculture revised down its world ending stock estimations for wheat and corn for the 2016/17 market year on lower expected output of wheat in India and Kazakhstan, while higher consumption of corn was expected in China and Mexico. Meanwhile, vegetable oils were generally weak, led by falls in palm oil prices, as output from Malaysia, and Indonesia were expected to recover from last year's El Nino-induced drought. Competitor soybean oil also fell on the prospect of plentiful supplies of soybeans from the US and a record crop in Brazil.

Metal prices showed a broad-based advance as global manufacturing surveys continued to point to an expansion in activity, most importantly in the largest consumer, China, where the manufacturing PMI reading of 51.7 for February showed further and more accelerated expansion in activity than in the previous month. However, supply factors were the main driver during the month. Copper prices have been supported by a strike at the Escondida mine in Chile – the world's largest mine – as well as disputes between the government of Indonesia and Freeport McMoRan, operator of the Grasberg mine – the world's second-largest mine – disrupting mine operations. At the same time, aluminium prices rose on the expectation of supply curbs during the winter months in China, with the goal of helping to ease pollution problems. Nonetheless, recent data from the International Aluminium Institute showed world primary aluminium output increasing by 1% in January m-o-m, up 10% y-o-y, led by a 2% m-o-m and 19% y-o-y increase in Chinese output, capping further price increases. Iron ore prices rose by around 11% following robust imports from China. World crude steel output for the month of January was up by 7% y-o-y.

In the group of **energy commodities**, crude oil prices were underpinned by conformity with the suppliers' agreement. Natural gas prices declined sharply in the US as temperatures were significantly above normal, dampening demand and translating into smaller-than-normal net withdrawals from inventories. Furthermore, for the week ending 24 February, the US Energy Information Administration (EIA) registered the earliest weekly injection to storage on record. Meanwhile, at the beginning of the month, US national weather services reported that La Nina conditions were not present any longer. In Europe, term prices advanced significantly on the lagging impact of oil indexing, while spot prices declined on milder temperatures. EU inventories reported by Gas Infrastructure Europe (GIE) were at 29.5% of capacity versus around 41% at the end of the previous month. Coal prices declined for the third consecutive month as Chinese authorities relaxed mining restrictions.

Table 2 - 1: Commodity price data

Commodity	Unit	Monthly averages			% Change	Year-to-date	
		Dec 16	Jan 17	Feb 17	Feb 17/Jan 17	2016	2017
Energy*		**68.4**	**68.9**	**69.4**	**0.7**	**40.9**	**69.1**
Coal, Australia	US$/mt	86.3	83.7	80.6	-3.8	50.3	82.1
Crude oil, average	US$/b	52.6	53.6	54.4	1.4	30.4	54.0
Natural gas, US	US$/mbtu	3.6	3.3	2.8	-13.5	2.1	3.0
Non-energy*		**83.8**	**85.5**	**86.7**	**1.4**	**75.2**	**86.1**
Agriculture*		**89.4**	**91.4**	**91.5**	**0.2**	**83.8**	**91.5**
Food*		**93.1**	**95.2**	**95.3**	**0.1**	**85.8**	**95.2**
Soybean meal	US$/mt	365.0	382.0	384.3	0.6	329.5	383.1
Soybean oil	US$/mt	907.0	872.0	838.3	-3.9	742.5	855.1
Soybeans	US$/mt	420.0	425.3	427.8	0.6	368.0	426.5
Grains*		**75.9**	**79.0**	**79.1**	**0.2**	**84.3**	**79.1**
Maize	US$/mt	152.4	160.0	162.9	1.8	160.4	161.4
Wheat, US, HRW	US$/mt	142.0	153.3	155.2	1.3	190.2	154.2
Sugar, world	US$/kg	0.4	0.4	0.4	-0.2	0.3	0.4
Base metal*		**77.9**	**79.1**	**81.8**	**3.5**	**62.5**	**80.4**
Aluminum	US$/mt	1,727.7	1,791.2	1,860.8	3.9	1,506.2	1,826.0
Copper	US$/mt	5,660.4	5,754.6	5,940.9	3.2	4,535.2	5,847.7
Iron ore, cfr spot	US$/dmtu	80.0	80.0	89.0	11.3	44.5	84.5
Lead	US$/mt	2,209.8	2,242.6	2,311.5	3.1	1,706.0	2,277.1
Nickel	US$/mt	10,972.3	9,971.5	10,643.3	6.7	8,402.9	10,307.4
Tin	US$/mt	21,204.4	20,691.8	19,446.5	-6.0	14,709.1	20,069.1
Zinc	US$/mt	2,664.8	2,714.8	2,845.6	4.8	1,615.1	2,780.2
Precious metals*		**90.8**	**93.6**	**97.3**	**4.0**	**88.5**	**95.4**
Gold	US$/toz	1,157.4	1,192.1	1,234.2	3.5	1,148.7	1,213.2
Silver	US$/toz	16.4	16.9	17.9	6.1	14.6	17.4

*Note: * World Bank commodity price indices (2010 = 100).*
Source: World Bank, Commodity price data.

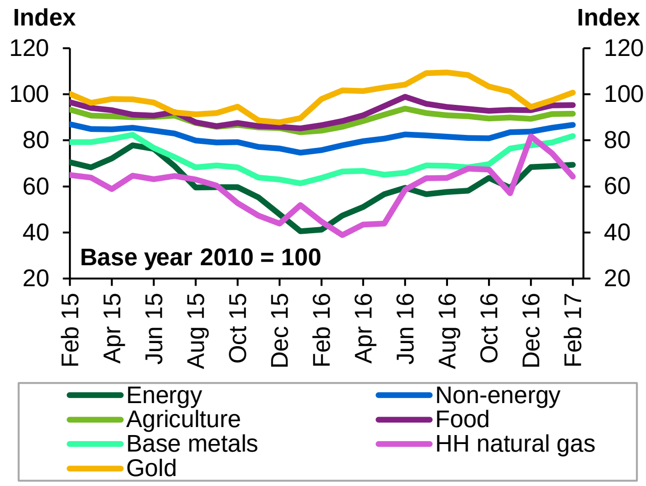
Average **energy prices** in February increased by 0.7% m-o-m, due to a 1.4% increase in average crude oil prices, while natural gas prices in the US declined by 13.5% m-o-m, but increased in Europe by 14.5%, due to oil indexing in term contracts. Meanwhile, Australian benchmark thermal coal prices decreased by 3.8%.

Agricultural prices advanced slightly by 0.2% in February, with average food prices remaining almost flat. Beverages declined by 3.5%, mainly due to a 7.3% fall in cocoa prices, while raw material prices were up by 2.3%, led by a 3.3% increase in natural rubber. In the group of food, wheat and corn prices increased by 1.3% and 1.8%, respectively, while palm oil and soybean oil prices decreased by 3.7% and 3.9%, respectively.

Average **base metal prices** increased by 3.5% in February, led by a 3.2% monthly increase in copper prices and a 3.9% increase in aluminium prices. Average iron ore prices leapt by 11.3%.

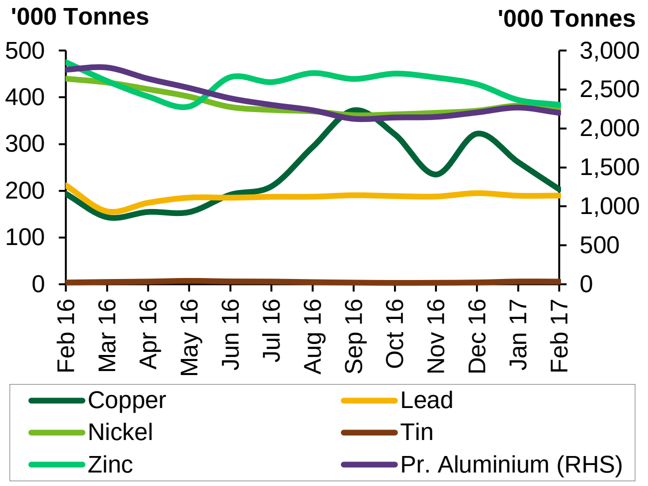
In the group of **precious metals**, gold prices increased by 3.5% on average, due to lower interest rate expectations in the US for the past two months.

Graph 2 - 1: Major commodity price indices



Source: World Bank, Commodity price data.

Graph 2 - 2: Inventories at the LME



Sources: London Metal Exchange and Thomson Reuters.

In February, the **Henry Hub natural gas index** declined. The average price was down by 44¢, or 13.5%, to $2.82 per million British thermal units (mmbtu) after trading at an average of $3.26/mmbtu the previous month.

The **EIA** said utilities added 7 billion cubic feet (bcf) of **working gas in underground storage** during the week ending 24 February. This was the first addition to storage in that week on record and it was above the median analysts' expectations of a 4 bcf injection. Total working gas in underground storage stood at 2,363 bcf, 7.3% lower than at the same time the previous year and 14.3% higher than the previous five-year average

Investment flows into commodities

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

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

	Open interest		*Net length*			
	Jan 17	Feb 17	Jan 17	% OIV	Feb 17	% OIV
Crude oil	2,143	2,150	329	15	377	18
Natural gas	1,194	1,269	147	12	92	7
Agriculture	4,984	5,145	379	8	560	11
Precious metals	617	625	108	18	157	25
Copper	255	285	82	32	81	28
Livestock	597	618	161	27	158	26
Total	**9,789**	**10,091**	**1,208**	**112**	**1,424**	**115**

Source: US Commodity Futures Trading Commission.

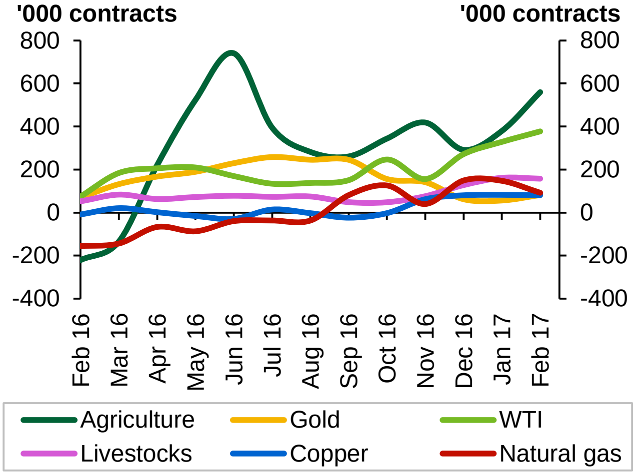
Agriculture's OI increased by 3.2% to 5,145,049 contracts in February. Meanwhile, money managers increased net long positions by 47.6% to 559,746 lots, largely because of increasing net lengths in corn and wheat.

Henry Hub's natural gas OI decreased by 6.3% m-o-m to 1,269,348 contracts in February. Money managers decreased their net length by 37.6% to 91,976 lots on the impact of warmer-than-average weather.

Copper's OI increased by 11.8% m-o-m to 284,947 contracts in February. Money managers decreased their net long positions by 1.9% to 80,866 contracts after three months of gains.

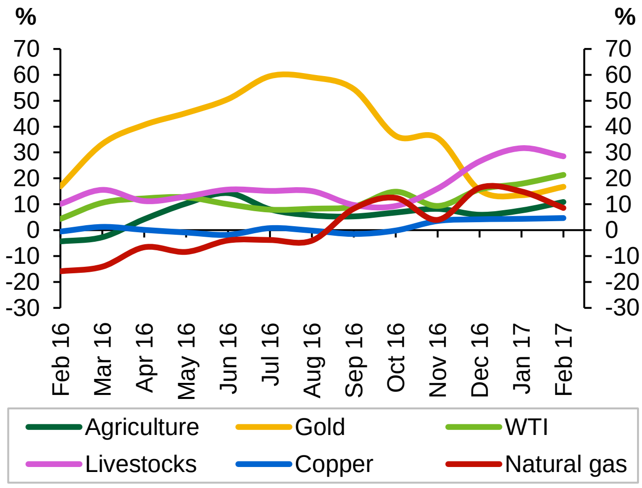
Precious metals' OI increased by 1.3% m-o-m to 624,742 contracts in February. Money managers increased their net long positions by 44.6% to 156,541 lots.

Graph 2 - 3: Speculative activity in key commodities, net length



Source: US Commodity Futures Trading Commission.

Graph 2 - 4: Inventories at the LME



Source: US Commodity Futures Trading Commission.

World Economy

Global economic growth has stabilised and the estimated growth dynamic has been confirmed recently with the forecast for global GDP growth remaining unchanged at 3.2% for 2017 and 3.0% for 2016. OECD economies are holding up well in general with an unchanged growth forecast of 1.9% for 2017, after reaching estimated growth of 1.7% in 2016. Still more upside to OECD growth may come from fiscal stimulus in the US, but the magnitude and timeline of this remain uncertain. Growth in India may also improve after the impact of demonetisation has been digested. China has reiterated its intention to target a higher growth level than is currently accommodated for in the global growth forecast. The stabilisation of the oil market is also supporting global growth, as oil producers are now benefitting from a recovery in output values and once again rising oil sector related investments.

As for emerging economies, India has seen higher-than-expected 2016 growth of 7.5%, making some deceleration in 2017 more likely, with some dampening effects from demonetisation materialising in the 1Q. While China is forecast to grow by 6.2% this year, after seeing growth of 6.7% in 2016, official sources have reiterated a growth target of around 6.5%. Brazil is now expected to improve slightly this year and growth has been revised up to 0.5%, while Russia's growth rate has been held at 1.0%, though further stabilisation of oil market economics may lead to slightly higher growth.

Among the most important uncertainties for global economic growth, policy issues across the globe bear considerable weight, as do monetary policy decisions, which remain important in the near-term. It is expected that normalisation of US Federal Reserve (Fed) monetary policy will continue in 2017, given the inflationary support coming from the ongoing rebalancing of the oil market. This may also apply to other major central banks, though a relatively more accommodative stance is expected from some banks, particularly the European Central Bank (ECB) and the Bank of Japan (BoJ). Moreover, global debt levels remain high in some key economies, an issue that will probably require further attention as interest rates may rise gradually and the US dollar may continue to strengthen.

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

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
2016	**3.0**	**1.7**	**1.6**	**1.0**	**1.7**	**2.0**	**6.7**	**7.5**	**-3.6**	**-0.5**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	-0.2	0.0
2017	**3.2**	**1.9**	**2.2**	**1.1**	**1.6**	**1.3**	**6.2**	**7.0**	**0.5**	**1.0**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0

*Note: * 2016 = Estimate and 2017 = Forecast.*
Source: OPEC Secretariat.

OECD

OECD Americas

US

US GDP growth has been confirmed at 1.9% q-o-q on a seasonally adjusted annualised rate (SAAR) in **4Q16.** This is considerably lower than the 3Q16 level of 3.5%, while the current growth dynamic of the 1Q does not seem to be significantly higher; it is expected at slightly more than 2%. Uncertainty about the level of growth in 1Q16 remains high, ranging between slightly more than 1% to almost 3%. Asset markets are certainly heading towards a positive outcome and as valuations have achieved high levels, asset prices may weaken if expectations do not materialise. Positively, sentiment indices remain high and while industrial output is just slowly recovering, manufacturing orders point at continued improvements and the labour market points to a strengthening economy. These indications have also supported the likelihood of a Fed rate increase at the upcoming March meeting. While positive sentiment was also supported by numerous announced economic plans by the new administration that may turn out to be supportive for the domestic economy, uncertainties remain about the depths of these envisaged economic reforms and their implementation timeline. With numerous support measures having been announced, some upside could be possible, though the details of such initiatives remain to be seen. The upcoming budget negotiations will provide more inside in this respect.

The main support for economic growth in the US economy currently is coming from private household consumption, while investments may keep the growth dynamic going, given that energy-sector related investments are recovering. Consumption increased by 3.0% in 4Q16, the same level as in 3Q16. Moreover, private investment also grew by 9.2% q-o-q seasonally adjusted annual rate (SAAR). Exports have weakened after significantly expanding by 10.0% q-o-q SAAR in 3Q16, while the 4Q16 number has shown a decline of 4.0% q-o-q SAAR, impacted by the strength of the US dollar. Over the course of the quarters in 2017, no major pickup in growth levels are expected on average, as productivity growth remains subdued, the labour market remains tight and further governmental-led growth initiatives remain uncertain.

The **labour market's** positive momentum continued to be seen in the latest February numbers. The unemployment rate fell back to 4.7% in February, while non-farm payroll additions rose by 235,000, after being upwardly revised to 238,000 in January. Average hourly earnings rose by 2.8% y-o-y, a solid increase, to reach $26.09/hour. Support is also provided by the mining and logging sector, which includes oil-related employment. The sector started to add jobs again last November, with 21,000 new jobs since then. Long-term unemployment also reached a new low of only 23.8% of total unemployment, the lowest level since March 2009. Participation rates also increased to reach 63%, another sign of a healthy labour market.

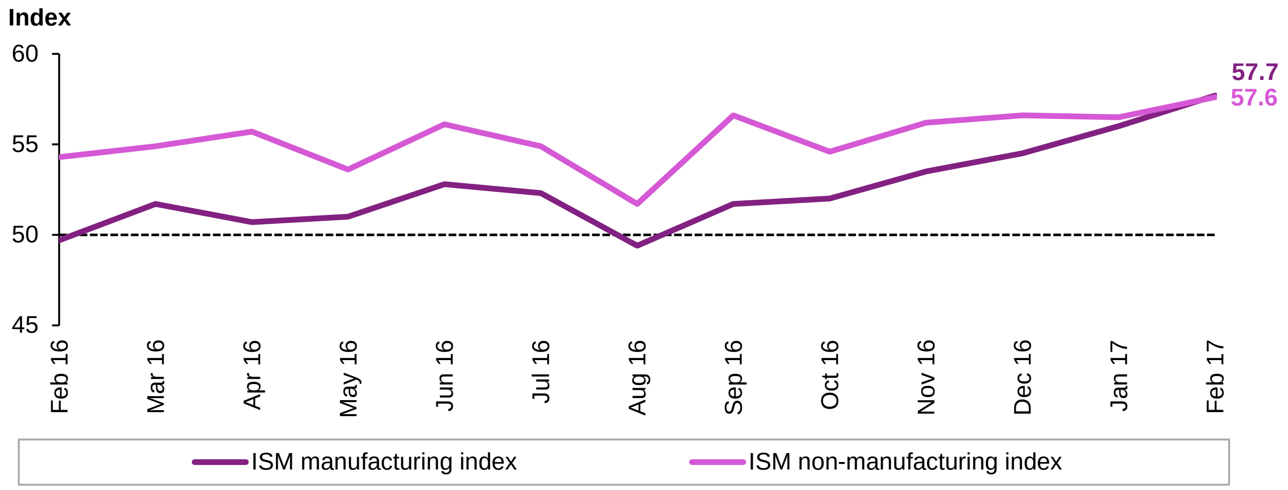
While a somewhat slowing pace in improvements previously kept the **Fed** from raising interest rates, the current momentum in labour markets, as well as inflation, very likely support a rate-hike at the Fed's upcoming 15 March meeting. Total inflation stood at 2.5% in January and core inflation, excluding food and energy, was still up by 2.0%, which is approximately the Fed's envisaged level of inflation. Moreover, if fiscal stimulus is implemented in the current economic environment, the economy may be faced with further inflationary challenges. First, the labour market currently seems to be relatively tight. With a reduction in immigration levels, it could become more expensive for employers to fund additional working hours. In addition, some initiatives like tax adjustments and infrastructure investments will require financing, but it is not yet entirely clear how this will be achieved. Given the current economic situation, it is likely that such measures may lift inflation via various channels. In the end, this may put the Fed under pressure to raise interest rates, probably quicker than currently anticipated.

Industrial production remained flat in January, though it was supported by a better situation in the energy sector. Mining, which includes oil sector-related output, rose by 0.4% y-o-y, the first increase of this sub-group level in almost two years.

A positive trend in private household consumption was supported considerably by the latest retail sales numbers. **Retail sales** growth in January stood at 5.6% y-o-y, even higher than the already strong December level of 4.4% y-o-y. This positive trend was also visible in the Conference Board's Consumer Confidence Index, which rose to a multi-year high of 114.8. This is the highest level since 2001, providing a strong indication that economic conditions have been improving.

July's **Purchasing Manager's Index** (PMI) for the manufacturing sector as provided by the Institute of Supply Management (ISM) also indicated improvements in the underlying economy. The manufacturing PMI moved higher to reach 57.7 in February, compared with an already high level of 56.0 in January. The important services sector index also rose to an index level of 57.6, from 56.5 in January.

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



Sources: Institute for Supply Management and Haver Analytics.

Signs have appeared that the momentum will lead to higher growth in the current year. This was already anticipated in the previous month, thus the **GDP growth forecast** remains unchanged at 2.2% for 2017, after achieving growth of 1.6% in 2016. More data over the coming months, as well as better insights into the fiscal stimulus plans of the incoming administration, will provide a sounder overview for a more detailed assessment of the situation of the US economy.

Canada

The economy of Canada continues to improve slightly, supported by a better situation in the oil sector and the stronger economy of its most important trading partner, the US. In 4Q16, the GDP was reported to be 2.6% q-o-q SAAR. This continuing the strong growth from 3Q16, providing an overall GDP growth rate of 3.8%. Hence, annual growth stood at 1.4%. Industrial production increased by 1.5% in December, after hitting 2.1% y-o-y in November. Output from the mining, oil and gas sectors remained an important driver, with overall sector growth of 1.7% y-o-y, after seeing a rise of 4.4% y-o-y in November. Importantly, the PMI for manufacturing improved, rising to a significantly higher level of 54.7 in February, after reaching 53.5 in January. The GDP growth forecast for 2017 remains unchanged at 1.7% but may see an upward revision if momentum continues.

OECD Asia Pacific

Japan

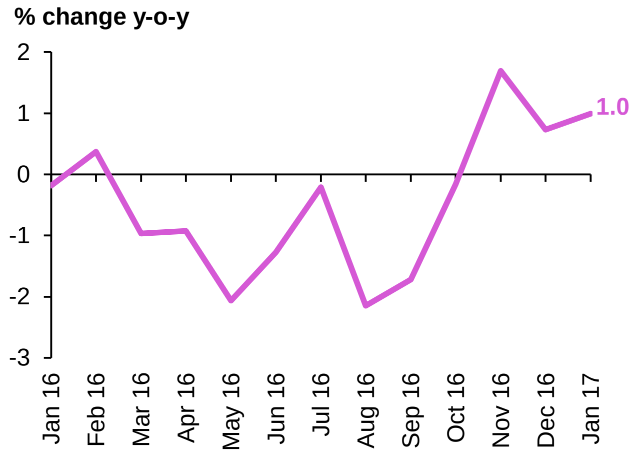
After a period of subdued or even negative growth in most areas of the Japanese economy, **momentum seemed to gain slight traction**, with output numbers improving, domestic demand holding up well and exports recovering. Inflation is still low but is likely to increase in the coming months, not only due to rising commodity prices but also supported by a considerable tightness in the labour market, which should lead to rising wages. With the still-low inflation rate, the BoJ will also be in a position to continue providing monetary support. It remains to be seen if the momentum will continue and is sustainable. However, the combination of a low yen and improving OECD-supported exports, as well as monetary and fiscal stimulus, seems to finally have positively supported economic development and the coming months will show if this will be a sustainable trend.

Inflation rose only slightly in January by 0.5%, up from its December level of 0.3%. With the combination of a tight labour market, which should lift core-inflation via rising income levels and strengthening commodity prices, this upward trend may continue. However, when excluding the two volatile groups of energy and food, the country's core inflation figure remained low at 0.1% in January, though slightly up from December, when it stood at 0%. Positively, real income continued to rise with pay increases in January of 0.9% y-o-y, following a rise of 1.1% y-o-y in December. The rising income pattern is also the outcome of a very low unemployment rate, which stood at only 3.0% in January, even lower than the rate of 3.1% recorded in December.

Japanese exports rose in January by 1.3% y-o-y, after showing already strong growth of 5.4% y-o-y in December. This recovery comes after more than a year of decline. This dynamic has been supported by a fall in the value of the yen and improvements in OECD economies. The export of industrial goods and capital equipment mostly supported this positive trend in trade. Also, **industrial production** continued its recovery, rising for the sixth consecutive month, up by 3.2% y-o-y in January, reaching the same healthy level as in December. This was also supported by a strong trend in manufacturing orders, which rose by 8.6% y-o-y in January and 10.7% y-o-y in December, pointing to the likelihood of continued rising industrial output.

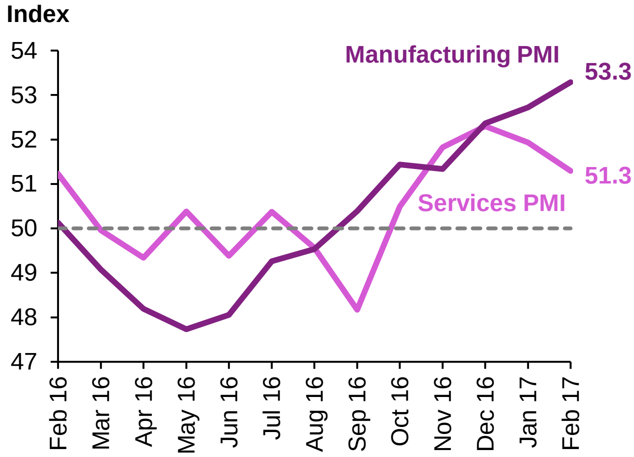
The improving environment has also been reflected in **domestic demand** levels**.** Retail trade had already recovered in November when it rose by 1.7%. It continued to rise in December at a rate of 0.7% and increased by 1.0% y-o-y in January after almost a year of decline.

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 ongoing economic improvements. The PMI for manufacturing rose to 53.3 in February from 52.7 in January. The services sector PMI remained strong but retraced slightly to 51.3 in February from 51.9 in January.

The most recent improvements point to some upside potential for **Japanese growth**. Numerous challenges persist and it remains to be seen to what extent current improvements will hold in the global economy and whether the ongoing stimulus measures by the BoJ will be able to lift growth above current forecast levels. For this month, the economic forecast remains unchanged at 1.0% for 2016 and 1.1% for 2017.

South Korea

Despite the latest political turbulence, the South Korean economy seems to have weathered challenges relatively well. Exports rose significantly in February by 12.7% y-o-y, after an already significant rise of 9.1% y-o-y in January. This marks the largest increase in exports since 2012. Industrial production rose by 3.6% y-o-y in January, after hitting 3.5% y-o-y in December. However, the latest PMI number for the manufacturing sector in February still indicates declining momentum in the manufacturing sector. The index rose slightly, but remained below the growth-indicating level of 50 with a figure of 49.2, only marginally higher than the 49.0 recorded in January. While near-term developments warrant close monitoring, the GDP growth forecast for this month remains unchanged at 2.6% for 2016 and 2.5% for 2017.

OECD Europe

Euro-zone

While the Euro-zone's **growth dynamic continues**, political debate is currently at the forefront of public discussion, with upcoming elections in the Netherlands, France, probably Italy and general elections in Germany in September. Certainly also Brexit is an important subject in this regard. In the meantime, growth continues to be supported by healthy domestic demand, while exports are still benefitting from a relatively weak euro. The current growth dynamic seems to be quite broad-based, while potential uncertainties about the outcome and consequences of the upcoming elections in key economies have not materialised in lower growth so far. The most recent momentum, in combination with a weaker euro and rising commodity prices, have also led to higher inflation. However, given the still relatively low core inflation rate, it seems the European Central Bank (ECB) is in no rush to significantly reduce its monetary stimulus anytime soon, especially since growth could still benefit from more support and given the fact that expectations of sharply rising inflation have not yet materialised. Negatively, the sovereign debt situation of Greece seems to have gained complexity again with differing views between the International Monetary Fund (IMF), the EU and Greece itself about how to proceed. This subject may also re-emerge in other economies, namely Italy.

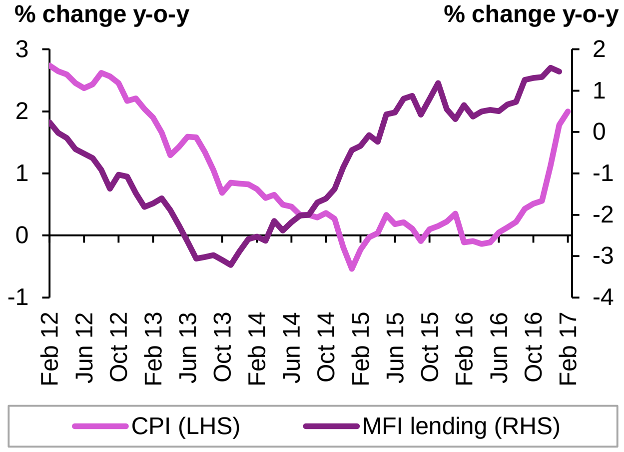
The Euro-zone's expansion continues to grow at a solid pace. However, the **4Q16 GDP growth level** was revised down slightly from a 0.5% q-o-q seasonally adjusted (sa) growth rate to 0.4% q-o-q sa growth. Despite this slight downward revision, GDP growth in 2016 remained unchanged at 1.7%.

The **unemployment rate** remained at 9.6% in January, the same as in December. Positively, it has remained below 10% for six consecutive months. Additionally, banking sector-related weakness seems to have abated to some extent, while in Italy challenges remain, with large institutions demonstrating capital needs. Also, the looming exit of the UK from the EU is adding some concern as it remains unclear how the process will unfold.

The latest **industrial production** figures confirmed that the business environment remains in expansionary territory. After growth of only 1.0% y-o-y in October, November's appreciation stood at a considerable 3.0% y-o-y and 1.8% in December. Manufacturing growth stood at a solid 1.3% and construction output rose by 2.4% y-o-y. Retail sales growth in value terms increased as well, up by 2.8% y-o-y in January, after reaching 2.1% y-o-y in December. This signals ongoing improvements in the underlying economy. Some support may still come from slight improvements in the labour market.

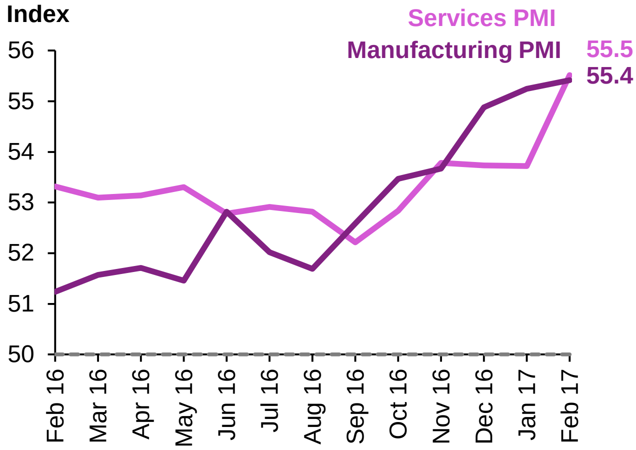
Inflation increased to a healthier level of 2.0% in February, after reaching 1.8% y-o-y in January. However, core inflation – that is, the **consumer price index** (CPI), excluding energy, tobacco and food − stood at only 0.9% y-o-y, the same level as in January. This **inflationary dynamic** will remain an area that the ECB will consider closely during its upcoming monetary policy decision-making meetings as well as at the most recent meeting, when the ECB kept its main policy rate at 0% and the deposit facility rate at -0.40%. The bond buying programme will continue until at least the end of 2017, and the monthly QE-programme is due to drop from €80 bn to €60 bn from April, as previously announced. Furthermore, the ECB's president highlighted that he sees no signs yet of a convincing upward trend in underlying inflation, so current stimulus measures are expected to continue for a while. The effectiveness of monetary stimulus – not only in terms of inflation but also in terms of credit supply – has increased lately. In January, credit supply increased by 1.5%, only slightly below the December level of 1.6% y-o-y. This is the fifth consecutive month with growth higher than 1%, after recovering from levels below 1% for all of 2016 prior to September.

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.

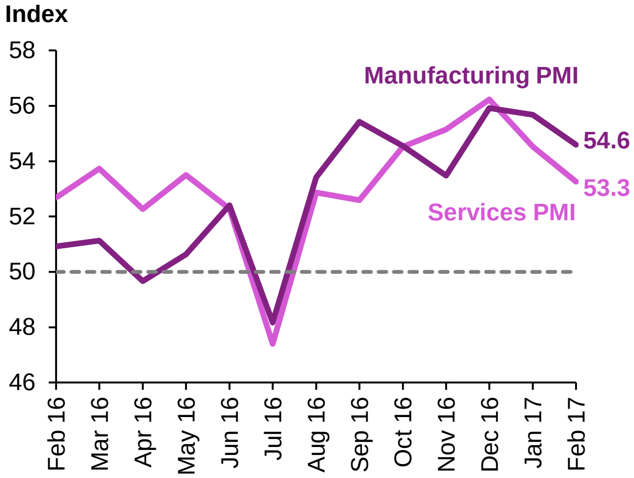
The latest **PMI indicators** point to a continuation in Euro-zone improvements as well. The manufacturing PMI rose slightly to 55.4 in February from 55.2 in January. The important services PMI increased considerably to 55.5, compared with 53.7 in January, already a high level.

The **2017 GDP growth forecast** for the Euro-zone remains at 1.6%, compared with a 2016 growth level of 1.7%. The lower level of growth in the current year anticipates potential challenges posed by political developments in 2017, given key elections in major economies, as well as the vagueness regarding Brexit procedures, which may all lead to rising uncertainty. This is to be seen in combination with the likelihood of rising inflation and, hence, a potential reduction in monetary stimulus towards the end of the year.

UK

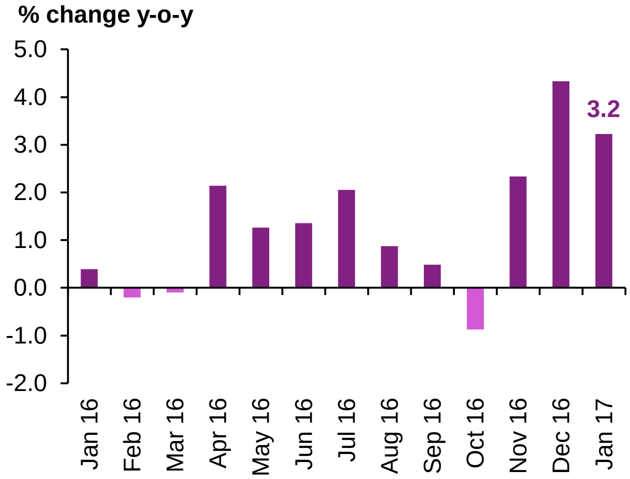
While the UK's efforts to leave the EU have gained some traction lately, the latest decision in the House of Lords that the Peers would like to see parliament have a final say in Brexit negotiations and guarantee the rights of EU citizens in the UK has opened up a debate that may continue. In the meantime these requests were rejected by the Commons and amended accordingly by the Lords. Now the Prime Minister is expected to start negotiations soon. In addition to this debate, Scotland wants to call for a second independence referendum. Thus, some uncertainty will remain for the coming months.

Graph 3 - 6: UK PMIs



Sources: CIPS, IHS Markit and Haver Analytics.

Graph 3 - 7: UK industrial production



Sources: Office for National Statistics and Haver Analytics.

The UK's economy has been only slightly impacted by Brexit so far and has remained robust. But early signs of some slow-down have emerged. The **PMI for manufacturing** remained at a considerable level, standing at 54.6 in February, somewhat below the 55.7 of January. Positively – and probably even more important for economic growth in the UK – the **services sector PMI** fell back to 53.3 after reaching 54.5 in January and 56.2 in December. This was the lowest reading in five months. **Domestic consumption** held up well, but signs of weakening have become apparent as retail values increased by 2.9% y-o-y, the lowest increase since September of last year. The underlying assumption of a severe negative impact of Brexit on the UK economy in the short-term has not changed. But it seems that the fallout will be spread over a longer time horizon and may be counterbalanced by governmental support, at least to some extent. The 2017 growth forecast remains unchanged at 1.3%, significantly lower than growth in 2016 of 2.0%.

Non-OECD

BRICs

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

	GDP growth rate		Consumer price index, % change y-o-y		Current account balance, US$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Brazil	-3.6	0.5	8.7	5.0	-21.8	-20.3	-6.3	-6.7	71.5	79.2
Russia	-0.5	1.0	7.0	5.4	22.1	58.1	-3.6	-2.6	10.1	12.1
India	7.5	7.0	4.9	5.1	-8.7	-12.1	-3.8	-3.2	51.6	51.0
China	6.7	6.2	2.1	2.0	260.8	203.0	-3.8	-4.3	20.0	24.7

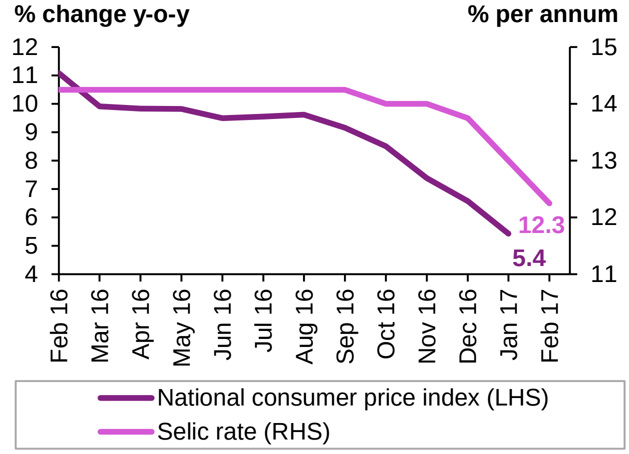
*Note: * 2016 = Estimate and 2017 = Forecast.*
Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, OPEC Secretariat and Oxford.

Brazil

Brazil's GDP contracted by 2.5% y-o-y in 4Q16, marking the 11th consecutive quarter of deceleration in the country's longest and deepest recession ever. This brought the overall contraction for 2016 to 3.6% y-o-y.

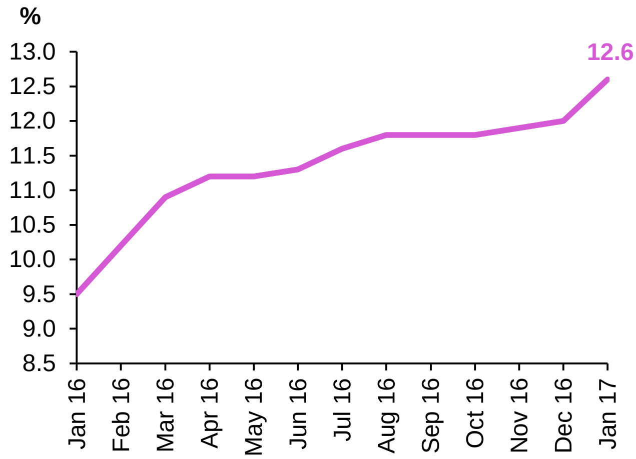
Brazil's **trade surplus** increased in February to $4.5 bn, 50% higher than the same month of the previous year. This was also the highest trade surplus recorded in February. While **imports** increased by 5.9% y-o-y in February, **exports** rose by 15.9%. The **economic activity indicator** published by Brazil's central bank showed a decline of 1.8% y-o-y in December 2016, confirming an easing trend in the country's contraction. The deceleration in **GDP** seems to have bottomed out in 4Q15 when the economy contracted by 5.8%. The pace of contraction gradually eased to 5.4%, 3.6%, 2.9% and 2.5% in 1Q16, 2Q16, 3Q16 and 4Q16, respectively. Consumer price **inflation** dropped to 5.4% in January, the first sub-6% reading since May 2014. This downward inflationary path left some room for the central bank to reduce its high interest rate from 13.75% to 13.00% in January and to 12.3% in February. The **unemployment rate** increased once again in January to another record-high of 12.6%.

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

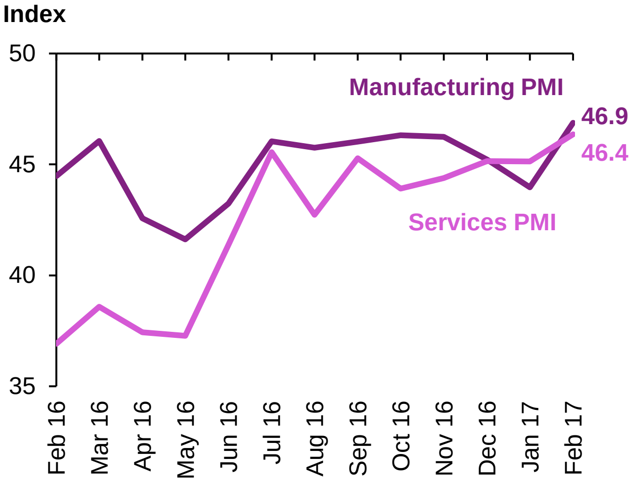


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

The **services sector** in Brazil continued to remain in recession during February for the 24th consecutive month, according to the Markit Brazil Services Business Activity Index. Nevertheless, the index showed a slower rate of reduction and recorded its highest level since March 2015 to 46.4, up from 45.1 in January. The **manufacturing sector** also continued to face challenging operating conditions in February as the Markit Brazil Manufacturing PMI remained in contraction territory. However, the deceleration in production and new orders was slower in February compared with a month earlier. The survey also showed strong optimism among manufacturers, 73% of which foresee production growth by next year. The **consumer confidence**

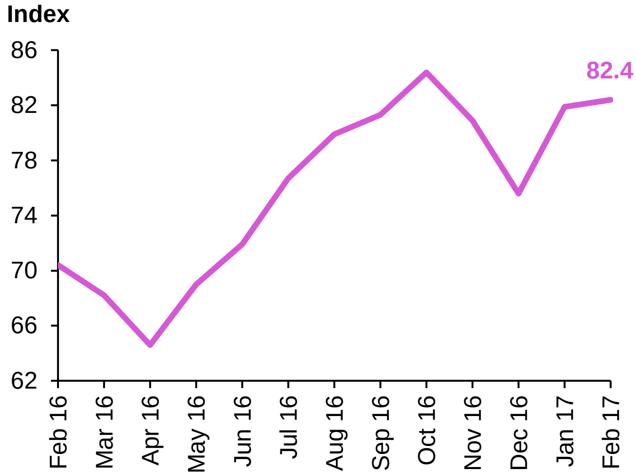
index was again positively affected by slowing inflation and showed another improvement in February, increasing to 82.4 from 81.9 in January.

Graph 3 - 10: Brazilian manufacturing and services PMIs



Sources: IHS Markit and Haver Analytics.

Graph 3 - 11: Brazilian consumer confidence index



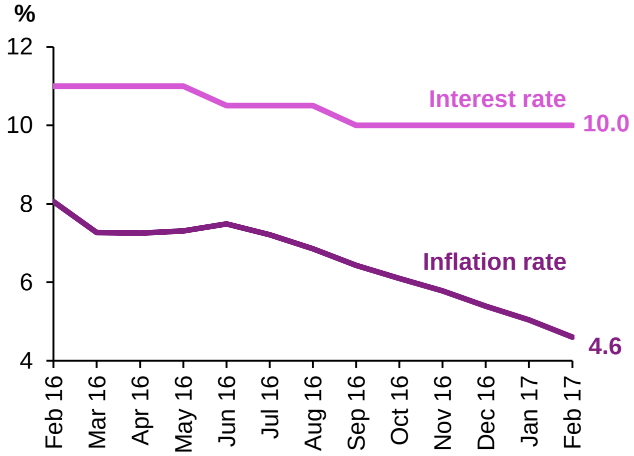
Sources: Fundação Getúlio Vargas and Haver Analytics.

The deep recession for more than two years, which brought GDP down to less than the level registered in 2Q12, seems to be changing course, and the economy finally appears to be sending signs of a gradual reversal. Throughout the past months, Brazil has experienced slowing inflation, which helped consumer sentiment and allowed the central bank to lower its benchmark interest rate. It is still high, even after a recent 75 basis point reduction, meaning there is plenty of room to stimulate the economy via further adjustments in the interest rate. While remaining in recession, both the services and manufacturing sectors are likely to turn a corner before mid-2017, with a slower pace of contraction and strong optimistic sentiment seen in February. This gradual process of cyclical recovery is anticipated to induce minor growth in GDP of 0.5% y-o-y in 2017.

Russia

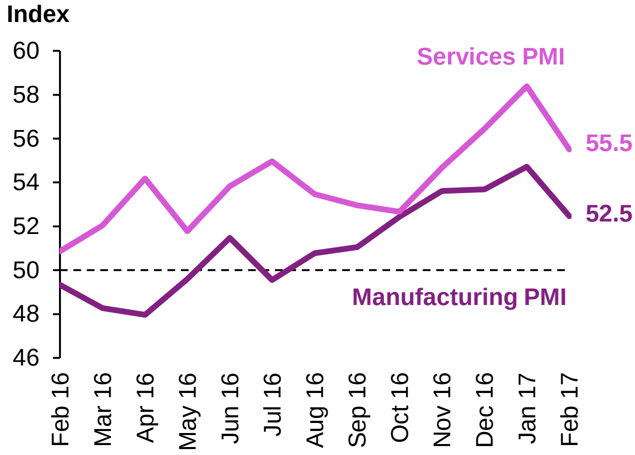
In January, **inflation** reached its slowest rate of increase since June 2012 at 5.0% y-o-y. In February, inflation eased further to 4.6% y-o-y. The central bank remained determined to continue and sustain the downward trend in inflation, keeping its benchmark **interest rate** unchanged at 10.00% in February. This sent an important message to the market, confirming the expectations of notably lower inflation in 2017. The Russian ruble appreciated by 2.4% m-o-m against the US dollar for the third month in a row in February.

Graph 3 - 12: Russian inflation vs. Interest rate



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

Graph 3 - 13: Russian PMIs

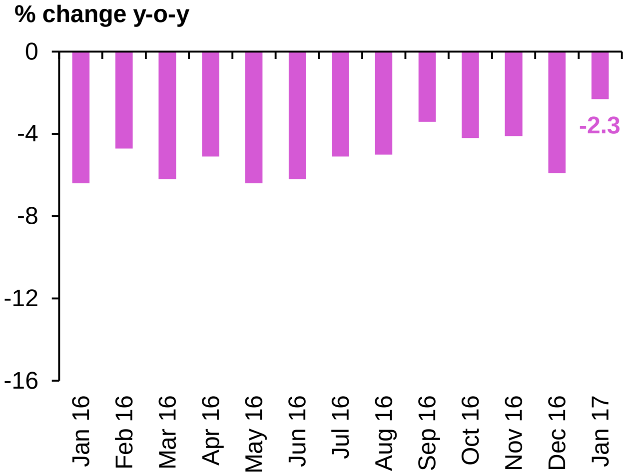


Sources: IHS Markit and Haver Analytics.

The **services sector** extended its expansionary streak for the 13th month in a row in February. The Markit Russia Services Business Activity Index posted 55.5 points in February. However, the sector stood short of the previous month's growth, which was the fastest since before the Great Recession. Reflecting strong performance in the services sector, together with slowing inflation, **retail sales** continued dropping in January, though by the least since the beginning of 2015. **Retail sales** declined by only 2.3% y-o-y in January 2017 compared to an average drop of 5.2% y-o-y in 2016.

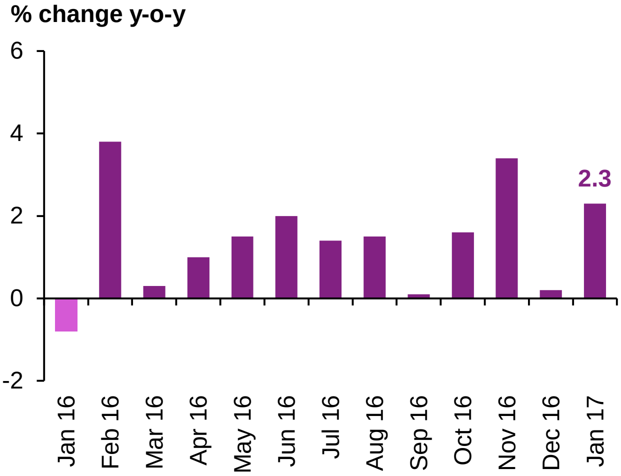
The **manufacturing sector** registered growth for the seventh consecutive month, according to the Markit Russia Manufacturing PMI. However, the index reading of 52.5 in February was lower than January's six-year high of 54.7 and the lowest in four months on slower increases in production, new business and employment. Still, February's reading is well above the index average, since it was first published in January 2012. Actual data regarding **industrial production** seems to be very much in line with the conclusions of the manufacturing PMI survey. Industrial production increased by 2.3% y-o-y in January, extending a series of expansions started in February 2016. February's rate of expansion is the third highest in the indicated period.

Graph 3 - 14: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 15: Russian industrial production



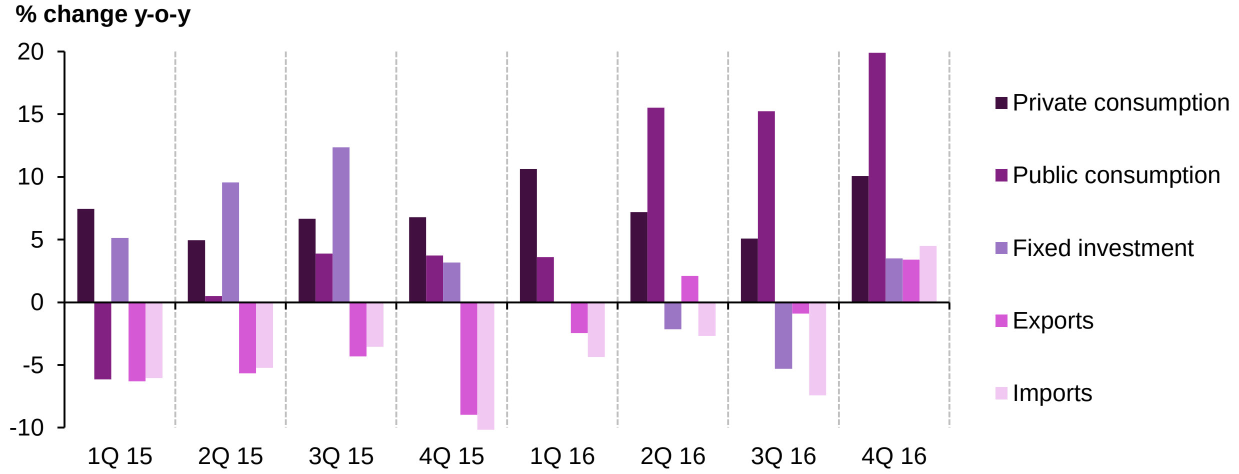
Sources: Federal State Statistics Service and Haver Analytics.

The economy of Russia seems to be in reasonable shape and is heading towards expansion territory in 2017 following two years of recession which brought the GDP down to nearly 4Q11 seasonally adjusted levels. GDP growth is projected to be at 1.0% in 2017. The recent extension of positive indicators created more room for an upward revision in the coming months.

India

India's annual **GDP growth** increased above expectation to 7.3% y-o-y in 4Q16, while for 2016 GDP growth stood at 7.5%, implying a negligible impact from recent demonetisation. In the midterm, India's annual GDP growth rate is projected to trend at around 7.0% in 2017. The main reason behind the 7.3% GDP growth in 4Q16 is a rebound in consumer spending despite a severe liquidity shock in the cash-intensive economy, following demonetisation. Real private consumption growth nearly doubled from the previous quarter, up 10.1% y-o-y in 4Q16, according to the Central Statistics Office. As with private consumption growth, real fixed investment appears to have shown a turnaround during the December quarter, up by 3.5% y-o-y, following three quarters of contraction. On the supply side, strong manufacturing growth in the 4Q probably still reflects the cost effects against real manufacturing GDP growth of 8.3% y-o-y, given that the volume growth measured by the manufacturing component of the industrial production index was significantly lower, at 0.4% y-o-y. The impact of demonetisation was most evident in the construction sector, which showed a slowdown in growth to 2.7% y-o-y after a short-lived recovery in 3Q16.

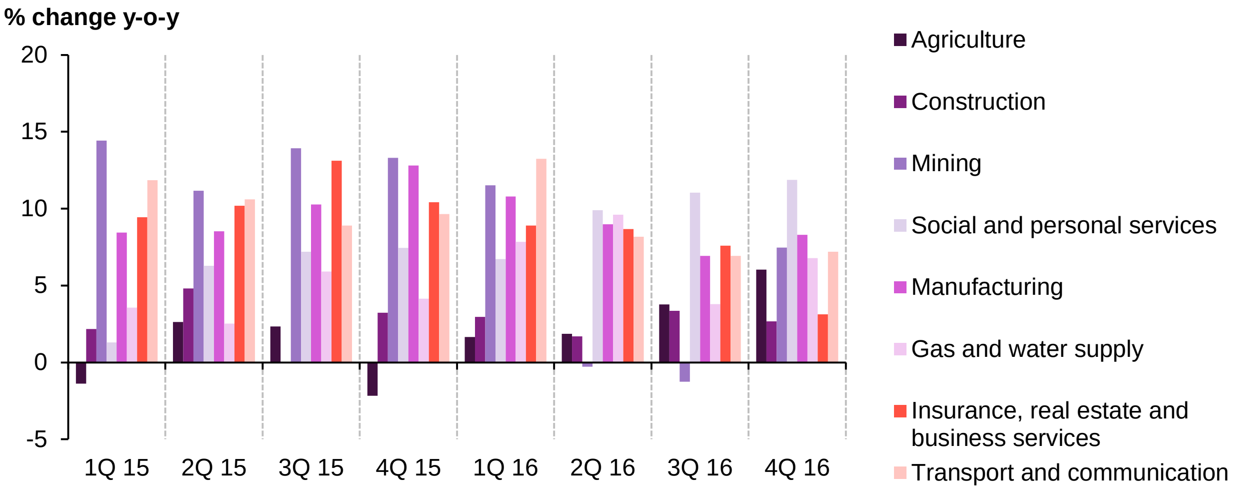
Graph 3 - 16: Indian GDP growth by demand side



Sources: Central Statistics Office and Haver Analytics.

In January, India's **CPI** recorded its smallest y-o-y increase since the start of the current survey in 2012. Meanwhile, core inflation picked up in January, supporting the central bank's recent shift to a neutral policy stance. The CPI decreased 3.17% y-o-y in January of 2017, easing from a 3.41% rise in December and remaining below market expectations. This is the lowest inflation rate since the series began and is due to a sharp slowdown in food prices. A year ago, the inflation rate was higher at 5.69%, while on a monthly basis, consumer prices have edged down 0.08%. The weaker-than-expected inflation result is unlikely to move the Reserve Bank of India (RBI) from its recent shift towards a neutral monetary policy stance. This shift was based on concerns about re-emerging domestic core inflation pressures as seen in January, as well as other global factors. The **wholesale price index** rose 5.25% y-o-y in January of 2017, following a 3.39% gain in December while the markets expected a 3.89% rise. It was the tenth straight monthly increase and the highest level since July 2014. The increase was driven by a faster increase in the costs of manufactured products and a surge in the costs of petrol. Food prices, meanwhile, fell less than in the prior month.

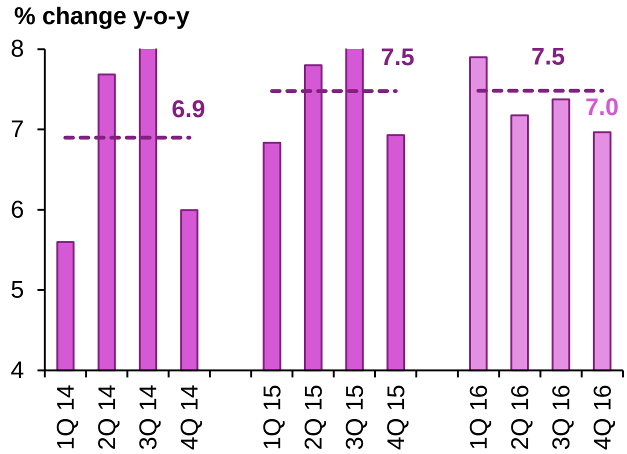
Graph 3 - 17: Indian GDP growth by supply side



Sources: Central Statistics Office and Haver Analytics.

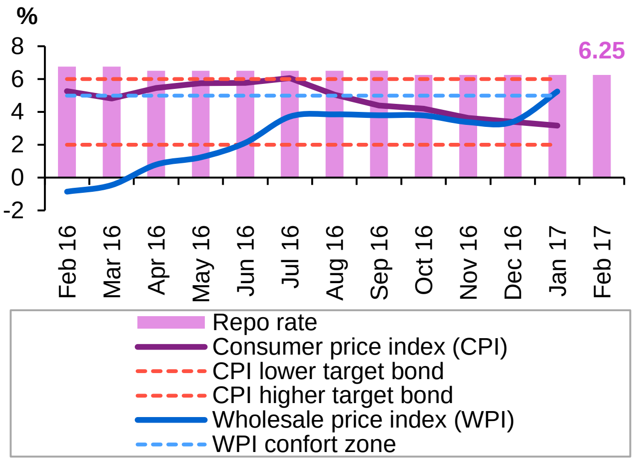
Indian merchandise **exports** stood at $22.1 bn in January, up 4.3% y-o-y, marking the fifth consecutive month of growth, following a prolonged period of contraction. Improving global prices for oil and other commodities was the major reason behind the rise. **Imports** of goods increased by 10.7% y-o-y to $32 bn during the month, reflecting a sharp rise in oil purchases, following a gradual recovery in global oil prices. The merchandise trade deficit narrowed to $9.8 bn last month, down from $10.4 bn in December 2016. An expected further recovery in global oil prices is likely to be the main factor in India's 2017 external trade dynamics. As a result, the trade and current account deficits are likely to widen only slightly from current levels, with the latter expected to remain under 2% of GDP in 2017. One factor that could potentially disrupt the balance is a sharp increase in gold imports, something that in the past has driven the current account deficit above 5% of GDP.

Graph 3 - 18: Indian GDP growth



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

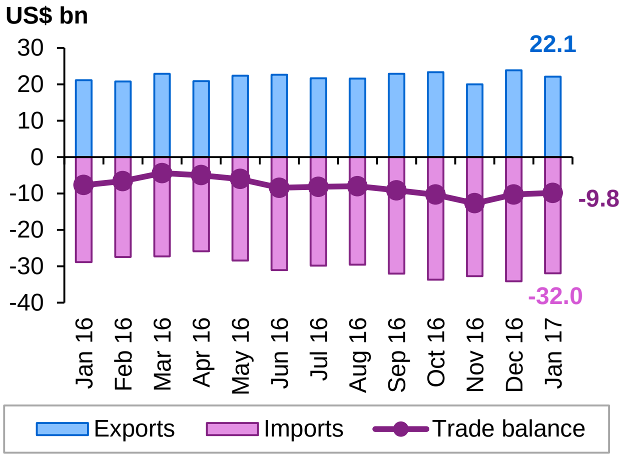
Graph 3 - 19: Indian inflation vs. Interest rate



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

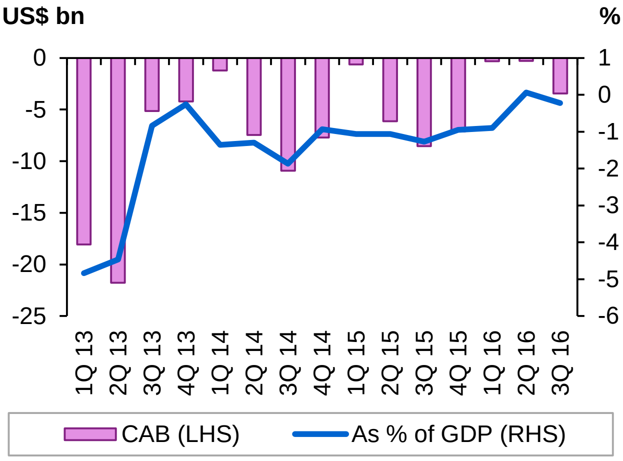
India posted a **current account** deficit of $3.4 bn, or 0.6%, of GDP, in 3Q16 compared to $8.5 bn, or 1.7%, of GDP, during the same period a year ago. The merchandise trade deficit fell sharply to $25.6 bn compared to $37.2 bn a year ago. Meanwhile, the **balance of payments** posted a surplus of $8.5 bn for the July-September quarter compared with a deficit of $900 mn a year ago.

Graph 3 - 20: Indian trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

Graph 3 - 21: Indian current account balance

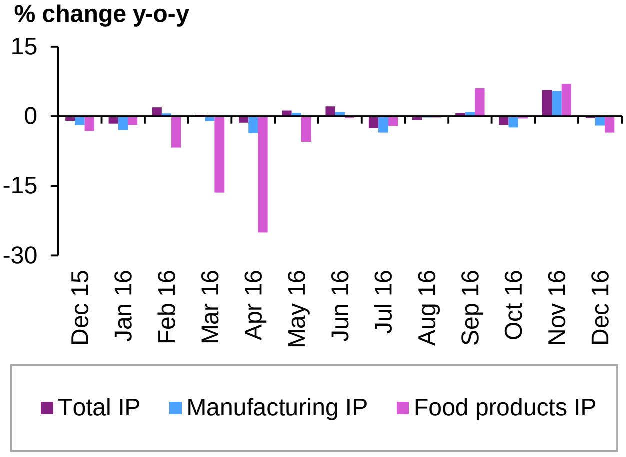


Sources: Reserve Bank of India and Haver Analytics.

India's monthly **index of industrial production** (IIP) data remained volatile and provided only limited insight into the true effects of demonetisation. The December contraction in industrial output is not drastic, particularly when seen in the context of already shrinking output prior to demonetisation and the unfavourable base effects from December 2015. Yet the third consecutive month of sequential monthly declines in the output of consumer durable goods does seem to confirm a slowdown in consumer demand. India's industrial output slipped 0.4% y-o-y in December, bringing the full-year growth to a mere 0.4%, the lowest since 2009. The 2.0% y-o-y contraction in manufacturing production was responsible for the overall drop in December, while both mining and electricity generation showed growth above 5.0%.

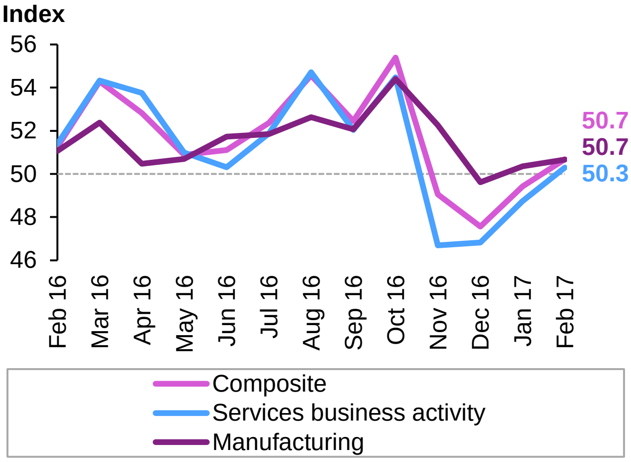
Indian **manufacturers** benefited from recovering demand and raised production volumes in response to another expansion in inflows of new work. February is the second successive month in which the health of the sector improved after the demonetisation-related contraction recorded at the end of 2016. February data indicated that Indian manufacturing production continued to increase, as a rebound in export demand contributed to a stronger expansion of total new orders. There was evidence of an intensification of inflationary pressures, with input costs rising at their quickest pace since August 2014 and output charge inflation climbing to a 40-month peak. The PMI reached 50.7 in February, up from 50.4, above the neutral 50 level for the second month running, an indication that the health of the sector has improved to a greater extent than in January. That said, the latest reading was much weaker than the long-run series average of 54.2, largely reflecting below-trend rates of growth for output and new business.

Graph 3 - 22: Indian industrial production breakdown



Sources: Central Statistical Organisation of India and Haver Analytics.

Graph 3 - 23: Indian PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

With 4Q16 **GDP growth** at 7.3%, India's real GDP growth for 2016 was 7.5%, and hence was 0.4 percentage points (pp) higher than the expectation set out in last month's *MOMR.* With some negative effects from demonetisation expected to materialise in 1Q17, the 2017 GDP growth forecast was revised down to 7.0%, from 7.1% in the previous month.

China

China's **GDP growth** momentum remained solid at the start of 2017 with goods export and import volumes rising. But GDP growth is expected to slow to 6.2% this year as the tightening of housing purchase restrictions in many large cities will weigh on real estate investments, and policymakers are moving to place somewhat more emphasis on reducing overcapacity. Fast economic growth continues to be supported by rapid gains in leverage. Overall credit, including local government bond issuance, grew 15.8% in January, only slightly down from the 16.1% increase in December. The Chinese Premier announced that the government aims to deliver economic growth of around 6.5% in 2017, compared with last year's goal of 6.5% to 7%. In the coming years, it seems the Chinese GDP growth rate will face two strong downward risks. The first is related to China's ambitious growth target, which will rely on further stimulus and tighter policies for rapid credit growth. The second risk is related to the new US administration's policy on international trade channels.

Net financial outflows moderated to about $57 bn in January, while the stock of foreign exchange reserves fell below $3 trn. It seems policymakers will continue to dampen depreciation pressures via foreign exchange intervention and clamp down on financial outflows in order to limit the fall in foreign exchange reserves. The People's Bank of China (PBoC) has spent nearly $800 bn over the past two years to control the pace of the yuan's depreciation against the US dollar, depleting the country's foreign exchange reserves and raising concerns about the sustainability of such a policy. The PBoC has allowed interbank rates to increase somewhat, signalling that it does not want monetary conditions to be too loose, owing to concerns about financial risk.

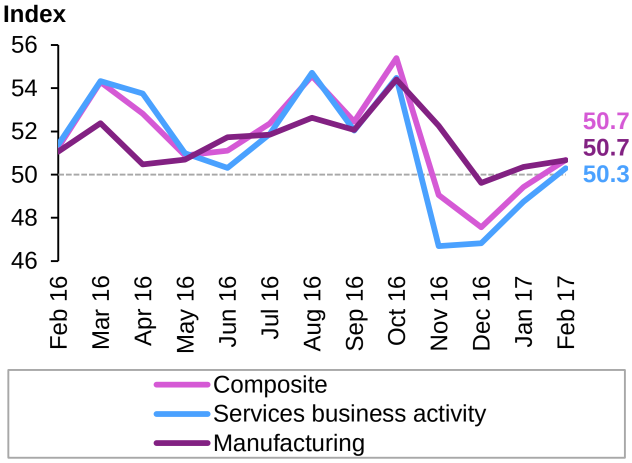
Consumer spending is becoming an increasingly important driver of growth as households get richer and demand for services is expected to remain strong. Indeed, the services sector has outpaced industry since 2012. Consumption may continue to lead China's economic growth in 2017 but at a moderated pace. However, it seems the contribution of consumption to GDP may decline in 2017 because of a predicted rebound in investment.

The Chinese government targets average GDP growth of at least 6.5% in 2016-20 to achieve the objective set in 2010 to double both GDP and per capita income by 2020. But these growth targets are overly ambitious, given the various external and domestic headwinds, including those coming from the new policy of the US administration, which could lead to excessive reliance on the stimulus noted above.

Chinese **exports and imports** have rebounded in line with expectations with the fastest monthly growth rate since February 2015. This compares with a 2016 contraction of 7.7%, or a 15.2% contraction in January 2016. The improvement was overwhelmingly the result of much slower contractions of exports to Hong Kong, and a swing into modest growth for exports to the European Union. Somewhat faster growth in exports to the US and somewhat slower contractions in exports to ASEAN also played a role, albeit much smaller, in this improvement. Most products showed improved growth relative to the prior month, although a majority of the export improvements were due to mechanical and electrical product exports accelerating from -6.1% to 4.4% growth and high-tech products accelerating from -8.0% to 2.3% growth in line with expectations. Meanwhile, merchandise imports expanded 16.1% in January in US dollar terms.

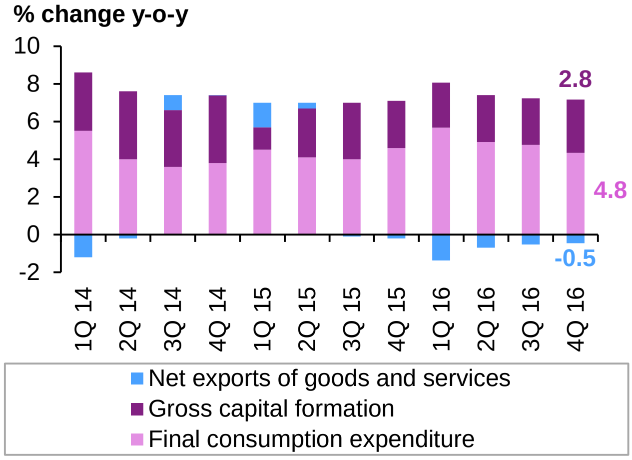
China's **current account** surplus fell to 1.9% of GDP in 2016, according to a press release by the State Administration of Foreign Exchange. The figure is the lowest since a 1.5% surplus-to-GDP ratio in 2013, and compares with a 3.0% ratio in 2015. In nominal terms, the 2016 surplus was $210.4 bn. China's weakening current account surplus reduces the chance it will be labelled a currency manipulator by the US. Under existing rules, a country's surplus exceeding 3% of GDP is one of three criteria to launch a further investigation. China has been at or below that level since 2011.

Graph 3 - 24: Chinese GDP growth rate



Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3 - 25: Chinese GDP breakdown



Sources: China National Bureau of Statistics and Haver Analytics.

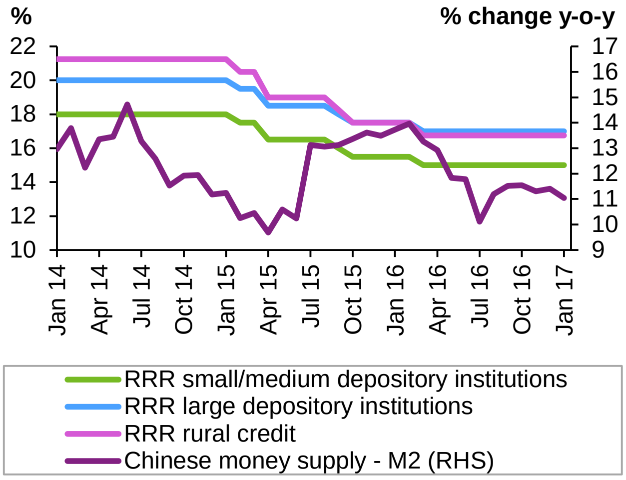
China's government has made progress in cutting excess capacity in **coal mining and steel**, but more capacity reduction is needed. The government plans to extend its policy-driven initiative to other sectors within the country's heavy industry this year.

The **producer price index (PPI)** rose 6.9% y-o-y in January, driven by rising prices in coal mining and heavy industry, while the m-o-m gain moderated for the first time since July 2016. The spurt in prices is expected to run out of steam in 1H17 and CPI inflation is forecast to remain below the likely target of 3% in 2017, suggesting no major monetary policy implications.

The PBoC announced that it would permit a lower **reserve requirement ratio** (RRR) from 27 February for selected banks that participate in lending in rural areas and to small businesses. Some banks that have failed to supply sufficient credit to these sectors since 2014 would face a move in the opposite direction, becoming subject to a higher RRR.

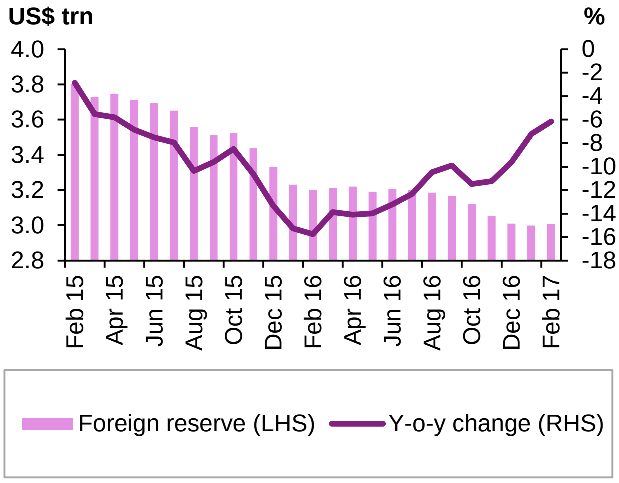
China's **foreign exchange reserves** increased by $7 bn to $3.005 trn in February 2017, from $2.998 trn in January, challenging expectations of a fall to $2.969 trn. It was the first rise since June of last year, following the imposition of administrative controls.

Graph 3 - 26: Chinese RRR vs. Money supply (M2)



Sources: People's Bank of China and Haver Analytics.

Graph 3 - 27: Chinese foreign exchange reserves



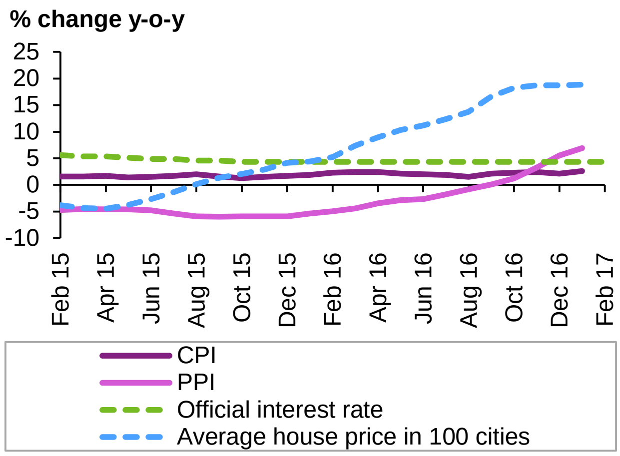
Sources: People's Bank of China and Haver Analytics.

China unexpectedly reported a $9.15 bn **trade** deficit in February of 2017 compared to a $28.2 bn surplus a year earlier, missing market expectations of a $25.75 bn surplus. It was the first monthly trade gap since February 2014 as imports surged while exports fell. In February, exports declined by 1.3% y-o-y, following a 7.9% rise in January while markets expected 12.3% growth. Imports jumped 38.1%, after growing 16.7% in the prior month, to settle way above the consensus of a 20.3% rise. In January 2017, China posted a trade surplus of $51.35 bn. Trade in January and February could be distorted by the week-long Lunar New Year holiday, with businesses slowing down weeks ahead of time and companies scaling back operations.

In terms of China's **non-financial corporate debt**, it could serve as a downward risk, since it has risen to 142% of GDP. In addition, leverage in some sectors has been very high. Furthermore, large volumes of lending to firms in the heavy industry sector suffering from excess capacity have led to a significant increase in the stock of non-performing loans. While the risk of a systemic financial crisis remains low, a lack of progress in reining in credit growth could eventually lead to more pronounced financial stress and raise the risk of market turmoil. Meanwhile, a move to dampening credit growth would mean slower, albeit more sustainable, GDP growth.

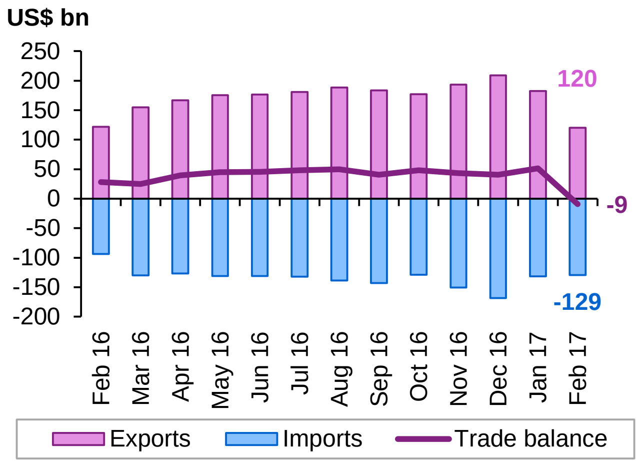
China's **CPI** improved to 2.5% y-o-y in January on the acceleration seen across all sub-sectors. According to an official statement, the m-o-m acceleration mainly came from transportation and telecommunications, as well as the tourism and food components, owing to a 'Spring Festival' effect. Meanwhile, the oil price rise in January contributed to the acceleration of related transportation components. The services CPI experienced a larger acceleration, improving by 0.7 pp from December to January, compared with the 0.4 pp acceleration in consumer goods.

Graph 3 - 28: Chinese CPI and PPI



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

Graph 3 - 29: Chinese trade balance



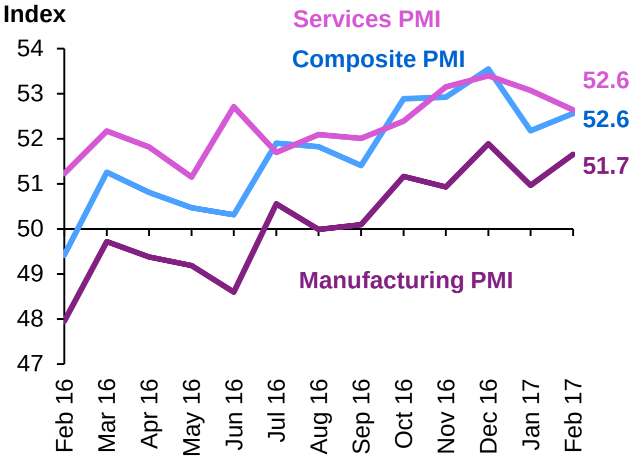
Sources: China Customs and Haver Analytics.

China's **PPI** accelerated to 6.9% y-o-y in January, largely owing to the low base effect in 2016.

China's total **automobile production and sales volumes** weakened in January relative to a year ago, according to data published by the Ministry of Industry and Information Technology (MIIT).

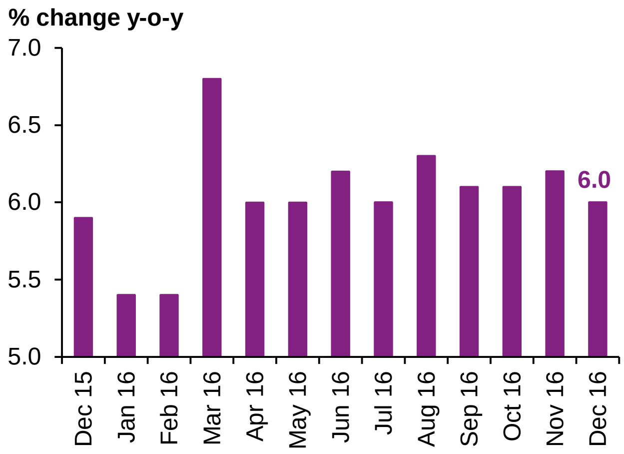
China's **PMI** rose to 51.7 in February, up 0.7 points from the previous month. This is the second highest level in four years. The output and new orders sub-indices rebounded from a month ago. Beyond the headline business activity index, other notable changes included weaker total new orders, despite new export orders expanding for the first time in three months, as well as a backlog of orders contracting at a faster pace. Employment continued to contract for a second month, following a short-lived stabilization during the final quarter of 2016.

Graph 3 - 30: Chinese PMI



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 31: Chinese industrial production

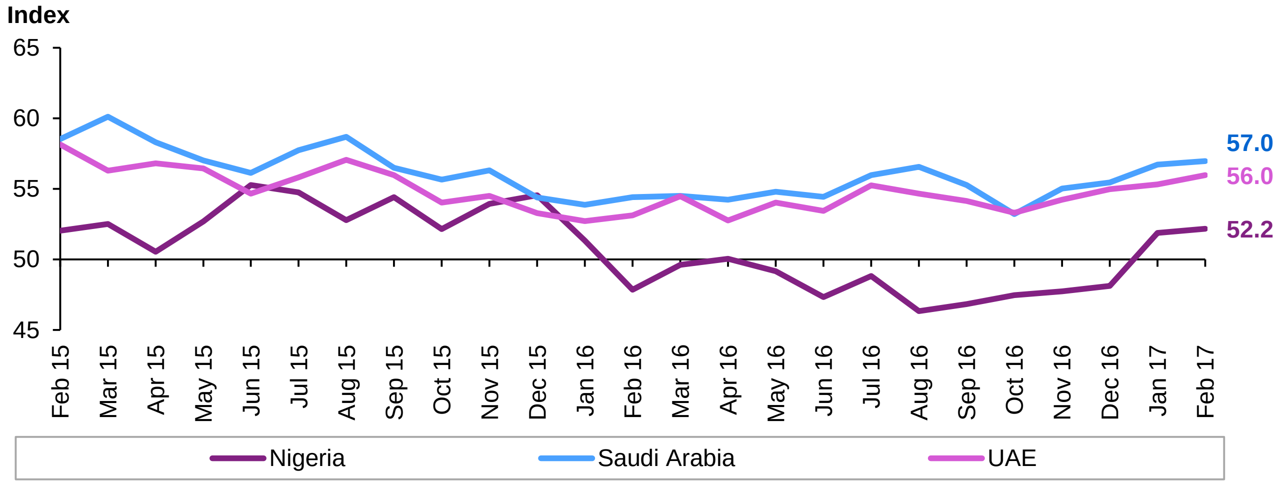


Sources: China National Bureau of Statistics and Haver Analytics.

OPEC Member Countries

In **Saudi Arabia**, inflation was slightly in the negative in January 2017 at 0.4% y-o-y as a result of the baseline effect where adjustment to prices of electricity, gas and other fuel, together with water supply, were introduced in early 2016, pushing the overall inflation index higher. Growth in the country's non-oil private sector accelerated in February, according to the Emirates NBD Saudi Arabia PMI. The index registered 57.0 in February, up from 56.7 a month earlier, due to a surge in new orders and output.

Graph 3 - 32: PMIs of Nigeria, Saudi Arabia and UAE



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

In **Nigeria**, GDP shrank 1.5% y-o-y in 2016, according to the National Bureau of Statistics. However, the non-oil private sector started 2017 on a positive note where the Stanbic IBTC Bank Nigeria PMI reading on February was the highest in 14 months. The survey outcomes highlighted an increase in new orders accompanied with a quick rise in output. The index stood at 52.2 in February, up from 51.9 in January, whereas it spent most of 2016 in contraction territory.

Operating conditions in the non-oil private sector in the **United Arab Emirates** was moving from strength to strength at the beginning of 2017. The respective PMI index rose to a 17-month high of 56.0 in February due to notable growth in new orders and the strongest upturn in output in one-and-a-half years.

Other Asia

The economy of **Indonesia** grew by 5.0% y-o-y in 2016, slightly higher than 2015's growth of 4.9%. Despite the fact that growth in general government consumption expenditure declined from 5.0% y-o-y in 2015 to just 0.7% in 2016, Gross Fixed Capital Formation (GFCF) accelerated by 5.3% in 2016 compared to 3.0% in 2015. The slowdown in exports continued but eased in 2016, reaching 1.7% y-o-y compared with a decline of 2.1% y-o-y in 2015. Imports, on the other hand, dropped by a smaller rate of 2.3% y-o-y in 2016, while 2015's decline in imports stood at 6.4%. Consumer price inflation was at 3.8% y-o-y in February, lower than the 4.4% inflation rate recorded one year ago.

Growth in **Malaysia**'s GDP registered 4.2% y-o-y in 2016, lower than the 5.0% rise in 2015. Private consumption growth was unchanged at 6.1% y-o-y in 2015 and 2016. In contrast, the government's final consumption expenditure increased by only 1.6% y-o-y in 2016 compared to 4.5% in the previous year. Growth in GFCF also increased at a lower rate in 2016, growing by 2.6% compared to 3.8% in 2015. Exports barely grew in 2016, rising by 0.1% y-o-y compared to the 0.6% increase a year earlier. Imports also witnessed notable declines in growth last year compared to 2015, dropping by 0.4%, compared to 1.2%.

Africa

In **South Africa**, the rand appreciated by 2.7% m-o-m against the US dollar in February. Business conditions in the South African private sector continued to improve last month, yet at a slower pace, according to Standard Bank South Africa PMI. The index remained in the growth territory for the sixth month in a row, posting 50.5 in February, down from 51.3 in the first month of the year. Surveyed firms reported weaker increases in output and new business, especially for exports as new export orders declined further.

In **Egypt**, the pound appreciated 9.2% m-o-m against the US dollar last month, after depreciating 97% in the three months from November 2016 through January 2017. The currency depreciation sent inflation towards a nearly 30% y-o-y surge in January. The Emirates NBD Egypt PMI showed that while operating conditions in the non-oil private sector kept worsening, the pace of decline softened somewhat. The index survey revealed reduced declines in output and new business. Reductions in employment also continued but at a slower pace.

Latin America

In **Argentina**, the outlook for government bonds was recently improved as the Moody's rating agency lifted the country's rating from a stable to a positive outlook. This development was largely due to policy measures taken at the beginning of 2016, which are seen as supportive of growth returning in 2017.

In **Chile**, the central bank kept its benchmark interest rate unchanged in February at 3.25%. The rate was lowered in January from 3.50%, aiming to support economic growth amid an easing of inflation. The CPI increased 2.8% y-o-y in January, compared to a 4.8% increase twelve months before.

Transition region

The GDP of the **Czech Republic** grew by 2.4% y-o-y in 2016, according to the country's Statistical Office. This is lower than the 4.5% economic growth registered in 2015. Household consumption growth slowed from 3.1% y-o-y in 2015 to 2.9% in 2016. Government consumption also showed a similar trend, growing by 1.6% y-o-y last year, down from 2.0% in 2015. GFCF witnessed a steep contraction of 3.3% in 2016, compared with an increase of 8.9% one year earlier. Growth in the exports of goods and services went from 7.7% in 2015 to 4.3% in 2016. Imports were the only improved part of the GDP equation as they grew by a slower pace of 3.3% in 2016 compared to an 8.2% rate in 2015. The manufacturing sector PMI in February highlighted strong growth in production, as well as new business and job creation in the sector. The index rose to 57.6 in February from 55.7 a month earlier, marking the highest reading since April 2011.

Oil prices, US dollar and inflation

The US dollar declined for the second consecutive month in February against both major and emerging market currencies. On average, the US dollar declined by 1.5% against the Japanese yen – down 2.4% since December. The dollar lost slightly 0.2% against the euro and 0.6% against the Swiss franc. The dollar declined against the British pound sterling by an average of 1.1% on signs of some economic deceleration and uncertainties regarding the Brexit discussion in parliament, as well as calls by government officials from Scotland to hold a second independence referendum.

Compared with the Chinese yuan, the US dollar dropped by 0.3% m-o-m on average in February, its second decline this year. It decreased by 1.5% m-o-m against the Indian rupee. Compared with the currencies of commodity exporters, US dollar declines have been more accentuated. The dollar decreased by 2.9% m-o-m against the Brazilian real – down by 7.4% since December – and by 2.4% against the Russian ruble – down by 5.9% since December.

Against the currencies of NAFTA trading partners, the US dollar on average lost by 4.6% against the Mexican peso undoing its January gains. But it is still 7.5% higher on average than in October. The peso strengthening mainly reflects the friendlier tone of US officials regarding trade relations with Mexico. Meanwhile, the US dollar decreased by 0.6% against the Canadian dollar.

The decline in the value of the US dollar for the second consecutive month in February mainly reflected market expectations of a slower path of interest rate increases by the Fed during the month. However, at the end of February and the beginning of March, speeches by Fed officials have translated into market participants looking with greater likelihood at an interest rate hike at the upcoming March meeting, which has strengthened the currency. Fed chairwoman Janet Yellen said at the beginning of March that during the next Fed meeting, the FOMC "will evaluate whether employment and inflation are continuing to evolve in line with expectations, in which case a further adjustment of the federal funds rate would likely be appropriate".

In nominal terms, the price of the OPEC Reference Basket (ORB) increased by 97¢, or 1.9%, from $52.40/b in January to $53.37/b in February. In real terms, after accounting for inflation and currency fluctuations, the ORB increased to $37.37/b in February from $36.90/b in January (base June 2001=100). Over the same period, the US dollar declined by 0.5% against the import-weighted modified Geneva I + US dollar basket [1], while inflation advanced by 0.1%.

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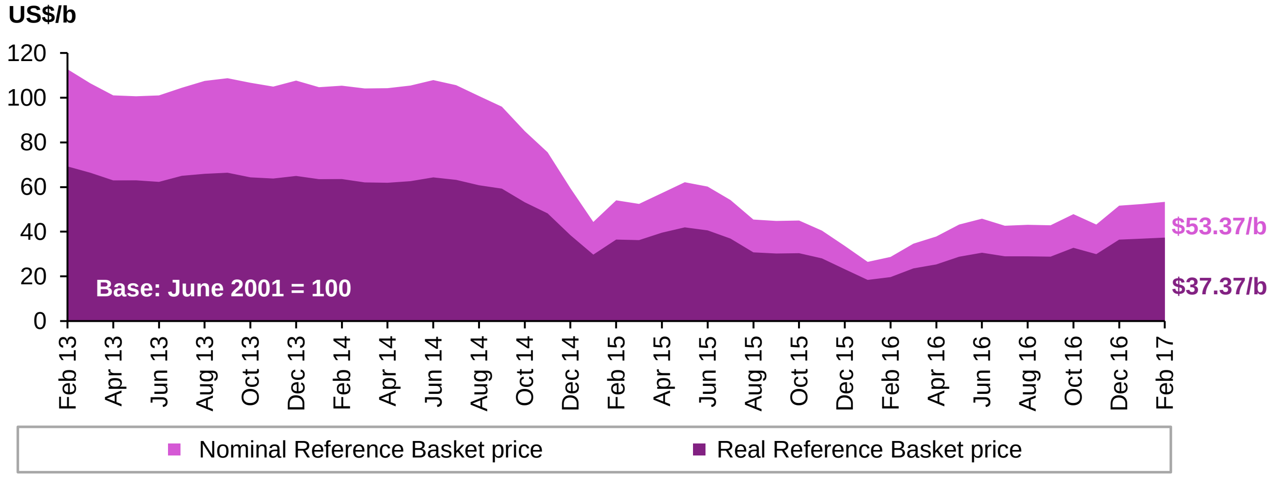
[1] The 'modified Geneva I+US$ basket' includes the euro, the Japanese yen, the US dollar, the pound sterling and the Swiss franc, weighted according to the merchandise imports of OPEC Member Countries from the countries in the basket.

Graph 3 - 33: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price[2]



Source: OPEC Secretariat.

[2] 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 grew by 1.38 mb/d in 2016, higher by around 50 tb/d than in the previous month's report, to average 95.05 mb/d. This was mainly as a result of positive adjustments in 4Q16 data, which accounted for the most up-to-date figures from regions around the world.

In 2017, world oil demand is expected to stand at 96.31 mb/d, showing a growth of 1.26 mb/d, higher by approximately 70 tb/d from the previous month's projections. Most of the oil demand growth is anticipated to originate from Other Asia, led by India, followed by China, then OECD America. The OECD Asia Pacific is the only region anticipated to reduce its oil requirements in 2017 y-o-y.

World oil demand for 2016 and 2017

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

							Change 2016/15	
	2015	1Q16	2Q16	3Q16	4Q16	2016	Growth	%
Americas	24.59	24.55	24.67	25.12	24.77	24.78	0.18	0.75
of which US	*19.84*	*19.83*	*20.00*	*20.32*	*20.02*	*20.04*	*0.20*	*1.03*
Europe	13.75	13.64	13.95	14.41	13.99	14.00	0.25	1.80
Asia Pacific	8.04	8.57	7.64	7.74	8.31	8.06	0.03	0.33
Total OECD	**46.38**	**46.76**	**46.25**	**47.27**	**47.07**	**46.84**	**0.46**	**0.99**
Other Asia	12.28	12.69	12.90	12.61	13.09	12.82	0.54	4.39
of which India	*4.05*	*4.54*	*4.29*	*4.12*	*4.58*	*4.38*	*0.33*	*8.19*
Latin America	6.56	6.25	6.49	6.76	6.37	6.47	-0.09	-1.38
Middle East	7.97	7.94	7.79	8.37	7.74	7.96	-0.01	-0.16
Africa	3.99	4.12	4.09	4.03	4.14	4.10	0.10	2.59
Total DCs	**30.81**	**31.01**	**31.27**	**31.77**	**31.33**	**31.35**	**0.54**	**1.75**
FSU	4.62	4.49	4.37	4.73	5.05	4.66	0.04	0.90
Other Europe	0.67	0.68	0.64	0.68	0.77	0.70	0.02	3.57
China	11.19	11.12	11.51	11.49	11.89	11.51	0.31	2.78
Total "Other regions"	**16.49**	**16.30**	**16.53**	**16.90**	**17.71**	**16.86**	**0.38**	**2.28**
Total world	**93.68**	**94.07**	**94.05**	**95.94**	**96.12**	**95.05**	**1.38**	**1.47**
Previous estimate	93.30	93.58	93.74	95.55	95.59	94.62	1.32	1.42
Revision	0.38	0.49	0.31	0.40	0.53	0.43	0.05	0.05

*Note: * 2016 = Estimate.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

OECD

Based on the latest available data, oil demand growth in the OECD region was revised up by around 20 tb/d in 2016. Better-than-expected data in the major consuming countries within the OECD during 4Q16, primarily in OECD Europe and the Asia Pacific, remained the major drivers of the upward revision in the region.

OECD Europe oil demand data continued to outperform the initial projections, despite high taxation relating to oil usage and a weak historical trend. The low oil price environment and improving economic conditions across the region, along with positive vehicle sales, were the major factors behind this upward adjustment. As a result, an upward adjustment (50 tb/d in 4Q16) was considered in 2016 data. For 2017, oil demand growth was revised higher in OECD Europe by 20 tb/d as assumptions for transportation fuels and petrochemical feedstocks improved.

The flourishing petrochemical industry in the OECD Asia Pacific, notably in South Korea, allowed positive adjustments to 2016 oil demand growth data by around 10 tb/d. Most of these adjustments, around 30 tb/d, are located in the 4Q16 data. This positive momentum was carried forward to 2017 with oil demand contraction for OECD Asia Pacific adjusted higher by around 20 tb/d for the full year.

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

	2016	1Q17	2Q17	3Q17	4Q17	2017	*Change 2017/16* Growth	%
Americas	24.78	24.77	24.83	25.37	24.93	24.98	0.20	0.79
of which US	*20.04*	*19.97*	*20.09*	*20.54*	*20.17*	*20.19*	*0.15*	*0.75*
Europe	14.00	13.72	14.02	14.47	14.05	14.07	0.07	0.51
Asia Pacific	8.06	8.55	7.61	7.71	8.29	8.04	-0.02	-0.31
Total OECD	**46.84**	**47.03**	**46.46**	**47.56**	**47.28**	**47.08**	**0.24**	**0.52**
Other Asia	12.82	13.00	13.27	12.97	13.46	13.18	0.35	2.74
of which India	*4.38*	*4.62*	*4.37*	*4.30*	*4.81*	*4.53*	*0.14*	*3.25*
Latin America	6.47	6.34	6.53	6.81	6.46	6.54	0.07	1.07
Middle East	7.96	8.07	7.91	8.46	7.85	8.07	0.11	1.36
Africa	4.10	4.23	4.19	4.14	4.26	4.20	0.11	2.64
Total DCs	**31.35**	**31.63**	**31.90**	**32.38**	**32.04**	**31.99**	**0.64**	**2.03**
FSU	4.66	4.57	4.43	4.80	5.12	4.73	0.07	1.51
Other Europe	0.70	0.71	0.66	0.70	0.80	0.72	0.02	3.15
China	11.51	11.40	11.80	11.78	12.16	11.79	0.28	2.45
Total "Other regions"	**16.86**	**16.68**	**16.90**	**17.28**	**18.08**	**17.24**	**0.37**	**2.22**
Total world	**95.05**	**95.34**	**95.25**	**97.22**	**97.40**	**96.31**	**1.26**	**1.32**
Previous estimate	94.62	94.84	94.85	96.77	96.76	95.81	1.19	1.26
Revision	0.43	0.50	0.40	0.45	0.64	0.50	0.07	0.06

*Note: * 2017 = Forecast.*

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

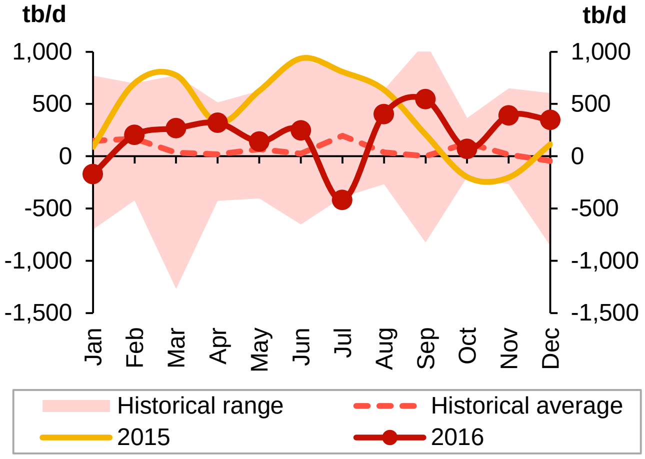
OECD Americas

US

The most recent monthly **US** oil demand data for December 2016 imply y-o-y gains of around 0.4 mb/d, or equivalently 2% y-o-y, after increasing in October and November 2016 and enjoying an overall robust 3Q16. December 2016 data reversed upwards for less positive expectations, which were based on preliminary weekly data and implied y-o-y growth of around 0.2 mb/d. December 2016 oil demand growth was for another month largely attributed to road transportation demand and to some extent to substantially colder weather as compared to the same month in 2015.

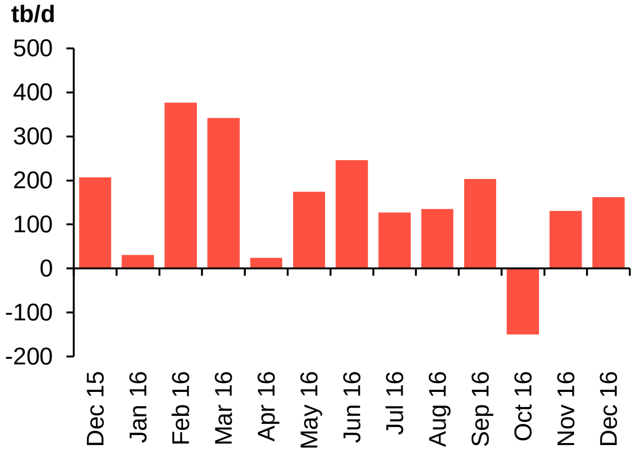
Gasoline demand was once more supported by a continuing low fuel price environment, in combination with increasing mileage and despite some weakening in auto sales, showing a decline of around 3% y-o-y in December 2016. Following the peak recorded during 2014, total light vehicle sales were seen to be on the decline in 2015 and 2016. During December 2016, diesel oil demand rose strongly, mainly as a result of colder-than-expected weather as compared to the previous year and at similar levels to the historical norm and also in line with expanding economy jet fuel and residual fuel oil requirements, which also showed gains y-o-y during December.

Graph 4 - 1: Yearly oil demand growth in OECD Americas



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

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



Source: US Energy Information Administration.

The overall picture in 2016 showed solidly growing US oil demand, dominated by rising gasoline, jet fuel and fuel requirements, in combination with declining diesel oil demand. Preliminary weekly data imply falling oil demand in both January and February 2017, with declines in gasoline and diesel oil requirements, which are partly offset by bullish jet/kerosene and fuel oil demand, the latter mainly as a result of increasing industrial production activities. The picture of US oil demand seems to be also in line with the economy in the country.

The outlook for 2017 US oil demand remains strongly dependent on developments in the US economy and road transportation fuel oil prices. Risks are seen more balanced as compared to last month's projections.

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

	December		Change 2016/15	
	2016	2015	tb/d	%
Propane/propylene	1,375	1,384	-9	-0.7
Gasoline	9,310	9,148	162	1.8
Diesel oil	4,059	3,831	228	6.0
Jet/kerosene	1,649	1,578	71	4.5
Fuel oil	322	317	5	1.6
Other products	3,264	3,342	-78	-2.3
US 50	**19,979**	**19,600**	**379**	**1.9**
US territories	**277**	**264**	**13**	**5.0**
Total	**20,256**	**19,864**	**392**	**2.0**

Sources: US Energy Information Adminstration and OPEC Secretariat.

Canada

Latest December 2016 data for **Canada** showed slightly falling oil requirements y-o-y, notably for LPG and naphtha, while gasoline, jet/kerosene and diesel oil demand remained strong y-o-y.

Mexico

In **Mexico**, January 2017 oil requirements were seen decreasing y-o-y, characterised by shrinking oil demand in LPG, as a result of substitution with other energy commodities and gasoline. However, this was partly offset by growing y-o-y requirements for all other petroleum product categories. For the whole of 2016, oil demand in Mexico was seen declining, yet with the majority of main product categories being in the positive. Exceptions were sluggish LPG and fuel oil requirements, mainly as a result of substitution.

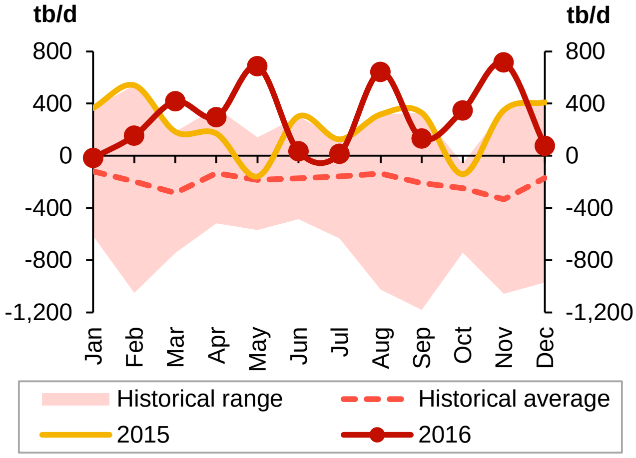
In 2016, **OECD Americas oil demand** grew by 0.18 mb/d as compared to 2015. In 2017, OECD Americas oil demand is projected to grow by 0.20 mb/d as compared to 2016.

OECD Europe

Latest and partly preliminary January 2017 data for the **European Big 4** oil-consuming countries implied a decreasing trend y-o-y. Gains in requirements for diesel oil gasoline and jet/kerosene have been more than offset by losses in demand for all other petroleum product categories. Following solid gains in demand for 2015, the year 2016 closed also with an increase for the whole region - by around 0.25 mb/d, with gains roughly distributed equally throughout the quarters. In line with the improvements in the overall economy of the region, solid gains in auto sales, the weak historical baseline and the continuing low oil price environment, diesel and to some extent gasoline usage in road transportation seem to be stimulated, along with rising demand in all other petroleum product categories. Nevertheless, there is considerable uncertainty for 2017 as there are a number of substantial factors pointing to opposite directions. The expected improvements in the economy and the current low oil price environment support oil demand, while unsolved budget deficits in several countries and policies towards fuel taxation pose downside risks. The current oil demand picture is in line with leading indicators, such as increasing industrial production and rising car sales, the latter for almost 4 years; in fact, passenger car sales grew again in January 2017 by around 10% y-o-y for the biggest parts of the region.

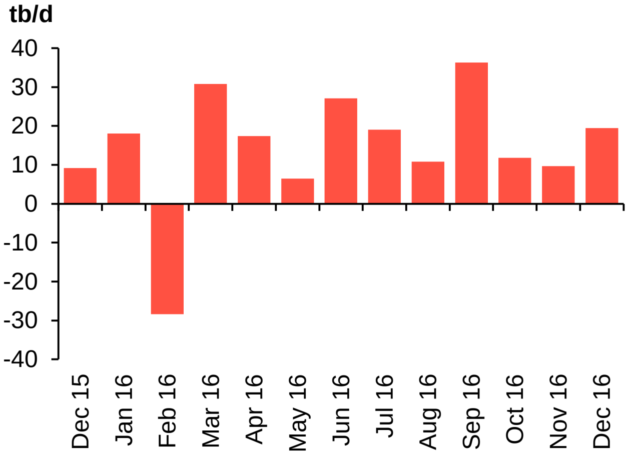
The expectations for 2017 oil demand in the region have slightly improved from last month's report, despite lower growth as compared to 2015 and 2016.

Graph 4 - 3: Yearly oil demand growth in OECD Europe



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.

In 2016, **OECD Europe oil demand** grew by 0.25 mb/d y-o-y, while oil demand during 2017 is forecast to be 0.07 mb/d higher than last year.

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

			Change	
	Jan 17	Jan 16	tb/d	%
LPG	501	491	10	2.0
Naphtha	731	764	-33	-4.4
Gasoline	966	961	5	0.5
Jet/kerosene	720	693	27	3.9
Diesel oil	3,040	3,002	37	1.2
Fuel oil	267	275	-8	-2.8
Other products	425	541	-115	-21.3
Total	**6,650**	**6,727**	**-77**	**-1.1**

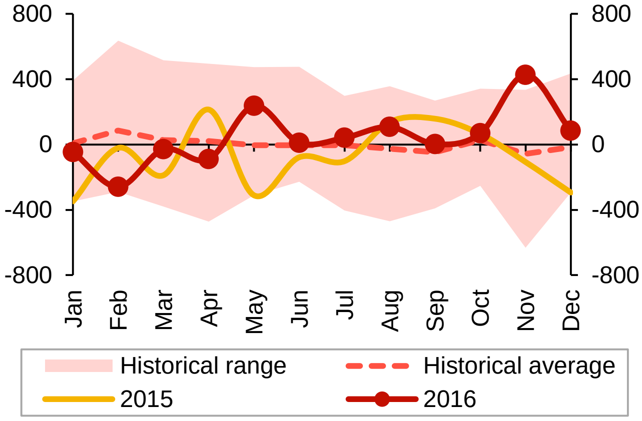
*Note: * Germany, France, Italy and the UK.*
Sources: JODI, OPEC Secretariat, UK Department of Energy and Climate Change and Unione Petrolifera.

OECD Asia Pacific

Japan

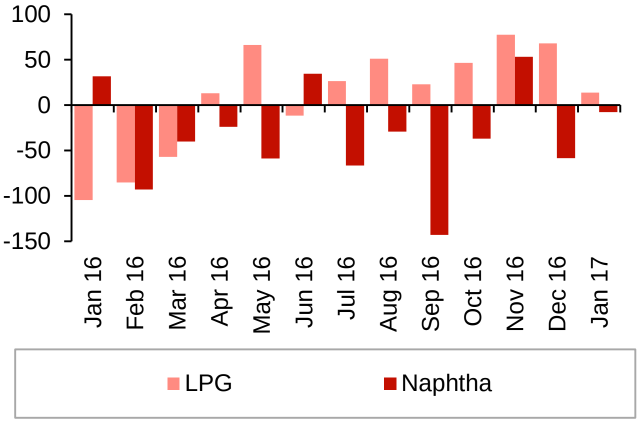
Japanese oil demand decreased in January 2017 by 0.1 mb/d y-o-y. Two petroleum product categories to see gains y-o-y was LPG, as a result of increased usage in the petrochemical industry, and diesel oil. The demand for all other petroleum product categories shrank, particularly for naphtha and residual fuel oil. Oil requirements in crude and fuel oil for direct burning and electricity generation fell for another month, as a result of substitution with other commodities, coupled with the warmer weather experienced during January.

Graph 4 - 5: Yearly oil demand growth in OECD Asia Pacific



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.

For the whole of 2016, Japanese oil demand fell by 3% y-o-y. Jet/kerosene was the only product with requirements on the plus. The outlook risks for 2017 see Japanese oil demand remaining skewed to the downside and determined by the development of the country's economy, as well as the expected revival of some of the country's nuclear plants during the year.

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

			Change	
	Jan 17	**Jan 16**	***tb/d***	***%***
LPG	466	452	14	3.0
Naphtha	857	865	-8	-0.9
Gasoline	831	837	-7	-0.8
Jet/kerosene	628	639	-11	-5.1
Diesel oil	521	506	15	3.0
Fuel oil	482	504	-22	-4.3
Other products	50	48	2	3.7
Direct crude burning	39	154	-116	-75.0
Total	**3,872**	**4,004**	**-132**	**-3.3**

Source: Ministry of Economy Trade and Industry of Japan.

South Korea

As a continuation of the solid oil demand data recorded during 2016, **South Korean** oil demand enjoyed robust growth during the month of December, rising by more than 0.16 mb/d, or by around 6% y-o-y. South Korean overall oil demand in 2016 registered a substantial improvement with growth levels of 0.16 mb/d. According to December 2016 figures, LPG, jet/kerosene and diesel oil demand led the growth, rising by around 0.06 mb/d (22%), 0.05 mb/d (22%) and 0.05 mb/d (10%) y-o-y, respectively. This was mainly due to better-than-expected demand in the petrochemical and transportation sectors. Other positive contributors to South Korean oil demand growth during December 2016 were naphtha and gasoline, while the overall growth was partly offset by declining fuel oil requirements. For the whole of 2016, South Korean oil demand remained robust, with requirements for all main petroleum product categories rising, particularly LPG and fuel oil. South Korean oil demand is projected to hold a positive picture also in 2017, particularly as most assumptions, i.e. economic development, as well as expansion in the petrochemical and transportation sectors, are pointing to the upside.

In 2016, **OECD Asia Pacific oil demand** increased by just 0.03 mb/d y-o-y. In 2017, the region's oil demand is projected to contract by 0.02 mb/d as compared to 2016.

Non-OECD

Based on the latest available data, oil demand growth in the non-OECD region was revised higher by around 35 tb/d in 2016, mainly because of improvements in Other Asia (20 tb/d), Latin America (10 tb/d) China (10 tb/d), as well as the FSU. For 2017, some upwards revisions were accounted for in China and the FSU (10 tb/d and 20 tb/d, respectively) mainly reflecting better picture for the petrochemical sector and improving economic momentum.

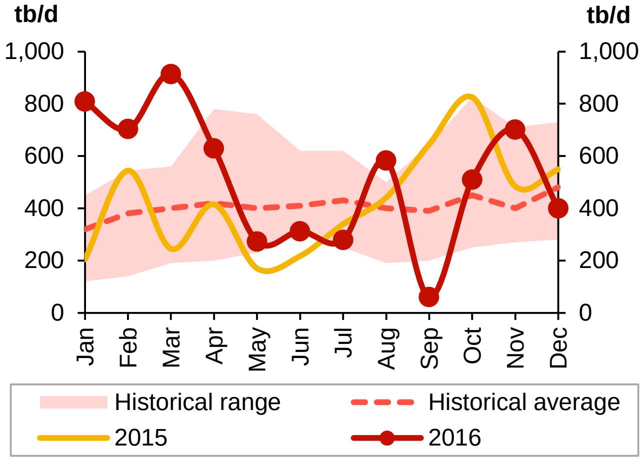
Historical world oil demand baseline has been adjusted upwards by approximately 0.3 mb/d including additional volumes relating mainly to the light end of the barrel, which have resulted from a continuing and increasing interaction between natural gas and oil. More specifically, volumes of naphtha and ethane, which are used as feedstock in the petrochemical industry in Thailand, as well as a re-assessment of historical Chinese apparent oil demand, taking into account the most recent 2014 and 2015 available data. Since most countries' statistical offices release their recent annual data towards the middle of 2017, further revisions to historical world oil demand baseline may occur.

Other Asia

India

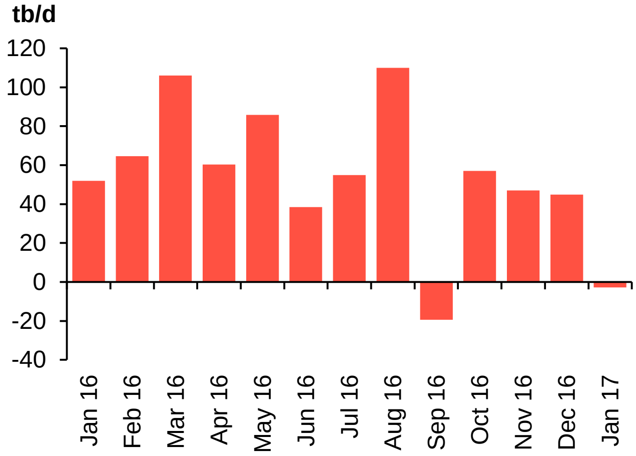
Indian oil consumption started 2017 on a declining trend, as expected. Oil demand in January shed more than 0.20 mb/d and around 4.5% y-o-y, with total consumption remaining at 4.34 mb/d level.

Graph 4 - 7: Yearly oil demand growth in Other Asia



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.

This decline was led by shrinkage in middle distillate requirements, followed by fuel oil. Diesel oil requirements declined the most - in volume terms, the product shed around 0.13 mb/d, or 7.8% y-o-y, as demand was impacted by the cash crunch issue which led to lower demand from the agricultural and construction sectors, along with related sectors, such as cement and steel. Demand for diesel is projected to be negatively influenced by the outcome of the demonetisation policy in the country, at least in 1Q17, before improving during 2H17, mainly propelled by a pick-up in economic activities. Indian gasoline demand also fell in January, defying December's healthy growth levels of around 45 tb/d. Gasoline demand was slightly lower by 3 tb/d in January, despite the recovering auto sales market. Domestic car sales expanded sharply during the month, rising by around 11% y-o-y. Yet, sales of two-wheelers, which use gasoline as a preferred fuel, declined by more than 7% y-o-y, whereby two-wheelers demand accounts for more than 50% of gasoline demand in India. Total consumption of LPG remained above the 0.70 mb/d level in January adding around 0.10 mb/d, or 14.2% y-o-y. The high demand is as a result of the government's commitment to supply more than 50 million connections to rural households in the next three years. Additionally, weather conditions were colder-than-usual in most parts of the country, allowing for extra LPG consumption for heating purposes. Total product demand in India is anticipated to grow by around 0.14 mb/d in 2017, mainly as a result of stable economic conditions in the country, especially towards 2H17, encouraging steady growth for diesel oil and gasoline.

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

			Change	
	Jan 17	Jan 16	tb/d	%
LPG	703	604	99	16.4
Gasoline	505	508	-3	-0.6
Jet/kerosene	242	266	-24	-9.1
Diesel oil	1,576	1,709	-133	-7.8
Fuel oil	431	483	-51	-10.6
Other products	881	970	-90	-9.2
Total	**4,338**	**4,540**	**-202**	**-4.5**

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

Indonesia

Indonesian oil consumption inched up during the month of December 2016 with product demand registering a rise of 25 tb/d from levels seen in December 2015, equating to an increase of around 1.3% y-o-y. The growth in oil consumption can be mainly credited to better-than-expected data in the transportation manufacturing sectors. For 2016, oil demand showed a positive performance, higher by 24 tb/d from the previous year.

Taiwan

In **Taiwan**, the positive total consumption growth levels for the month of December 2016 – up by 30 tb/d or 2.9% y-o-y - was supported by high demand growth for LPG and naphtha in the petrochemical sector, as well as higher demand for gasoline supporting the transportation sector. Cumulative data for the whole of 2016 indicate that the country's oil consumption was higher than 2015 levels by 11 tb/d, or more than 1.1% y-o-y, led by higher demand for LPG.

Looking forward, risks for 2017 in **Other Asian oil demand** growth are currently expected to be skewed slightly to the downside as the outlook for the Indian economy suggests a slight slowdown in the 1H17 before improving in economic activities in the 2H17, once the aftermath of the demonetisations process is over. LPG for residential use and gasoline for the transportation sector are expected to be the main providers of growth. A steady level of growth is projected across the region with Indonesia, Thailand and Singapore contributing largely to the oil demand growth.

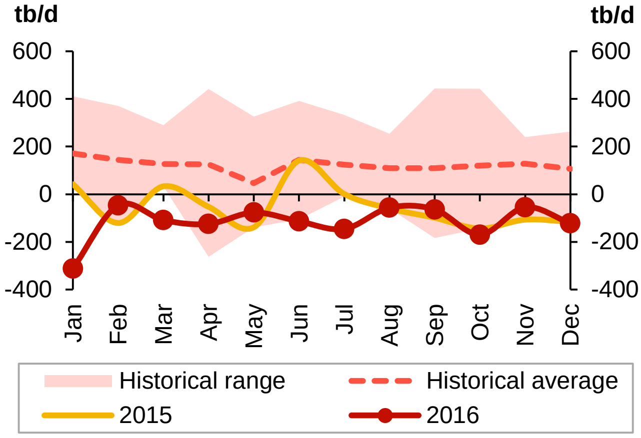
Other Asia's oil demand grew by 0.54 mb/d in 2016. As for 2017, oil demand is forecast to remain firm around 0.35 mb/d, however lower than the levels seen in 2016.

Latin America

Brazil

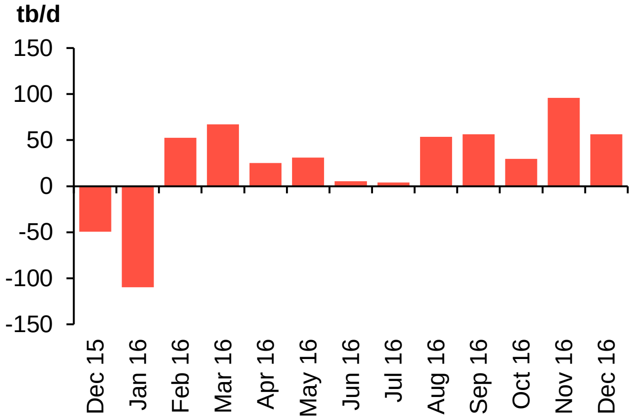
In January, **Brazil**'s oil demand remained in negative territory, despite promising signs emerging from some products, such as LPG, gasoline and diesel oil, which saw increases y-o-y. Oil demand in the country dipped by 20 tb/d y-o-y in line with dwindling macroeconomic data with total consumption at 2.11 mb/d. Declines were recorded across all products with fuel oil, ethanol and jet/kerosene dropping the most. Fuel oil demand declined by 29 tb/d, or by 37.9% y-o-y, to reach a total consumption level of 47 tb/d. Consumption declined as hydropower generation rebounded during the month. This was in addition to slower economic activities that have negatively impacted fuel oil demand numbers as demand also shrank in the bunkering sector.

Graph 4 - 9: Yearly oil demand growth in Latin America



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.

On the other hand, gasoline demand rose during the month by 81 tb/d, or around the 12.0% y-o-y, as the product remained more viable to drivers than ethanol, which declined yet again in January. Ethanol demand eased by around 68 tb/d, or 27.7% y-o-y, as prices for ethanol increased. Diesel oil demand was slightly positive y-o-y with around 4 tb/d of growth, sending a positive signal that a rise in consumption is possible going forward. The expected improvements in the overall economic condition of the country, coupled with the low baseline of comparison, are seen as positive factors for diesel demand growth in 2017.

Table 4 - 7: Brazilian inland deliveries, tb/d

			Change	
	Jan 17	Jan 16	tb/d	%
LPG	205	203	2	1.2
Gasoline	756	675	81	12.0
Jet/kerosene	123	133	-10	-7.6
Diesel oil	804	800	4	0.5
Fuel oil	47	76	-29	-37.9
Alcohol	178	246	-68	-27.7
Total	**2,113**	**2,133**	**-20**	**-0.9**

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

Argentina

Oil consumption in **Argentina** was slightly in the negative during the month of December 2016. It also recorded a slight decline on a cumulative basis for 2016 as a whole. Oil demand declined by just 6 tb/d in 2016 with no significant increases or decreases in the product mix. Total consumption reached 0.72 mb/d in the year.

Looking forward, the risks for oil demand for 2017 are currently tilted to the upside as economic conditions in Brazil and other countries in the region are anticipated to improve as government spending on projects is anticipated to reappear. In terms of products, diesel oil and gasoline have the higher growth potential and are expected to fuel the industrial and transportation sectors.

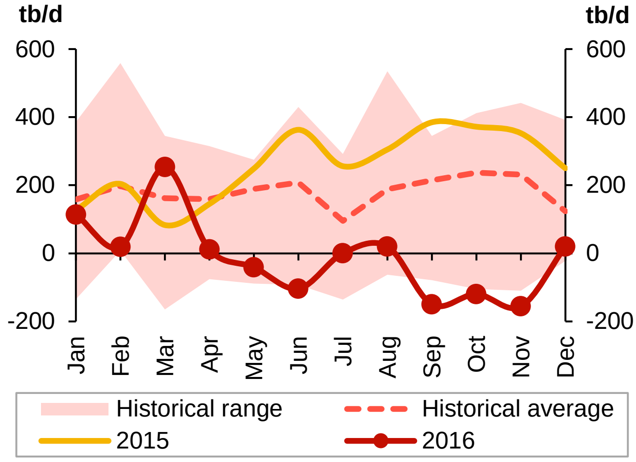
Latin American oil demand declined by 90 tb/d in 2016. For 2017, the region's oil demand growth is forecast to be higher y-o-y at around 70 tb/d.

Middle East

Saudi Arabia

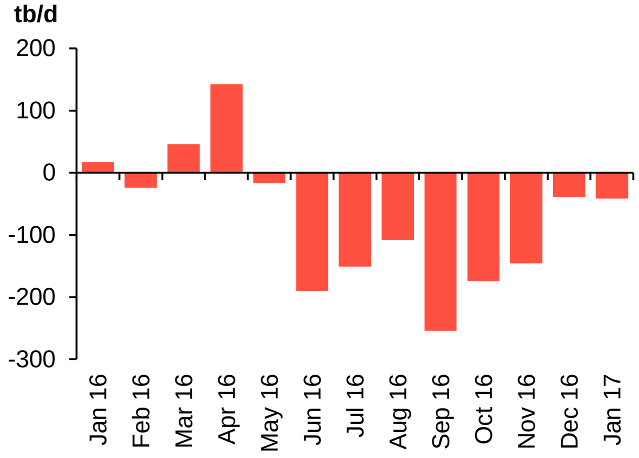
In **Saudi Arabia**, January 2017 oil consumption continued to fall on the back of slower-than-anticipated requirements in the electricity and construction sectors. Oil demand declined by 0.18 mb/d from January 2016 levels, with all products declining, with the exception of LPG, which recorded solid gains adding some 13.7% y-o-y. Crude oil for power generation was lower on a y-o-y basis and burning crude for the purpose of generating electricity declined in line with seasonal norms. Demand for power generation traditionally slows during 1Q as consumption requirements for air conditioning are trimmed. Additionally, the Kingdom's new policies of reducing subsidies for electricity in the residential and industrial sectors appear to have reduced the level of consumption in the country. Lastly, the impact of substitution was observed in the consumption of direct crude for burning performance since 2Q16 when the Wasit Gas Plant (WGP), located in the north of Jubail Industrial City, which produces around 1.7 billion standard cubic feet per day (bscfd) of clean sales gas, started supplying natural gas to electrical power and desalination plants in the Kingdom. Diesel oil requirements also shrank in January, shedding some 0.13 mb/d, or around 18.2% y-o-y. This reduction is primarily on the back of lower construction activities in the country. Transportation fuels in general were also seen declining with gasoline and jet/kerosene dropping by around 7.2% and 11.5% y-o-y, respectively. The reduction in subsidies, a general slowdown in consumer spending and higher inflation rates are cumulatively having a negative influence on products' performance. On the other hand, consumption for LPG rose by 7 tb/d on the back of extra demand in the petrochemical sector. With fuel oil receiving support from 4 GW of new fuel oil generation capacity, the product increased by 42 tb/d y-o-y.

Graph 4 - 11: Yearly oil demand growth in Middle East



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.

The oil demand performance was rather mixed in the region. While growth in oil requirements declined in **IR Iran**, it increased slightly in **Kuwait** and **Iraq** and solidly in **Qatar**. Going forward, Middle East oil demand is subject to the performance of various economies in the region. The impact of oil prices on countries' spending plans needs to be closely monitored. The issues of subsidy reduction and substitution are important factors going forward.

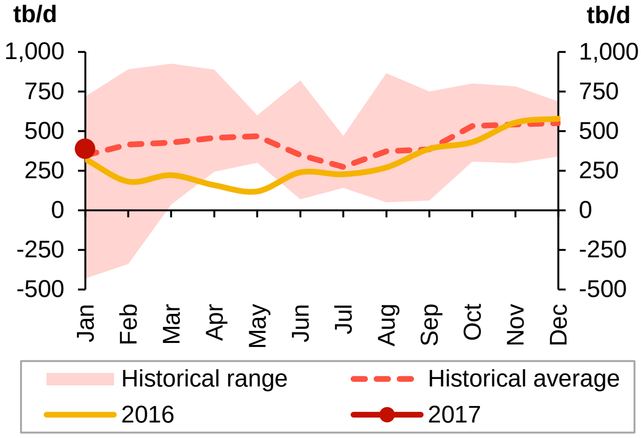
For 2016, **Middle East oil demand** recorded contraction of around 13 tb/d y-o-y, while oil demand in 2017 is projected to increase by around 0.11 mb/d.

China

China's oil demand continued to rise in January 2017, after firm growth in 2016 with an expansion of around 2% y-o-y for the full year. The demand growth for the country registered around 0.39 mb/d as compared to January 2016. In absolute figures, total oil demand for the country stood at 11.07 mb/d.

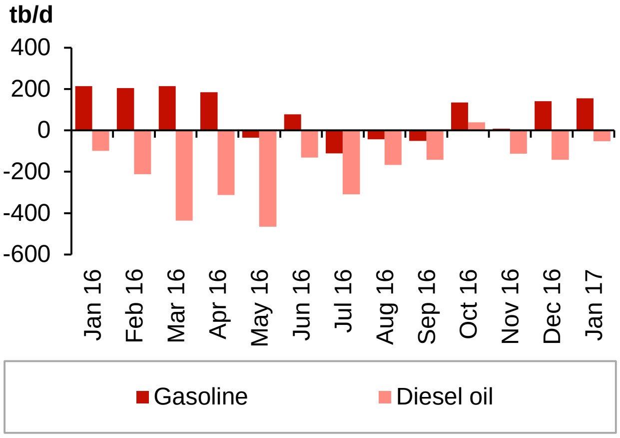
In January 2017, oil demand growth was determined by solid increases in LPG, gasoline and jet/kerosene requirements, which added 18.0%, 5.7% and 5.7% y-o-y, respectively. On the other hand, middle distillates and fuel oil consumption dropped by around 1.5% y-o-y. LPG demand reached total consumption of around 1.40 mb/d, higher than the level recorded in January 2016 by around 0.21 mb/d and mainly supported by propane dehydrogenations capacity (PDH) increased capacity and utilisation rates. The projection for LPG remains solid in 2017 as more PDH plants are planned to continue increasing their feedstock intakes - Haiwei's with a capacity of 0.5 Mtpy and Ningbo Fuji's with a capacity of 0.66 Mtpy, in addition to new plants scheduled to start up towards 2H17. Gasoline demand continued to grow robustly during the month of January, rising by 0.16 mb/d to reach a historical high of total consumption of 2.90 mb/d. Demand was supported by additional driving ahead of the holiday season, while car sales in January reached 2.2 million units, down by 1.1% y-o-y. As for passenger cars by type, Sport Utility Vehicles (SUV) rose firmly increasing by 10.5% y-o-y, while for other types of cars, there was a sales decline of 3.0% y-o-y, with Multi-Purpose Vehicles (MPV) declining by 21.1%. Jet/kerosene total consumption during the month of January is now calculated to be at 0.64 mb/d, up by 30 tb/d and boosted by domestic air travel for the holiday season.

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.

Consumption of fuel oil was seen declining slightly, based on initial data. The decrease in growth is marginal at around 8 tb/d y-o-y. Similarly, diesel oil consumption decreased by around 42 tb/d, mainly in line with slightly slower manufacturing activities as compared to November and December 2016. The official manufacturing purchasing managers' index (PMI) was at 51.3 in January 2017, from 51.4 in December 2016.

China completed 2016 with firm oil demand growth data, driven mainly by LPG feeding into the growing petrochemical sector, as well as gasoline-supported robust car sales. For 2017, the outlook is currently balanced between positive and negative risks; the petrochemical sector and expansion projects in the refinery sector are the upside potential for China's oil demand growth, while possible fluctuations in the economic environments, as well as on policies encouraging a reduction in transportation fuel consumption, remain the negative downside risks.

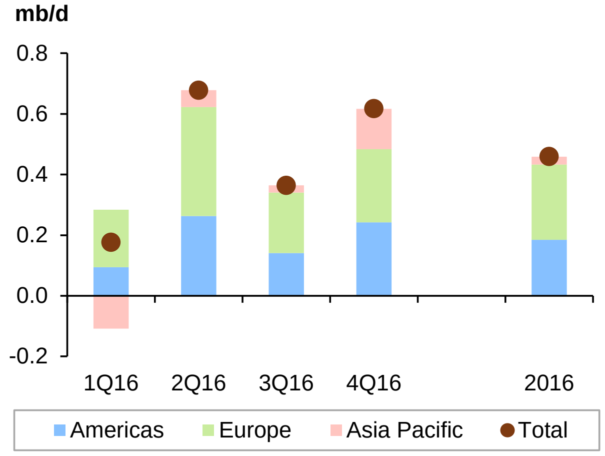
For 2016, **Chinese oil demand** grew by 0.31 mb/d, while oil demand in 2017 is projected to increase by 0.28 mb/d.

Reviewing 2016 world oil demand

As the initial outlook of the OPEC Secretariat forecast in July 2015, world oil demand growth in 2016 stood at 1.38 mb/d, although there have been significant adjustments in regional growth data. The improvement in the direction of the overall global economy and the low oil price environment supported upward revisions to OECD oil demand, particularly in Europe and Asia Pacific. These revisions were, however, offset by sluggish demand in the principal non-OECD hubs, such as Latin America and the Middle East, as a result of weaker economic growth, fuel substitution and partial subsidy removals on oil products usage. Growth in non-OECD Asian oil demand, notably India and China remain robust and above the historical average. From a global perspective, oil usage in the road transportation and petrochemical sectors dominated the overall gains. Gasoline, automotive diesel, as well as LPG and naphtha requirements, lead the growth, despite diverse regional patterns. Growth was roughly equally distributed between 1Q16, 2Q16 and 4Q16 at around 1.4 mb/d, while it was lower at 1.1 mb/d during the 3Q16.

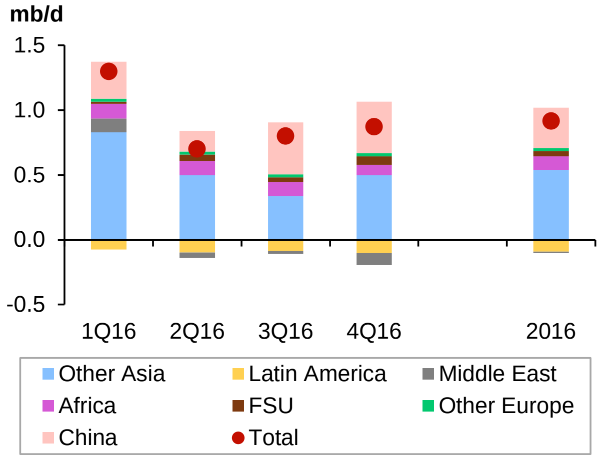
In **OECD**, oil demand in Americas and Europe grew solidly, driven mainly by a strong road transportation sector and implying stronger gasoline requirements in Americas and stronger automotive diesel in Europe. Strong oil demand growth in Europe, in particular, surprisingly came up for a second consecutive year, despite high taxation relating to oil usage and a weak historical baseline, the continuing low oil price environment and improving economic conditions across the region. In Asia Pacific, the flourishing petrochemical industry, notably in South Korea, pushed 2016 oil requirement levels slightly higher than 2016 for the first time since 2012 (***Graph 4 - 15***).

Graph 4 - 15: OECD oil demand growth



Source: OPEC Secretariat.

Graph 4 - 16: Non-OECD oil demand growth



Source: OPEC Secretariat.

In the **non-OECD**, oil demand growth has been dominated by Other Asia and China, while oil demand declined in Latin America and the Middle East. In China and Other Asia, India took a great share of oil demand growth, with the usage of lighter petroleum products – such as gasoline, LPG and naphtha – in the transportation and petrochemical sectors accounted for the bulk of gains. Fuel substitution and the partial removal of subsidies in the Middle East lead to the largest up-to-date y-o-y decline in oil demand and the first since 1963. Sluggish direct crude burning, in addition to weaker gasoline and diesel oil demand growth, were the main characteristics for 2016. Economic concerns in key Latin American oil consuming countries coexisted with y-o-y oil demand contractions in the region for the second year in a row, with declining oil usage in all main economic sectors, especially in industrial transportation (***Graph 4 - 16***).

World Oil Supply

Preliminary data indicates that the world's oil supply decreased in February by 0.21 mb/d m-o-m to average 95.88 mb/d, yet surprisingly remained unchanged, y-o-y.

Non-OPEC oil supply is estimated to have averaged 57.34 mb/d in 2016, a contraction of 0.66 mb/d y-o-y. There were no changes m-o-m despite having an increase of 148 tb/d in absolute supply, where higher growth in 4Q16 in Canada and Other OECD Europe was completely offset by downward revisions in the US, Norway, Australia, Brunei and Azerbaijan.

In 2017, non-OPEC oil supply is projected to grow by 0.40 mb/d, following an upward revision of 0.16 mb/d, to average 57.74 mb/d. This forecast is driven mainly by higher expectations for Canadian oil sands output and higher growth in the US. Moreover, US oil supply growth for 2017 was revised up by 0.10 mb/d to 0.34 mb/d, following higher rig counts and stronger cash flows.

OPEC NGLs production and non-conventional liquids were revised down by 10 tb/d to average 6.09 mb/d in 2016, an increase of 0.14 mb/d. In 2017, they are forecast to grow by 0.13 mb/d to average 6.21 mb/d, following a downward revision of 30 tb/d. In February 2016, OPEC crude oil production decreased by 140 tb/d, according to secondary sources, to average 31.96 mb/d.

Non-OPEC supply for 2016 and 2017

Non-OPEC oil supply in **2016** is estimated to have averaged 57.34 mb/d in 2016, a decline of 0.66 mb/d from 2015. There was no change in 2016 growth from the previous assessment. Within the quarters, non-OPEC oil supply encountered upward revisions, mainly in 4Q16 with 208 tb/d. Moreover, the production data of Other OECD Europe and Thailand was also updated since 2014. According to preliminary and estimated data, total non-OPEC supply in 4Q16 increased by 0.32 mb/d to average 58.01 mb/d over the same period a year earlier. During 1H16 and 2H16, non-OPEC supply decreased by 0.62 and 0.70 mb/d, respectively, compared with the same period in the previous year.

Non-OPEC supply in 2016 saw a strong decline in OECD Americas, China and Latin America, while growth was seen in FSU, driven by robust output of 0.25 mb/d from Russia. OECD Americas' oil supply declined by 0.47 mb/d in 2016 compared with growth of 0.93 mb/d in 2015. This drop relates mostly to declines in US onshore crude oil output rather than annual declines in Mexico and Canadian oil sands outages. Chinese crude oil production was weaker-than-expected according to various sources due to declines in mature onshore fields, as well as low investment. In Latin America, total oil supply was disappointing following a remarkable y-o-y drop in Brazilian growth, as well as a higher annual declines in Colombia.

Non-OPEC oil supply in 2016 is now estimated to have averaged 57.34 mb/d. This follows steeper-than-expected production declines in US shale plays, in mature fields in China and Colombia, as well as Canadian oil outages due to wildfires. Moreover, the decline of global upstream spending by 23% in 2016 had a strong impact on oil production. But the improvement in oil prices in 2H16 and more optimistic industry sentiment since 4Q16 have contributed to renewed US tight oil activity. According to investment guidance by major oil companies, the y-o-y changes in global investment indicate a contraction of 32% in 2016 and a decline of 47% in the shale industry, while the drops by non-majors were at 27%. The total y-o-y changes showed a contraction of 33% in 2016.

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

	2015	1Q16	2Q16	3Q16	4Q16	2016	Change 2016/15 Growth	%
Americas	21.07	21.00	20.08	20.49	20.83	20.60	-0.47	-2.21
of which US	*14.04*	*13.81*	*13.68*	*13.42*	*13.55*	*13.61*	*-0.43*	*-3.05*
Europe	3.77	3.92	3.74	3.64	3.92	3.80	0.03	0.83
Asia Pacific	0.46	0.44	0.42	0.45	0.41	0.43	-0.03	-7.48
Total OECD	**25.30**	**25.36**	**24.23**	**24.58**	**25.16**	**24.83**	**-0.47**	**-1.85**
Other Asia	3.70	3.78	3.70	3.71	3.72	3.73	0.02	0.61
Latin America	5.20	4.97	5.07	5.19	5.23	5.12	-0.09	-1.67
Middle East	1.27	1.27	1.28	1.29	1.29	1.28	0.01	0.78
Africa	2.13	2.10	2.05	2.12	2.16	2.11	-0.02	-1.16
Total DCs	**12.31**	**12.12**	**12.10**	**12.32**	**12.39**	**12.23**	**-0.08**	**-0.64**
FSU	13.69	13.95	13.73	13.67	14.16	13.88	0.18	1.34
of which Russia	*10.85*	*11.07*	*10.98*	*11.03*	*11.32*	*11.10*	*0.25*	*2.35*
Other Europe	0.14	0.13	0.13	0.13	0.13	0.13	0.00	-3.51
China	4.39	4.23	4.12	4.00	3.98	4.08	-0.31	-6.97
Total "Other regions"	**18.22**	**18.32**	**17.98**	**17.80**	**18.27**	**18.09**	**-0.13**	**-0.70**
Total non-OPEC production	**55.83**	**55.80**	**54.31**	**54.69**	**55.83**	**55.16**	**-0.67**	**-1.21**
Processing gains	2.17	2.19	2.19	2.19	2.19	2.19	0.01	0.60
Total non-OPEC supply	**58.00**	**57.99**	**56.49**	**56.88**	**58.01**	**57.34**	**-0.66**	**-1.14**
Previous estimate	57.85	57.87	56.37	56.73	57.81	57.20	-0.66	-1.14
Revision	0.15	0.11	0.12	0.15	0.21	0.15	0.00	0.00

*Note: * 2016 = Estimate.*
Source: OPEC Secretariat.

For **2017, non-OPEC oil supply** is now projected to grow by 0.40 mb/d to average 57.74 mb/d, up by 0.16 mb/d from the February *MOMR*. This was due to higher expectations for Canada, US and Russia. It seems that the oil supply recovery is gathering momentum in the world oil market, stimulated by gradually rising prices as well as improvements in drilling efficiency and well productivity in North America. US oil production in 2017 has been revised up by 0.10 mb/d to now show growth of 0.34 mb/d, following higher rig counts and increased cash flows announced by different US oil companies. At the same time, the Canadian oil sands production rate in the last two months of 2016, which resulted in total oil production rising to a new record level of 5 mb/d, indicates an uptick in the oil sands industry. Therefore, Canada's oil supply growth forecast for 2017 was revised up by 87 tb/d to now show growth of 0.26 mb/d.

Capital expenditure on the slated 2017 Final Investment Decision (FID) projects totals $65 billion, down marginally on the $69 billion committed to FIDs in 2016. According to new analysis done by Wood Mackenzie (WM), 22 projects will achieve FIDs this year – up from 14 projects in 2016 – the most since 2013. The challenges of high costs that many projects experience must be addressed in order to achieve acceptable hurdle rates. It is said that despite the uptick in numbers, investment in green field conventional projects has remained at a low level. A major concern is that those green field projects being developed will not sustain the supply. Oil and gas reserves total 19 billion boe in all projects' FIDs in the three years of the downturn so far.

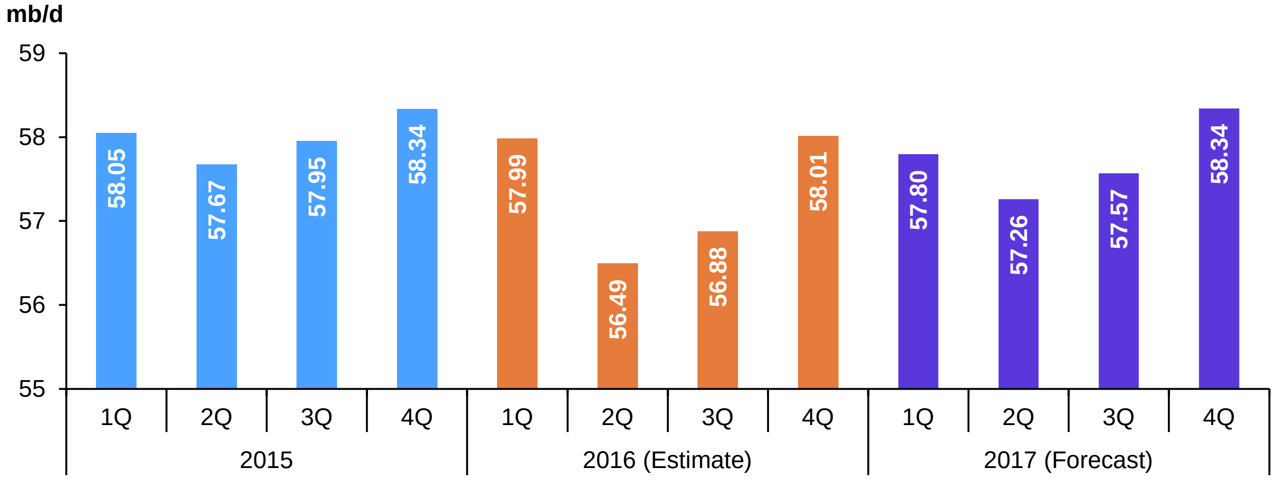
Table 5 - 2: Non-OPEC oil supply in 2017*, mb/d

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	%
Americas	20.60	20.91	20.72	21.06	21.41	21.03	0.43	2.07
of which US	*13.61*	*13.67*	*13.81*	*14.01*	*14.31*	*13.95*	*0.34*	*2.48*
Europe	3.80	3.90	3.74	3.56	3.84	3.76	-0.05	-1.21
Asia Pacific	0.43	0.41	0.46	0.45	0.42	0.44	0.01	2.22
Total OECD	**24.83**	**25.22**	**24.93**	**25.07**	**25.67**	**25.22**	**0.39**	**1.57**
Other Asia	3.73	3.71	3.69	3.66	3.64	3.67	-0.05	-1.40
Latin America	5.12	5.28	5.25	5.28	5.37	5.30	0.18	3.49
Middle East	1.28	1.23	1.22	1.23	1.23	1.23	-0.06	-4.35
Africa	2.11	2.09	2.13	2.20	2.22	2.16	0.05	2.51
Total DCs	**12.23**	**12.31**	**12.29**	**12.38**	**12.45**	**12.36**	**0.12**	**1.01**
FSU	13.88	13.99	13.81	13.91	14.00	13.93	0.05	0.36
of which Russia	*11.10*	*11.16*	*10.97*	*11.08*	*11.11*	*11.08*	*-0.02*	*-0.20*
Other Europe	0.13	0.13	0.14	0.14	0.15	0.14	0.01	6.68
China	4.08	3.95	3.89	3.87	3.88	3.90	-0.18	-4.49
Total "Other regions"	**18.09**	**18.07**	**17.84**	**17.93**	**18.03**	**17.97**	**-0.12**	**-0.69**
Total non-OPEC production	**55.16**	**55.60**	**55.06**	**55.37**	**56.15**	**55.55**	**0.39**	**0.71**
Processing gains	2.19	2.20	2.20	2.20	2.20	2.20	0.01	0.50
Total non-OPEC supply	**57.34**	**57.80**	**57.26**	**57.57**	**58.34**	**57.74**	**0.40**	**0.70**
Previous estimate	57.20	57.59	57.04	57.26	57.84	57.44	0.24	0.42
Revision	0.15	0.20	0.22	0.31	0.50	0.31	0.16	0.28

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

On a country-by-country basis, the main contributors to growth in 2017 are expected to be the US with 0.34 mb/d, Brazil and Canada with 0.26 mb/d each, Kazakhstan with 0.14 mb/d, Africa other with 0.04 mb/d and Congo with 0.04 mb/d.

Graph 5 - 1: Non-OPEC quarterly oil supply, 2015-2017

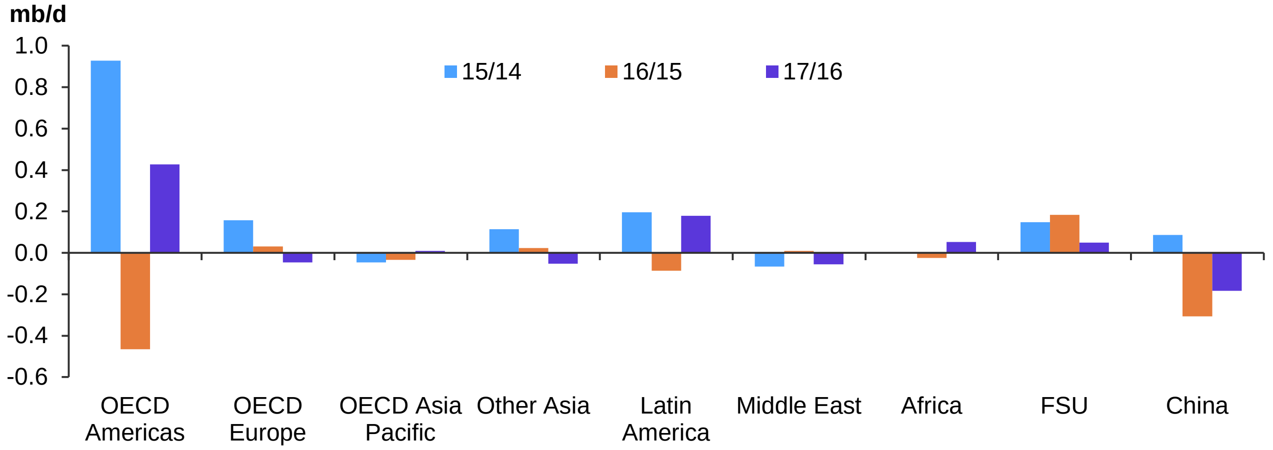


Source: OPEC Secretariat.

China, Mexico, Azerbaijan, Indonesia, Colombia, Oman and Norway are expected to show the strongest declines. The quarterly distribution for non-OPEC supply (***Graph 5 – 1***), indicates a regular seasonal pattern with the lowest production levels in 2Q17 and 3Q17 for maintenance, particularly in offshore areas. The 4Q17 is forecast to record the highest output, among the quarters at 58.34 mb/d, even higher than the annual average supply of 57.74 mb/d for 2017.

Regarding regional non-OPEC supply changes, ***Graph 5 - 2*** shows that the main rebound in annual growth will be in OECD Americas and, to some extent, DCs, particularly Latin America.

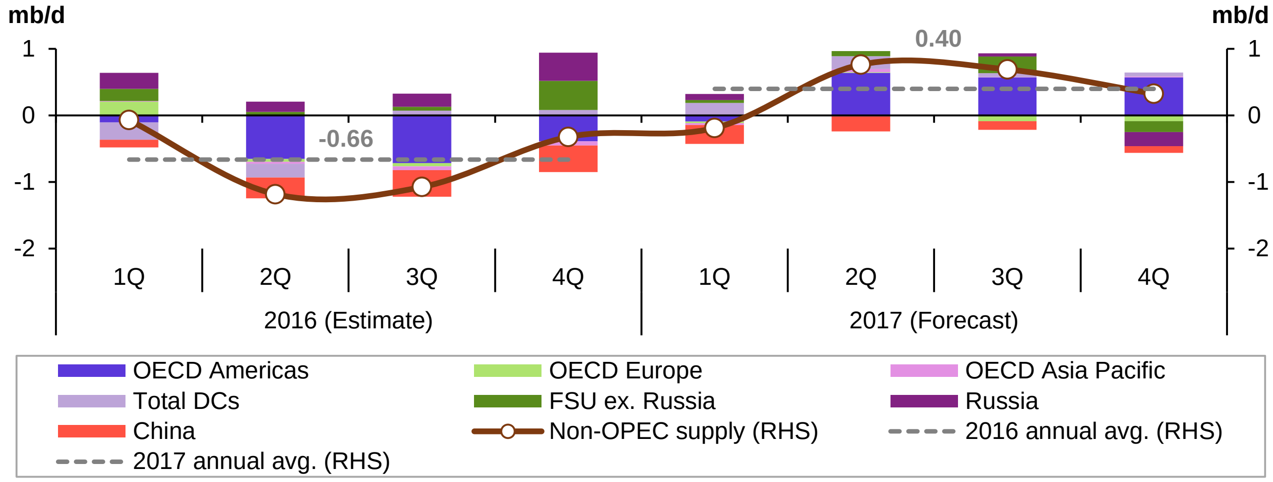
Graph 5 - 2: Regional non-OPEC supply growth, 2015-2017, y-o-y change



Note: 2016 = Estimate and 2017 = Forecast.
Source: OPEC Secretariat.

Regarding the expected oil production changes in non-OPEC countries in 2017 compared to 2016, given higher price expectations for this year, the OECD is projected to see a growth of 0.39 mb/d and DCs are forecast to see a growth of 0.12 mb/d. In contrast, China is expected to see a contraction of 0.18 mb/d. Oil production in FSU is projected to see a growth of around 50 tb/d.

Graph 5 - 3: Non-OPEC quarterly supply change, 2016-2017, y-o-y change



Source: OPEC Secretariat.

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

Region	2016	Change 2016/15	2017	Change 2017/16
OECD Americas	20.60	-0.47	21.03	0.43
OECD Europe	3.80	0.03	3.76	-0.05
OECD Asia Pacific	0.43	-0.03	0.44	0.01
Total OECD	**24.83**	**-0.47**	**25.22**	**0.39**
Other Asia	3.73	0.02	3.67	-0.05
Latin America	5.12	-0.09	5.30	0.18
Middle East	1.28	0.01	1.23	-0.06
Africa	2.11	-0.02	2.16	0.05
Total DCs	**12.23**	**-0.08**	**12.36**	**0.12**
FSU	13.88	0.18	13.93	0.05
Other Europe	0.13	0.00	0.14	0.01
China	4.08	-0.31	3.90	-0.18
Non-OPEC production	55.16	-0.67	55.55	0.39
Processing gains	2.19	0.01	2.20	0.01
Non-OPEC supply	**57.34**	**-0.66**	**57.74**	**0.40**

*Note: * 2016 = Estimate and 2017 = Forecast.*
Source: OPEC Secretariat.

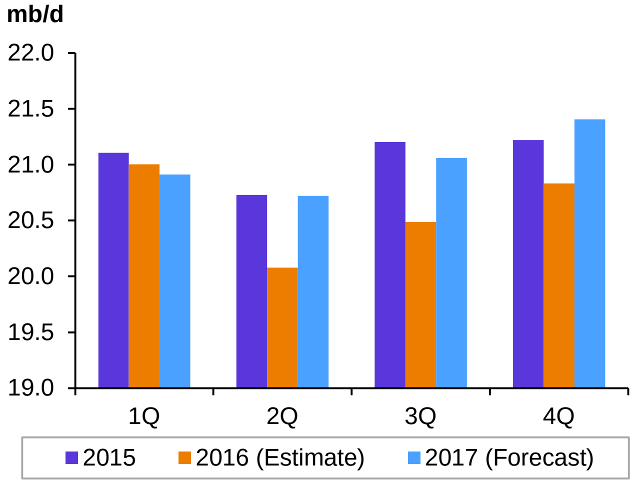
OECD

OECD liquids production in 2016 is estimated to have contracted by 0.47 mb/d to average 24.83 mb/d, revised up by 15 tb/d from February's *MOMR*. In 2017, OECD supply is forecast to average 25.22 mb/d, revised up by 198 tb/d, mostly due to supply from the US and Canada, which represents a growth of 0.39 mb/d.

OECD Americas

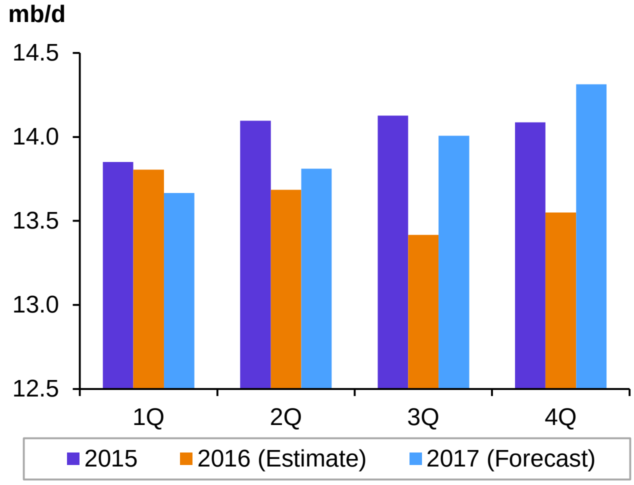
OECD Americas' oil supply in 2016 is estimated to have averaged 20.60 mb/d, a decline of 0.47 mb/d y-o-y and an upward revision of 26 tb/d m-o-m. Supply in the US and Mexico is expected to have declined in 2016, while it grew in Canada.

Graph 5 - 4: OECD Americas quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

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



Source: OPEC Secretariat.

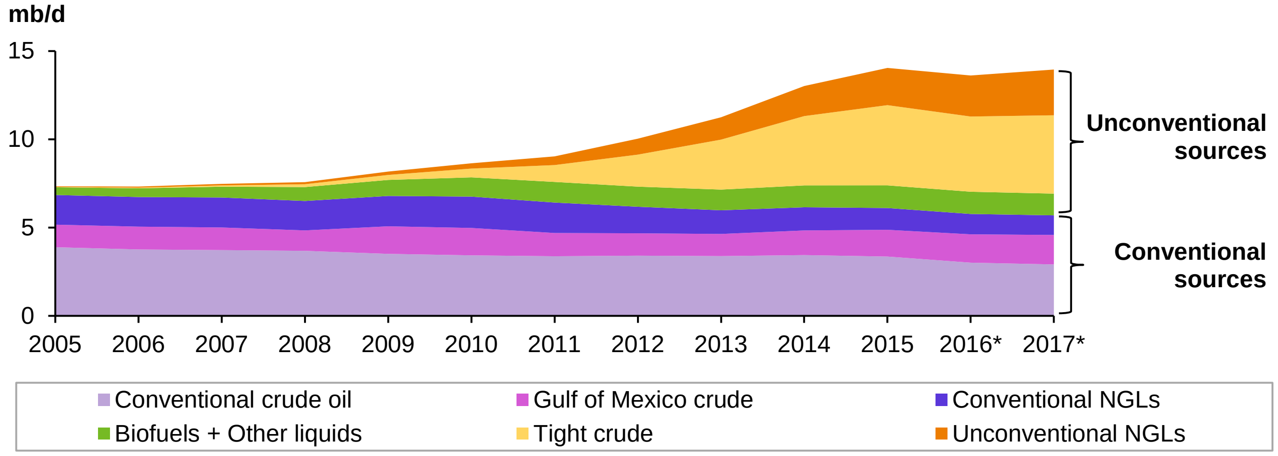
In 2017, supply in OECD Americas is expected to grow by 0.43 mb/d to average 21.03 mb/d, following an upward revision of 0.18 mb/d, mostly due to higher-than-expected US onshore crude output. Canada is also expected to see robust growth of 0.26 mb/d, following unexpected increases in output during November and December 2016, with a new record of more than 5 mb/d reached in November. A decline of 0.17 mb/d is anticipated in Mexico.

US

According to the US Energy Information Administration (EIA), crude oil production averaged 8.78 mb/d in December, representing a decline of 91 tb/d from November. Some 89 tb/d is attributed to a fall in North Dakota state oil output, which declined, following freezing temperatures, to average 0.94 mb/d. Crude oil production in Texas also decreased by a slight 17 tb/d to average 3.15 mb/d, but oil production in the Gulf of Mexico (GoM) and Alaska increased by 47 tb/d and 6 tb/d m-o-m to average 1.73 mb/d and 0.52 mb/d, respectively. Upside potential exist for US tight oil production from the most prolific shale regions, particularly in the Permian Basin.

US crude oil output (excluding offshore regions and Alaska) declined from a peak of 7.63 mb/d in March 2015 to the lowest rate of 6.52 mb/d in December 2016. Therefore, the onshore (Lower-48 States) crude oil output in 3Q16 and 4Q16 was more or less steady at 6.63 mb/d and 6.62 mb/d, respectively, despite an increase of 209 oil rigs since June. Moreover, the EIA's official estimates show that US tight oil production declined by 0.52 mb/d from a peak of 4.65 mb/d in March 2015 to average 4.13 mb/d in December 2016. Nevertheless, US total liquid supply in 4Q16, despite decreasing in December by 0.28 mb/d m-o-m, grew by 0.14 mb/d to average 13.55 mb/d q-o-q. US total liquids supply, excluding processing gains, shows a contraction of 0.43 mb/d in 2016, revised down by 33 tb/d compared to the last *MOMR* following the weak output performance in December. On an annual average supply of 13.61 mb/d is estimated for 2016.

Graph 5 - 6: US liquids production breakdown



*Note: * 2016 = Estimate and 2017= Forecast.*
Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

For 2017, the weekly US crude output shows that it increased to 9 mb/d in February, higher by 0.43 mb/d than September 2016, after the addition of 293 rigs. Hence, with drilling activity picking up and cash flow increasing in the tight oil industry, US tight crude output is likely to increase by 0.18 mb/d to average 4.44 mb/d in 2017. Production from tight oil wells, after initial high rates, is not declining as quickly as it did when the US shale boom began in 2007. Based on the NGLs output trend in 2016, unconventional NGLs – produced from tight formations – are expected to grow by 0.27 mb/d in 2017. US liquids supply in 2017, excluding processing gains, is forecast to grow by 0.34 mb/d y-o-y, revised up by 0.10 mb/d, to average 13.95 mb/d. The highest level of production is expected to be in 4Q17 at 14.31 mb/d.

Table 5 - 4: US liquids production breakdown

	2014	2015	Change 2015/14	2016	Change 2016/15	2017	Change 2017/16
Tight crude	3,928	4,544	616	4,260	-284	4,440	180
Gulf of Mexico crude	1,397	1,515	118	1,606	91	1,670	64
Conventional crude oil	3,439	3,356	-83	3,010	-346	2,910	-100
Unconventional NGLs	1,703	2,108	405	2,324	216	2,590	266
Conventional NGLs	1,311	1,234	-77	1,154	-80	1,110	-44
Biofuels + Other liquids	1,238	1,283	45	1,259	-25	1,230	-29
US total supply	**13,016**	**14,041**	**1,025**	**13,612**	**-429**	**13,950**	**338**

*Note: * 2016 = Estimate and 2017 = Forecast.*

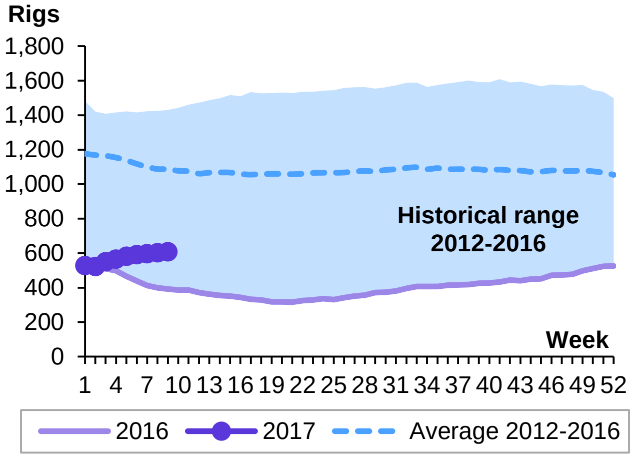
Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

With regard to production in the basins, Marcellus will contribute most to a higher growth rate in 2017, for gas and NGLs, according to Rystad Energy. The increase is supported by over 2,000 drilled, but not yet producing Marcellus wells. Marcellus has a large backlog of unconnected wells due to historically low takeaway capacity and regional gas prices. In terms of oil production, the two Permian plays could contribute most to additional output. The Permian plays are attractive due to their multi-stacked potential, and they witnessed the most transactions in 2016. Niobrara is the third largest contributor to increased oil production.

US oil rig count

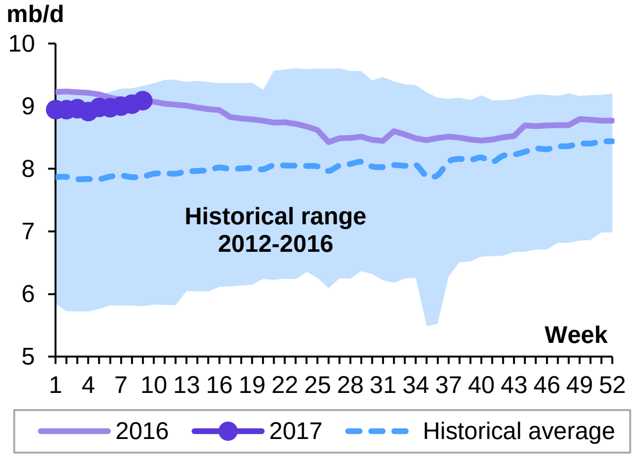
According to Baker Hughes' latest weekly report for 3 March 2017, the US drilling rig count rose by 352 units to 756 rigs, compared to 404 rigs – bottom of the rig count – on 27 May 2016. The US rig count was higher by 267 rigs y-o-y, an increase of 55%. The number of active drilling rigs in the US increased for the seventh consecutive week. Total oil rigs increased by 7 units during the week to 609 rigs, up 303 units since 27 May 2016. Natural gas-directed units decreased by 5 units to 146 rigs, up 65 units since the bottom reached on 26 August 2016. Onshore rigs climbed by 1 unit to 738 rigs, with horizontal up 9 units to 633 rigs and directional down 8 units to 61 rigs. The horizontal count has expanded by 319 rigs since 27 May. US offshore drilling rigs were up by 1 unit to 18 rigs, while it was 24 units a year ago.

Graph 5 - 7: US weekly oil rig counts



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

Graph 5 - 8: US weekly crude oil productions



Sources: US Energy Information Administration and OPEC Secretariat.

In regards to the basins, the number of oil rigs in Eagle Ford increased by 38 rigs from the beginning of the previous June to 64 rigs so far. In the Permian Basin, the number of oil rigs increased from the bottom at the beginning of May 2016, by 176 units, to 308 rigs, while rig counts in the Williston Basin (Bakken shale in North Dakota) increased by 16 units to 38 rigs. Finally rig counts, in the DJ-Niobrara Basin increased by only 8 units to 20 rigs in the beginning of March 2017.

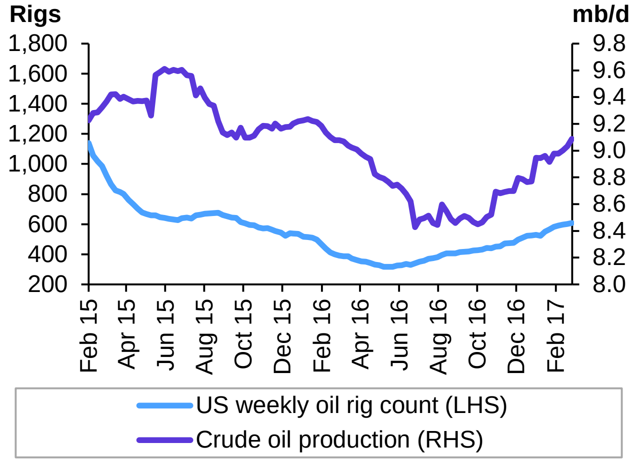
Table 5 - 5: US rotary rig count on 3 February 2017

					Change		
		3 Mar 17	Month ago	Year ago	M-o-m	Y-o-y	Y-o-y, %
Oil and gas split	**Oil**	609	583	392	26	217	55%
	Gas	146	145	97	1	49	51%
Location	**Onshore**	738	707	465	31	273	59%
	Offshore	18	22	24	-4	-6	-25%
Basin	**Williston**	38	37	33	1	5	15%
	Eagle Ford	64	56	40	8	24	60%
	Permian	308	295	156	13	152	97%
Drilling trajectory	**Directional**	61	66	42	-5	19	45%
	Horizontal	633	596	389	37	244	63%
	Vertical	62	67	58	-5	4	7%
US total rig count		**756**	**729**	**489**	**27**	**267**	**55%**

Sources: Baker Hughes and OPEC Secretariat.

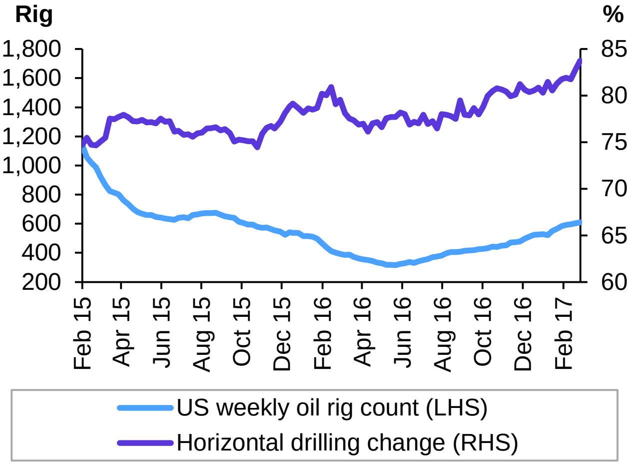
The majority of US onshore growth in 2017 is likely to be driven by development drilling programmes in the Delaware (Permian basin) and Eagle Ford regions. Most operators in the tight oil industry will continue to focus on long laterals and pad drilling, enhanced completions with higher proppant loadings and tighter stage and cluster spacing, as well as integrated facility design. The numbers of active gas rigs in the beginning of March in the main shale gas plays were 41 units in Marcellus, 34 units in Haynesville and 20 rigs in Utica.

Graph 5 - 9: US weekly oil rig count vs. Crude oil production



Sources: Baker Hughes and US Energy Information Administration.

Graph 5 - 10: US weekly oil right count vs. Horizontal drilling change

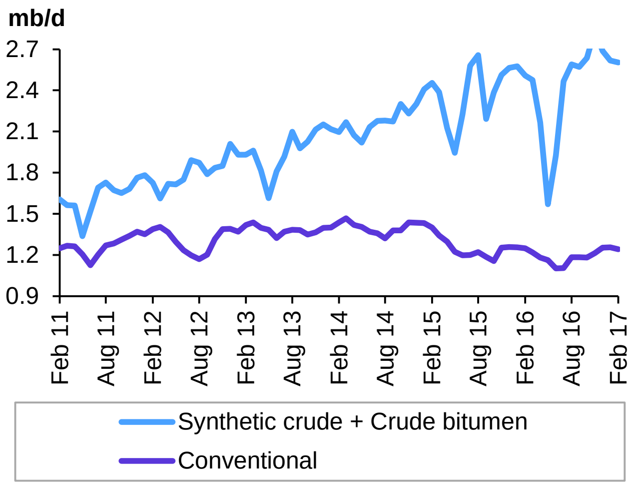


Source: Baker Hughes.

Canada

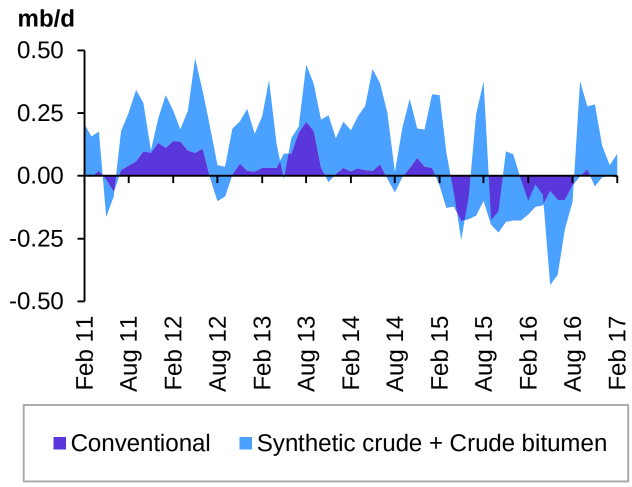
Canada's oil supply growth in 2016 has been revised up by 60 tb/d to average 90 tb/d y-o-y, following the upward revision by 237 tb/d in 4Q16 due to higher-than-expected output in the months of November and December. Hence, it is estimated that the Canadian annual oil supply was at 4.51 mb/d in 2016, with November production seeing a peak above 5mb/d. The liquids output breakdown shows that conventional crude oil output in November and December was 1.21 mb/d and 1.25 mb/d, higher by 50 tb/d on average than October. Oil sands output in these two months was 2.87 mb/d and 2.72 mb/d, respectively, higher by 130 tb/d than October. The lower output in December was due to lower Syncrude production from Suncor's Mildred Lake upgrader. Nevertheless, one of the reasons for higher oil sands production in Canada was due to a 10 tb/d increase of Syncrude from Phase 2b in the Horizon expansion project. Production of NGLs also increase by an average of 110 tb/d compared to October, reaching 1 mb/d. Canada's passing the 5 mb/d mark in November 2016 highlight the fact that long and costly projects, which have already been sanctioned, such as oil sands and the upgraded Syncrude production are not subject to changes due to short term price fluctuations. Following this surge in oil production, the forecast for Canada's oil supply growth in 2017 was revised up by 90 tb/d, at 0.26 mb/d, to 4.78 mb/d on an average yearly basis. Canada, after implementation of six projects with a total peak capacity of around 170 tb/d in 2016, is now planning to start up another five projects – Phase 1 of Mackay River, Phase 3 of Horizon, Phase 1 of Fort Hills by Suncor, the Hebron offshore project by ExxonMobil and, finally, the Hangingstone expansion project – with a total of more than 450 tb/d of peak capacity.

Graph 5 - 11: Canada production by crude type



Source: OPEC Secretariat.

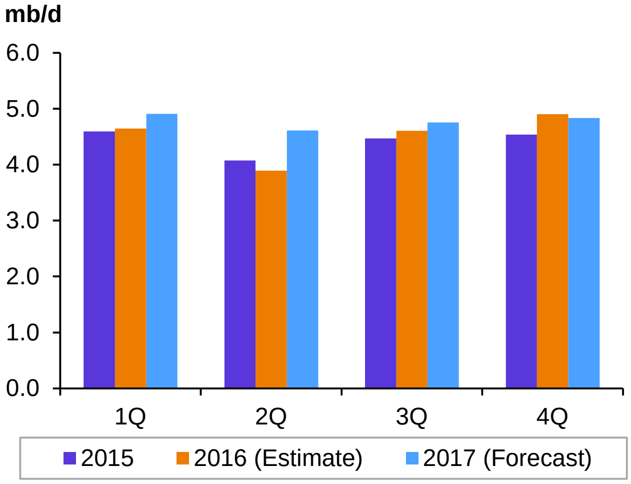
Graph 5 - 12: Canada production by crude type, y-o-y change



Source: OPEC Secretariat.

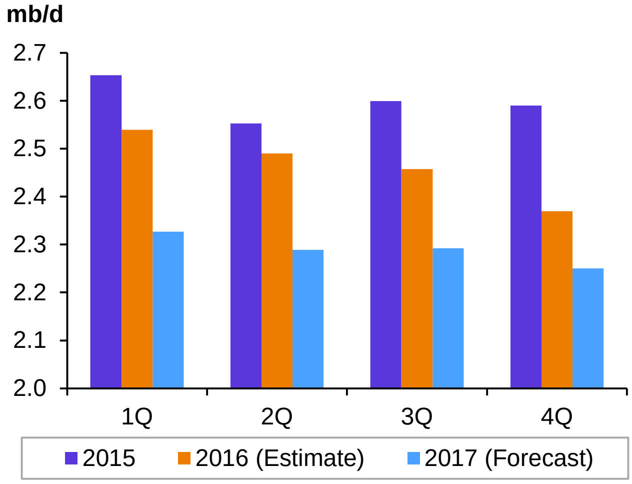
Canada's overall rig count for the week ending 3 March 2017 saw five less units w-o-w to reach a total of 335 units. Only one of these is offshore. Y-o-y, the rig count in Canada showed an increase of 206 rigs. After decreasing to a minimum of 26 rigs during the wildfires in Fort McMurray last May, the number of active rigs in Alberta – the main state for oil sands production – reached an average of 227 rigs, a decline of 7 rigs w-o-w. The other main producing provinces are Saskatchewan and British Colombia, registering 65 rigs (last year's rig count in late March was zero) and 32 rigs on 3 March, respectively.

Graph 5 - 13: Canada quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 14: Mexico quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Mexico

Mexican liquids production in 2016 is expected to decline by 0.13 mb/d to average 2.46 mb/d, unchanged from the previous *MOMR*. Liquids output in January declined by 10 tb/d to average 2.33 mb/d m-o-m, and the breakdown shows that crude oil declined by 15 tb/d m-o-m to average 2.02 mb/d, for decline of 0.24 mb/d y-o-y (more than 10%). The annual decline rate in 2016 is estimated at 5%, while the annual decline rate for Mexican crude oil production in 2015 was 6.7%. According to the average annual decline rate trend for crude oil and NGLs, oil production in Mexico will fall by 0.17 mb/d to average 2.29 mb/d in 2017.

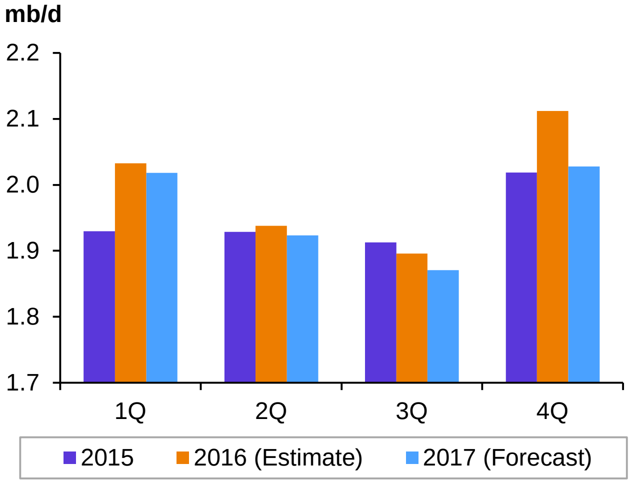
OECD Europe

Total **OECD Europe's oil supply** is estimated to grow by 30 tb/d to average 3.80 mb/d in 2016, unchanged from the February *MOMR*. The 2017 forecast was revised up by 19 tb/d following an historical upward revision in Other OECD Europe, which is expected to see a contraction of 50 tb/d to average 3.76 mb/d in 2017.

Norway

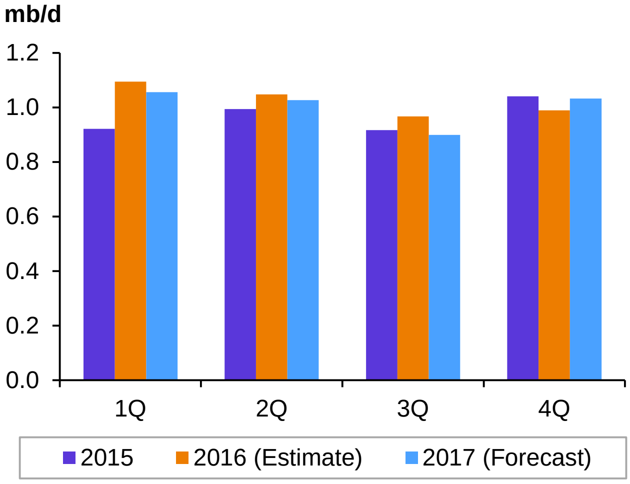
Norway's oil supply is estimated to have increased by 0.05 mb/d over the previous year to average 1.99 mb/d in 2016, unchanged from the previous *MOMR*. The production figure for 4Q16 has been revised down by 8 tb/d to average 2.11 mb/d this month. The preliminary average daily production in January 2017 was 2.02 mb/d, lower by 50 tb/d than December 2016. Crude oil output in January stood at 1.61 mb/d representing a decline of 70tb/d, m-o-m, but broadly flat with y-o-y levels. NGLs and condensates contributed 0.41mb/d in January. Crude oil output in January was affected by lower production from the Goliat field due to an unexpected technical bottleneck, which is likely to be continued in February. Regarding the oil supply forecast in 2017, due to the limited number of new projects starting up in the new year, a contraction of 30 tb/d is anticipated, for an average of 1.96 mb/d. According to the Norwegian Petroleum Directorate (NPD), due to lower investment spending in 2016 compared with a year ago, a mere 36 exploration wells were drilled in 2016 compared with 56 in 2015. An 11% decline in capital spending is forecast in 2017.

Graph 5 - 15: Norway quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 16: UK quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

UK

UK's oil production is estimated to grow by 60 tb/d to average 1.02 mb/d in 2016, while a contraction of 20 tb/d is expected for 2017 to average 1.0 mb/d. Oil production in January was steady at 1.07 mb/d compared to December 2016. In order to offset the rising annual decline in UK's mature fields, new projects are planned for startup in 2017 with a total peak capacity of approximately 0.3 mb/d. According to new project planning, the development of the Stella field – the first project started up in 2017, which is part of the Greater Stella Area (GSA) − involves the drilling of subsea wells tied back to the "FPF-1" floating production unit, with the onward export of oil and gas, and already produced its first oil in February. The Scolty/Crathes and the Greater Catcher fields are also expected to come online to produce sour crude, along with some other small projects such as Kraken, Quad 204 and the redevelopment of Monarb, which will lead to an increase of 22 tb/d of NGLs.

Developing Countries

Total oil production of **developing countries (DCs)** is estimated to decline by 80 tb/d y-o-y to average 12.23 mb/d in **2016**, revised down by 20 tb/d compared with the previous assessment. The reason for this revision was due to upward revisions in Thailand's oil production since 2014, which led to an upward revision by 101 tb/d in the supply base. Brazil also experienced an upward revision in 2015 by changing the base by 15 tb/d. Therefore, the 2016 DC's base was up by 109 tb/d to average 12.23 mb/d from 12.13 mb/d in the last assessment, while supply growth remained unchanged at 0.08 mb/d in 2016.

In **2017**, DC's supply is forecast to grow by 0.12 mb/d to average 12.36 mb/d, showing a downward revision in annual growth by 39 tb/d compared to the last *MOMR*. The key region for these changes is Africa (-20 tb/d), Other Asia (-16 tb/d) and the Middle East (-9 tb/d), while Latin America was revised up by 6 tb/d. Growth 0.18 mb/d is expected in Latin America − mainly from Brazil – to average 5.30 mb/d and, to a lesser degree, Africa, increasing by 50 tb/d – mainly from Congo and Ghana – to stand at 2.16 mb/d. Other Asia's oil supply will see a decline of 50 tb/d to average 3.67 mb/d due to the return of Indonesia to the non-OPEC group of producers. A decline of 60 tb/d is also expected for the Middle East to stand at 1.23 mb/d.

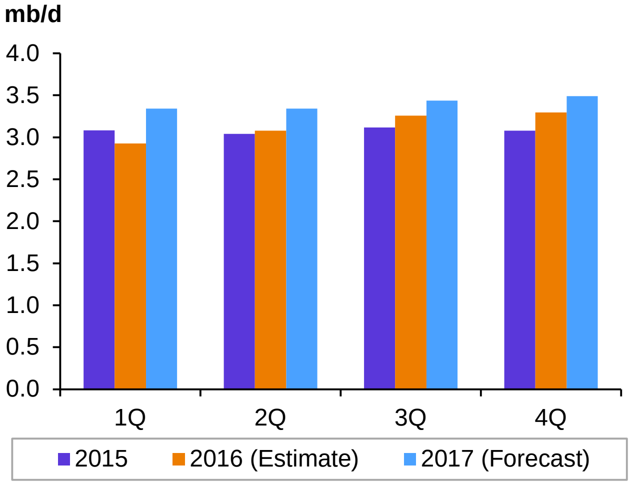
Latin America

Oil supply from Latin America is predicted to increase by 0.18 mb/d to average 5.30 mb/d in 2017, despite declining in 2016 by 90 tb/d. Oil production in Brazil is expected to increase by 0.26 mb/d, while other countries in the region will see declines.

Brazil's liquids supply is estimated to average 3.14 mb/d in 2016, an increase of 0.06 mb/d over the previous year. Preliminary crude oil production shows a decrease of 75 tb/d m-o-m in January to average 2.65 mb/d, mainly due to the scheduled stoppage of the P-40 platform at the Marlim Sul field, and to maintenance work on a production well at Parque das Baleias- both fields are in the Campos basin.

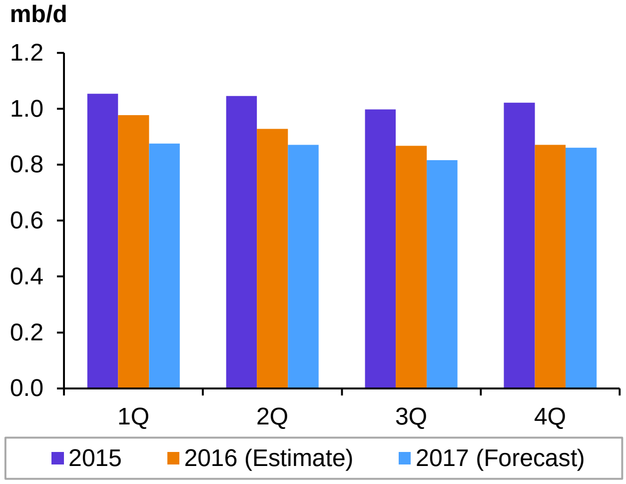
Petrobras's pre-salt oil reached a new high of 1.34 mb/d on 4 January, falling back later to average 1.28 mb/d, while NGL output was steady at 118 tb/d. Biofuels increased by 24 tb/d to 0.55 mb/d. Total Brazilian liquids supply in January declined by 50 tb/d m-o-m to average 3.33 mb/d. Growth of 0.26 mb/d is forecast in Brazil for the year of 2017 to reach an average of 3.40 mb/d. Higher output through new wells in Cidade de Caraguatatuba (over the Lapa field); Cidade de Saquarema, Cidade de Mangaratiba, Cidade de Itaguaí (over the Lula field); Cidade de São Paulo (over the Sapinhoá field) and also at the P-58 platform serving Parque das Baleias, is expected to be achieved through connection to different FPSOs in the Santos basin during the coming months of 2017.

Graph 5 - 17: Brazil quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 18: Colombia quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

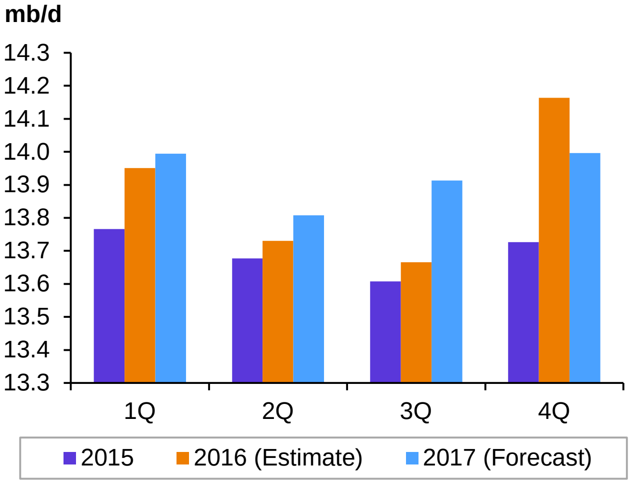
Africa

In 2017, oil production will grow in **Chad, Congo and Ghana**, while production in South Africa and the Sudans will be stagnant. Oil production in Egypt and Equatorial Guinea will decline in 2017 by 20 tb/d and 10 tb/d, respectively. Africa's oil supply is forecast to grow by 50 tb/d to average 2.16 mb/d in 2017 following a decline of 20 tb/d last year.

FSU, other regions

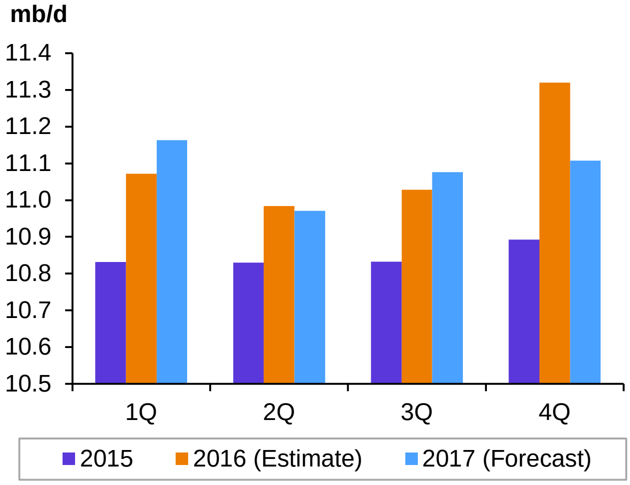
FSU's oil supply is estimated to grow by 0.18 mb/d in 2016 to average 13.88 mb/d, remaining unchanged from the February report. In 2016, oil production in Russia increased, while declining in other countries of the region. The oil production forecast for 2017 was revised up this month by 10 tb/d to now show growth of 0.05 mb/d for a total of 13.93 mb/d. An upward revision was seen in Russia's production growth by 38 tb/d. Moreover, Azerbaijan's production supply in 2017 was revised down by 28 tb/d for a contraction of 0.07 mb/d.

Graph 5 - 19: FSU quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 20: Russia quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Russia

Oil production in Russia was revised up in 4Q16 by 26 tb/d to average 11.32 mb/d. Output in 4Q16 was 0.3 mb/d higher q-o-q and 0.4 mb/d higher than 4Q15. For instance, liquids production by Rosneft, which newly acquired the state's 50.08% share in Bashneft, hit 4.58 mb/d in 4Q16, up by 12.2% compared to 3Q16. Russian oil output is estimated to increase by 0.25 mb/d – for a upward revision of 7 tb/d – to average 11.10 mb/d in **2016**. Russia's total liquids output in February 2017 was 11.21 mb/d.

Russia's oil supply for **2017** has been revised up by 45 tb/d following the adjustment of 181 tb/d in 1Q17, and is seen to contract by 22 tb/d to an average yearly supply of 11.08 mb/d. In regards to oil production in 2017, Rosneft has been increasing crude oil production at its Yurubcheno-Tokhomskoye field in East Siberia, where it plans to start commercial production later this year. The Yurubcheno-Tokhomskoye (Y-T) field is estimated to have 2.5 billion barrels of oil reserves. The company aims to produce around 100 tb/d at the Y-T oil field from 2019 during its first development phase. Last year, oil production increased 2,015 to 2,079 b/d. Production in January was around 7 tb/d, higher by around 65% from January 2016.

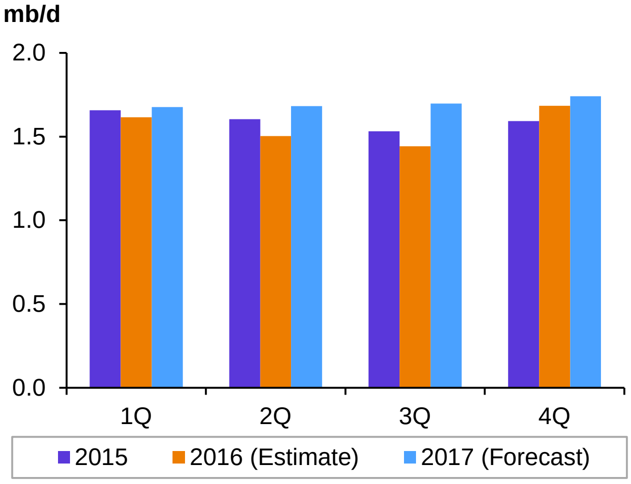
Caspian

Kazakhstan's crude oil output in February and January was stagnant at 1.68 mb/d. The Kashagan field, which came onstream in late September and is now ramping up to its initial target of 160 tb/d before gas injection, is due to reach a plateau of 370 tb/d within two years, once a gas reinjection programme starts. However, the oil ministry said it is not expected to reach the level of more than 180 tb/d by the end of 2017.

Hence, the prediction for growth of 140 tb/d for this year has not been changed from the last *MOMR*. Oil supply in Kazakhstan in 2016 declined by 40 tb/d to average 1.56 mb/d.

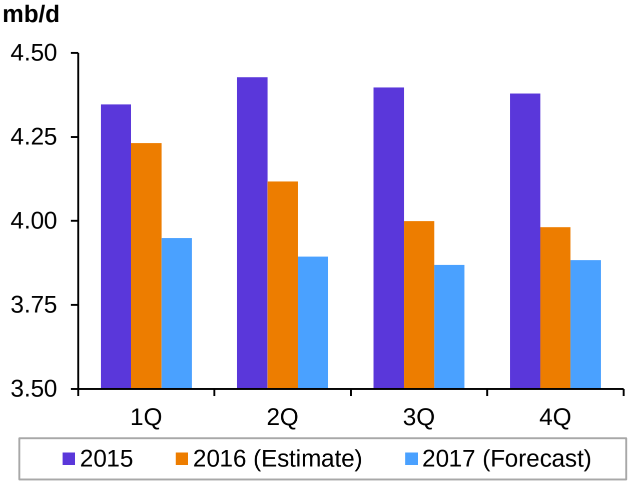
Azerbaijan's oil supply was reduced by 17.5 tb/d in February to average 0.78 mb/d, according to the Energy Ministry. Oil production in January was also adjusted to 0.79 mb/d following the production declines in the first two months of 1Q17. The annual oil supply in Azerbaijan is expected to contract by 70 tb/d to average 0.78 mb/d in 2017 following a minor decline of 10 tb/d in 2016.

Graph 5 - 21: Kazakhstan quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5 - 22: China quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

China

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

In **2017**, Chinese oil production is forecast to see another contraction but at a slower pace, by 0.18 mb/d, over the previous year to average 3.90 mb/d. Chinese crude oil output, following an increase in December, decreased by 60 tb/d in January to average 3.99 mb/d.

OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids are estimated to average 6.09 mb/d in **2016**, revised down by 10 tb/d, due to lower condensate output in 4Q16 in Nigeria, representing growth of 0.14 mb/d over the previous year.

In **2017**, OPEC NGLs and non-conventional liquids production is projected to average 6.21 mb/d, revised down by 20 tb/d because of lower GTL output expected in 1Q17 and 2Q17 due to maintenance at the Pearl project in Qatar, a decrease of 0.13 mb/d from the previous year.

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

	2014	2015	Change 15/14	1Q16	2Q16	3Q16	4Q16	2016	Change 16/15	2017	Change 17/16
Total OPEC	**5.83**	**5.94**	0.11	6.05	6.08	6.11	6.11	**6.09**	0.14	**6.21**	0.13

*Note: * 2016 = Estimate and 2017 = Forecast.*
Source: OPEC Secretariat.

OPEC crude oil production

According to secondary sources, OPEC crude oil production in February decreased by 0.14 mb/d from the previous month to average 31.96 mb/d. Crude oil output increased the most in Nigeria, while production in Saudi Arabia, Iraq, UAE and Angola showed the largest declines.

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

	2015	2016	2Q16	3Q16	4Q16	Dec 16	Jan 17	Feb 17	Feb/Jan
Algeria	1,106	1,088	1,084	1,090	1,089	1,087	1,053	1,053	*-0.2*
Angola	1,753	1,730	1,772	1,761	1,623	1,674	1,659	1,641	*-18.2*
Ecuador	544	546	550	547	543	544	531	526	*-4.4*
Gabon	220	217	219	219	209	209	201	194	*-6.9*
Iran, I.R.	2,838	3,502	3,539	3,646	3,725	3,725	3,778	3,814	*36.1*
Iraq	3,935	4,382	4,290	4,396	4,601	4,642	4,476	4,414	*-62.0*
Kuwait	2,771	2,849	2,799	2,879	2,876	2,859	2,718	2,709	*-9.3*
Libya	405	391	312	311	571	610	680	669	*-11.1*
Nigeria	1,861	1,577	1,541	1,417	1,570	1,474	1,550	1,608	*58.0*
Qatar	666	656	662	652	645	641	623	622	*-0.5*
Saudi Arabia	10,142	10,406	10,299	10,596	10,544	10,443	9,865	9,797	*-68.1*
UAE	2,898	2,967	2,921	3,004	3,082	3,090	2,962	2,925	*-36.9*
Venezuela	2,367	2,159	2,182	2,112	2,056	2,034	2,003	1,987	*-16.0*
Total OPEC	**31,506**	**32,470**	**32,168**	**32,629**	**33,135**	**33,029**	**32,097**	**31,958**	***-139.5***

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

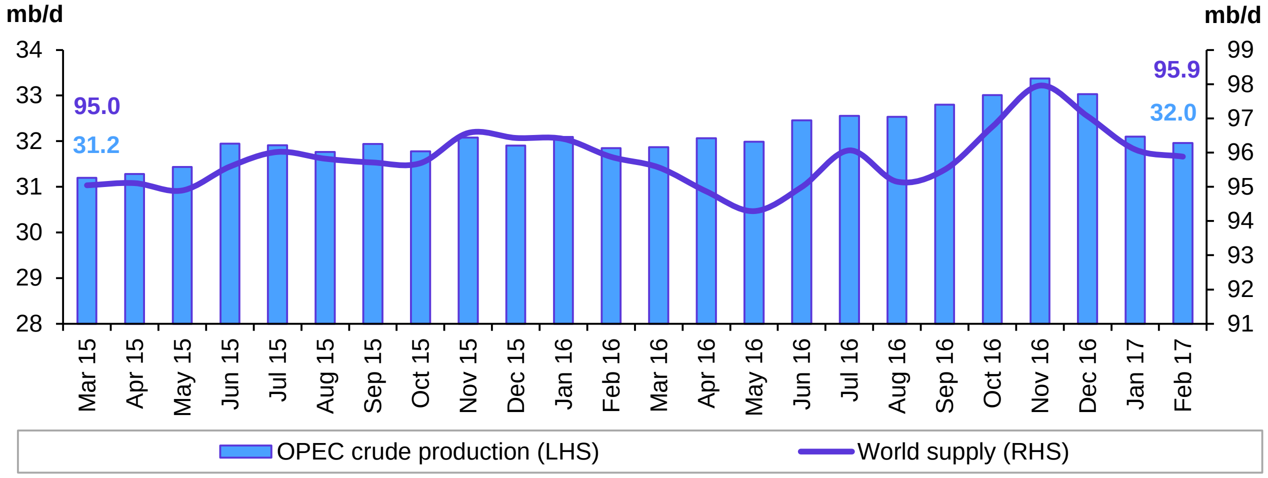
	2015	2016	2Q16	3Q16	4Q16	Dec 16	Jan 17	Feb 17*	Feb/Jan
Algeria	1,157	1,146	1,126	1,162	1,168	1,149	1,091	1,084	*-7.0*
Angola	1,767	1,708	1,730	1,720	1,611	1,639	1,615	1,649	*34.0*
Ecuador	543	549	554	551	543	544	534	535	*1.0*
Gabon	..	..	..	..	..	..	..	..	..
Iran, I.R.	3,152	3,651	3,570	3,653	3,993	4,010	3,920	..	..
Iraq	3,504	4,648	4,523	4,666	4,802	4,830	4,630	4,566	*-64.0*
Kuwait	2,859	2,954	2,934	2,969	2,915	2,844	2,710	2,705	*-5.0*
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,748	1,447	1,485	1,209	1,431	1,370	1,533	1,526	*-6.8*
Qatar	656	652	655	644	632	611	615	545	*-70.0*
Saudi Arabia	10,193	10,460	10,360	10,651	10,602	10,465	9,748	10,011	*263.3*
UAE	2,989	3,089	3,035	3,174	3,201	3,220	3,060	2,995	*-65.0*
Venezuela	2,654	2,379	2,392	2,331	2,287	2,270	2,250	2,248	*-2.0*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

*Note: * Direct communication is not the basis of calculating conformity of OPEC MCs production with the reference production of October 2016.*
Totals may not add up due to independent rounding.
.. Not available.
Source: OPEC Secretariat.

World oil supply

Preliminary data indicates that global oil supply decreased by 0.21 mb/d in February to average 95.88 mb/d, yet surprisingly unchanged, y-o-y. A decrease in both non-OPEC supply, including OPEC NGLs, of 63.92 mb/d and in OPEC crude production of 0.14 mb/d reduced overall global oil output in February. The share of OPEC crude oil in total global production stood at 33.3% in February, a decrease of 0.1% from the month before. Estimates are based on preliminary data for non-OPEC supply, direct communication for OPEC NGLs and non-conventional liquids, and secondary sources for OPEC crude oil production.

Graph 5 - 23: OPEC and world oil supply



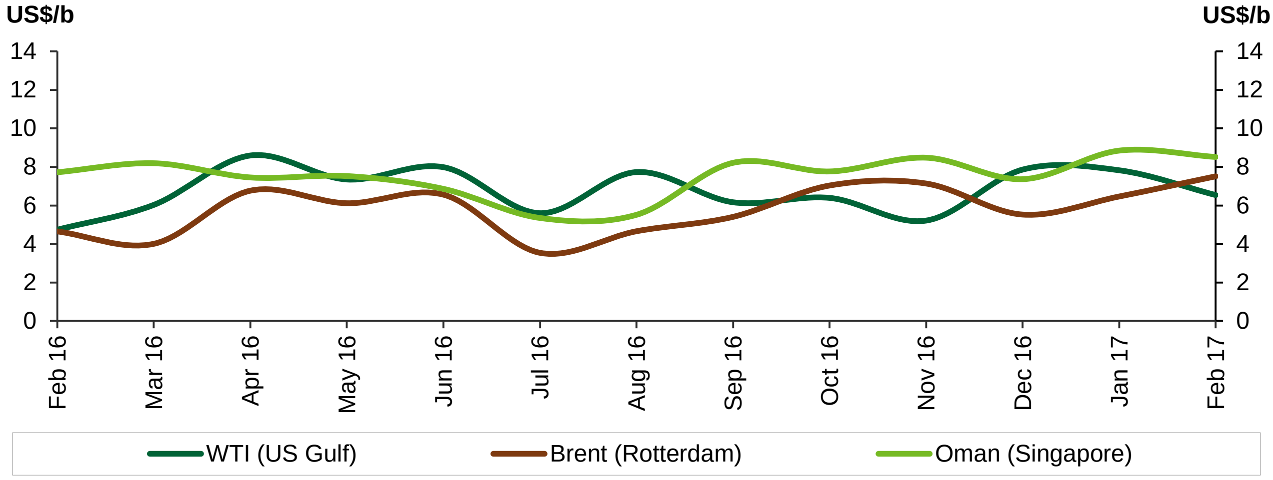
Source: OPEC Secretariat.

Product Markets and Refinery Operations

Product markets in the Atlantic Basin exhibited a mixed performance during February, as higher gasoline export opportunities to East of Suez, along with tightening sentiment fuelled by the falling ARA gasoil inventories, lent support to the European market. In the US, the weakening seen at the top and bottom of the barrel caused margins to fall.

Meanwhile, refinery margins in Asia remained healthy ahead of the spring refinery maintenance season, despite a slight fall due to some signs of a bearish gasoline market.

Graph 6 - 1: Refinery margins



Sources: Argus Media and OPEC Secretariat.

The weak seasonal domestic gasoline demand and the high level of gasoline inventories in the **US** East Coast (USEC) ahead of the transition to summer grades were driving bearish sentiment in the gasoline market causing a sharp drop in gasoline cracks spreads. This, along with the weakening seen at the bottom of the barrel, made the US Gulf Coast (USGC) refinery margins for WTI crude fall more than $1 compared to the previous month to average $6.50/b in February.

Product markets in **Europe** continued their recovery trend in February, supported by higher arbitrage opportunities for gasoline to the Middle East, Africa and Asia Pacific. The European products market was also supported by stronger regional demand, mainly in the barge market of Rotterdam as activity increased with Rhine water levels back to normal.

Additional support came from a more balanced middle distillates market. The gasoil crack spread strengthened – on the back of tighter supplies amid falling ARA inventories ahead of the spring maintenance season – driving bullish sentiment in the market.

The refinery margin for Brent crude in Northwest Europe (NEW) gained more than $1 over the previous month's level to average $7.50/b in February.

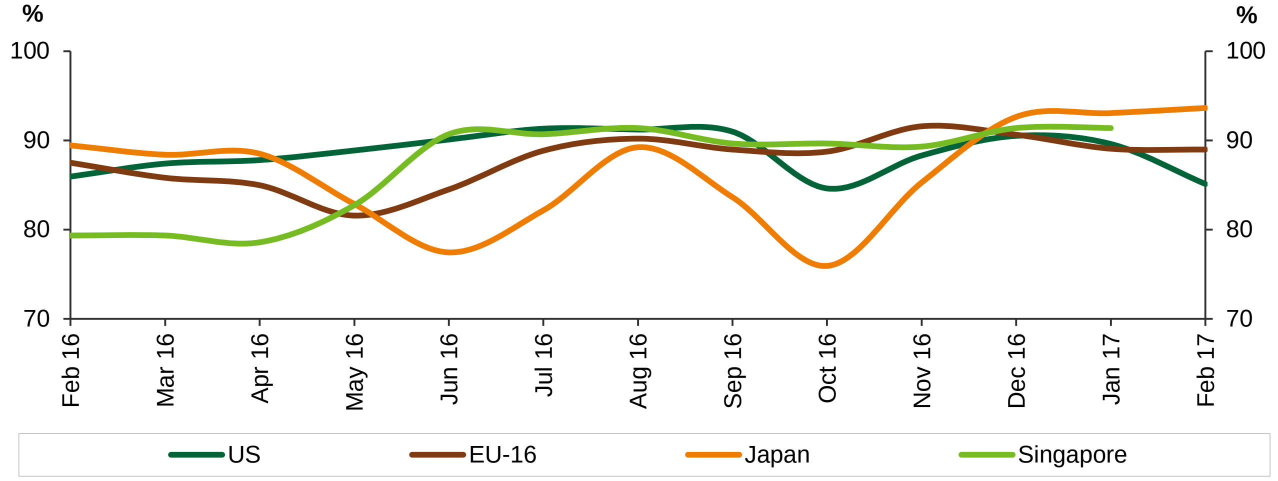
Asian product markets continued to be supported by firm regional demand which, along with some refinery outages fuelling bullish sentiment ahead of the maintenance season in the region, allowed refinery margins in Singapore to remain healthy, averaging around $8.50/b during February, losing a slight 30¢ versus the previous month's level.

Asian margins suffered a slight impact due to the weakening seen at the top of the barrel as high inventories in the US fuelled bearish sentiment to the Asian market, amid some pressure coming from the increase seen in Northeast Asian exports.

Refinery operations

The refinery utilisation rate in the **US** averaged around 85% during February, corresponding to 15.6 mb/d. This represented a sharp drop of around 800 tb/d compared to the previous month and was around 150 tb/d lower than the same month a year ago. The pronounced fall seen in refinery intakes is due to several factors, including the start of the spring maintenance season in the region, some unit outages resulting in limited operations and higher product inventories encouraging some economic adjustments.

Graph 6 - 2: Refinery utilisation rates



Sources: Argus Media and OPEC Secretariat.

European refinery runs averaged around 89% of capacity in February, corresponding to a throughput of 10.55 mb/d a similar level to the previous month up by around 200 tb/d from the same month a year ago. Refinery throughputs continued at a high level in Europe ahead of the upcoming spring maintenance season to enjoy healthy margins and catch up with strong domestic demand and arbitrage export opportunities at the top of the barrel.

In **Asia**, refinery utilisation rates continued to rise during the last month, taking advantage of firm seasonal regional demand, although some refinery outages have impacted the sector, mainly in Taiwan. In the coming weeks it is expected that several refineries undergo maintenance, which could put more than 2 mb/d of capacity in the Asian region offline.

Refinery runs in India averaged around 5.0 mb/d during January, which was 80 tb/d lower than in the previous month. Meanwhile, Chinese refinery throughputs averaged 11.2 mb/d during February, increasing around 600 tb/d compared to the previous month. Refinery runs in Singapore averaged around 91% in January, similar to the previous month, while Japanese throughput averaged 93% of capacity in February.

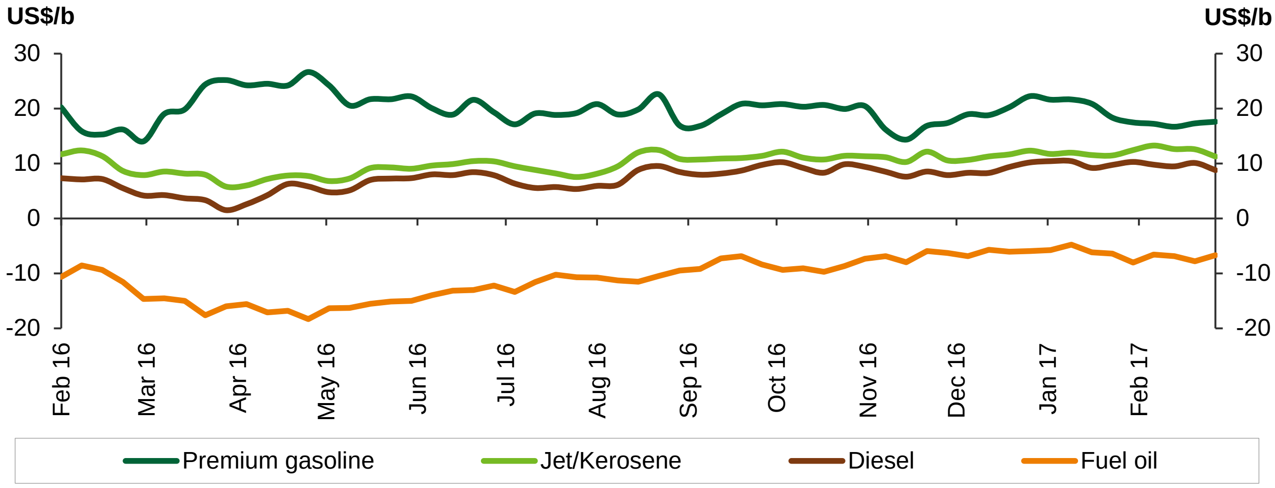
US market

US gasoline demand stood at around 8.7 mb/d in February, approximately 450 tb/d higher than in the previous month and 520 tb/d lower than in the same month a year earlier.

Bearish sentiment continued to be fuelled by high gasoline inventories, remaining well above the five-year average level and exerting pressure on the USEC where they increased the most. Another factor impacting the gasoline market has been the upcoming transition to higher Reid vapour pressure (RVP) summer grade, thus encouraging traders to clear winter grade inventories.

The gasoline crack spread showed a sharp drop of more than $3, compared with the previous month's level, to average around $17/b in February. Additional losses were avoided by the stronger exports to Latin America.

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



Sources: Argus Media and OPEC Secretariat.

At the middle of the barrel, the **gasoil** demand stood at around 4.0 mb/d in February, which is 380 tb/d higher than in the previous month and around 10 tb/d higher than in the same month a year earlier.

The middle distillate market continued to receive support from higher export opportunities to Latin American countries, mainly Chile, Guatemala and Mexico. This has compensated for the lower requirements reported from Brazil.

Additional support came from the increase seen in diesel demand ahead of the planting season amid news about outages in hydrocracker units in Louisiana, which fuelled a tightening sentiment ahead of the maintenance season in the region.

The USGC gasoil crack spread averaged around $10/b in February, remaining flat from the previous month's level. The market got support from the supply side with distillate inventories falling 7 mb in February.

At the bottom of the barrel, **fuel oil** margins fell as increasing supplies, amid a weakening winter power generation demand, have impacted the market. In addition, higher volumes coming from Europe and Russia were pressuring the fuel oil market as weakened FCC margins led to a long VGO market.

The USGC HSFO crack spread lost more than $1 to average minus $5/b in February.

European market

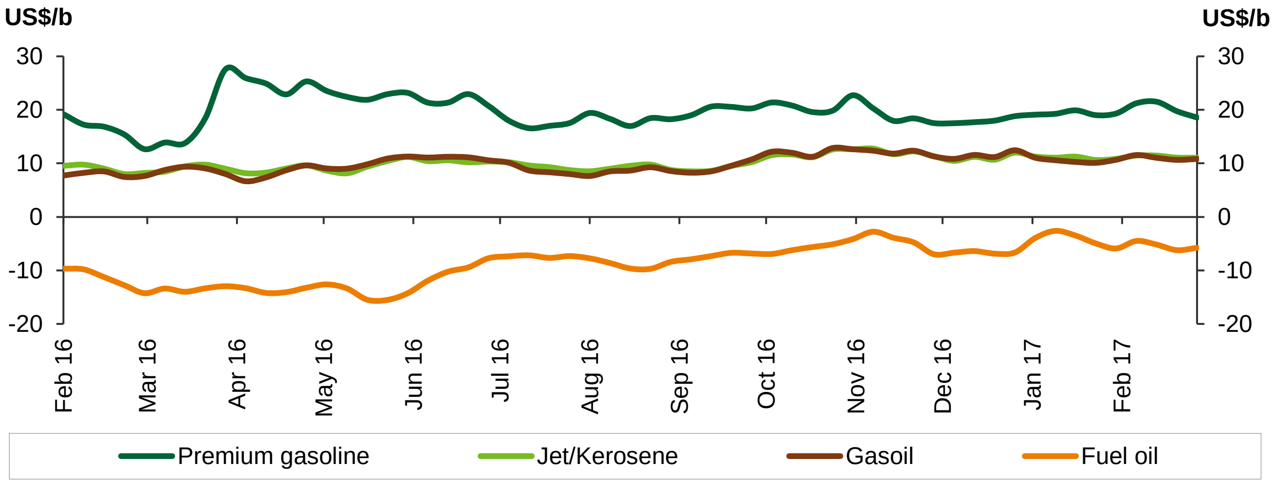
Product markets in Europe continued their recovery trend during February, supported by stronger domestic demand amid gasoline export opportunities to the Middle East, Asia Pacific and Africa. Additional support came from a more balanced middle distillates market as reduced inflows to the region were seen.

The **gasoline** market continued strengthening in Europe on the back of stronger regional demand, mainly in the barge market of Rotterdam amid higher export opportunities to the Middle East, Asia and West African markets (mainly Ghana and Nigeria). This compensates the weakness seen in transatlantic arbitrage, which has been closed due to the high level of US gasoline inventories.

The gasoline crack spread against Brent gained more than $1 from the previous month's level to average around $20.60/b during February. Additional support is expected in the coming weeks during the maintenance season when the market could become tighter.

The **light distillate naphtha** crack weakened, losing almost $1/b in February as the market has been hit by falling domestic demand with the maintenance of several steam cracker units in Europe. Demand for gasoline blender remained weak. Additionally, arbitrage to Asia has been reduced during the last weeks due to weakening seen in the Asian naphtha market.

Graph 6 - 4: Rotterdam crack spread vs. Brent



Sources: Argus Media and OPEC Secretariat.

The European **gasoil** market recovered some ground during the last month on the back of stronger heating oil demand supporting the market amid the recovery of Rhine river water levels, which allowed barge operations. This contributed to a reduction of more than 10% in ARA gasoil inventories during February, thus fuelling bullish sentiment to the market.

Another bullish factor has been the reduced inflows to the region – not only from the Black Sea, where exports have been so far delayed by bad weather conditions but also from the East of Suez, as exports to Europe have been falling amid lower availability. This has offset the increasing arbitrage from the US.

The gasoil crack spread against Brent crude at Rotterdam gained 60¢ compared to the previous month's level to average around $11.10/b in February. Further support came from export opportunities as higher requirements have been reported from North and West Africa.

At the bottom of the barrel, the **fuel oil** market in February partially lost the ground gained in the previous month due to slower regional heating demand amid reduced arbitrage opportunities to Asia. This, along with ample supplies, caused ARA fuel oil inventories to increase more than 20%, thus driving a bearish sentiment in the market.

The NWE fuel oil crack lost more than $1 compared with the previous month to average around minus $5.30/b in February. Further losses were avoided by some VGO demand seen in Spain and Turkey.

Asian market

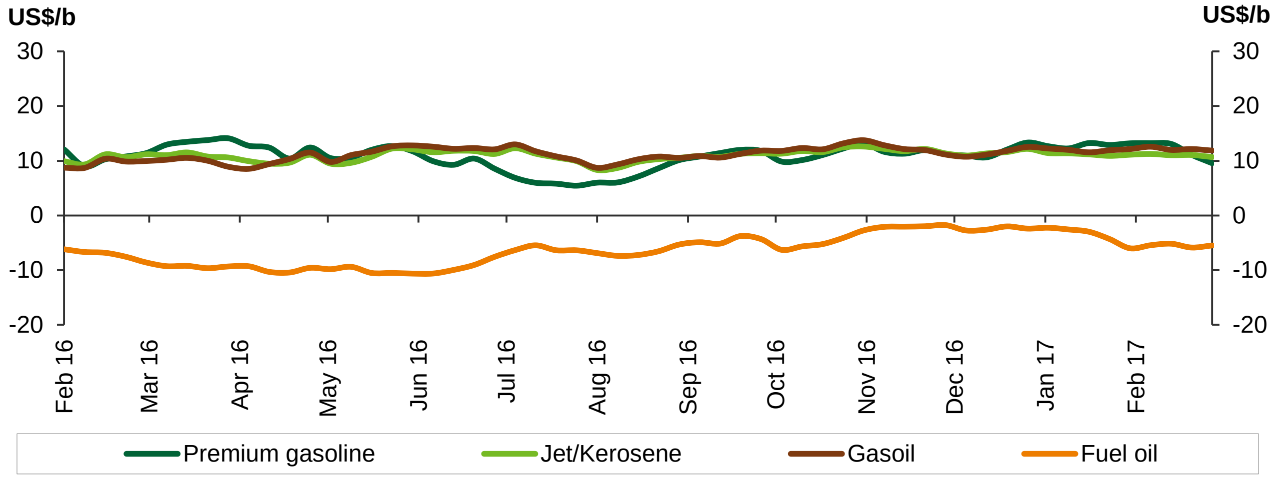
The Asian market got support from expectations of a more balanced market in the lead up to the onset of the regional maintenance season. This occurred amid stronger middle distillates demand fuelling bullish sentiment, while refinery margins managed to remain healthy during February despite the weakening seen at the top of the barrel.

The Asian **gasoline** market weakened slightly during February as high inventories in the US fuelled bearish sentiment to the Asian market. In addition, some pressure came from the supply side with an increase seen in Northeast Asia exports (mainly Taiwan and China), which along with the higher supplies coming from the new capacity online in India has been exerting pressure on the gasoline market.

The gasoline crack spread against Oman crude in Singapore averaged around $12.40/b in February, losing 40¢ compared with the previous month's level. Further losses were avoided by strong demand being reported from Vietnam, which offset the slower demand reported in Indonesia amid expectations of a tightening market during the onset of the maintenance season.

Singapore **naphtha** partially kept the recovery seen in the previous month, supported by stronger demand in the ethylene petrochemical sector and the start of a steam cracker unit in India. However, any additional uptick was capped by news about Taiwanese cracker units planning their maintenance program and additional volumes expected from the Middle East.

Graph 6 - 5: Singapore crack spread vs. Oman



Sources: Argus Media and OPEC Secretariat.

At the middle of the barrel, the **gasoil** crack spread retained the ground gained in the previous month and showed a slight strengthening supported by a more balanced market amid expectations of tightening with the onset of the maintenance season in the region. Supply pressure has been easing as high diesel exports from China have been reduced due to the seasonal inventory build and Indian gasoil production has dropped, thus offsetting the reduced East to West arbitrage.

Another supporting factor was the stronger demand being reported from South Asia, with Sri Lanka boosting its gasoil requirements for power generation due to a severe drought.

The gasoil crack spread in Singapore against Oman averaged around $12.20/b in February, gaining slightly by 30¢ compared with the previous month's level.

The Asian **fuel oil** market continued weakening during February due to pressure coming from the supply side with increasing inflows over the region (mainly from the Middle East) amid expectations of higher arbitrage volumes in the coming weeks. Meanwhile, regional demand for power generation and heating has started to slow.

Another bearish factor has been the stock build seen in Singapore, which increased more than 20% during February, due to bunker fuel demand in Singapore, which was impacted by the New Year's holidays.

The fuel oil crack spread in Singapore against Oman averaged about minus $5.50/b in February, losing more than $2 from the previous month. Further losses were avoided by stronger demand reported from Pakistan and Vietnam.

Table 6 - 1: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				*Refinery utilization, %*			
	Dec 16	Jan 17	Feb 17	Change Feb/Jan	Dec 16	Jan 17	Feb 17	Change Feb/Jan
US	16.56	16.39	15.57	-0.82	90.51	89.59	85.11	-4.49
Euro-16	10.74	10.55	10.54	-0.01	90.63	89.06	88.97	-0.09
France	1.20	1.11	1.03	-0.08	96.23	88.70	82.53	-6.17
Germany	1.93	1.88	1.80	-0.09	88.25	86.11	82.22	-3.88
Italy	1.39	1.33	1.41	0.08	67.89	65.00	68.82	3.81
UK	1.11	1.08	1.08	0.00	85.02	83.18	83.10	-0.08
Japan	3.54	3.55	3.57	0.02	92.64	93.06	93.63	0.58

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

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

	2014	2015	2016	1Q16	2Q16	3Q16	4Q16	1Q17 **
Total OECD	**36.95**	**38.00**	**37.97**	**37.76**	**37.20**	**38.75**	**38.25**	**38.14**
OECD America*	**19.00**	**19.19**	**19.21**	**19.05**	**19.24**	**19.65**	**19.25**	**19.36**
of which US	15.82	16.11	16.24	15.94	16.27	16.68	16.07	16.00
OECD Europe	**11.43**	**12.11**	**11.91**	**11.54**	**11.18**	**12.19**	**12.01**	**11.77**
of which:								
France	1.12	1.17	1.14	1.13	0.94	1.19	1.25	1.22
Germany	1.86	1.91	1.90	1.87	1.81	1.94	1.90	1.90
Italy	1.20	1.35	1.30	1.22	1.28	1.36	1.33	1.29
UK	1.14	1.14	1.09	1.01	1.07	1.12	1.09	1.07
OECD Asia Pacific	**6.51**	**6.70**	**6.85**	**7.17**	**6.79**	**6.91**	**6.98**	**7.00**
of which Japan	3.13	3.14	3.15	3.46	3.18	3.23	3.25	3.26
Non-OECD	**41.68**	**42.70**	**43.35**	**43.01**	**42.74**	**43.19**	**42.76**	**42.84**
of which:								
China	10.16	11.00	11.55	11.32	11.66	11.53	11.63	11.65
Middle East	6.90	7.27	7.56	7.42	7.19	7.43	7.36	7.42
Russia	5.92	5.79	5.71	5.61	5.49	5.83	5.71	5.71
Latin America	5.07	5.00	4.55	4.72	4.43	4.48	4.57	4.57
India	4.48	4.56	4.93	5.02	4.86	4.88	4.98	5.07
Africa	2.30	2.16	2.05	2.17	2.04	2.04	2.00	1.94
Total world	**78.62**	**80.70**	**81.33**	**80.77**	**79.95**	**81.94**	**81.00**	**80.98**

*Note: * Data includes Mexico and Chile.*
*** OPEC Secretariat's estimate.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

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

		Jan 17	Feb 17	Change Feb/Jan	Year-to-date 2016	Year-to-date 2017
US Gulf (Cargoes FOB):						
Naphtha*		56.90	57.71	0.81	34.95	57.31
Premium gasoline	*(unleaded 93)*	72.76	70.63	-2.13	49.24	71.70
Regular gasoline	*(unleaded 87)*	67.04	65.56	-1.48	41.58	66.30
Jet/Kerosene		64.23	66.10	1.87	40.35	65.17
Gasoil	*(0.2% S)*	62.50	63.20	0.70	37.03	62.85
Fuel oil	*(3.0% S)*	46.76	46.86	0.10	19.84	46.81
Rotterdam (Barges FoB):						
Naphtha		55.06	54.82	-0.24	33.73	54.94
Premium gasoline	*(unleaded 98)*	73.82	75.66	1.84	51.45	74.74
Jet/Kerosene		65.60	66.35	0.75	40.35	65.98
Gasoil/Diesel	*(10 ppm)*	65.05	66.13	1.08	39.26	65.59
Fuel oil	*(1.0% S)*	50.60	49.73	-0.87	20.65	50.17
Fuel oil	*(3.5% S)*	43.03	43.13	0.10	16.50	43.08
Mediterranean (Cargoes FOB):						
Naphtha		54.21	54.46	0.25	32.21	54.34
Premium gasoline**		66.95	68.26	1.31	45.00	67.61
Jet/Kerosene		63.81	65.12	1.31	38.58	64.46
Diesel		66.54	67.52	0.98	40.68	67.03
Fuel oil	*(1.0% S)*	52.19	50.41	-1.78	21.88	51.30
Fuel oil	*(3.5% S)*	45.77	45.75	-0.02	19.75	45.76
Singapore (Cargoes FOB):						
Naphtha		55.71	56.58	0.87	35.38	56.15
Premium gasoline	*(unleaded 95)*	69.47	69.90	0.43	47.33	69.69
Regular gasoline	*(unleaded 92)*	66.77	67.54	0.77	44.17	67.16
Jet/Kerosene		65.17	66.26	1.09	39.46	65.72
Gasoil/Diesel	*(50 ppm)*	65.90	67.34	1.44	38.72	66.62
Fuel oil	*(180 cst 2.0% S)*	55.05	54.59	-0.46	26.35	54.82
Fuel oil	*(380 cst 3.5% S)*	50.47	49.07	-1.40	23.02	49.77

*Note: * Barges.*

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

Sources: Argus Media and OPEC Secretariat.

Tanker Market

Following the gains in the tanker market registered in the previous month, average dirty tanker spot freight rates declined by 21% in February reversing all profits made one month before. Lower rates were seen in all reported dirty classes in February, which was partially attributed to holidays in the East, as well as thin market activity in general and an increase in vessels supply, including new deliveries. Dirty tanker average freight rates showed a drop from the previous month as VLCC, Suezmax and Aframax rates went down by 20%, 22% and 21%, respectively. Clean tanker spot freight rates were no exception as they fell under the influence of the general downward trend, which overtook the tanker market in February. A lack of activity was seen dominating different classes in the clean tanker market, thus on average clean tanker spot freight rates were down by 16% from the month before.

Spot fixtures

According to preliminary data, **global fixtures** dropped by 1.5% in February compared to the previous month. **OPEC spot fixtures** were down by 3.5%, or 0.41 mb/d, to average 11.46 mb/d. Fixtures on the Middle East-to-East route averaged 5.49 mb/d in February, down by 0.06 mb/d from one month ago, while those on the Middle East-to-West route averaged 2.57 mb/d. Outside of the Middle East, fixtures averaged 3.39 mb/d, dropping by 0.21 mb/d m-o-m, compared with the same period a year before it remained flat.

Table 7 - 1: Spot fixtures, mb/d

	Dec 16	Jan 17	Feb 17	Change Feb 17/Jan 17
All areas	**16.76**	**16.20**	**15.97**	**-0.24**
OPEC	11.95	11.87	11.46	-0.41
Middle East/East	5.69	5.56	5.49	-0.06
Middle East/West	2.95	2.71	2.57	-0.14
Outside Middle East	3.31	3.60	3.39	-0.21

Sources: Oil Movements and OPEC Secretariat.

Sailings and arrivals

Preliminary data shows **OPEC sailings** were 1.4% lower in February, averaging 23.95 mb/d. This was 0.08 mb/d below the same month a year ago. **Middle East sailings** also went down by 1.4% from the previous month and by 1.6% from a year ago.

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

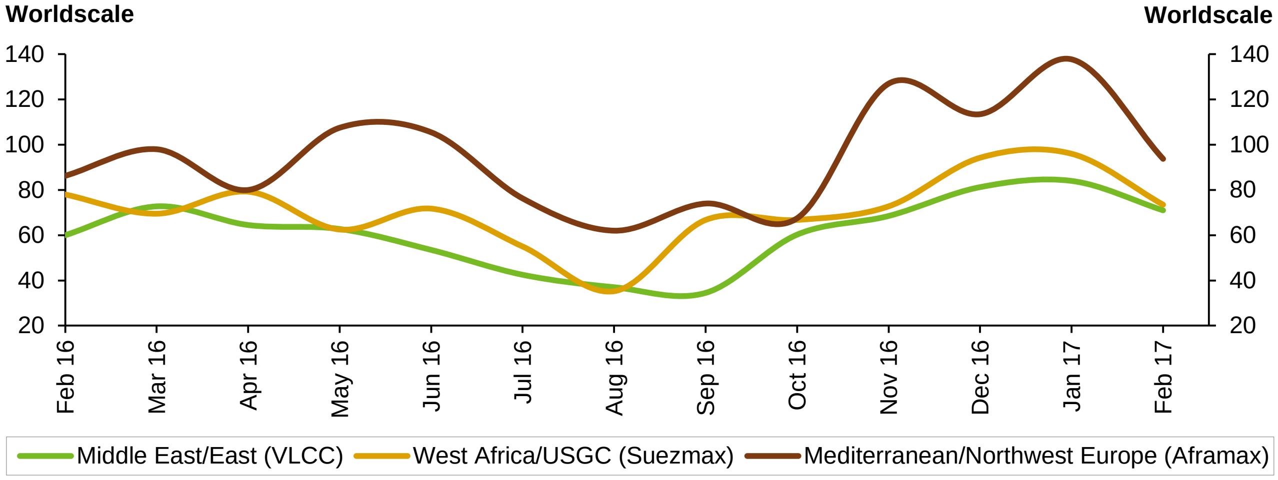
	Dec 16	Jan 17	Feb 17	Change Feb 17/Jan 17
Sailings				
OPEC	24.07	24.28	23.95	-0.33
Middle East	17.53	17.48	17.23	-0.25
Arrivals				
North America	9.93	10.18	10.00	-0.18
Europe	12.39	12.23	12.28	0.05
Far East	8.70	8.44	8.62	0.18
West Asia	4.78	4.91	4.68	-0.23

Sources: Oil Movements and OPEC Secretariat.

February **arrivals** were mixed, registering declines of 1.8% and 4.7% from one month ago in North American and West Asian ports, respectively, while arrivals to Europe and Far East increased by 0.4% and 2.1%, respectively, to average 12.28 mb/d and 8.62 mb/d.

Dirty tanker freight rates

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



Sources: Argus and Platts.

VLCC

Following the increase in January, **VLCC freight rates** saw a softer sentiment beginning of February as a new wave of vessels delivery into the market led to a sharp fall in rates. This occurred despite the cargo loading requirements, mainly in the Middle East, which offset the drop in rates to some extent. In the West African oil market, steady activity (mainly for March loading) supported freight rates and prevented further drops. Nevertheless, in general the VLCC market was lacking activities in February due to holidays in different regions and a flurry of new deliveries, which added to the tonnage build up.

Freight rates registered for tankers operating on the Middle East-to-East route went down by 15% from previous month to stand at WS71 points. Middle East-to-West routes declined by 29% from the previous month to stand at WS37 points, influenced by the downward pressure in the region. Similarly, West Africa-to-East routes dropped by 15% from a month ago to average WS71 points. On all routes, the VLCC freight rates were negatively influenced by fewer cargo loading requirements and a prolonged tonnage list. Nevertheless, VLCC freight rates in February remain 18% above those of the same month a year before.

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

Crude: VLCCs	Size *1,000 DWT*	Dec 16	Jan 17	Feb 17	*Change* Feb 17/Jan 17
Middle East/East	230-280	81	84	71	-13
Middle East/West	270-285	49	53	37	-15
West Africa/East	260	77	84	71	-13

Sources: Argus Media and OPEC Secretariat.

Suezmax

Suezmax average spot freight rates experienced a higher drop than those of VLCCs in February. Rates for tankers operating on the West Africa-to-US route decreased by 23% to average WS74 points. Rates on the Northwest Europe (NWE)-to-US route fell by 21% in February from the previous month to average WS65 points. The drop in freight rates came as a result of weak tonnage demand in West Africa and light inquiries in the Black Sea and the Mediterranean. The relative higher activities, as well as some replacements and fuel arbitrage tonnage requirements, were not enough to support Suezmax rates in February as they dropped from the previous month – and the previous year as well. Reduced weather delays at the Turkish Straits were another factor which contributed to the drop in rates as the tonnage list prolonged further.

Generally, Suezmax spot freight rates experienced the highest drop among tankers in the dirty tanker market. Average spot freight rates for Suezmax declined by 22% in February from the previous month to average WS69 points.

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

Crude: Suezmaxes	Size *1,000 DWT*	Dec 16	Jan 17	Feb 17	*Change* Feb 17/Jan 17
West Africa/US Gulf Coast	130-135	94	96	74	-22
Northwest Europe/US Gulf Coast	130-135	76	81	65	-17

Sources: Argus Media and OPEC Secretariat.

Aframax

The **Aframax** sector saw a similar decline in freight rates as experienced with other dirty vessels. Freight rates on all reported routes showed a drop from the previous month, despite fluctuations during the month. They edged down on average from the previous month showing a drop of 22%. Rates edged down for ice class vessels allowing Aframax rates in general to fall.

In the **North Sea**, rates for long haul voyage requirements weakened. In the **Mediterranean**, freight rates for Aframax operating on both Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes showed a decline of 28% and 32%, respectively, to stand at WS103 and WS94 points. Average monthly freight rates dropped despite a fair level of activities in the Mediterranean and the Black Sea.

In the **Caribbean**, Aframax freight rates were down from the previous month as seen on other routes. Lower rates in February came on the back of limited activities in the Caribbean as cargo requirements were thin. Aframax freight rates in the **US Gulf Coast** dropped on average despite tightening vessels supply as a result of delays in that area. Aframax rates on Caribbean-to-US routes reported a loss of 16% to stand at WS131 points. Rates in the East were no exception as Aframax rates on Indonesia-to-East routes went down by 9% to average WS105 points in February.

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

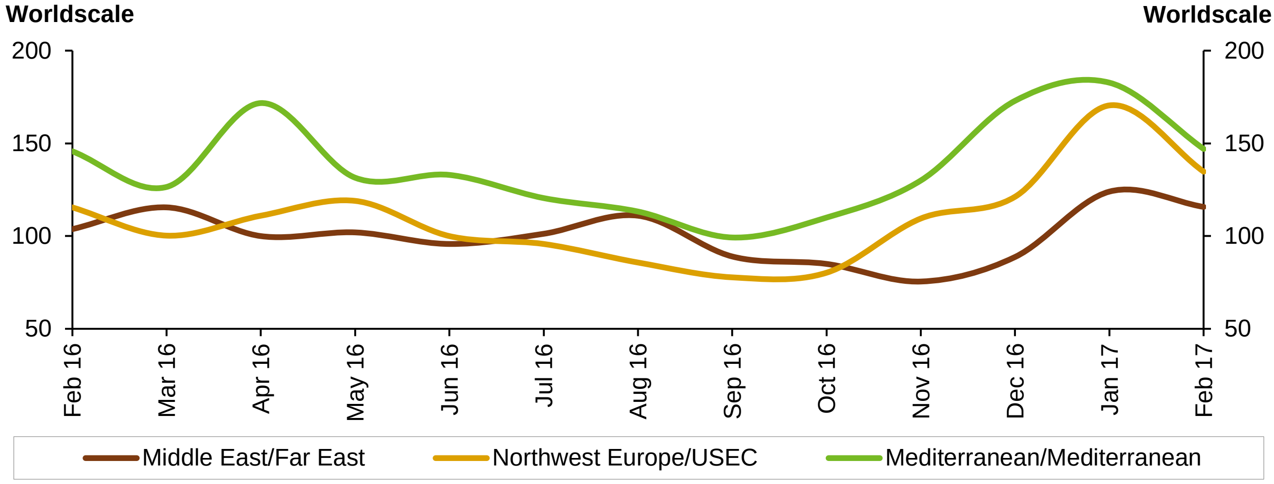
Crude: Aframaxes	Size *1,000 DWT*	Dec 16	Jan 17	Feb 17	*Change* Feb 17/Jan 17
Indonesia/East	80-85	114	115	105	-10
Caribbean/US East Coast	80-85	137	156	131	-25
Mediterranean/Mediterranean	80-85	115	142	103	-40
Mediterranean/Northwest Europe	80-85	114	138	94	-44

Sources: Argus Media and OPEC Secretariat.

Clean tanker freight rates

As seen in the dirty segment of the market, **clean spot tanker freight rates** weakened on all reported routes. Similarly, freight rates for clean tankers in different classes showed a decline. Softer rates were mainly supported by growing tonnage availability and slow activity in the market, which could be partially attributed to the holidays. Average clean tanker rates declined by 16% as both East and West of Suez fixtures dropped by 9% and 20%, respectively.

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



Sources: Argus Media and OPEC Secretariat.

In the **East of Suez**, average clean tanker freight rates dropped by 9% from the previous month as holidays in the East created a vessels pile up, dragging freight rates down to the medium-range. Therefore, the rate for tankers trading on the Singapore-to-East route dropped by 10%, and the rate for the Middle East-to-East route showed a decline of 7% as both stood at WS157 points and WS116 points, respectively.

In the **West of Suez**, a continuous downward trend dominated freight rates. Average spot freight rates experienced a drop by 21% to average WS135 points from the previous month, as freight rates registered for tankers trading on the NWE-to-US route showed the highest decline in February.

In the **Mediterranean**, another drop in rates was detected in February as average freight rates for clean tankers trading on both Mediterranean-to-Mediterranean and Mediterranean-to-NWE declined by 20% to stand at WS147 and WS157 points, respectively.

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

	Size *1,000 DWT*	Dec 16	Jan 17	Feb 17	*Change* Feb 17/Jan 17
East of Suez					
Middle East/East	30-35	89	124	116	-9
Singapore/East	30-35	125	174	157	-18
West of Suez					
Northwest Europe/US East Coast	33-37	121	171	135	-36
Mediterranean/Mediterranean	30-35	173	183	147	-36
Mediterranean/Northwest Europe	30-35	183	198	157	-41

Oil Trade

In February, preliminary data shows that US crude oil imports declined by 502 tb/d, or 6%, from the previous month to average around 8 mb/d. However, on an annual basis, the figure reflected a slight gain of 77 tb/d, or 1%, from a year earlier. US product imports dropped by 41 tb/d, or 2%, m-o-m to average 2.2 mb/d, while y-o-y the figure remained higher by 107 tb/d, or 5%.

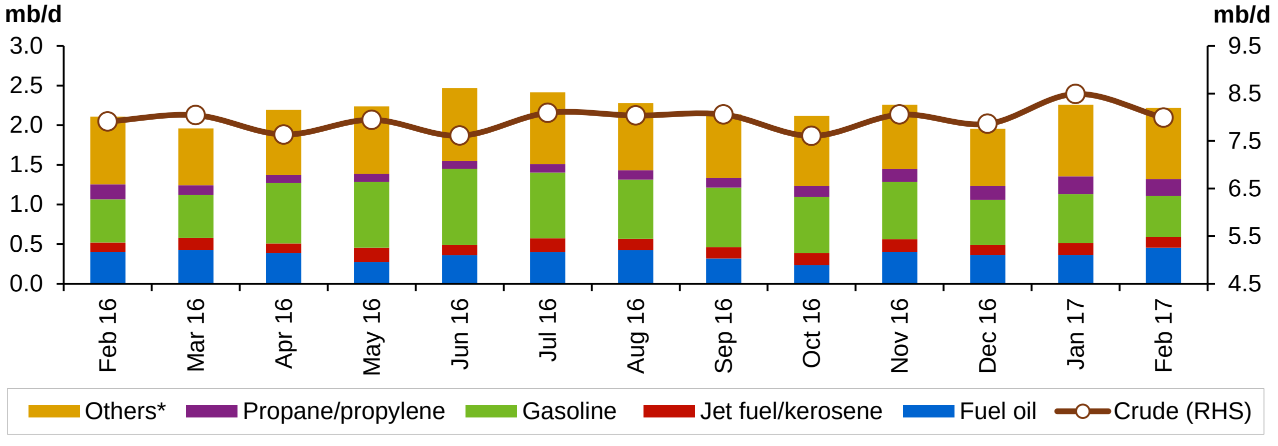
In Japan, crude oil imports dropped in January by 153 tb/d, or 4%, to average 3.5 mb/d. Y-o-y, crude imports increased in January by 58 tb/d, or 2%. On the other hand, product imports increased in January by 37 tb/d to average 658 tb/d, reflecting a gain of 6% m-o-m, while remaining below the level achieved the year before by 40 tb/d. China's crude oil imports dropped in January by 554 tb/d, or *6%, from the previous month to average 8 mb/d. But on an annual comparison, China's crude imports were higher by a substantial 1.7 mb/d. The monthly drop in China's crude oil imports was in line with the decline seen in domestic refinery runs in January. Concerning oil products, China saw no changes in the amount of products imported in January, remaining at the December 2016 figure of 1.2 mb/d.*

In January, India's crude oil imports dropped from the previous month by 132 tb/d, or 3%, from the previous month to average 4.1 mb/d, showing an annual drop of 161 tb/d, or 4%. On the product side, India's imports in January declined by 66 tb/d, or 8% m-o-m to average 777 tb/d.Y-o-y, they were less by 13 tb/d, or 2%

US

In February, preliminary data shows that **US crude oil imports** declined by 502 tb/d, or 6%, from the previous month to average 8 mb/d. However, on an annual basis, the figure reflected a slight gain of 77 tb/d, or 1%.

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

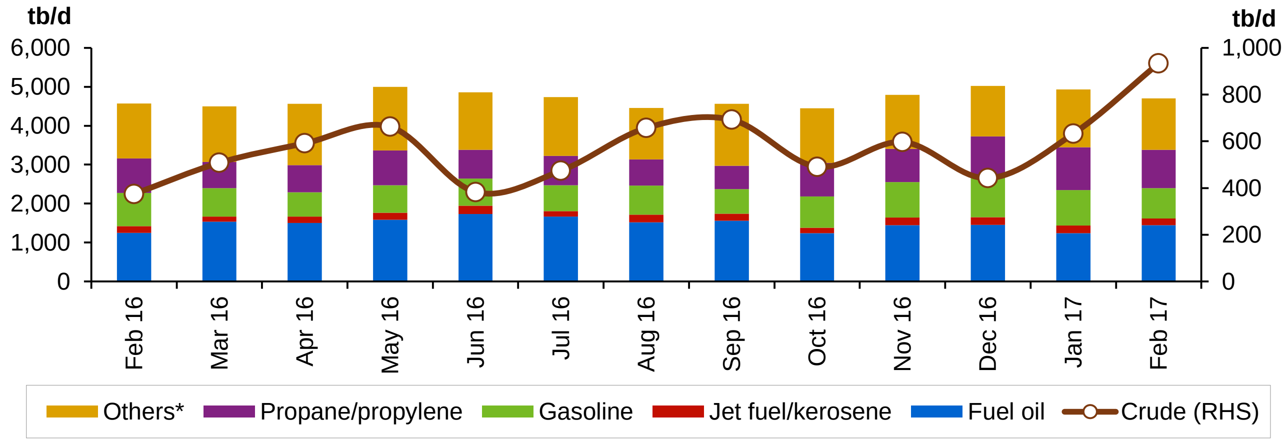


*Note: *Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.*
Sources: US Energy Information Administration and OPEC Secretatiat.

US product imports dropped by 41 tb/d, or 2%, m-o-m to average 2.2 mb/d, while y-o-y they remained higher by 107 tb/d, or 5%.

In February, **US product exports** registered a decline of 231 tb/d, or 5%, to average 4.7 mb/d from the previous month. On an annual comparison, the figure reflected a gain of 127 tb/d, or 5%.

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.

As a result, **US total net oil imports declined in February to average 4.6 mb/d**, lower by 12% from the previous month and 10% below last year's level.

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

	Dec 16	Jan 17	Feb 17	Change Feb 17/Jan 17
Crude oil	7,418	7,857	7,053	-804
Total products	-3,064	-2,674	-2,484	191
Total crude and products	**4,354**	**5,182**	**4,569**	**-613**

Sources: US Energy Information Administration and OPEC Secretatiat.

As December data shows, Canada remained the **top crude supplier** to the US, accounting for 43% of total US crude imports. Yet, its monthly exports to the US were 118 tb/d, or 3%, lower than a month earlier. Saudi Arabia came in as the second-largest supplier, holding a share of 13% of total US crude imports. Venezuela was third-largest with lower volumes than seen in previous month by 79 tb/d or 10%.

Crude imports from **OPEC Member Countries** in December went up by 2% from a month earlier, mainly due to higher imported volumes from Iraq. On the other hand, US product imports from OPEC Member Countries dropped by 34% from the previous month.

As to the **product supplier share**, Canada and Russia maintained their position as first and second suppliers to the US, while the UK came in as third highest. The respective shares were 32%, 15% and 5%.

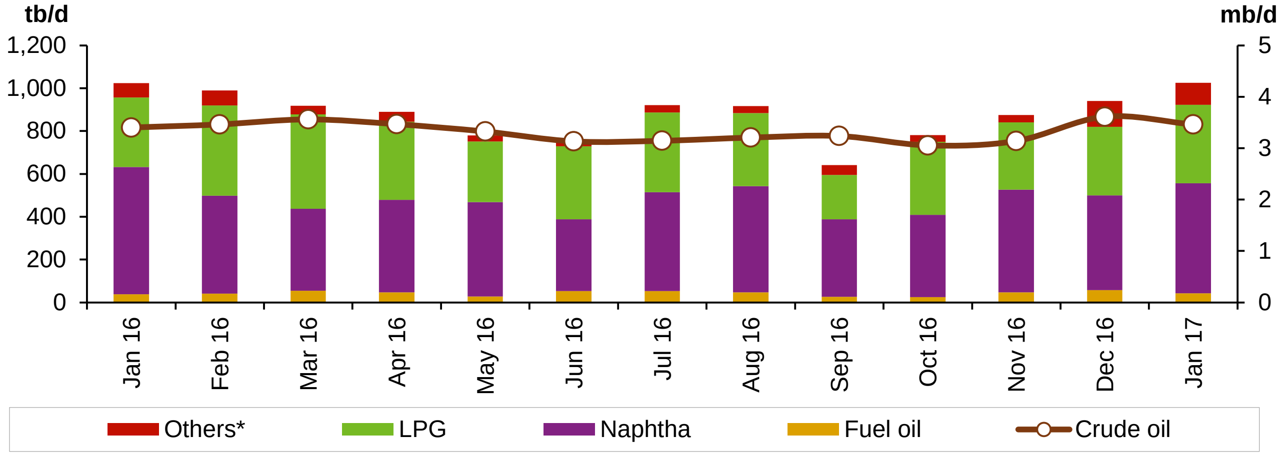
As for US **crude imports by region in December**, despite a m-o-m decline in imported volumes from North America, the region still remained the top supplier to the US, exporting an average of 3.4 mb/d. It was followed by Latin America with 2 mb/d, while imports from the Middle East increased in December from a month earlier, averaging 1.9 mb/d. Imports from Africa averaged 497 tb/d.

As for **crude imports by PADDs**, in PADD 1 they dropped from most all regions in December from the previous month. Imports from Latin America were the only exception with a rise of 17 tb/d. The highest crude imports to the East Coast came from Africa, despite a decline of 59 tb/d. Imports from North America averaged 248 tb/d, down by 13 tb/d from the previous month. Imports from PADD 2 remained mostly covered from North America with an average of 2.4 mb/d in December, up by 108 tb/d from a month earlier. PADD 3 covered its imports from Latin America, the Middle East and North America. Imports from the Middle East rose by 75 tb/d in December, while mostly declining from other regions. The imports were up from a month earlier by 226 tb/d and 195 tb/d, respectively. Imports in PADD 4 were lower from North America, down by 79 tb/d m-o-m. In PADD 5, the West Coast continued not to receive any imports from Asia for the second month in a row. Imports from the Middle East increased by 161 tb/d, averaging 417 tb/d in December.

Japan

Japan's crude oil imports dropped in January by 153 tb/d, or 4%, to average 3.5 mb/d. Y-o-y, crude imports increased in January by 58 tb/d, or 2%.

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



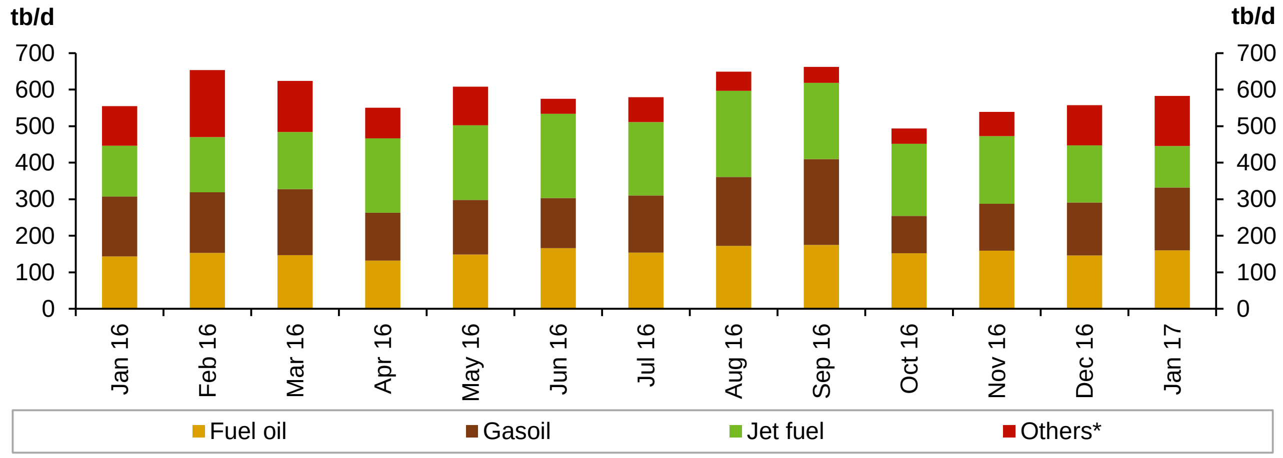
*Note: *Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.*
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

Looking at the **crude suppliers' share**, Saudi Arabia, the UAE and Kuwait were the top suppliers to Japan in January. Saudi Arabia held its position as top crude supplier to Japan with a share of 42% of total crude exports. The UAE came in as the second-largest supplier with a share of 22%, while Kuwait was in third place with a share of 8%. Both Saudi Arabia and Kuwait exported higher volumes of crude to Japan from the previous month, while the UAE saw its exports to Japan decline by 117 tb/d, or 14%, from the previous month.

On the other hand, **product imports** increased in January by 37 tb/d to average 658 tb/d, reflecting a gain of 6% m-o-m, while remaining below the level achieved a year before by 40 tb/d.

As for **product exports**, Japan's exports in January increased by 25 tb/d, or 5%, to average 583 tb/d. Y-o-y, product exports rose by 28 tb/d, or 5%.

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 in January by 141 tb/d to average 3.5 mb/d**, reflecting a monthly drop of 4%, while the figure remained almost flat from last year's level.

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

	Nov 16	Dec 16	Jan 17	Change Jan 17/Dec 16
Crude oil	3,140	3,613	3,460	-153
Total products	21	64	75	11
Total crude and products	**3,161**	**3,677**	**3,536**	**-141**

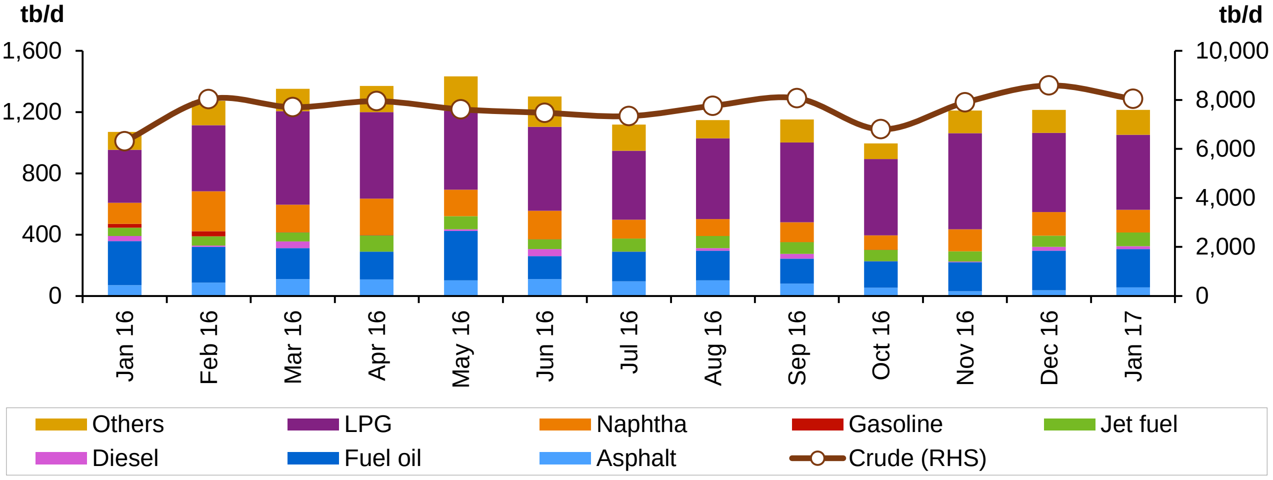
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

China

Following the significant increase in December, **China**'s **crude oil imports** dropped in January by 554 mb/d, or 6%, from the previous month to average 8 mb/d. On an annual comparison, China's crude imports were higher by a substantial 1.7 mb/d. The drop in China's monthly crude imports was in line with the decline seen in domestic refinery runs in January.

In terms of **supplier share**, Saudi Arabia, Angola and Russia were the top suppliers to China in January, accounting for 15%, 15% and 14%, respectively, of total imports. Imports from Saudi Arabia and Angola increased by 41% and 46%, respectively, from the previous month. As for products, China showed no changes in the amount of products imported in January, with the figure remaining at the December level of 1.2 mb/d.

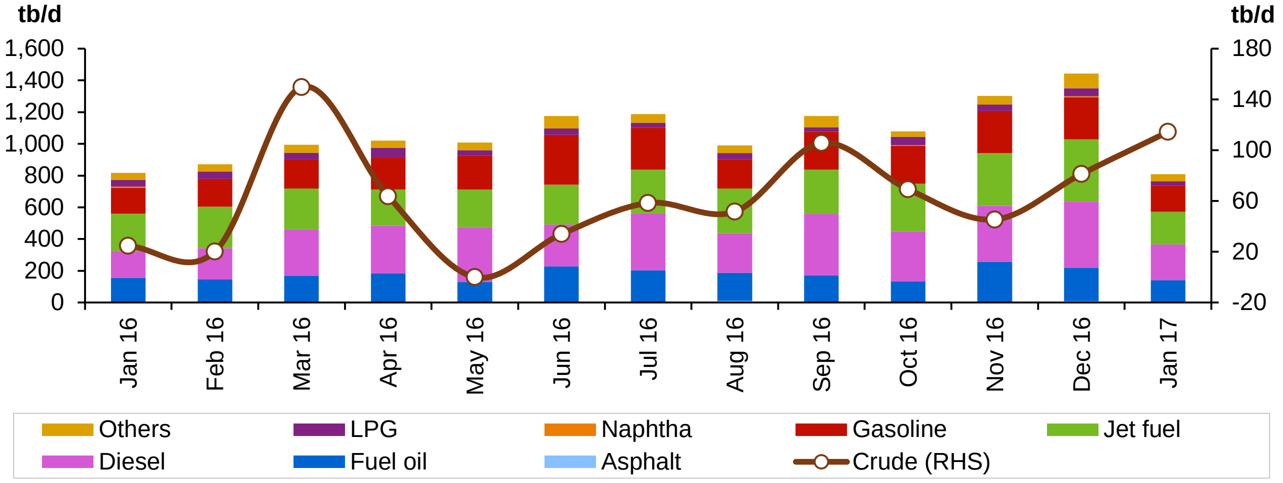
Graph 8 - 5: China's imports of crude and petroleum products



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

China's crude exports increased by 33 tb/d in January to average 114 tb/d. However, the country's product exports dropped in the month by 632 tb/d to average 810 tb/d, the lowest level since July 2015. The drop came as exports of all products declined, with the highest declines recorded for diesel, jet fuel and gasoline.

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



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

As a result, **China's net oil imports dropped by a slight 44 tb/d, or 1%**, from the previous month, while remaining above last year's level by a significant 1.8 mb/d, or 28%.

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

	Nov 16	Dec 16	Jan 17	Change Jan 17/Dec 16
Crude oil	7,848	8,509	7,922	-588
Total products	-93	-227	404	631
Total crude and products	**7,756**	**8,282**	**8,326**	**44**

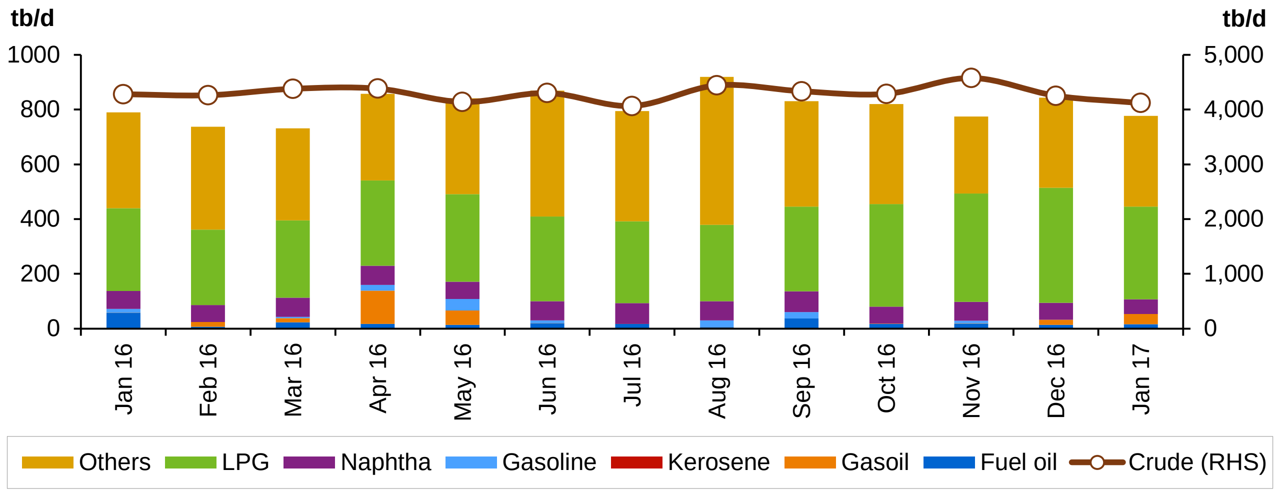
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

India

In January, **India's crude imports** dropped by 132 tb/d, or 3%, from the previous month to average 4.1 mb/d, showing an annual drop of 161 tb/d, or 4%.

On the **product** side, **India's imports** in January went down by 66 tb/d, or 8%, m-o-m to average 777 tb/d. Y-o-y, the imports were down by 13 tb/d, or 2%. The drop seen in the monthly product imports came mainly as a result of lower imports of LPG.

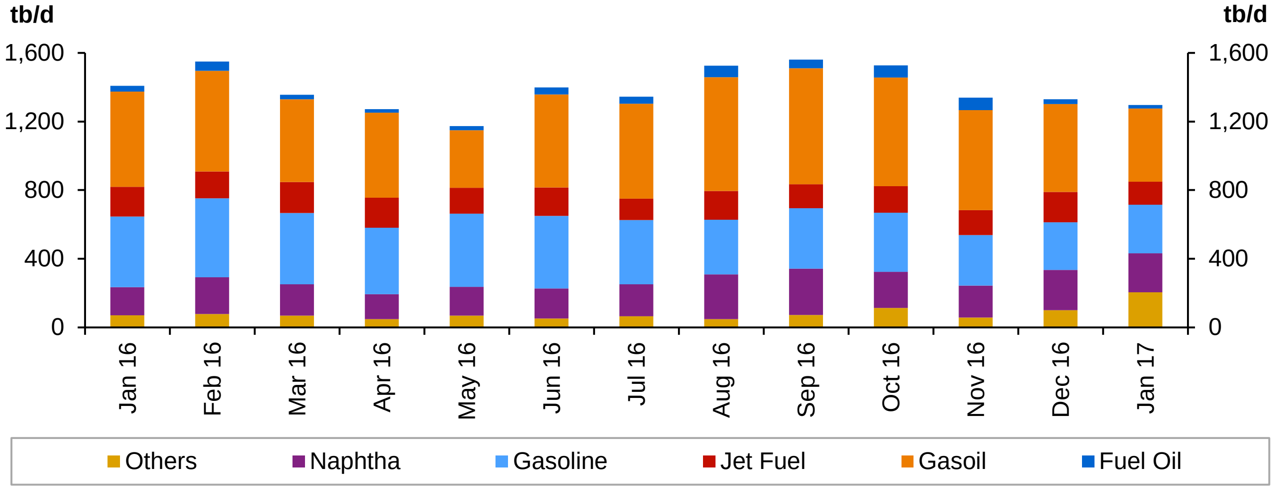
Graph 8 - 7: India's imports of crude and petroleum products



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

India's product exports, dropped in January by 34 tb/d, or 3%, to average 3 mb/d. Y-o-y, the exports were down by 113 tb/d, or 8%. The drop in the monthly product exports came mainly as a result of lower diesel exports.

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



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

Consequently, **India's net oil imports declined by 164 tb/d to average 3.6 mb/d**, down by 4% m-o-m and by 2% y-o-y.

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

	Nov 16	Dec 16	Jan 17	*Change* Jan 17/Dec 16
Crude oil	4,576	4,252	4,119	-132
Total products	-564	-487	-519	-32
Total crude and products	**4,012**	**3,765**	**3,601**	**-164**

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 January, total crude oil exports from the Former Soviet Union increased by 105 tb/d, or 2%, to average 6.9 mb/d. However, crude oil exports through the Russian pipeline remained flat from the previous month, averaging 4.2 mb/d.

Total crude shipments from the **Black Sea** were up by 61 tb/d, or 13%, to average 657 tb/d. Total **Baltic Sea** exports dropped by 24 tb/d in January as shipments from Ust Luga port terminal declined by 48 tb/d, though the drop was offset by higher exports from the Primorsk terminal. **Druzhba pipeline** total shipments declined by 20 tb/d to average 1.1 mb/d, while **Kozmino** shipments declined by 29 tb/d, or 4%, to average 647 tb/d.

Exports through the **Lukoil system** rose by 16 tb/d, or 10%, from the previous month in the Barents Sea where the Varandey offshore platform exported an average of 173 tb/d in January, while in the Baltic Sea the Kalinigrad port terminal showed no changes from one month before.

Looking at **Asia Russia Far East** total exports in January, they rose by 22 tb/d, or 6%, from the previous month as a result of higher exports from both the Aniva Bay port terminal and the De Kastri port terminal.

Black Sea total exports declined by 137 tb/d as the Novorossiyk port terminal (cbc) and Batumi port terminal showed lower exports of 86 tb/d and 33 tb/d, respectively, from December. In the Mediterranean Sea, BTC supplies showed an increase of 147 tb/d, or 25%, from the previous month to average 728 tb/d.

FSU total product exports increased by185 tb/d, or 6%, from the previous month to average 3.4 mb/d. The higher product exports came mainly as a result of larger exported volumes of naphtha and gasoil, which increased from the previous month by 122 tb/d and 116 tb/d, respectively.

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

			2016	3Q16	4Q16	Dec 16	Jan 17
Transneft system							
	Europe	**Black sea total**	**600**	**580**	**545**	**480**	**542**
		Novorossiysk port terminal - total	600	580	545	480	542
		of which: Russian oil	443	425	386	326	422
		Others	157	156	159	154	120
		Baltic sea total	**1,593**	**1,561**	**1,668**	**1,605**	**1,581**
		Primorsk port terminal - total	1,000	1,005	1,010	977	1,001
		of which: Russian oil	1,000	1,005	1,010	977	1,001
		Others	0	0	0	0	0
		Ust-Luga port terminal - total	593	556	658	628	580
		of which: Russian oil	388	360	446	418	395
		Others	205	196	212	210	186
		Druzhba pipeline total	**1,072**	**1,097**	**1,098**	**1,082**	**1,062**
		of which: Russian oil	1,040	1,066	1,066	1,051	1,030
		Others	32	31	32	32	32
	Asia	**Pacific ocean total**	**646**	**658**	**666**	**676**	**647**
		Kozmino port terminal - total	646	658	666	676	647
		China (via ESPO pipeline) total	**335**	**311**	**332**	**336**	**348**
		China Amur	335	311	332	336	348
	Total Russian crude exports		**4,246**	**4,207**	**4,309**	**4,180**	**4,180**
Lukoil system							
	Europe &	**Barents sea total**	**159**	**163**	**154**	**157**	**173**
	North America	Varandey offshore platform	159	163	154	157	173
	Europe	**Baltic sea total**	**15**	**14**	**13**	**15**	**15**
		Kalinigrad port terminal	15	14	13	15	15
Other routes							
	Asia	**Russian Far East total**	**360**	**274**	**372**	**348**	**370**
		Aniva bay port terminal	119	95	135	121	142
		De Kastri port terminal	241	179	236	226	228
		Central Asia total	**194**	**200**	**195**	**184**	**237**
		Kenkiyak-Alashankou	194	200	195	184	237
	Europe	**Black sea total**	**1,078**	**948**	**1,226**	**1,290**	**1,152**
		Novorossiysk port terminal (CPC)	957	822	1,113	1,154	1,068
		Supsa port terminal	79	77	64	82	64
		Batumi port terminal	42	49	49	54	20
		Kulevi port terminal	0	0	0	0	0
		Mediterranean sea total	**668**	**663**	**615**	**581**	**728**
		BTC	668	663	615	581	728
Russian rail							
		Russian rail	**34**	**35**	**37**	**37**	**42**
		of which: Russian oil	30	33	36	36	42
		Others	4	2	2	1	0
	Total FSU crude exports		**6,754**	**6,505**	**6,921**	**6,792**	**6,897**
Products							
		Gasoline	189	139	173	177	157
		Naphtha	506	536	510	489	611
		Jet	40	54	30	23	32
		Gasoil	972	859	877	945	1,061
		Fuel oil	1,043	1,013	1,023	1,157	1,164
		VGO	299	324	333	372	323
	Total FSU product exports		**3,050**	**2,925**	**2,945**	**3,163**	**3,348**
Total FSU oil exports			**9,804**	**9,430**	**9,866**	**9,955**	**10,245**

Sources: Argus Nefte Transport and Argus Global Markets.

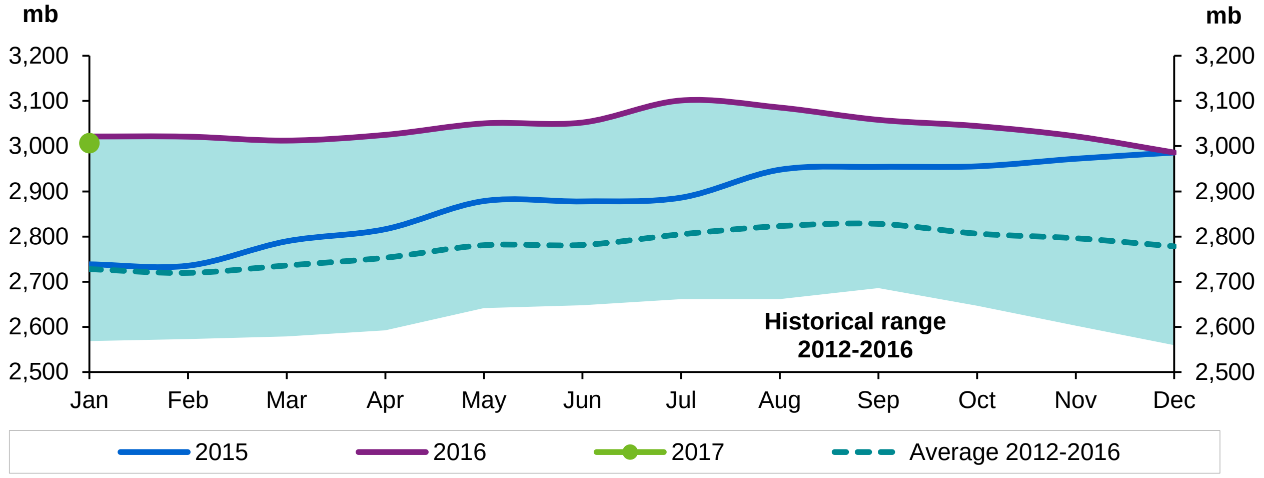
Stock Movements

OECD commercial oil stocks rose in January to stand at 3,006 mb, 278 mb above the latest five-year average. Crude and products indicate a surplus of 209 mb and 69 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.8 days, 4.9 days higher than the latest five-year average. Preliminary data for February shows that total commercial oil stocks in the US rose by 1.8 mb, to stand at 1,349.2 mb. At this level, they are 210 mb higher than the latest five-year average. Within components, crude rose by 25.4 mb, while product fell by 23.7 mb. The latest information for China shows that total commercial oil inventories rose by 15.2 mb in January to stand at 378.0 mb. Within the components, crude and product stocks rose by 3.6 mb and 11.6 mb, respectively.

OECD

Preliminary data for January shows that **total OECD commercial oil stocks** rose by 20.1 mb, reversing the trend for the fifth consecutive month, to stand at 3,006 mb, around 15.0 mb lower than the same time one year ago and 278 mb above the latest five-year average. Within the components, crude rose by 22.1 mb, while products fell by 2.0 mb. OECD Americas and OECD Europe rose by 11.9 mb and 10.5 mb, respectively, while OECD Asia Pacific fell by 2.3 mb.

Graph 9 - 1: OECD's commercial oil stocks



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

OECD commercial crude stocks fell in January, reversing the build of the last two months, to stand at 1,510 mb, 24.4 mb above the same time a year ago and around 209 mb higher than the latest five-year average. OECD Americas and OECD Europe experienced stock builds, while OECD Asia Pacific stocks witnessed a stock draw.

In contrast, **OECD product inventories** fell by 2.0 mb in January to stand at 1,496 mb, 40 mb below the same time a year ago and 69 mb above the seasonal norm. Within the regions, OECD Americas and OECD Asia Pacific experienced stock builds, while OECD Europe stocks witnessed stock draws.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.3 mb in January to stand at 63.8 days, which is 0.5 days less than the same period a year ago and 4.9 days higher than the latest five-year average. Within the regions, OECD Americas had 7.9 more days of forward cover than the historical average to stand at 65.6 days in January. OECD Asia Pacific stood 2.4 days above the seasonal average to finish the month of January at 49.7 days. At the same time, OECD Europe indicated a surplus of 0.7 days above the seasonal norm, averaging 69.0 days in January.

OECD Americas

Total commercial stocks in OECD Americas rose by 11.9 mb in January to stand at 1,625 mb, 42 mb above a year ago and 238 mb higher than the seasonal norm. Within the components, crude and product stocks rose by 10.4 mb and 1.5 mb, respectively.

At the end of January, **commercial crude oil stocks** in OECD Americas rose, ending the month at 843 mb, which is 39.7 mb above the same time a year ago and 209 mb above the latest five-year average. Lower US crude runs and higher US crude imports were behind the build.

Commercial product stocks in OECD Americas rose by 1.5 mb in January to stand at 782 mb, which is 2.4 mb above the same time a year ago and 72.4 mb higher than the seasonal norm.

OECD Europe

OECD Europe's **total commercial stocks** rose by 10.5 mb in January, ending the month at 969 mb, which is 45 mb lower than the same time a year ago, but 32 mb above the latest five-year average. Crude rose by 15.0 mb, while product stocks fell by 4.6 mb.

OECD Europe's **commercial crude stocks** rose in January ending the month at 416 mb, which is 8.4 mb lower than a year earlier, but 28.4 mb higher than the latest five-year average. The build in crude oil stocks could be attributed to higher domestic production in the North Sea combined with lower crude throughput in January.

In contrast, OECD Europe's **commercial product stocks** fell by 4.6 mb to end January at 553 mb, which is 36.7 mb lower than the same time a year ago and 3.6 mb higher than the seasonal norm. This fall was mainly driven by lower refinery output in the region.

OECD Asia Pacific

OECD Asia Pacific **total commercial oil stocks** fell by 2.3 mb in January for the fourth consecutive month to stand at 413 mb, which is 12.4 mb lower than a year ago and 8.6 mb above the five-year average.

Within the components, **commercial crude oil stocks** fell by 3.4 mb in January, ended the month at 251 mb, which is 6.8 mb below a year ago, yet 15.5 mb above the seasonal norm.

While **commercial total product inventories** rose by 1.1 mb, ended January at 162 mb, standing 5.6 mb lower than the same time a year ago and 6.9 mb less than the seasonal norm.

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

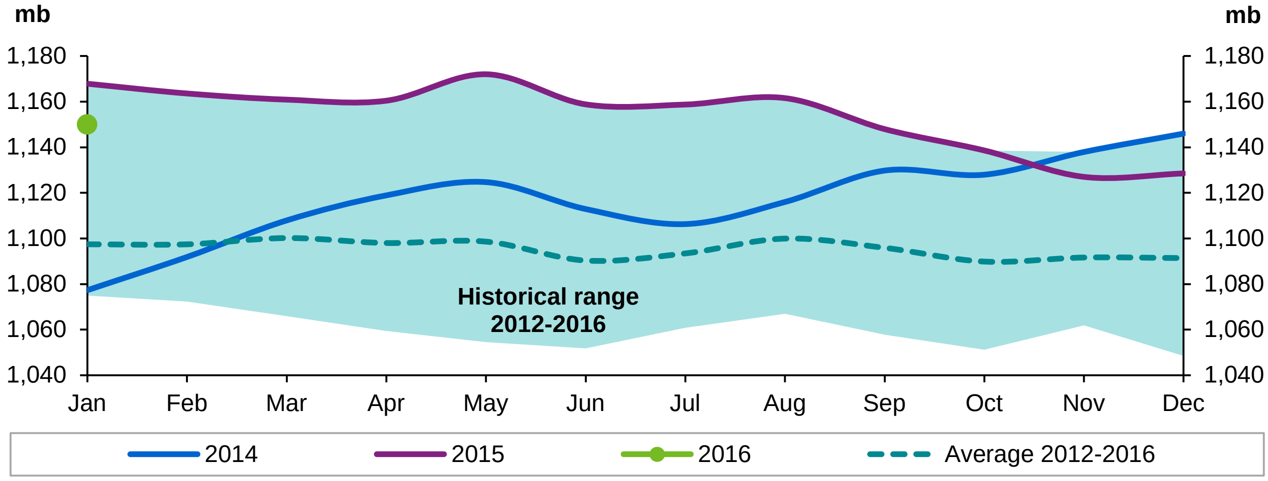
	Nov 16	Dec 16	Jan 17	*Change* Jan 17/Dec 16	Jan 16
Crude oil	1,504	1,488	1,510	22.1	1,485
Products	1,518	1,498	1,496	-2.0	1,536
Total	**3,022**	**2,986**	**3,006**	**20.1**	**3,022**
Days of forward cover	**64.1**	**63.4**	**63.8**	**0.3**	**64.2**

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 January shows European **total stocks** rose by 21.5 mb to stand at 1,150 mb, which is 17.9 mb, or 1.5%, lower than the same time a year ago, but remained 52.6 mb, or 4.8%, higher than the latest five-year average. Crude and product stocks rose by 15.0 mb and 6.4 mb, respectively.

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



Source: Euroilstock.

European **crude inventories** rose in January to stand at 481.7 mb, which is 8.0 mb, or 1.6%, lower than the same period a year ago, but 20.0 mb, or 4.3%, higher than the seasonal norm. The drop in crude throughput by around 120 tb/d and higher domestic production in January were behind the build.

European **products stocks** rose by 6.4 mb to end January at 668.3 mb, which is 9.9 mb, or 1.5%, lower than the same time a year ago, yet 32.5 mb, or 5.1%, above the seasonal norm. Within products, gasoline and distillate stocks rose, while residual fuel oil witnessed a draw.

Gasoline stocks rose by 4.1 mb in January to stand at 122.1 mb, which is 2.4 mb, or 1.9%, below a year earlier, but 4.6 mb, or 3.9%, higher than the seasonal norm. **Distillate stocks** rose by 5.5 mb in January to stand at 449.7 mb, which is 0.9 mb, or 0.2%, higher than the same time one year ago and 42.4 mb, or 10.4%, above the latest five-year average. The build in distillate and gasoline stocks could be attributed to lower domestic demand as output for both products went down.

In contrast, **residual fuel oil stocks** fell by 3.1 mb in January to stand at 72.7 mb, which is 6.5 mb, or 8.2%, less than the same month a year ago and 10.2 mb, or 12.3%, lower than the latest five-year average.

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

	Nov 16	Dec 16	Jan 17	*Change* Jan 17/Dec 16	Jan 16
Crude oil	**476.8**	**466.7**	**481.7**	**15.0**	**489.7**
Gasoline	113.9	118.0	122.1	4.1	124.5
Naphtha	24.2	23.8	23.8	0.0	25.8
Middle distillates	437.3	444.2	449.7	5.5	448.8
Fuel oils	74.8	75.9	72.7	-3.1	79.2
Total products	**650.3**	**661.8**	**668.3**	**6.4**	**678.2**
Total	**1,127.0**	**1,128.5**	**1,150.0**	**21.5**	**1,167.9**

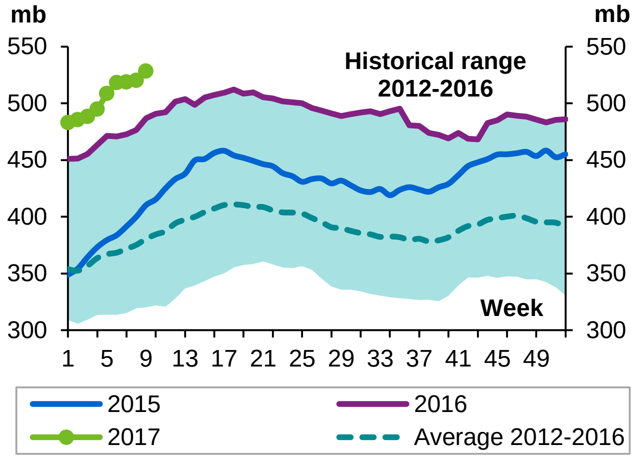
Sources: Argus and Euroilstock.

US

Preliminary data shows that following the build of 11.9 mb seen in January, US **total commercial oil stocks** rose by 1.8 mb, to stand at 1,349.2 mb in February, 31.0 mb, or 2.4%, above the same period a year ago and 226.7 mb, or 20.2%, higher than the latest five-year average. Within the components, crude rose by 25.4 mb, while products fell by 23.7 mb.

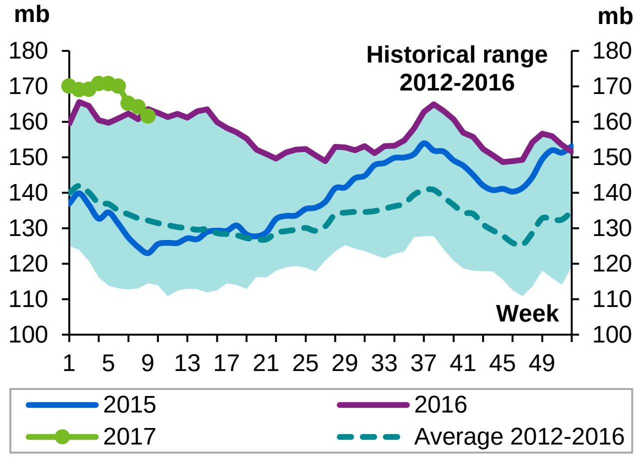
US **commercial crude stocks** rose in February to stand at 520.2 mb, 31.8 mb, or 6.5%, above the same time last year and 134.4 mb, or 34.9%, above the latest five-year average. The build in US commercial crude stocks could be attributed to lower crude throughputs, which decreased by more than 800 tb/d to average 15.6 mb/d. Higher crude domestic production also supported the build; however, lower crude imports limited a further build in crude oil stocks.

Graph 9 - 3: US weekly commercial crude oil inventories



Sources: US Energy Information Administration and OPEC Secretariat.

Graph 9 - 4: US weekly distillates inventories



Sources: US Energy Information Administration and OPEC Secretariat.

In contrast**, total product stocks** fell by 23.7 mb in February to stand at 829.0 mb, 0.7 mb, or 0.1%, down from the level seen at the same time in 2016, but 92.2 mb, or 12.5%, above the seasonal norm. With the exception of jet fuel, all products experienced a stock-draw.

Gasoline stocks fell by 1.2 mb in February, reversing the sharp build of 19.4 mb seen in January. At 255.9 mb, gasoline stocks stood 0.3 mb, or 0.1%, higher than the same period a year ago and 19.1 mb, or 8.1%, above the latest five-year average. The drop came mainly as a result of higher consumption, which averaged 8.7 mb/d, higher than in the previous month.

Distillate stocks fell by 6.5 mb in February, ending the month at 164.2 mb, which indicated a surplus of 1.5 mb, or 0.9%, over the same period a year ago and 32.1 mb, or 24.3%, above the latest five-year average. The drop in middle distillate stocks also came as a result of higher consumption, which increased by nearly 280 tb/d to average around 4.0 mb/d.

Residual fuel stocks declined by 2.8 mb, ending February at 38.3 mb, 7.7 mb, or 16.8%, below the same period a year ago and 0.4 mb, or 1.1%, below the latest five-year average. In contrast, **jet fuel oil inventories** rose by 2.1 mb to 44.6 mb in February, 2.3 mb, or 5.5%, higher than the same time last year, and 4.2 mb, or 10.4%, above the seasonal norm.

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

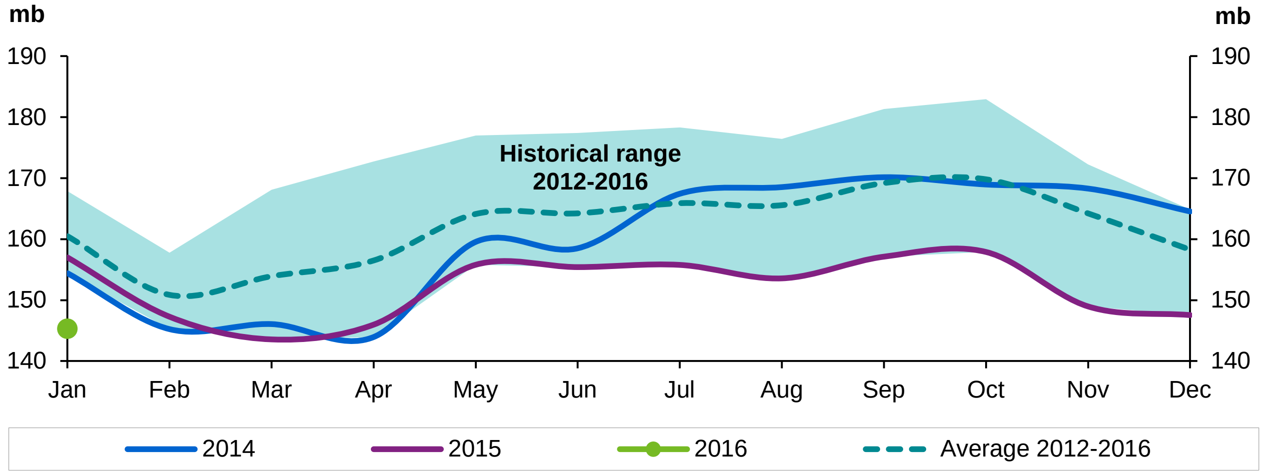
	Dec 16	Jan 17	Feb 17	Change Feb 17/Jan 17	Feb 16
Crude oil	**484.3**	**494.8**	**520.2**	**25.4**	**488.4**
Gasoline	237.7	257.1	255.9	-1.2	255.6
Distillate fuel	165.5	170.7	164.2	-6.5	162.7
Residual fuel oil	41.5	41.1	38.3	-2.8	46.0
Jet fuel	42.8	42.5	44.6	2.1	42.2
Total	**1,335.6**	**1,347.5**	**1,349.2**	**1.8**	**1,318.2**
SPR	**695.1**	**695.1**	**695.1**	**0.0**	**695.1**

Sources: US Energy Information Administration and OPEC Secretariat.

Japan

In Japan, **total commercial oil stocks** fell by 2.3 mb in January for the third consecutive month to stand at 145.3 mb, which is 11.7 mb, or 7.5%, less than the same time a year ago and 15.2 mb, or 9.5%, below the five-year average. Within the components, crude fell by 3.4 mb, while product stocks rose by 1.1 mb.

Graph 9 - 5: Japan's commercial oil stocks



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

Japanese **commercial crude oil stocks** fell in January to stand at 85.3 mb, which is 5.9 mb, or 6.4%, below the same period a year ago, and 7.3 mb, or 7.9%, below the seasonal norm. The build was driven by lower crude imports, which decreased by around 150 tb/d, or 4.2%, to average 3.46 mb/d.

In contrast, Japan's **total product inventories** rose by 1.1 mb in January to stand at 59.9 mb, which is 5.9 mb, or 8.9%, lower than the same month last year and 7.9 mb, or 11.6%, less than the seasonal norm. This build came on the back of lower domestic product sales, which fell by nearly 230 tb/d to average 3.32 mb/d.

In contrast**, distillate stocks** fell by 0.7 mb in January to stand at 27.1 mb, which is 2.6 mb, or 8.7%, lower than the same period a year ago and 3.1 mb, or 10.3%, below the seasonal average. Within distillate components, jet fuel, kerosene and gasoil fell by 5.6 %, 3.1% and 16 %, respectively. The fall in jet fuel and gas oil stocks came mainly from lower output, which decreased by 7.5% and 5.0%, respectively. However, the drop in kerosene oil stocks could be attributed to higher domestic sales, which increased by 1.6%.

Total residual fuel oil stocks fell by 0.3 mb in January to stand at 13.0 mb, which is 1.0 mb, or 6.9%, lower than a year ago and 2.2 mb, or 14.3%, below the latest five-year average. Within fuel oil components, fuel oil A rose by 2.9%, while fuel oil B.C fell by 5.4%. The build in fuel oil A was driven by lower domestic sales, which fell by 7.2%, while the drop in fuel oil B.C was attributed to higher exports.

Gasoline stocks rose in January by 1.2 mb to stand at 10.9 mb in January, which is 0.4 mb, or 3.8%, less than the same time a year ago and 1.4 mb, or 11.0%, below the latest five-year average. The build was driven by lower domestic sales combined with lower imports.

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

	Nov 16	Dec 16	Jan 17	*Change* Jan 17/Dec 16	Jan 16
Crude oil	**87.3**	**88.7**	**85.3**	**-3.4**	**91.2**
Gasoline	9.5	9.7	10.9	1.2	11.3
Naphtha	8.8	7.9	8.9	1.0	10.8
Middle distillates	29.9	27.8	27.1	-0.7	29.7
Residual fuel oil	13.4	13.4	13.0	-0.3	14.0
Total products	**61.7**	**58.8**	**59.9**	**1.1**	**65.8**
Total**	**149.0**	**147.5**	**145.3**	**-2.3**	**157.0**

*Note: * At the end of the month.*
*** Includes crude oil and main products only.*
Source: Ministry of Economy, Trade and Industry of Japan.

China

The latest information for China showed **total commercial oil inventories** rose by 15.2 mb in January to stand at 378.0 mb, which is 2.8 mb lower than the previous year. Within the components, crude and product stocks rose by 3.6 mb and 11.6 mb, respectively.

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

	Nov 16	Dec 16	Jan 17	*Change* Jan 17/Dec 16	Jan 16
Crude oil	**226.5**	**222.3**	**225.9**	**3.6**	**234.6**
Gasoline	68.4	71.9	63.4	-8.5	61.0
Diesel	49.8	49.1	68.3	19.2	69.3
Jet kerosene	18.5	19.6	20.4	0.8	16.0
Total products	**136.6**	**140.5**	**152.1**	**11.6**	**146.3**
Total	**363.2**	**362.8**	**378.0**	**15.2**	**380.8**

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

In January, commercial **crude** stocks rose, reversing the fall of the last three months, to stand at 225.9 mb, which is 8.7 mb below the same time last year. This build could be attributed to lower crude runs due to the traditional Chinese New Year holiday.

Total product stocks in China also rose by 11.6 mb in January to stand at 152.1 mb, which is 5.8 mb above the same time a year ago. **Diesel** and **kerosene inventories** saw builds of 19.2 mb and 0.8 mb, respectively, while **gasoline** experienced a fall of 8.5 mb.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

Singapore

At the end of January, **product stocks** in Singapore rose by 5.3 mb to stand at 43.7 mb, which is 1.7 mb, or 3.6%, below the same period a year ago. All product categories witnessed builds.

Light and middle distillate stocks rose in January by 1.4 mb and 2.8 mb, respectively. At 13.7 mb, light distillates stood at 0.1 mb, or 0.9%, above last year at the same time, while middle distillates ended January at 13.1 mb, which is 2.1 mb, or 18.6%, higher than a year ago at the same time. The build in both products was driven by higher exports to the Singapore hub.

Residual fuel oil stocks rose by 1.2 mb in January to end the month at 21.8 mb, which is 0.5 mb, or 2.1%, lower than the same time a year ago. The build could be attributed to lower marine bunker demand in the region.

Amsterdam-Rotterdam-Antwerp (ARA)

Product stocks in ARA rose by 5.6 mb in January to stand at 45.5 mb, which is 5.5 mb, or 10.7%, lower than at the same time a year ago. Within products, gasoline, gasoil and jet oil saw builds, while naphtha and fuel oil experienced stock draws.

Gasoline inventories rose by 0.7 mb, ending January at 9.6 mb, which is 0.4 mb, or around 4.1%, lower than the same month of the previous year. This build could be attributed to lower demand in the region. Gasoil rose by 5.0 mb in January to stand at 24.4 mb, which is 1.8 mb, or 7.0%, below a year ago at the same time. In contrast**, fuel oil stocks** fell by 0.1 mb in January to stand at 4.6 mb, which is 2.8 mb, or nearly 38%, lower than at the same time a year ago. This drop was mainly driven by lower imports to the ARA hub.

Balance of Supply and Demand

Demand for OPEC crude in 2016 stood at 31.6 mb/d, which is 1.9 mb/d higher than the 2015 level. In 2017, demand for OPEC crude is projected at 32.4 mb/d, around 0.7 mb/d higher than this year.

Estimate for 2016

Demand for OPEC crude for 2016 stood at 31.6 mb/d, representing an increase of 1.9 mb/d from last year's level. This upward revision came from the upward adjustment in the historical baseline for world oil demand. Within the quarters, the first and the second quarters were revised up by 0.4 mb/d and 0.2 mb/d, respectively, while the third and the fourth quarters were revised up by 0.2 mb/d and 0.4 mb/d, respectively. Comparing to the same quarters of last year, the first and the second quarters increased by 1.3 mb/d and 2.4 mb/d, respectively, while the third and the fourth quarters grew by 2.2 mb/d and 1.7 mb/d, respectively.

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

	2015	1Q16	2Q16	3Q16	4Q16	2016
(a) World oil demand	**93.68**	**94.07**	**94.05**	**95.94**	**96.12**	**95.05**
Non-OPEC supply	58.00	57.99	56.49	56.88	58.01	57.34
OPEC NGLs and non-conventionals	5.94	6.05	6.08	6.11	6.11	6.09
(b) Total non-OPEC supply and OPEC NGLs	**63.95**	**64.04**	**62.57**	**62.98**	**64.12**	**63.43**
Difference (a-b)	**29.73**	**30.04**	**31.48**	**32.96**	**32.00**	**31.62**
OPEC crude oil production	**31.51**	**31.94**	**32.17**	**32.63**	**33.13**	**32.47**
Balance	**1.78**	**1.90**	**0.69**	**-0.33**	**1.14**	**0.85**

*Note: * 2016 = Estimate.*

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Forecast for 2017

Demand for OPEC crude in 2017 was revised up by 0.2 mb/d from the previous month. Within the quarters, the first and the second quarters were revised up by 0.4 mb/d and 0.2 mb/d, respectively, while both the third and fourth quarters were revised up by 0.1 mb/d. The demand for OPEC crude this year is projected to increase by 0.7 mb/d to average 32.4 mb/d. Comparing to the same quarters of last year, the first and second quarters are expected to increase by 1.4 mb/d and 0.3 mb/d, respectively, while the third and the fourth quarters are projected to increase by 0.4 mb/d and 0.7 mb/d, respectively.

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

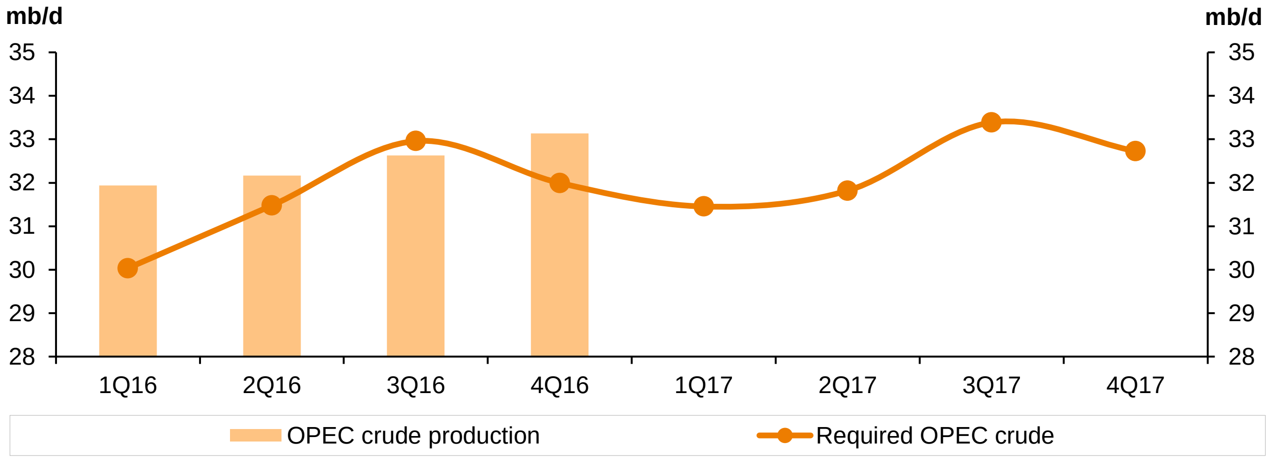
	2016	1Q17	2Q17	3Q17	4Q17	2017
(a) World oil demand	**95.05**	**95.34**	**95.25**	**97.22**	**97.40**	**96.31**
Non-OPEC supply	57.34	57.80	57.26	57.57	58.34	57.74
OPEC NGLs and non-conventionals	6.09	6.09	6.17	6.26	6.33	6.21
(b) Total non-OPEC supply and OPEC NGLs	**63.43**	**63.89**	**63.43**	**63.83**	**64.67**	**63.96**
Difference (a-b)	**31.62**	**31.45**	**31.82**	**33.39**	**32.72**	**32.35**

*Note: * 2017 = Forecast.*

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

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



*Note: * 2016 = Estimate and 2017 = Forecast.*
Source: OPEC Secretariat.

Monthly Endnotes

Extended lower oil prices seen as providing limited support to global GDP

The extended period of lower oil prices did not have the positive effect on global GDP expected by many economists, although the impact differed considerably among countries, according to a study by OPEC's Research Division.

However, lower oil prices did have a positive effect on global oil demand growth, mainly in the road transportation sector, while some countries showed higher growth levels than others. The most notable negative impact on non-OPEC crude supply was on US tight crude oil, conventional crude output from Canada, and crude oil supply in China and Colombia.

The OPEC study, which covered the period 2014 to 1Q16, analysed the implications of recent oil price developments on the global economy, world oil demand and non-OPEC supply, focusing on OECD Europe, US, Japan, China, India, Brazil, Mexico and Russia. The table below illustrates the price developments seen since 2013.

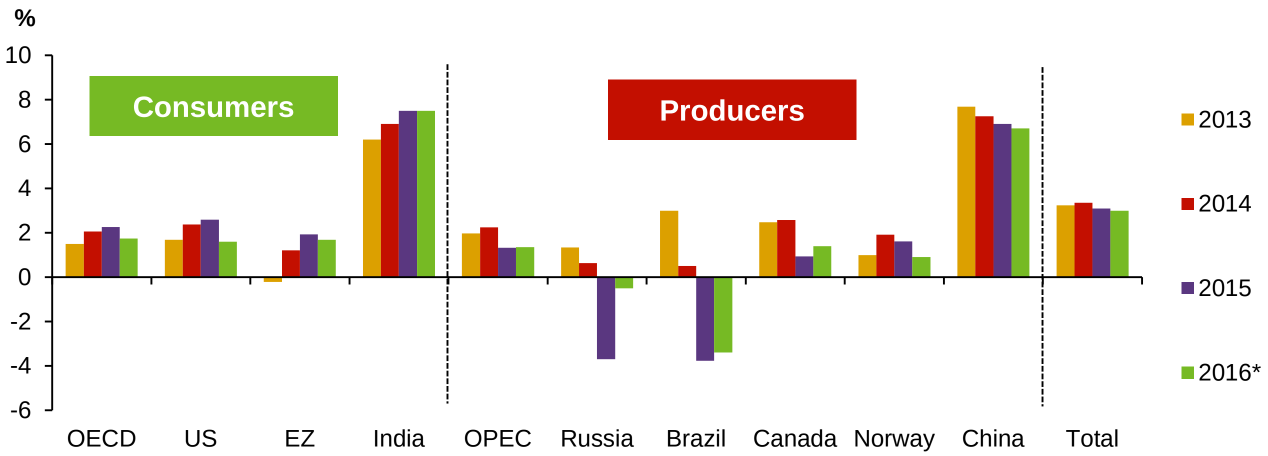
Table 11 - 1: Crude oil futures in ICE

Year		2013	2014	2015	2016
ICE Brent	*US$/b*	108.70	99.45	53.60	45.13
Change y-o-y	*%*	**-3%**	**-9%**	**-46%**	**-16%**

Sources: Intercontinental Exchange and OPEC Secretariat.

For the economy, lower oil prices had a limited effect on global GDP, with different short-term impacts among countries (***Graph 11 - 1***). In the case of the US, the net negative effect of the decline in the oil price is estimated to have lowered GDP. The two main factors leading to this outcome are lower total output levels due to lower oil prices and sharply declining investments into the energy sector. Both have outweighed the positive effects of higher consumption. In OECD Europe, the effect of lower oil prices seems to have been mildly positive. In Norway, the net effect seems to have been negative, while in the UK, with its also relatively large energy sector, the impact has been balanced. The larger importer economies, particularly Germany, have experienced a positive effect. For OPEC Member Countries, the recent oil price collapse episode has had different impacts, though at varying magnitudes. Countries with sizable reserves of hard currencies could better handle the situation by shielding their local currency from collapse, and shoring up public spending and investments. Other countries have been forced to severely cut public spending and investments, which has coincided with a harmful spike in inflation due to a devaluation of their currencies.

Graph 11 - 1: Impact of low prices on GDP



*Note: * 2016 = Estimate.*
Source: OPEC Secretariat.

However, lower oil prices had a positive effect on oil demand growth, although some countries have experienced higher growth levels than others. The most notable outcome has emerged from gasoline consumption in the US, which has been supported by a lower taxation scheme, and complemented by improvements in the overall economy and healthy vehicle sales. China witnessed the least impact, due to robust vehicle sales and growth demand in the transportation sector. The increase in income per capita also played a bigger role in boosting gasoline demand.

On the supply side, lower oil prices were found to have a limited effect on non-OPEC supply, at least up to 1Q16, with differing impacts among countries. Lower oil prices have had a negative effect on US tight crude, Canadian tight crude production and Chinese crude oil output, although with a longer time lag, as its impact was felt only in early 1Q16. The countries least affected by lower oil prices were the UK, Norway and Russia.

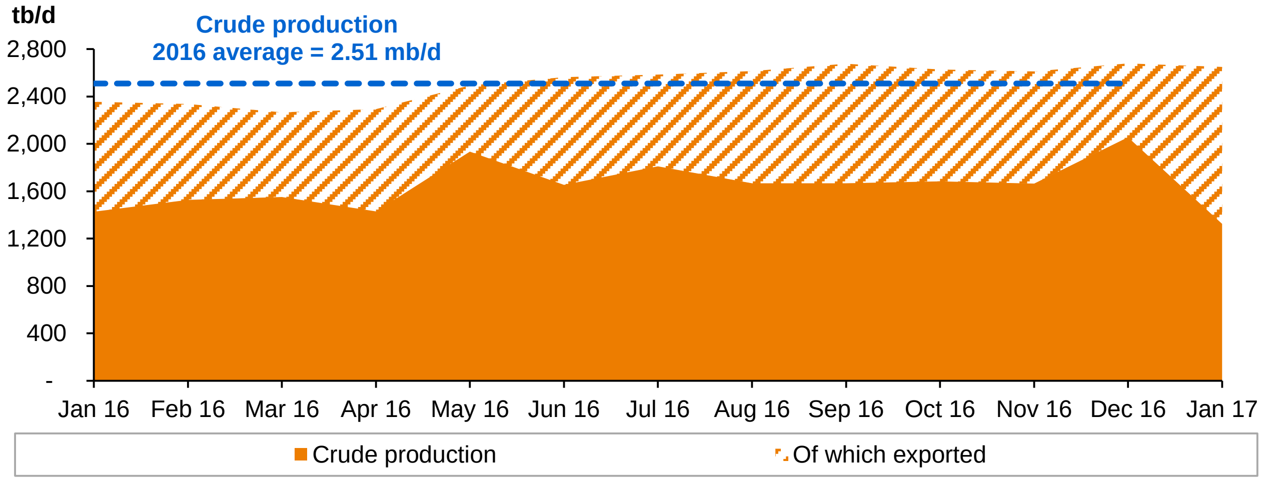
However, lower oil prices sharply impacted investments. It was the first time since the 1980s that the world has seen two consecutive years of decline in global E&P investments, which fell by approximately 20% annually. At the same time, hedging was seen providing significant support to independent US oil producers during 2015 and 1Q16. This has helped to secure larger cash flows, especially for medium- and small-sized producers, who are generally more vulnerable to price fluctuations.

Oil exports from Brazil hit record high for second month

Brazil exported around 1.63 mb/d of crude oil in February 2017, government data showed, setting a new record high for the second month in a row.

The country's oil exports have continued to see strong gains since the start of the year. Exports averaged just under 840 tb/d in 2016 and finished the year with a y-o-y contraction of 29% in December to average around 620 tb/d that month. In the first month of 2017, exports jumped to 1.32 mb/d and continued to climb in February.

Graph 11 - 2: Brazilian crude output and exports



Sources: The Joint Organisations Data Initiative and OPEC Secretariat.

Higher exports have allowed the country to boost its presence in the growing Asian market. Preliminary reports indicate that China has increased its purchases of Brazil's heavy sweet grades (such as Marlim, Roncador Heavy and Lula). The increased flows have been supported by weaker WTI prices relative to Brent and Dubai values, making WTI-based grades more competitive. Two Chinese state-run companies reportedly have purchased 5 mb or more of Brazil sweet crude for March loading.

The rise in exports also comes at a time of new projects in the country's offshore subsalt area. In January, pre-salt output averaged 1.28 mb/d, representing some 48% of the country's crude oil supply. Total liquids supply – including NGLs and biofuels – is forecast to increase by 0.26 mb/d in 2017 to average 3.40 mb/d, with growth primarily supported by increased subsalt production.

A further factor supporting exports has been lower domestic oil needs as Brazil's economy has been in recession for the last two years, contracting by 3.6% last year on top of a 3.8% decline in 2015. The economy is expected to come out of recession in 2017 and grow by a forecast 0.5%. So far, this has not led to an improvement in oil demand as the most recent available data shows oil consumption continuing to contract, down 1% y-o-y in January. For 2017, Brazilian oil demand is expected to increase by 35 tb/d to average 2.36 mb/d.

The country's oil industry has proved to be one of the bright spots of the Brazilian economy this year, in terms of foreign direct investment. Earlier in March, Total and Petrobras signed the final agreement on the sale of $2.25 billion in assets, including stakes in offshore concession areas and two onshore cogeneration plants. The deals are part of a strategic alliance between the two firms, which boost Petrobras financial strength and gives Total access to fields in the country's Santos Basin.

Provided the above forecasts for economic growth, oil demand and supply materialize this year, it is likely that the volume of exports in the coming months many not remain as high as in the first months of the year, as Brazil's economy begins to see some improvement.

Joint Ministerial Monitoring Committee reports solid progress made towards full conformity

OPEC and Non-OPEC countries are on the right track towards full conformity with their adjustments in production, the Joint OPEC-Non-OPEC Ministerial Monitoring Committee (JMMC) announced on 24 February following a review of a January 2017 report prepared by its Joint OPEC-Non-OPEC Technical Committee (JTC).

According to the report, OPEC and Non-OPEC producers achieved a conformity level of 86%. The JMMC expressed its satisfaction with the progress made towards full conformity with the production adjustments. It also noted that there is still room for improvement to reach 100% conformity and the Ministerial Committee urged all Parties to press on towards full and timely conformity.

The report was based on the outcome of the inaugural meeting of the JTC, which discussed issues related to the conformity with the production levels as set out in both the decision reached at OPEC's 171st Ministerial Conference on 30th November 2016 and the voluntary adjustments specified in the Declaration of Cooperation on 10th December 2016. The JTC considered presentations by the OPEC Secretariat on current market developments and deliberated on various technical issues in regards to reporting and conformity.

The 2nd Meeting of the JTC is scheduled to take place in Vienna on 17 March 2017. This shall be followed by the next JMMC Meeting to be held in Kuwait on 25-26 March 2017.

Appendix

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

	2013	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
World demand													
OECD	46.1	45.8	46.4	46.8	46.3	47.3	47.1	46.8	47.0	46.5	47.6	47.3	47.1
Americas	24.2	24.2	24.6	24.6	24.7	25.1	24.8	24.8	24.8	24.8	25.4	24.9	25.0
Europe	13.6	13.5	13.7	13.6	13.9	14.4	14.0	14.0	13.7	14.0	14.5	14.1	14.1
Asia Pacific	8.3	8.1	8.0	8.6	7.6	7.7	8.3	8.1	8.5	7.6	7.7	8.3	8.0
DCs	29.4	30.1	30.8	31.0	31.3	31.8	31.3	31.3	31.6	31.9	32.4	32.0	32.0
FSU	4.5	4.6	4.6	4.5	4.4	4.7	5.1	4.7	4.6	4.4	4.8	5.1	4.7
Other Europe	0.6	0.7	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7
China	10.4	10.8	11.2	11.1	11.5	11.5	11.9	11.5	11.4	11.8	11.8	12.2	11.8
(a) Total world demand	**91.1**	**92.0**	**93.7**	**94.1**	**94.0**	**95.9**	**96.1**	**95.1**	**95.3**	**95.2**	**97.2**	**97.4**	**96.3**
Non-OPEC supply													
OECD	22.3	24.3	25.3	25.4	24.2	24.6	25.2	24.8	25.2	24.9	25.1	25.7	25.2
Americas	18.2	20.1	21.1	21.0	20.1	20.5	20.8	20.6	20.9	20.7	21.1	21.4	21.0
Europe	3.6	3.6	3.8	3.9	3.7	3.6	3.9	3.8	3.9	3.7	3.6	3.8	3.8
Asia Pacific	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4
DCs	11.9	12.1	12.3	12.1	12.1	12.3	12.4	12.2	12.3	12.3	12.4	12.5	12.4
FSU	13.6	13.5	13.7	14.0	13.7	13.7	14.2	13.9	14.0	13.8	13.9	14.0	13.9
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	4.3	4.4	4.2	4.1	4.0	4.0	4.1	3.9	3.9	3.9	3.9	3.9
Processing gains	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Total non-OPEC supply	**54.2**	**56.5**	**58.0**	**58.0**	**56.5**	**56.9**	**58.0**	**57.3**	**57.8**	**57.3**	**57.6**	**58.3**	**57.7**
OPEC NGLs + non-conventional oils	5.6	5.8	5.9	6.1	6.1	6.1	6.1	6.1	6.1	6.2	6.3	6.3	6.2
(b) Total non-OPEC supply and OPEC NGLs	**59.8**	**62.3**	**63.9**	**64.0**	**62.6**	**63.0**	**64.1**	**63.4**	**63.9**	**63.4**	**63.8**	**64.7**	**64.0**
OPEC crude oil production (secondary sources)	30.5	30.3	31.5	31.9	32.2	32.6	33.1	32.5					
Total supply	90.3	92.6	95.5	96.0	94.7	95.6	97.3	95.9					
Balance (stock change and miscellaneous)	-0.8	0.6	1.8	1.9	0.7	-0.3	1.1	0.8					
OECD closing stock levels, *mb*													
Commercial	2,559	2,704	2,986	3,012	3,052	3,058	2,986	2,986					
SPR	1,584	1,580	1,587	1,593	1,591	1,594	1,601	1,601					
Total	**4,144**	**4,285**	**4,573**	**4,606**	**4,643**	**4,652**	**4,587**	**4,587**					
Oil-on-water	909	924	1,017	1,055	1,094	1,068	1,102	1,102					
Days of forward consumption in OECD, *days*													
Commercial onland stocks	55.9	58.3	63.7	65.1	64.6	65.0	63.5	63.4					
SPR	34.6	34.1	33.9	34.4	33.7	33.9	34.0	34.0					
Total	**90.4**	**92.4**	**97.6**	**99.6**	**98.2**	**98.8**	**97.5**	**97.4**					
Memo items													
FSU net exports	9.0	8.9	9.1	9.5	9.4	8.9	9.1	9.2	9.4	9.4	9.1	8.9	9.2
(a) - (b)	**31.2**	**29.7**	**29.7**	**30.0**	**31.5**	**33.0**	**32.0**	**31.6**	**31.5**	**31.8**	**33.4**	**32.7**	**32.4**

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

Source: OPEC Secretariat.

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

	2013	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
World demand													
OECD	-	-	-	-	-	-	0.1	-	-	0.1	0.1	0.2	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	0.1	-	-	-	0.1	0.1	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	0.1	-
DCs	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	0.1	0.1	0.1	0.2	-	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1
(a) Total world demand	**0.4**	**0.3**	**0.4**	**0.5**	**0.3**	**0.4**	**0.5**	**0.4**	**0.5**	**0.4**	**0.4**	**0.6**	**0.5**
World demand growth	***0.1***	***-***	***-***	***0.1***	***-***	***-***	***0.1***	***-***	***-***	***0.1***	***-***	***0.1***	***0.1***
Non-OPEC supply													
OECD	-	-	-	-	-	-	0.1	-	-	0.2	0.3	0.5	0.2
Americas	-	-	-	-	-	-	0.1	-	-	0.1	0.2	0.4	0.2
Europe	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	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
FSU	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.5	0.3
Total non-OPEC supply growth	-	-	-	-	-	-	-	-	0.1	0.1	0.2	0.3	0.2
OPEC NGLs + non-conventionals	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.1**	**0.1**	**0.2**	**0.3**	**0.5**	**0.3**
OPEC crude oil production (secondary sources)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**					
Total supply	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1					
Balance (stock change and miscellaneous)	-0.3	-0.2	-0.2	-0.4	-0.2	-0.2	-0.4	-0.3					
OECD closing stock levels (mb)													
Commercial	-	-1	-	-	-	-	-13	-13					
SPR	-	-	-	-	-	-	-	-					
Total	-	-1	-	-	-	-	-13	-13					
Oil-on-water	-	-	-	-	-	-	-	-					
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-	-	-	-					
SPR	-	-	-	-	-	-	-	-					
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**					
Memo items													
FSU net exports	-	-	-	-	-	-	-	-	0.1	-	-	-	-
(a) - (b)	**0.3**	**0.2**	**0.2**	**0.4**	**0.2**	**0.2**	**0.4**	**0.3**	**0.4**	**0.2**	**0.1**	**0.1**	**0.2**

*Note: * This compares Table 12.2 in this issue of the MOMR with Table 10.3 in the February 2017 issue.*
This table shows only where changes have occurred.
Source: OPEC Secretariat.

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

	2014	2015	2016	4Q14	1Q15	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16
Closing stock levels, mb												
OECD onland commercial	**2,704**	**2,986**	**2,986**	**2,704**	**2,789**	**2,878**	**2,954**	**2,986**	**3,012**	**3,052**	**3,058**	**2,986**
Americas	1,414	1,561	1,613	1,414	1,458	1,508	1,542	1,561	1,589	1,609	1,617	1,613
Europe	885	990	958	885	939	940	967	990	1,002	1,006	991	958
Asia Pacific	405	435	415	405	392	430	445	435	421	438	450	415
OECD SPR	**1,580**	**1,587**	**1,601**	**1,580**	**1,583**	**1,585**	**1,579**	**1,587**	**1,593**	**1,591**	**1,594**	**1,601**
Americas	693	697	697	693	693	696	697	697	697	697	697	697
Europe	470	473	481	470	470	471	467	473	477	473	476	481
Asia Pacific	417	416	422	417	420	418	415	416	419	421	421	422
OECD total	**4,285**	**4,573**	**4,587**	**4,285**	**4,372**	**4,463**	**4,533**	**4,573**	**4,606**	**4,643**	**4,652**	**4,587**
Oil-on-water	**924**	**1,017**	**1,102**	**924**	**864**	**916**	**924**	**1,017**	**1,055**	**1,094**	**1,068**	**1,102**
Days of forward consumption in OECD, days												
OECD onland commercial	**58**	**56**	**63**	**58**	**61**	**61**	**64**	**64**	**65**	**65**	**65**	**63**
Americas	55	53	65	58	60	60	63	64	64	64	65	65
Europe	67	65	70	66	69	66	70	73	72	70	71	70
Asia Pacific	49	48	49	47	52	56	54	51	55	57	54	49
OECD SPR	**34**	**35**	**34**	**34**	**35**	**34**	**34**	**34**	**34**	**34**	**34**	**34**
Americas	29	29	28	28	28	28	28	28	28	28	28	28
Europe	32	35	35	35	35	33	34	35	34	33	34	35
Asia Pacific	50	51	49	48	55	54	51	49	55	54	51	49
OECD total	**91**	**90**	**98**	**92**	**96**	**95**	**98**	**98**	**100**	**98**	**99**	**98**

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

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

	2013	2014	2015	3Q16	4Q16	2016	Change 16/15	1Q17	2Q17	3Q17	4Q17	2017	Change 17/16
US	11.2	13.0	14.0	13.4	13.5	13.6	-0.4	13.7	13.8	14.0	14.3	14.0	0.3
Canada	4.0	4.3	4.4	4.6	4.9	4.5	0.1	4.9	4.6	4.8	4.8	4.8	0.3
Mexico	2.9	2.8	2.6	2.5	2.4	2.5	-0.1	2.3	2.3	2.3	2.3	2.3	-0.2
OECD Americas*	**18.2**	**20.1**	**21.1**	**20.5**	**20.8**	**20.6**	**-0.5**	**20.9**	**20.7**	**21.1**	**21.4**	**21.0**	**0.4**
Norway	1.8	1.9	1.9	1.9	2.1	2.0	0.0	2.0	1.9	1.9	2.0	2.0	0.0
UK	0.9	0.9	1.0	1.0	1.0	1.0	0.1	1.1	1.0	0.9	1.0	1.0	0.0
Denmark	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Other OECD Europe	0.7	0.7	0.7	0.6	0.7	0.6	-0.1	0.7	0.6	0.6	0.6	0.7	0.0
OECD Europe	**3.6**	**3.6**	**3.8**	**3.6**	**3.9**	**3.8**	**0.0**	**3.9**	**3.7**	**3.6**	**3.8**	**3.8**	**0.0**
Australia	0.4	0.4	0.4	0.4	0.3	0.3	0.0	0.3	0.4	0.4	0.4	0.4	0.0
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
OECD Asia Pacific	**0.5**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.0**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.0**
Total OECD	**22.3**	**24.3**	**25.3**	**24.6**	**25.2**	**24.8**	**-0.5**	**25.2**	**24.9**	**25.1**	**25.7**	**25.2**	**0.4**
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.9	0.8	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Indonesia	0.9	0.9	0.9	0.9	0.9	0.9	0.1	0.9	0.9	0.9	0.8	0.9	-0.1
Malaysia	0.6	0.7	0.7	0.7	0.7	0.7	0.0	0.7	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	0.3	0.4	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Asia others	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.3	0.3	0.3	0.3	0.0
Other Asia*	**3.6**	**3.6**	**3.7**	**3.7**	**3.7**	**3.7**	**0.0**	**3.7**	**3.7**	**3.7**	**3.6**	**3.7**	**-0.1**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.6	2.9	3.1	3.3	3.3	3.1	0.1	3.3	3.3	3.4	3.5	3.4	0.3
Colombia	1.0	1.0	1.0	0.9	0.9	0.9	-0.1	0.9	0.9	0.8	0.9	0.9	-0.1
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	0.3	0.3	0.3	0.3	0.0
Latin America	**4.8**	**5.0**	**5.2**	**5.2**	**5.2**	**5.1**	**-0.1**	**5.3**	**5.2**	**5.3**	**5.4**	**5.3**	**0.2**
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	0.9	0.9	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Syria	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle East	**1.4**	**1.3**	**1.3**	**1.3**	**1.3**	**1.3**	**0.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**-0.1**
Chad	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Congo	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.4	0.4	0.4	0.0
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Equatorial Guinea	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
South Africa	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Sudans	0.2	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Africa other	0.3	0.3	0.3	0.3	0.4	0.3	0.0	0.3	0.3	0.3	0.4	0.3	0.0
Africa	**2.1**	**2.1**	**2.1**	**2.1**	**2.2**	**2.1**	**0.0**	**2.1**	**2.1**	**2.2**	**2.2**	**2.2**	**0.1**
Total DCs	**11.9**	**12.1**	**12.3**	**12.3**	**12.4**	**12.2**	**-0.1**	**12.3**	**12.3**	**12.4**	**12.5**	**12.4**	**0.1**
FSU	**13.6**	**13.5**	**13.7**	**13.7**	**14.2**	**13.9**	**0.2**	**14.0**	**13.8**	**13.9**	**14.0**	**13.9**	**0.1**
Russia	10.6	10.7	10.8	11.0	11.3	11.1	0.3	11.2	11.0	11.1	11.1	11.1	0.0
Kazakhstan	1.6	1.6	1.6	1.4	1.7	1.6	0.0	1.7	1.7	1.7	1.7	1.7	0.1
Azerbaijan	0.9	0.9	0.9	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	-0.1
FSU others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
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**	**4.3**	**4.4**	**4.0**	**4.0**	**4.1**	**-0.3**	**3.9**	**3.9**	**3.9**	**3.9**	**3.9**	**-0.2**
Non-OPEC production	**52.1**	**54.3**	**55.8**	**54.7**	**55.8**	**55.2**	**-0.7**	**55.6**	**55.1**	**55.4**	**56.1**	**55.5**	**0.4**
Processing gains	2.1	2.2	2.2	2.2	2.2	2.2	0.0	2.2	2.2	2.2	2.2	2.2	0.0
Non-OPEC supply	**54.2**	**56.5**	**58.0**	**56.9**	**58.0**	**57.3**	**-0.7**	**57.8**	**57.3**	**57.6**	**58.3**	**57.7**	**0.4**
OPEC NGL	5.4	5.6	5.7	5.8	5.8	5.8	0.1	5.9	5.9	6.0	6.1	6.0	0.2
OPEC non-conventional	0.2	0.3	0.3	0.3	0.3	0.3	0.0	0.2	0.2	0.3	0.3	0.2	0.0
OPEC (NGL+NCF)	**5.6**	**5.8**	**5.9**	**6.1**	**6.1**	**6.1**	**0.1**	**6.1**	**6.2**	**6.3**	**6.3**	**6.2**	**0.1**
Non-OPEC & OPEC (NGL+NCF)	**59.8**	**62.3**	**63.9**	**63.0**	**64.1**	**63.4**	**-0.5**	**63.9**	**63.4**	**63.8**	**64.7**	**64.0**	**0.5**

*Note: * OECD Americas includes Chile. Other Asia includes Indonesia.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

Table 12 - 5: World rig count, units

	2014	2015	2016	Change 2016/15	1Q16	2Q16	3Q16	4Q16	Jan 17	Feb 17	Change Feb/Jan
US	1,862	977	509	*-468*	551	420	479	586	683	744	*61*
Canada	380	192	131	*-61*	172	49	122	180	302	342	*40*
Mexico	86	52	26	*-26*	36	22	25	19	16	16	*0*
OECD Americas	2,327	1,221	665	*-556*	759	490	626	785	1,001	1,102	*101*
Norway	17	17	17	*-1*	18	17	18	13	12	16	*4*
UK	16	14	9	*-5*	9	9	9	9	8	11	*3*
OECD Europe	145	117	96	*-21*	104	92	94	94	98	107	*9*
OECD Asia Pacific	26	17	7	*-11*	10	6	5	6	14	14	*0*
Total OECD	**2,499**	**1,355**	**768**	***-587***	**873**	**588**	**724**	**885**	**1,113**	**1,223**	***110***
Other Asia*	228	202	180	*-22*	176	178	185	181	184	182	*-2*
Latin America	172	145	68	*-77*	83	62	64	64	60	60	*0*
Middle East	108	102	88	*-14*	98	92	85	75	73	72	*-1*
Africa	47	30	18	*-12*	21	19	15	17	16	16	*0*
Total DCs	**555**	**479**	**354**	***-126***	**378**	**351**	**349**	**337**	**333**	**330**	***-3***
Non-OPEC rig count	**3,053**	**1,834**	**1,122**	***-712***	**1,251**	**939**	**1,073**	**1,223**	**1,446**	**1,553**	***107***
Algeria	48	51	54	*3*	52	54	55	53	51	50	*-1*
Angola	15	11	6	*-5*	9	9	4	3	5	3	*-2*
Ecuador	24	12	4	*-8*	3	3	5	6	6	7	*1*
Gabon	7	4	1	*-3*	1	1	0	0	0	0	*0*
Iran**	54	54	57	*3*	57	59	60	61	61	61	*0*
Iraq**	79	52	43	*-9*	49	42	39	41	41	40	*-1*
Kuwait**	38	47	44	*-2*	41	42	47	46	52	59	*7*
Libya**	10	3	1	*-2*	1	1	1	1	1	1	*0*
Nigeria	34	30	25	*-5*	27	25	24	23	25	26	*1*
Qatar	10	8	8	*0*	7	7	7	10	10	11	*1*
Saudi Arabia	134	155	156	*1*	157	154	155	157	155	151	*-4*
UAE	34	42	51	*8*	50	50	51	52	50	49	*-1*
Venezuela	116	110	100	*-10*	111	103	93	92	93	96	*3*
OPEC rig count	**603**	**578**	**549**	***-29***	**565**	**551**	**542**	**546**	**550**	**554**	***4***
World rig count***	**3,656**	**2,412**	**1,670**	***-742***	**1,816**	**1,490**	**1,615**	**1,769**	**1,996**	**2,107**	***111***
of which:											
Oil	2,795	1,727	1,170	*-557*	1,268	1,043	1,135	1,235	1,375	1,489	*114*
Gas	743	563	370	*-193*	422	315	343	400	481	485	*4*
Others	95	100	111	*11*	106	112	119	116	123	114	*-9*

*Note: * Other Asia includes Indonesia.*
*** Estimated data when Baker Hughes Incorporated did not reported the data.*
**** Data excludes China and FSU.*
Totals may not add up due to independent rounding.
Sources: Baker Hughes Incorporated and OPEC Secretariat's estimates.

Glossary of Terms

Abbreviations

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

Acronyms

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

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

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