OPEC

Monthly Oil Market Report

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Feature article:

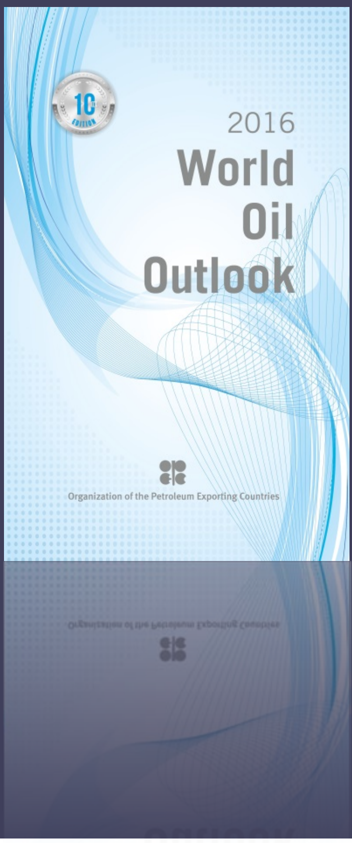
The product market outlook ahead of winter

Organization of the Petroleum Exporting Countries

Helferstorferstrasse 17, A-1010 Vienna, Austria
E-mail: prid(at)opec.org
Website: www.opec.org

Launch of the OPEC

2016 World Oil Outlook



at ADIPEC
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Oil market highlights

Crude Oil Price Movements

The OPEC Reference Basket slipped slightly in September to $42.89/b, down 21¢. ICE Brent ended up 8¢ at $47.24/b and NYMEX WTI increased 43¢ to $45.23/b. Crude oil prices were supported by efforts to address excess global supplies and consecutive draws in US crude stockpiles. The Brent-WTI spread narrowed to $2.01/b.

World Economy

World economic growth remains unchanged at 2.9% for 2016 and 3.1% for 2017. The OECD growth forecast remains at 1.6% and 1.7% for 2016 and 2017, respectively. Forecasts for China and India are also unchanged at 6.5% and 7.5% for 2016 and 6.1% and 7.2% for 2017. Brazil and Russia are forecast to grow by 0.4% and 0.7% in 2017, following contractions of 3.4% and 0.6% this year.

World Oil Demand

World oil demand in 2016 is seen increasing by 1.24 mb/d to average 94.40 mb/d, after a marginal upward revision of around 10 tb/d from the September *MOMR*, mainly to reflect the latest data. Positive revisions were primarily a result of higher-than-expected demand in the Other Asia region, while downward revisions were a result of lower-than-expected performance from OECD America. In 2017, world oil demand is anticipated to rise by 1.15 mb/d, unchanged from the September *MOMR*, to average 95.56 mb/d.

World Oil Supply

Non-OPEC oil supply in 2016 is now expected to contract by 0.68 mb/d, following a downward revision of around 70 tb/d from the September *MOMR* to average 56.30 mb/d. This is mainly due to base line revisions. In 2017, non-OPEC supply was revised up slightly by 40 tb/d to show growth of 0.24 mb/d to average 56.54 mb/d, mainly due to new projects coming on stream in Russia. OPEC NGLs are expected to average 6.43 mb/d in 2017, an increase of 0.15 mb/d over the current year. OPEC crude production, according to secondary sources, increased by 0.22 mb/d in September to average 33.39 mb/d.

Product Markets and Refining Operations

Product markets in the Atlantic Basin experienced a mixed performance as margins fell in the US, hit by a seasonal slowing in gasoline demand in the US as the driving season ended. In Europe, margins were supported by higher export opportunities along with slowing inflows, which eased the gasoil oversupply in the region. Meanwhile, Asian margins strengthened on the back of stronger regional demand amid the onset of the autumn refinery maintenance season.

Tanker Market

Dirty vessel spot freight rates increased on average in September compared to the previous month, supported by enhanced activity. The stronger sentiment was mainly driven by higher freight rates for Suezmax and Aframax, while average VLCC freight rates remained stable. Prompt replacements and increased activity supported freight rates in September. However, high vessel availability continued to weigh on the market amid considerable growth in the global fleet this year. In the clean tanker market, spot freight rates remained under pressure with declines in both East and West of Suez.

Stock Movements

OECD total commercial stocks fell in August to stand at 3,094 mb, some 322 mb above the latest five-year average. Crude and product inventories showed surpluses of 191 mb and 131 mb, respectively. In days of forward cover, OECD commercial stocks in August stood at 66.7 days, some 6.7 days higher than the seasonal average.

Balance of Supply and Demand

Demand for OPEC crude in 2016 is estimated to stand at 31.8 mb/d, an increase of 1.8 mb/d over last year. In 2017, demand for OPEC crude is forecast at 32.6 mb/d, a rise of 0.8 mb/d over the current year.

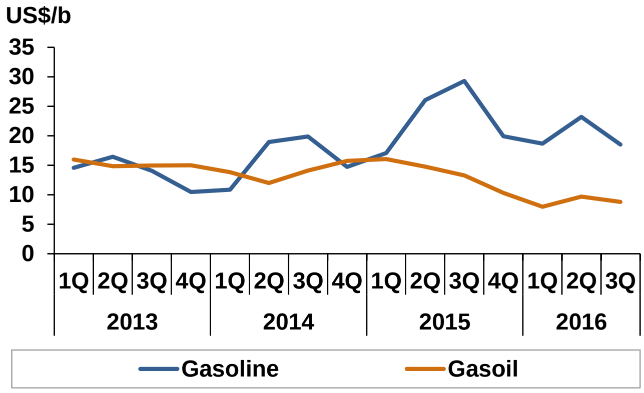
The product market outlook ahead of winter

Oil product markets in the major consuming regions have performed relatively well over the recent driving season. In the Atlantic Basin, product markets received support from the positive performance at the top of the barrel, with stronger US gasoline demand hitting record levels amid higher export opportunities from Europe, which, along with some refineries outages, lent further support to refinery margins. Meanwhile, margins in Asia have seen a slight recovery in recent weeks on the back of firm demand ahead of autumn maintenance.

Since the start of 2014, the trend in gasoline and gasoil consumption has diverged. Gasoline demand has grown strongly worldwide, increasing by almost 700 tb/d in 2015, allowing the motor fuel to remain the driver of the product market even over the winter season (***Graph 1***). Meanwhile, gasoil has seen weaker global growth of around 350 tb/d, resulting in a more unbalanced market, as the drop seen in demand growth in the US and China has outweighed the recovery seen in Europe and India, (***Graph 2***), while supply has continued to increase.

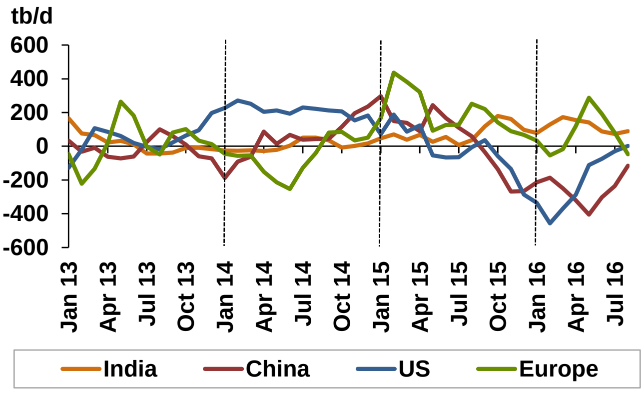
During the last months, gasoil demand growth in India recorded a significant rise on the back of a general improvement in economic activities, especially manufacturing. Year-to-date, gasoil consumption in India has increased by 125 tb/d over the same period last year to reach 1.65 mb/d. At the same time, the US manufacturing sector showed only slight growth in September, while 3Q16 figures showed a continued weakness in industrial production, in particular the mining sector, which is mainly energy related. Despite recent reports indicating a recovery in the transportation sector since 2Q16, particularly for trucks and trains, gasoil demand in the US shows a year-to-date decline of around 250 tb/d from the same period last year to average 3.8 mb/d.

Graph 1: Crack spreads in NWE vs. Dated Brent



Source: OPEC Secretariat.

Graph 2: Gasoil demand by selected regions, y-o-y growth, 3-month moving average



Source: OPEC Secretariat.

Europe is the global benchmark for diesel pricing as the region receives large import volumes of diesel from several refinery hubs to meet its demand. New refineries in the Middle East and Asia, as well as increasing US diesel exports in recent years, have led to a sharp increase in global diesel supplies, much of which is consumed and/or stored in Europe. Additional inflows of ULSD are due to increased export capacity in Russia. Increased inflows of middle distillates have led to higher inventories, with OECD Europe commercial middle distillate stocks reaching 274 mb at the end of August, some 62 mb higher than the last five-year average. This distillates overhang has resulted in a persistent downward trend in the crack spread.

Looking ahead to the coming quarters, oil product markets are typically supported by heating fuel in the winter season. However, according to the preliminary forecast by the US weather service, a colder winter so far seems unlikely. In addition, inventories stand near all-time highs worldwide, although in recent weeks, these high levels have been slightly drawn down, due to some refinery and pipeline outages and bad weather conditions lowering global production. With the end of the autumn refinery maintenance season, gasoil production will be on the rise and refiners will most likely shift yields to meet middle distillate demand, supporting crude intake over the winter season.

Crude Oil Price Movements

Despite the small improvement in global crude oil benchmarks and price differentials for most light sweet components, the OPEC Reference Basket (ORB) slipped slightly in September to $42.89/b, but was up marginally for the quarter, ending more than 40% higher than the record-low 1Q16. Year-to-date (y-t-d), the ORB value is about 27% lower at $38.54/b.

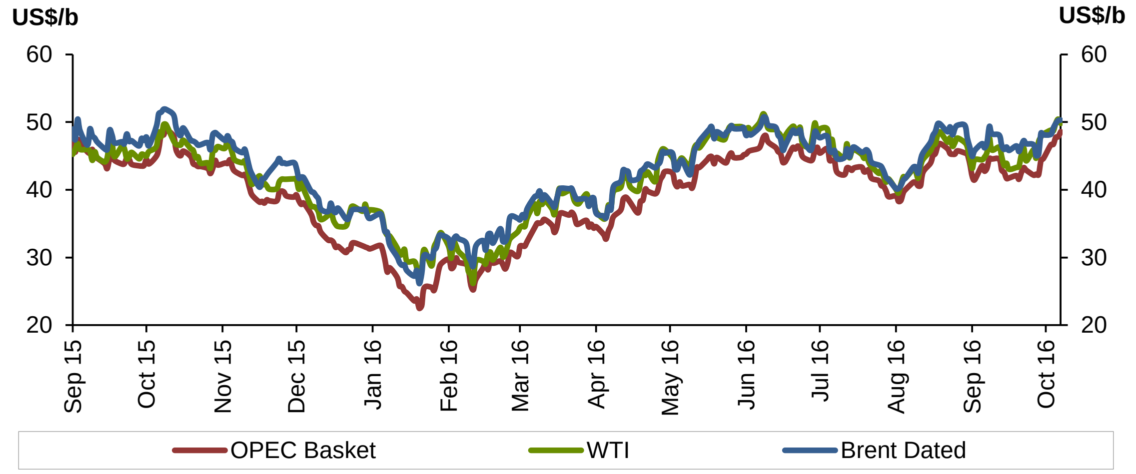
Both oil futures averaged up, strongly supported by a late-month rally. Oil futures were caught in one of their most volatile weeks amid uncertainty about the pace of the rebalancing of fundamentals. Prices also fell under pressure amid reinforced fears of a global glut. With the announcement to tackle the persistent oversupply, prices surged with ICE Brent nearing the $50/b level. Oil prices were also supported by unexpected four consecutive weekly draws in US crude stockpiles. ICE Brent ended up 8¢ at $47.24/b, but dropped around 24% on the year. NYMEX WTI increased 43¢ to $45.23/b, but slipped about 19% y-t-d. Both contracts ended the quarter lower.

The ICE Brent/NYMEX WTI, or transatlantic, spread narrowed to $2.01/b, but was still not enough to encourage additional significant US imports of WAF crudes and other Brent-related grades.

OPEC Reference Basket

Despite the small improvement in all crude oil benchmarks and price differentials for most light sweet crudes, the ORB ended September slightly lower on average. The reduction in the Official Selling Price (OSP) monthly offsets for key Middle East Gulf crudes loading in September and destined largely to Asia, was the main contributor to this counterintuitive performance of the ORB over the month. As the percentage share of the OSP's offsets in the overall ORB value became weighty, large changes in these offsets began to affect the monthly performance of the ORB notably. Nevertheless, the end-of-the-month rally in the oil complex after OPEC struck a deal to limit crude output, helped in limiting the ORB losses, although price volatility was significant during the entire month. Meanwhile, for the second quarter in a row, the ORB edged higher in 3Q16, ending up more than 40% from the record-low 1Q16.

Graph 1.1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

Table 1.1: OPEC Reference Basket and selected crudes, US$/b

			Change		*Year-to-date*	
	Aug 16	Sep 16	Sep/Aug	%	2015	2016
Basket	**43.10**	**42.89**	**-0.21**	**-0.5**	**52.79**	**38.54**
Arab Light	43.47	42.70	-0.77	-1.8	53.21	38.73
Basrah Light	42.01	41.88	-0.13	-0.3	51.17	37.25
Bonny Light	46.35	47.77	1.42	3.1	55.96	42.09
Es Sider	44.85	45.69	0.84	1.9	54.31	40.91
Girassol	46.06	46.66	0.60	1.3	56.09	41.78
Iran Heavy	42.17	41.39	-0.78	-1.8	52.30	37.14
Kuwait Export	41.88	41.22	-0.66	-1.6	51.61	36.90
Qatar Marine	43.44	43.51	0.07	0.2	54.11	39.24
Merey	36.46	37.38	0.92	2.5	44.66	31.24
Minas	41.26	40.28	-0.98	-2.4	52.67	39.79
Murban	46.25	46.42	0.17	0.4	56.90	42.79
Oriente	40.84	41.22	0.38	0.9	47.90	36.16
Rabi Light	44.90	45.51	0.61	1.4	56.07	40.91
Sahara Blend	46.35	47.09	0.74	1.6	55.60	42.57
Other Crudes						
Brent	45.85	46.69	0.84	1.8	55.36	41.91
Dubai	43.58	43.67	0.09	0.2	54.38	39.14
Isthmus	44.22	44.55	0.33	0.7	54.01	39.96
LLS	46.33	46.79	0.46	1.0	55.32	43.14
Mars	41.71	42.33	0.62	1.5	51.34	38.12
Urals	44.06	44.48	0.42	1.0	55.07	40.23
WTI	44.75	45.16	0.41	0.9	50.98	41.35
Differentials						
Brent/WTI	1.10	1.53	0.43	-	4.38	0.56
Brent/LLS	-0.48	-0.10	0.38	-	0.04	-1.23
Brent/Dubai	2.27	3.02	0.75	-	0.98	2.77

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

On a monthly basis, the ORB value slipped 21¢ to $42.89/b, on average, down 0.5%. For the quarter, it was up 59¢ at $42.89/b. Compared to the previous year, the ORB value was lower by 27.3%, or $14.40, at $38.38/b.

The movements in the ORB component values were mixed over the month again, but generally, the Latin American and lighter grades improved, apart from Minas, and the medium-to-heavy Mideast grades underperformed.

The major crude oil benchmarks, namely Dated Brent, WTI and Dubai spot prices improved in September by 84¢, 41¢ and 9¢, respectively. The steepened contango in the Dubai market in July affected the performance of the multi-destination grades, **Arab light**, **Basrah light**, **Iran Heavy** and **Kuwait Export**. These grades saw their September OSP offsets reduced by up to a record $1.30 by major exporters to align them with respective regional market conditions. These grades on average dropped by about 60¢, or 1.40%, to $41.80/b. The Middle Eastern spot component grades **Murban** and **Qatar Marine**, improved on average by 12¢, or 0.3%, to $44.97/b as Asian refiners are expected to ramp up output to meet peak winter demand, while refining margins have recovered slightly to encourage crude buying. This is despite still ample supplies that continued to cap price gains in the Middle East crude market.

For the Latin American ORB components, Venezuela's **Merey** and Ecuador's **Oriente** were both up by 92¢/b, or 2.5%, and 38¢/b, or 90%, at $37.38/b and $41.22/b, respectively.

Supported again by improved oil price differentials due to disruptions in Nigerian supplies as well as lower North Sea supply due to maintenance, West and Northern African light sweet Basket components, **Saharan Blend**, **Es Sider**, **Girassol**, **Bonny Light** and Gabon's **Rabi** value edged up on average by 84¢, or 1.8%, to $46.54/b. The support faded away late in the month due to rising production from Nigeria and Libya and the expected return from maintenance of the Buzzard field.

Indonesian **Minas** was down for most for the third month in a row at $40.28/b, dropping 98¢, or 2.4%.

On 11 October, the ORB was up 50¢ to stand at $48.81/b.

The oil futures market

Both oil futures across the Atlantic edged up in September, being greatly pushed up by a late-month rally in the oil complex. Oil futures had been caught in one of their most volatile couple of weeks in months amid uncertainty regarding the pace of rebalancing of fundamentals. Toward the end of the month, with the announcement by OPEC that it aimed for a production target with a view to rebalancing the market next year, prices took a considerable amount of support with ICE Brent nearing the $50/b level. The development was seen as the first step of a process, with concrete action being discussed further over the next two months, potentially also including a contribution from non-OPEC producers, particularly Russia. Oil prices were also supported after US government data showed a surprise drop in domestic crude stockpiles for four weeks in a row. The month-long drawdown in crude stocks was a surprise after a massive 14-mb storm-related drop in inventories at the beginning of September. Inventories were expected to rebound after the big drop, but instead, stocks have continued to decline with reduced imports.

Nevertheless, crude oil prices fell under pressure before the OPEC Meeting, amid reinforced fears of a global glut. Falling US equity markets and a rising dollar also weighed on crude futures and other commodities denominated in the greenback. There were also signs of returning output from Nigeria and Libya, where crude exports have been hampered. US drillers also continued adding oil rigs, which, by the end of the month, brought the total rig count up to 425, the most since February.

ICE Brent ended September up 8¢, or 0.2%, at $47.24/b on a monthly average basis, while **NYMEX WTI** increased 43¢, or 1%, to $45.23/b. For the quarter, while ICE Brent's third quarter value was almost unchanged at $46.99/b, down 4¢, that of NYMEX WTI dropped 70¢, or 1.5%, to $44.94/b. Compared to the same period last year, ICE Brent lost $13.44, or 23.7%, at $43.17/b, while NYMEX WTI declined by $9.47, or 18.6%, to $41.43/b y-t-d.

On 11 October, ICE Brent stood at $52.41/b and NYMEX WTI at $50.79/b.

Table 1.2: Crude oil futures, US$/b

			Change		*Year-to-date*	
	Aug 16	Sep 16	*Sep/Aug*	*%*	2015	2016
NYMEX WTI	44.80	45.23	0.43	0.96	51.01	41.53
ICE Brent	47.16	47.24	0.08	0.17	56.60	43.17
Transatlantic spread	2.36	2.01	-0.35	-0.79	5.59	1.65

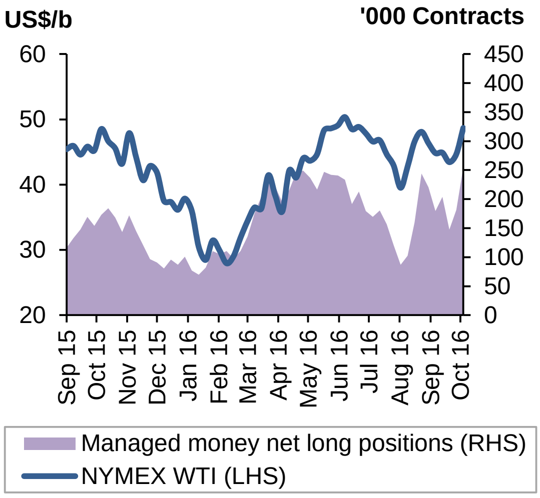
Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

Money managers boosted their net length positions in NYMEX crude futures and options ahead of the deal by OPEC Members to curb production, according to US Commodity Futures Trading Commission (CFTC) data released at the end of September. OPEC Members caught the market off-guard when they reached an agreement to limit production, which sparked an oil price rally that some money managers had already positioned themselves for.

Money managers' net length in **NYMEX WTI** crude jumped 33,985 contracts to 181,452 contracts in the week that ended 27 September, a day before the OPEC Meeting in Algiers. NYMEX WTI rose by $2.38 to settle at $47.05/b on 28 September, and then inched higher each of the next two sessions, ending the week above $48/b. Moreover, during this period, the overall open interest in NYMEX crude futures has risen to nearly the highest level so far this year. That increase could be evidence of producers becoming more active in hedging. Money managers holding short positions fell by 8,953 contracts to 152,986 contracts in the week that ended 27 September.

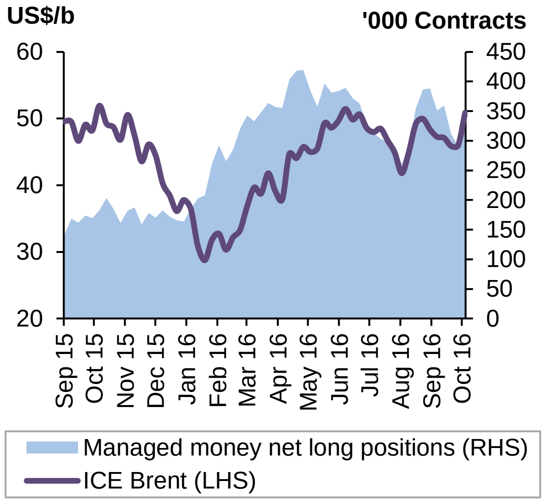
On the other hand, during the same period, **ICE Brent** speculators decreased net long positions in ICE Brent futures and options by 21,924 contracts, or 7%, to 290,178 lots. The total futures and options open interest volume in the two exchanges was 0.6%, or 30,975 contracts, higher on the week, rising to 5.37 million contracts.

Graph 1.2: NYMEX WTI price vs. Speculative activity



Sources: CFTC and CME Group.

Graph 1.3: ICE Brent price vs. Speculative activity



Source: IntercontinentalExchange.

During September, the **daily average traded volume** for NYMEX WTI contracts increased 156,423 lots, up 19.5%, to 1,158,619 contracts, while that of ICE Brent was 93,202 contracts higher, up 13.1%, at 803,725 lots. The daily aggregate traded volume for both crude oil futures markets increased 249,626 contracts to near 2 million futures contracts, equivalent to around 2 billion b/d. The total traded volume in both exchanges was significantly higher in September, particularly during the OPEC Extraordinary Meeting in Algeria at the end of the month, at 24.33 and 17.68 million contracts in NYMEX WTI and ICE Brent, respectively.

The futures market structure

Rising supplies and lower demand expectation kept all crude oil markets in contango during September, though this eased slightly in the WTI market and remained flat in Dubai.

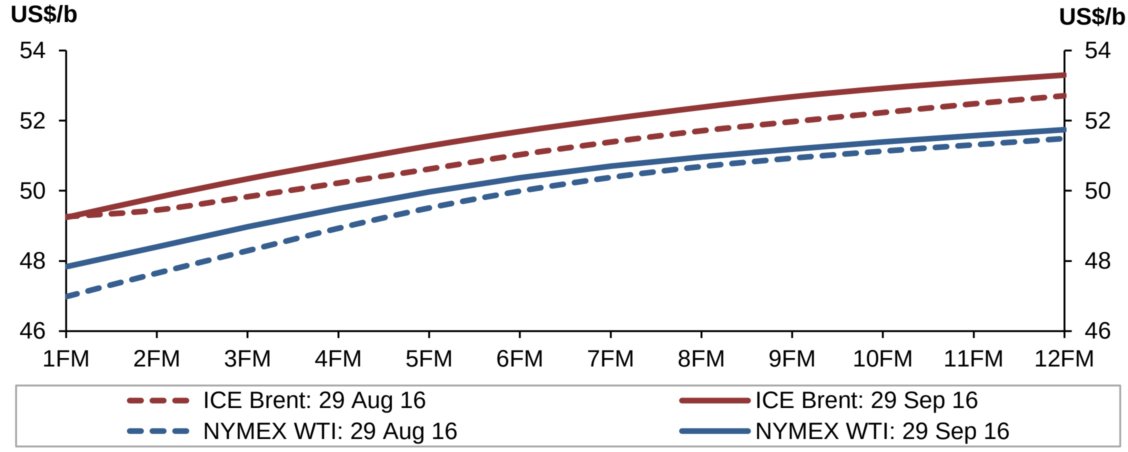
North Sea Brent drew earlier support from tightening North Sea crude output due to maintenance and healthy exports to the Asia Pacific. But it faded later in the month with the return of a glut of light sweet crudes to the market from local and regional supplies, weakening the market structure. This resulted in a widening in the Brent contango where the M1/M3 discount moved out to almost 90¢/b on average in September, from 55¢/b in August.

In the US, the **WTI** contango eased slightly over the month as work on a major pipeline restricted flows of WTI from Midland, Texas to Cushing, Oklahoma, which resulted in some decline in inventories at the delivery hub for crude futures. The WTI contango (M1-M3) dropped 35¢ to $1/b.

The **Dubai** contango remained unchanged over the month, supported by healthy demand due to improving refining margins, steady Chinese buying interest as well as stockpiling for winter heating demand, particularly in the northern Asia Pacific, Japan and Korea. The Dubai M1 discount to M3 was unchanged at 60¢/b.

The **ICE Brent/NYMEX WTI or transatlantic spread**, bucked the previous two months' trend, narrowing slightly in September, but, theoretically, not narrow enough to encourage additional substantial US imports of WAF crudes and other Brent-related grades as seen in earlier months (June and July). The relative weakness in ICE Brent came as a result of the return of the oversupply in Europe in the second half of the month, as Libya and Nigeria partially resumed supply of light sweet crudes. The unsold cargoes in northern Europe also added pressure, even though supply from the Buzzard oilfield was restricted by maintenance work. On the other hand, NYMEX WTI was somewhat supported by numerous pipeline shutdowns in the US and month-long crude oil stock draws. The prompt-month ICE Brent/NYMEX WTI $2.36/b spread in August narrowed to $2.01/b in September.

Graph 1.4: NYMEX WTI and ICE Brent forward curves



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

Table 1.3: NYMEX WTI and ICE Brent forward curves, US$/b

NYMEX WTI	1FM	2FM	3FM	6FM	12FM	12FM-1FM
29 Aug 16	46.98	47.65	48.29	49.99	51.49	4.51
29 Sep 16	47.83	48.40	48.97	50.37	51.74	3.91
Change	**0.85**	**0.75**	**0.68**	**0.38**	**0.25**	**-0.60**

ICE Brent	1FM	2FM	3FM	6FM	12FM	12FM-1FM
29 Aug 16	49.26	49.45	49.83	51.03	52.71	3.45
29 Sep 16	49.24	49.81	50.34	51.69	53.30	4.06
Change	**-0.02**	**0.36**	**0.51**	**0.66**	**0.59**	**0.61**

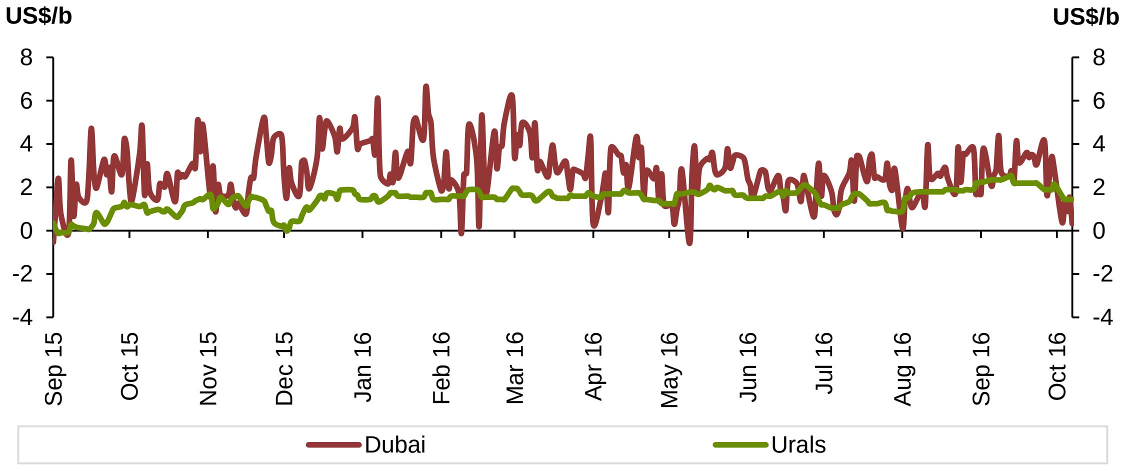
Note: FM = future month.
Sources: CME Group and Intercontinental Exchange.

The light sweet/medium sour crude spread

The sweet/sour differentials repeated the previous month's scenario, narrowing further in the US Gulf coast (USGC), while widening again in Asia and Europe in September.

In **Europe**, the Urals medium sour crude discount to light sweet North Sea Brent increased to its highest in September in more than two years. The Dated Brent-Med Urals spread widened to about $2.20/b from $1.80/b a month earlier. Multiple market factors weighed on Urals values, including maintenance turnarounds on refineries in the Mediterranean and lots of competitive grades in the region, including crude from the Middle East and arbitrage shipments from Latin America and the United States. The pressure on Urals was also felt in Northwest Europe (NWE) where it traded at nine-month lows as plentiful supplies from the Baltic Sea ports, combined with high imports from outside the region, weighed on its value. North Sea Brent was supported by field maintenance shutdown and some Forties export opportunities to Asia.

Graph 1.5: Brent Dated vs. Sour grades (Urals and Dubai) spread



Sources: Argus Media, OPEC Secretariat and Platts.

In **Asia**, the light sweet Tapis premium over medium sour Dubai continued to increase for the second month in a row amid supportive refiners' demand for Asia Pacific crudes. The Tapis/Dubai spread widened by around 60¢ on a monthly average basis to $5.20/b. Stronger naphtha and gasoline refining margins have underpinned light crude and condensate values. The widening Brent/Dubai spread over the month was also supported by stronger demand for regional light sweet crudes over similar imported crudes. Moreover, Asia-Pacific crude premiums continued to be buoyed by the tighter sweet crude supplies out of Nigeria due to production outages. Higher freight rates also undermined the economics of shipping Atlantic Basin crudes to the Asia Pacific.

In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium sour Mars slipped further in September to $4.45/b, down 15¢. Favourable margins for heavy crudes in the USGC supported medium sour Mars, while weighing on light sweet LLS. Tighter supplies in offshore USGC stemming from pipeline maintenance and production disruptions due to hurricane Hermine also helped Mars. Mars flows were restricted by construction work on the Amberjack pipeline system, which also curbed other Gulf sour grades.

Commodity Markets

Average commodity prices were mixed in September. Advances in energy commodity prices were led by higher coal prices, which have increased for the fifth consecutive month, while crude oil prices also increased during the second half of the month in anticipation of the OPEC Meeting. In the group of non-energy commodities, prices of agricultural commodities generally declined on continuing expectation of well supplied markets, while in the group of base metals, prices were down, led by lower copper and aluminium prices.

Trends in selected commodity markets

Commodity prices were generally weak in the first half of the month on a myriad of factors, including soaring copper stock levels in the London Metal Exchange warehouse system, large forecast stock levels in key agricultural commodities, as well as a small chance of an interest rate hike before the September meeting of the US Federal Reserve (Fed). Nonetheless, the anticipation of an agreement at the OPEC Meeting in Algiers, better-than-anticipated readings of industrial production in China in August and unfavourable conditions for harvest in the US and Canada due to rains, provided support for commodity prices in the second half of the month. In spite of the Fed's decision to keep the policy rate unchanged, market participants increased their expectations of an interest rate increase by the end of the year, which weakened gold prices during the month.

In the group of **agricultural** commodities, price declines were led by food prices, mainly due to the persistent oversupply of grains. The US Department of Agriculture increased its forecast for the end-of-season world stocks for the marketing year 2016/2017 for soybeans and rice. At the same time, it made a small downward revision in inventory estimation for wheat and corn due to higher demand, but still at an all-time record for both commodities. However, in the second half of the month, wet weather in the main producing regions of the US and Canada gave support to prices of wheat, corn and soybeans. Meanwhile, sugar prices jumped to their highest since 2012 on lower-than-expected output in Brazil, as reported by the Brazil sugar cane association UNICA, and on the prospect of lower expected output in the upcoming year in India, forecast by the India Sugar Mills Association.

Metal prices were mixed, with declines at the beginning of the month led by falls in copper due to increasing LME inventories, which have more than doubled in three months. Moreover, primary aluminum output in China in August, which was close to last year's monthly record, according to data from the International Aluminum Institute, also put pressure on prices. However, prices recovered on improving industrial output readings showing a 6.3% increase in August y-o-y versus 6.0% the previous month in China, while prices of newly constructed buildings increased in 64 of the 70 largest cities m-o-m, according to the National Bureau of Statistics in the country. Iron ore prices retreated following lower steel prices. World steel output increased by 1.6% in August, while, in China, it increased by 3.0% y-o-y, according to the World Steel Association.

Energy commodity prices generally advanced following different trends during the month. Crude oil advanced on the anticipation of an agreement at the OPEC Meeting in Algiers. Coal prices also advanced, buoyed by reduced raw coal output in China – 10.2% down in the first eight months in comparison to the previous year according to the National bureau of Statistics – and a 48% y-o-y jump in imports to

China in the last month. **Natural gas** prices advanced in the US on declining production and robust demand, which has translated into a reduction in the stock overhang by around 5% above the five-year average, from around 50% in April. In Europe, gas prices declined with EU-28 stocks around 91% full at the end of September according to Gas Infrastructure Europe.

Table 2.1: Commodity price data

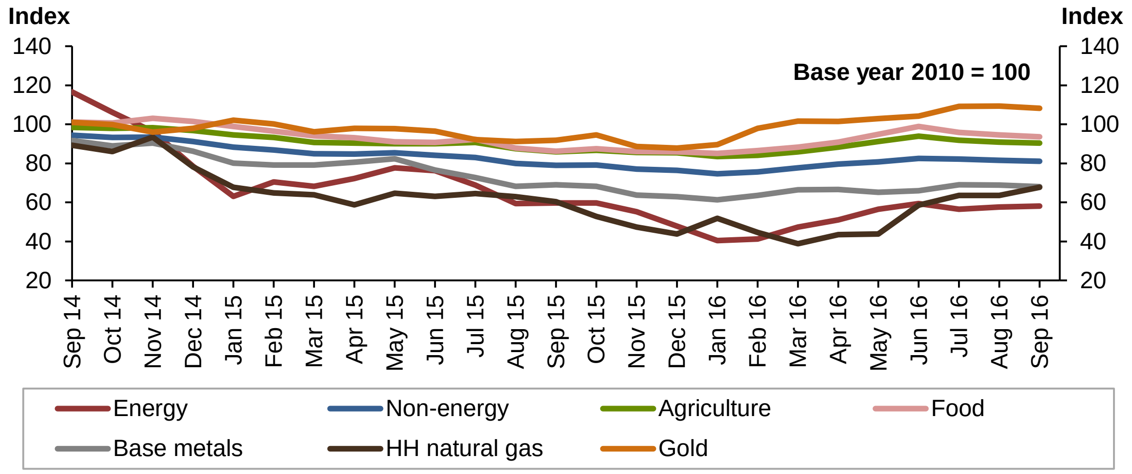
Commodity	Unit	*Monthly averages*			*% Change*	*Year-to-date*	
		Jul 16	Aug 16	Sep 16	Sep/Aug	2015	2016
World Bank commodity price indices (2010 = 100)							
Energy		56.6	57.6	58.1	0.9	68.5	52.1
Coal, Australia	US$/mt	62.3	67.4	72.9	8.2	59.2	56.8
Crude oil, average	US$/b	44.1	44.9	45.0	0.4	53.6	40.7
Natural gas, US	US$/mbtu	2.8	2.8	3.0	6.4	2.8	2.3
Non-energy		82.2	81.7	81.0	-0.8	84.1	79.5
Agriculture		91.9	91.0	90.5	-0.5	90.4	88.9
Food		95.8	94.5	93.6	-1.0	92.3	92.1
Soybean meal	US$/mt	441.0	403.0	373.0	-7.4	407.0	384.1
Soybean oil	US$/mt	788.0	814.0	829.0	1.8	761.6	784.7
Soybeans	US$/mt	432.0	413.0	405.0	-1.9	396.6	403.7
Grains		83.6	78.7	76.5	-2.8	90.3	83.9
Maize	US$/mt	161.8	150.2	148.4	-1.2	170.6	161.5
Wheat, US, HRW	US$/mt	151.6	149.2	150.8	1.0	212.8	172.8
Sugar, world	US$/kg	0.4	0.4	0.5	6.7	0.3	0.4
Base Metal		69.1	68.9	68.1	-1.2	76.5	66.2
Aluminum	US$/mt	1,629.1	1,639.3	1,588.9	-3.1	1,721.6	1,568.4
Copper	US$/mt	4,864.9	4,751.7	4,716.2	-0.7	5,719.0	4,729.6
Iron ore, cfr spot	US$/dmtu	57.0	61.0	58.0	-4.9	58.8	54.3
Lead	US$/mt	1,834.8	1,835.5	1,939.4	5.7	1,823.2	1,775.2
Nickel	US$/mt	10,262.9	10,336.0	10,175.8	-1.6	12,675.9	9,196.1
Tin	US$/mt	17,826.2	18,427.0	19,467.9	5.6	16,396.4	16,971.5
Zinc	US$/mt	2,183.3	2,279.1	2,288.3	0.4	2,038.3	1,948.1
Precious Metals		105.9	105.8	104.6	-1.2	92.2	98.1
Gold	US$/toz	1,336.7	1,340.2	1,326.6	-1.0	1,178.5	1,258.4
Silver	US$/toz	20.0	19.59	19.36	-1.2	16.0	17.1

Source: World Bank, Commodity price data.

Average **energy** prices in September increased by 0.9% m-o-m, led by a 0.4% increase in average crude oil prices. Natural gas prices increased in the US by 6.4% m-o-m, while average prices in Europe decreased by 5.8%.

Agricultural prices decreased by 0.5%, mainly due to a 1.0% decline in average food prices and a 0.1% decline in raw material prices. Beverage prices advanced by 0.9%. Soybean meal and Thai benchmark rice prices led the decreases in food prices, with the two products down by 7.4% and 8.4%, respectively.

Graph 2.1: Major commodity price indices

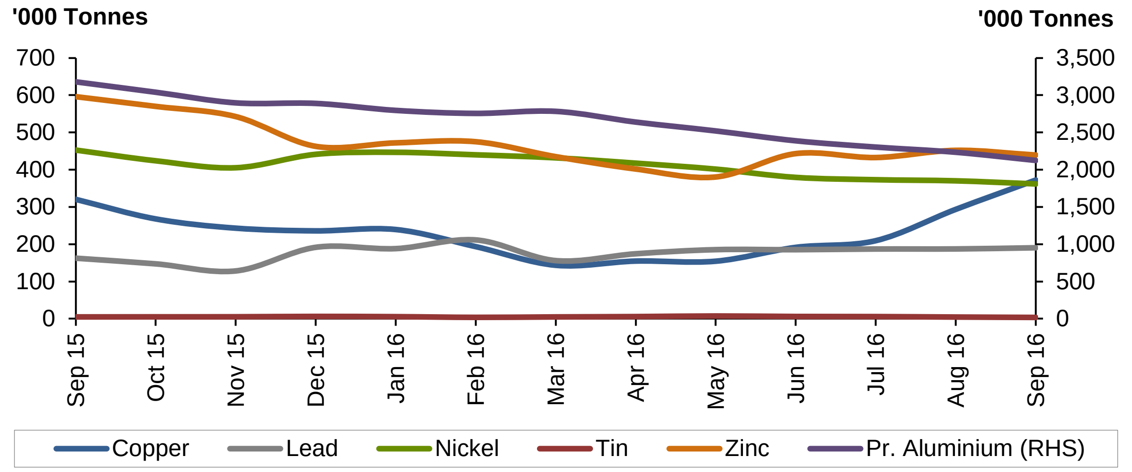


Source: World Bank, Commodity price data.

Average **base metal** prices decreased by 1.2%, mainly due to a 3.1% decrease in aluminum and 0.7% decline in copper prices. Average iron ore prices declined by 4.9%.

In the group of **precious metals**, gold prices declined by 1.0% as the prospects for higher interest rates in the US increased, while silver prices declined by 1.2%

Graph 2.2: Inventories at the LME



Sources: London Metal Exchange and Thomson Reuters.

In September, the **Henry Hub natural gas index** was relatively stable. The average price was up 18¢, or 6.4%, to $2.97 per million British thermal units (mmbtu) after trading at an average of $2.79/mmbtu the previous month.

The US Energy Information Administration (EIA) said utilities added 80 billion cubic feet (bcf) of gas to storage during the week ending 30 September. This was above median analysts' expectations of an increase of around 71 bcf. Total working gas in storage stood at 3,680 bcf, or 2.1%, higher than at the same time the previous year and 5.9% higher than the previous five-year average. The EIA noted that temperatures during the reported week "averaged higher than normal" throughout the Lower 48 States.

Investment flows into commodities

Open interest volume (OIV) decreased in September for select US commodity markets such as crude oil, natural gas, copper and livestock, while it also decreased for precious metals and agriculture. Meanwhile, the monthly average speculative net length positions increased for crude oil and natural gas, while they declined for agriculture, copper, precious metals, and livestock.

Table 2.2: CFTC data on non-commercial positions, '000 contracts

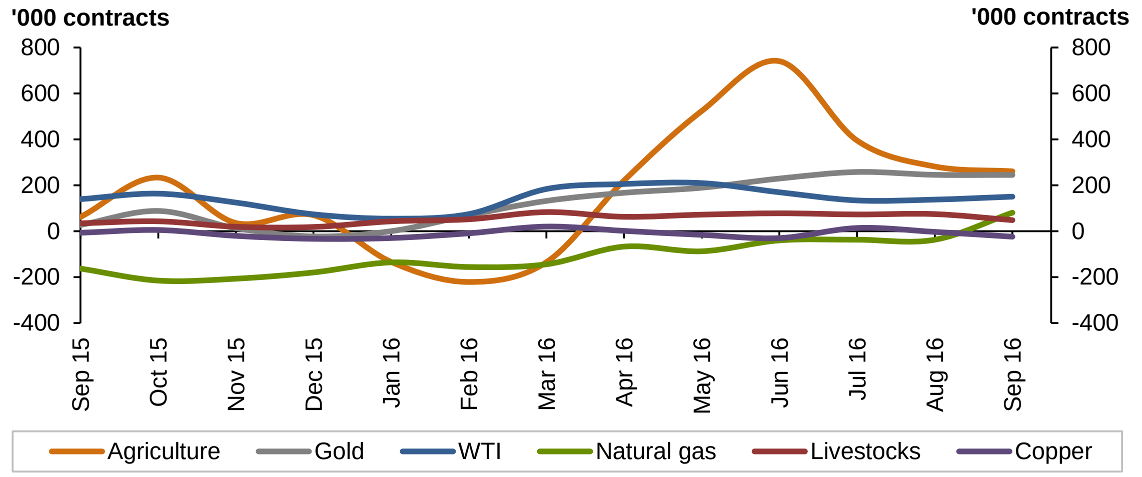
	Open interest		*Net length*			
	Aug 16	Sep 16	Aug 16	% OIV	Sep 16	% OIV
Crude oil	1,802	1,834	138	8	151	8
Natural gas	1,054	1,059	-37	-4	81	8
Agriculture	4,941	4,914	282	6	261	5
Precious metals	780	774	327	42	320	41
Copper	187	194	-3	-2	-24	-12
Livestock	508	524	75	15	48	9
Total	**9,273**	**9,299**	**782**	**65**	**837**	**60**

Source: US Commodity Futures Trading Commission.

Agriculture's OIV decreased by 0.6% to 4,913,783 contracts in September. Meanwhile, money managers decreased their net long positions by 7.5% to 260,898 lots, largely because of decreasing net length in corn.

Henry Hub's natural gas OIV increased by 0.5% m-o-m to 1,059,073 contracts in September. Money managers switched to a net long position of 80,920 contracts from a previous net short position of 36,961 lots, on a declining inventory overhang.

Graph 2.3: Speculative activity in key commodities, net length

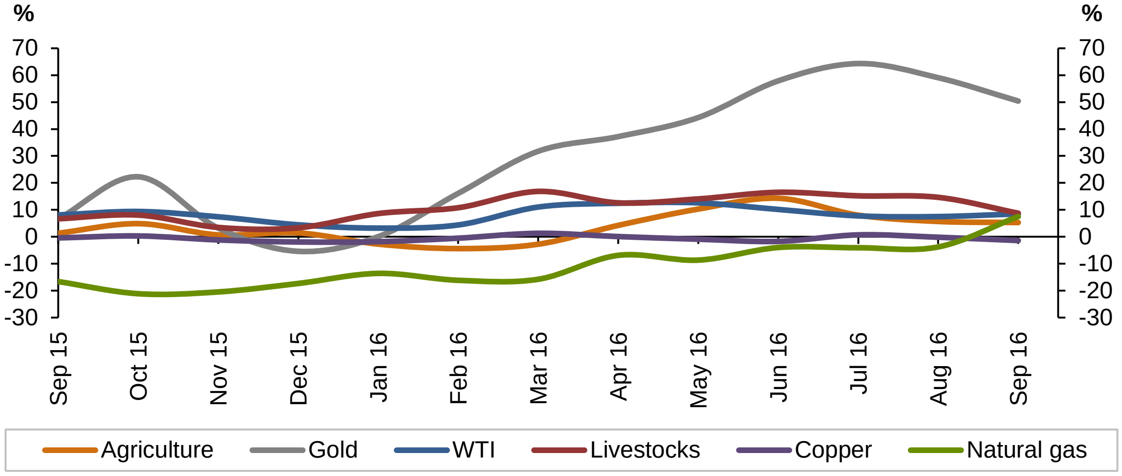


Source: US Commodity Futures Trading Commission.

Copper's OIV increased by 3.8% m-o-m to 194,469 contracts in September. Money managers' short positions increased 7.4 times to 23,714 lots on rising copper inventories in the LME system.

Precious metals' OIV decreased by 0.7% m-o-m to 773,936 contracts in September. Money managers decreased their net long positions by 2.2% to 319,822 lots.

Graph 2.4: Speculative activity in key commodities, as percentage of open interest



Source: US Commodity Futures Trading Commission.

World Economy

The 2016 global growth forecast is unchanged at 2.9% for 2016 and 3.1% for 2017. While 1H16 was exceptionally weak, given low growth in the US and Japan, growth is expected to pick up in the second half and continue to gather more momentum in the coming year.

After weak 1H16 expansion in the US, growth is estimated to have picked up in the 3Q16. In anticipation of this trend, the 2016 growth forecast remains at 1.5%, while 2017 remains unchanged at 2.1%. However, given the slowing recovery in the labour market and the severe impact from declining investments, the trend in US growth will need close monitoring. Growth in Japan also remains unchanged at 0.7% in 2016 and 0.9% in 2017. Moreover, the Euro-zone's growth forecast remains unchanged at 1.5% for 2016 and at 1.2% for 2017. The forecasts for major emerging economies also remain at the same levels as in the previous month, with the exception of Russia, which was revised up to a decline of 0.6% in the current year, taking into consideration a better-than-expected development in the first half.

Numerous uncertainties for global economic growth in the remainder of the year and for 2017 remain. Among these uncertainties, policy issues across the globe bear considerable weight, as do monetary policy decisions, which remain important in the near term. It is expected that the US Federal Reserve (Fed) will further push back a decision on raising interest rates, while the ECB, the BoJ, the BoE, and the PBoC will maintain their relatively more accommodative stances. However, as monetary stimulus is becoming increasingly less effective and the impact of low or negative interest rates may also be taken into consideration, central bank policy decisions will need close monitoring.

Table 3.1: Economic growth rate and revision, 2016-2017, %

	World	OECD	US	Japan	Euro-zone	China	India	Brazil	Russia
2016*	**2.9**	**1.6**	**1.5**	**0.7**	**1.5**	**6.5**	**7.5**	**-3.4**	**-0.6**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
2017*	**3.1**	**1.7**	**2.1**	**0.9**	**1.2**	**6.1**	**7.2**	**0.4**	**0.7**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Note: * 2016 and 2017 = forecast.*
Source: OPEC Secretariat.

OECD

OECD Americas

US

After a considerably subdued expansion in 1H16, the growth dynamic is forecast to pick up in 2H16. Some positive signals already came from the latest upward revisions to 2Q16 growth. The third and final estimate of **2Q16 GDP** showed growth of 1.4% q-o-q seasonally adjusted annualized rate (SAAR), compared to the previous estimate of 1.1%. While this is still a low growth level for the US economy, it shows some positive momentum compared with the 1Q16 figure of 0.8% SAAR. Positively, private household consumption is continuing strong at 4.3% q-o-q SAAR in 2Q16. It is forecast that support from private household consumption will continue, reinforced by an improving situation in the labour market. However, a significant drag to GDP growth came, to a considerable extent, from the energy sector's capex cuts that led to a decline of investments by 7.9% q-o-q SAAR, pushing GDP growth down to its current low level. With a rebalancing in the oil market, it remains to be seen if these considerably negative effects from reduced investments continue. Also, considering that the latest ISM numbers were pointing to further improvements in the US economy, it is expected that higher growth will materialize in 3Q16 and 4Q16.

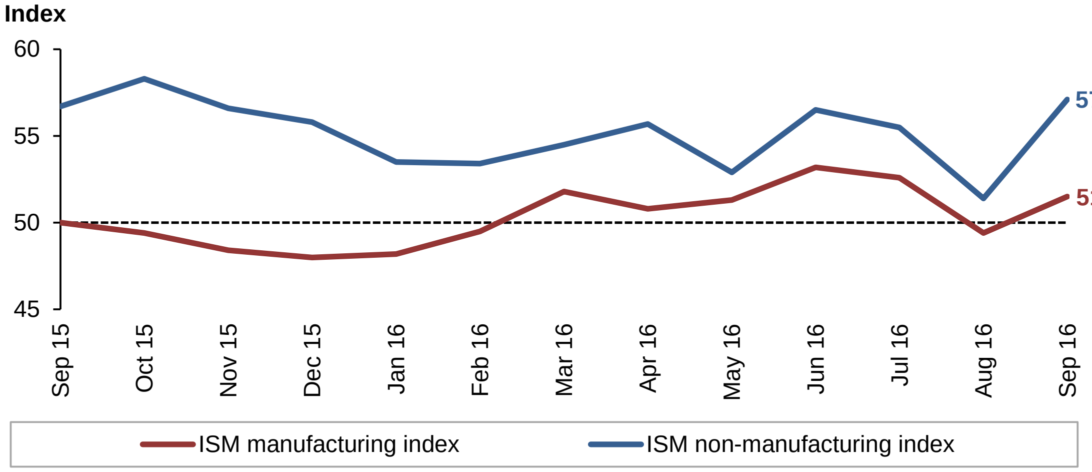
The subdued development in the US economy in 1H16 has also kept the **Fed** from further raising interest rates. It had indicated that it will do so, when appropriate, but with lessening improvements in the labour market and output of late, a further key policy interest rate was pushed back further into the year. Still, it remains to be seen what decision will be taken at that time. There are two more meetings scheduled for 2016. Key parameters to watch are the upcoming 3Q16 GDP release, the depth of further labour market improvements, the guiding trend of inflation and also the situation of the global economy. Another parameter of particular interest will be how well the major emerging economies would be able to digest such an interest rate increase. These parameters point to some possibility of an interest rate adjustment at the end of the year, but this decision, in the end, will be very much data-dependent and at least for now, there are no clear signals in any direction. However, it is obvious that this will constitute a very important area to monitor as it would have an impact on exchange rates, foreign investments, particularly emerging economies, and might also impact the oil market in various dimensions.

Some improvements in the US economy are likely to materialize in the near term, but data on **labour markets**, consumption and output remain somewhat mixed. The unemployment rate rose to 5.0% in September, while non-farm payroll additions rose by 156,000. Average hourly earnings improved slightly, rising by 2.6% y-o-y and also positively, the labour force participation rate climbed around half a percentage point over the past year, to 62.9% in September.

Total **industrial production** is still weak and remains significantly impacted by challenges in the energy sector. Total industrial production declined by 1.1% y-o-y in August, after a level of -0.6% in July. Mining, including oil sector-related output, fell considerably again, dropping by 9.4% in August. Ongoing weakness is also reflected in manufacturing orders, which fell by 3.9% y-o-y in July, albeit better than the 5.8% y-o-y drop in June. The trend in order growth from the energy sector remained significantly negative at 43.2% in July. However, this is better than in the previous months as declines in June stood at almost 60% and were at 89% in May. With improving oil markets, this may slowly recover.

The positive momentum of private household consumption from 2Q16 GDP numbers has slowed to some extent, as it seems, in 3Q16. **Retail sales** growth in August stood at 1.9% y-o-y, after a rise of 2.4% y-o-y in July and 2.9% y-o-y in June. It remains to be seen if this lower trend seen at the beginning of 3Q16 may point to some weakening consumption. In a sign of recovery, the Conference Board's Consumer Confidence Index increased to 104.1 in August, up from 101.8 in July.

Graph 3.1: Manufacturing and non-manufacturing ISM indices



Sources: Institute for Supply Management and Haver Analytics.

July's **Purchasing Manager's Index** (PMI) for the manufacturing sector, as provided by the Institute of Supply Management (ISM), indicated some improvements in the underlying economy as the manufacturing PMI moved again above the growth-indicating level of 50 and reached 51.5 in September, after a level of 49.4 in August. The very important services sector index improved even further and reached 57.1, after it stood at only 51.4 in August and 55.5 in July. This high September level is the best reading since October 2015 and, given that the services sector provides more than two-thirds of economic output, this may be a significant support to current growth.

Given that a better 2H16 performance has already been anticipated, the 2016 **growth forecast** remains at 1.5%. More data over the coming months will provide further insight to allow a more detailed review of the US economic situation. The 2017 growth forecast of 2.1% also remains unchanged.

Canada

While the Canadian economy is continuing to improve, some weakness remains. The two main sources of the softer momentum this year have been the impact of the oil market-related slowdown, after the considerable wildfires in the Alberta region, and the weakening economy in the US, which is Canada's most important trading partner. While GDP growth in 1Q16 has recovered to 2.5% q-o-q SAAR, the 2Q16 growth level was clearly negative at -1.6% y-o-y, reflecting the challenges in the oil sector and the weakening export situation for the Canadian economy. The situation in the oil market has also led once again to muted industrial production growth, which rose only by 0.5% y-o-y in July, but was better than the level of 0.2% y-o-y recorded in June and -1.6% in May. Output from the mining, oil and gas sectors was weak again, but also showed an improving trend at a decline rate of 1.1% y-o-y in July, after -2.9% y-o-y in June and -5.4% y-o-y in May. The PMI for manufacturing also indicated soft economic development, retracing to 50.3 in September from 51.1 in August, compared to 51.9 in July. Considering the ongoing weakness in the Canadian economy, the GDP growth forecast was revised down to 1.3% for 2016, from 1.4% in the previous month. The forecast for 2017 remains unchanged at 1.7%.

OECD Asia Pacific

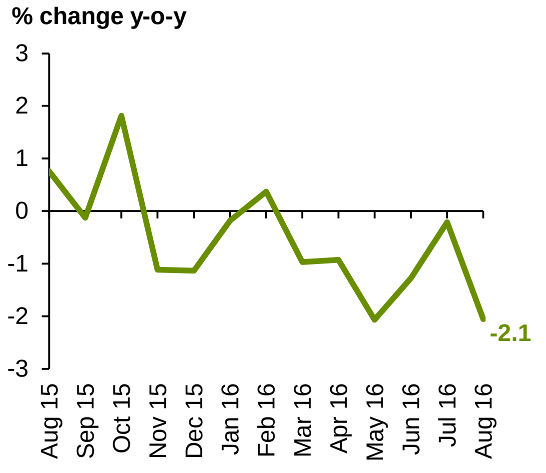
Japan

The Japanese economy remains **challenged by a variety of factors**, but government actions have kept supporting some growth momentum. The strengthening yen, the deflationary domestic trend, weakening global trade and still-muted domestic demand are at the forefront of the issues that the economy is dealing with. The fiscal stimulus announced by the government, in combination with structural reforms and monetary policy measures provided by the Bank of Japan (BoJ), have kept the economy supported. However, with a high sovereign debt level and declining effectiveness of monetary support, these measures are facing some limitations. Positively, the latest announcement of the 2Q16 GDP level, while pointing at continued challenges that the economy of Japan is dealing with, was revised up, and growth in the 2Q16 was reported at 0.7% q-o-q SAAR, after a first estimate of 0.2% q-o-q SAAR. This comes after growth of 2.0% q-o-q SAAR in 1Q16.

Inflation fell further, while the BoJ is still trying – according to their official targets − to achieve an inflation rate of 2%. However, after having turned slightly positive in February, it has been declining ever since and fell by 0.5% y-o-y again in July. Even when excluding the two volatile groups of energy and food, the country's core inflation figure stood at 0.2% in July, the lowest level in almost three years. Positively, and despite the deflationary trend, real income rose by 1.3% y-o-y in August in a continuation of a supportive trend in income rise this year. This may be due to the ultra-low unemployment rate in an extremely tight labour market. In August, the unemployment rate stood at 3.1%, only marginally higher than the 3.0% in July, which represented the lowest in more than 20 years.

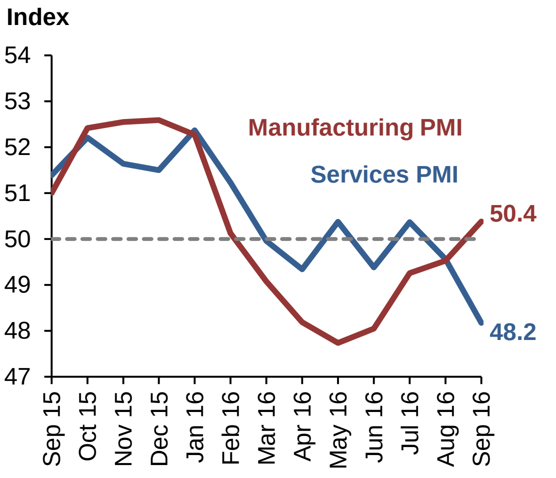
Japanese exports continued their declining trend of ten consecutive months. In July, exports fell again, down by 14.0% y-o-y, significantly lower than the decline of 7.4% y-o-y in June. **Industrial production** also fell again, declining by 0.5% y-o-y in July, after -1.4% y-o-y in June. This negative trend is also triggered by a continued decline in manufacturing orders, which dropped by 12.8% y-o-y in July, after a decline of 9.1% y-o-y in June and after falling by 13.2% y-o-y in May. The challenging environment has also been reflected in **domestic demand.** Retail trade remained negative and again declined by 2.1% y-o-y in August.

Graph 3.2: Japanese retail trade



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

Graph 3.3: Japanese PMI indices



Sources: IHS Markit, Nikkei and Haver Analytics.

Albeit somewhat improving, ongoing weakness and the mixed performance in the Japanese economy are also reflected in the **latest PMI numbers** provided by IHS Markit. Though the PMI for manufacturing improved slightly and now stands again above the growth-indicating level of 50, the services sector PMI again declined considerably and remains clearly below 50. The manufacturing index now moved up to 50.4 in September from 49.5 in August. The important services sector, however, declined to 48.2, after a level of 49.6 in August.

Having already taken the current slow growth momentum into account, the **GDP growth forecast** for 2016 remains at 0.7% and at 0.9% for the coming year. Numerous challenges remain, and it is to be seen to which extent the ongoing stimulus measures will be able to lift growth above the current forecast levels.

South Korea

The situation in the South Korean economy remains mixed as the country continues to be impacted by a decline in exports, which fell by 10.2% y-o-y in September after a rate of -3.2% y-o-y in August. Despite the challenges in trading, the economy continues enjoying good growth as reflected in industrial output, which grew by 5.1% in August, after 3.4% in July. However, the latest PMI number for the manufacturing sector in August indicates declining momentum in the manufacturing sector. The index stood below the growth-indicating level of 50, and fell again in the past month, reaching 47.6 in September, down from 48.6 in August and representing a considerable decline from July's level of 50.1. While near-term developments warrant close monitoring, the GDP growth forecasts this month remain unchanged at 2.6% for 2016 and 2.5% for 2017.

OECD Europe

Euro-zone

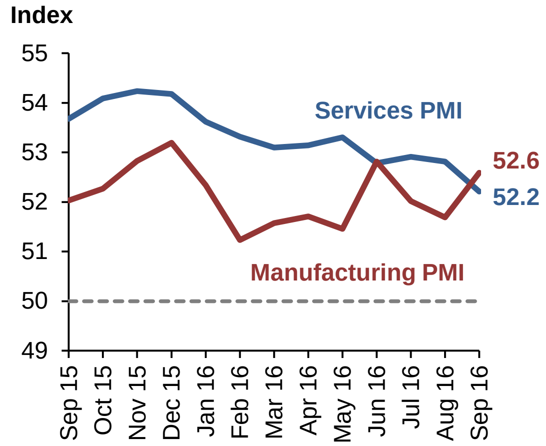
While the Euro-zone continues to expand at a relatively healthy level, a variety of uncertainties remain. GDP growth in 2Q16 was confirmed – as expected – at 0.3% q-o-q, which is below the stronger 1Q16 growth of 0.5% q-o-q. Besides the potential consequences of the UK's Brexit vote, the ongoing weakening situation in the Euro-zone's banking sector and, related to this, the still weak sovereign debt situation in some of its member countries, are of great importance and will need close monitoring in the coming months. Moreover, the high unemployment rate remains an issue. Next year's federal government elections in France and Germany will be important in the political debate, particularly as political uncertainty has risen. This was also highlighted recently in regional elections in Germany and the political deadlock in Spain. The upcoming referendum on the constitution in Italy may add another challenge to the political arena.

The latest **industrial production** highlighted the fragility of the economic recovery to some extent as numbers for July showed a decline of 0.6% y-o-y. Manufacturing growth stood at 0.1% y-o-y, while mining and quarrying were considerable factors in the decline, falling by 26.6% y-o-y in July. **Retail sales** growth in value terms fell to 0.8% y-o-y in August from 1.3% in July. Some support may still come from slight improvements in the labour market. The unemployment rate in the Euro-zone remained at 10.1% in August, the same level as in July. While still high, this compares to an August 2015 rate of 10.7%.

After the latest rounds of ECB stimulus, **inflation** remained low, but increased, rising by 0.4% y-o-y in September, after 0.2% y-o-y in August. Positively, core inflation – the CPI excluding energy, tobacco and food − stood at 0.9% y-o-y after the previous month's number of 0.8%. While slightly improving, the diminishing effectiveness of ECB stimulus seems to be mirrored again in credit supply figures. August's growth stood at only 0.6%, after 0.5% in July and, only slightly above the 0.4% y-o-y level from June. It will be important to see how the ECB will decide to proceed over the coming months as the effectiveness of the extraordinary monetary stimulus is lessening. While the expectation for further fiscal stimulus is slim, some fiscal stimulus will probably be enacted in the Euro-zone, as proposed by world leaders and finance ministers at the last G20 meetings.

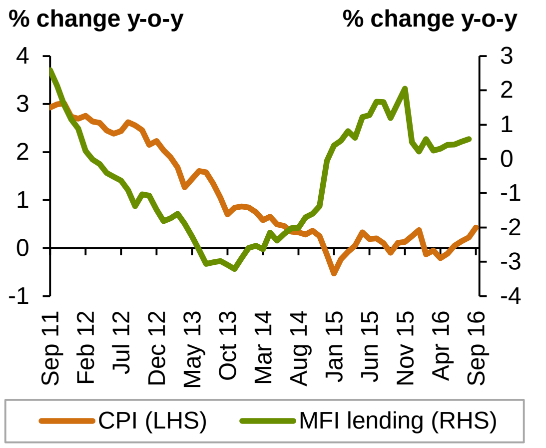
The latest **PMI indicators** point to a continuation of the Euro-zone's improvements. The manufacturing PMI for September stood at 52.6, up from 51.7 in August. The important services PMI, however, retracted further to 52.2 in September from 52.8 a month earlier.

Graph 3.4: Euro-zone PMI indices



Sources: IHS Markit and Haver Analytics.

Graph 3.5: Euro-zone consumer price index and lending activity



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

While **recovery in the Euro-zone is ongoing**, multiple challenges remain. As most of these challenges were already considered, the GDP growth forecast remains unchanged. Growth is seen at 1.5% in 2016 and at 1.2% in 2017.

UK

In her latest address, the Prime Minister indicated a time horizon of up to March 2017 to start the two-year period of the EU-exit negotiations. This has caused some uncertainty in the financial markets. Based on the latest indications from the UK government and the EU, it has become more likely that a so-called "hard exit", contrary to a soft-exit − a scenario that would allow the UK to continue with most of the trade agreements to and from the EU – cannot be ruled out. The latest considerable decline of the pound sterling in the first week of October was probably an outcome of these developments, and it has underscored these uncertainties that may affect the UK's economy negatively in the short term. So, while the latest performance of the UK's economy was relatively strong and better than initially expected after the Brexit vote, the negative implications of such a harder and more severe exit scenario might now soon be felt. In the meantime, the BoE also confirmed its view that negative effects will be felt in the short term. Positively, the PMI for manufacturing in August recovered considerably, shaking off some of the initial worries of a Brexit. It rebounded considerably and continued its post-Brexit momentum to the upside, reaching 55.4 in September, after already achieving a significant level of 53.4 in August. While not rising, the important services sector PMI remained almost unchanged at a solid level to stand at 52.6, compared to 52.9 in August. The positive momentum has been reflected also in industrial production, which picked up to 2.2% in July, after 1.4% y-o-y in June. Domestic consumption also held up particularly well as retail values increased by 4.1% y-o-y in August, after 4.0% in July and 1.4% in June. This better-than-expected post-Brexit development has led to an upward revision in growth estimates for both 2016 and 2017. The forecast for 2016 has been revised up to 1.6%, from 1.5%, and growth expectations for 2017 now stand at 0.7%, compared to 0.4% in the previous month. However, the underlying assumption of a severe negative impact on the UK economy in the short term has not changed.

Emerging and Developing Economies

In **Brazil**, despite some improvement in consumer and business sentiment on the perception of less economic policy uncertainty going forward and following the impeachment of the previous president, it remains unclear whether the still-open corruption scandals and public governance issues would affect the new government or not. Besides, recent indications about the actual economy have not yet mirrored any of that optimism in the sentiment indices. GDP forecasts remain intact this month at -3.4% and 0.4% for 2016 and 2017, respectively.

In **Russia**, the notable ease in the rate of inflation holds encouraging prospects for household consumption, which suffered from the sharp increases in consumer prices and currency depreciation last year. The cautious steps towards lower interest rates should be received positively and prompt better expectations for spending, lending and investment. GDP is forecast to decelerate by only 0.6% this year, before returning to the growth territory at 0.7% in 2017.

India's economy is well placed to grow at a robust pace, due to strong domestic consumption and, to a lesser extent, government spending on infrastructure. A recent narrowing of India's current-account deficit (CAD) was due to a smaller merchandise trade deficit. India's inflation dynamics have altered considerably over the last few years. However, India has also adopted an official inflation target framework, under which the Reserve Bank of India (RBI) is responsible for lowering inflation towards the government’s 4% target. Indian’s trade deficit narrowed in August of 2016. Also, the Indian manufacturing industry lost momentum in September as growth of new orders eased from August’s 20-month high. In this month, and despite market expectation, RBI cut the interest rate by 0.25 bp to 6.25%, sending a signal of possible additional easing ahead.

Despite **China’s** real GDP growth of 6.7% y-o-y in 2Q16, there was a modest slowdown in 2H16, but it seems a fast pace of growth will remain reliant on continued fiscal and monetary easing to shore up domestic demand. Meanwhile, property has been one of the few bright spots in a slowing economy this year. The real estate industry contributed 0.37 pp to economic growth in 1H16. China's trade balance rose sequentially in 3Q16. China's utilized foreign direct investment (FDI) expanded by 0.5% in August, compared with 0.6% in the first seven months of the year. The stable rate of headline growth masks deeper contractions in investment into industry and construction, as well slower growth into agriculture. The positive news in terms of trade indicates that much of the August improvement is due to prices rather than volume changes.

Table 3.2: Summary of macroeconomic performance of BRIC countries

	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	-3.4	0.4	8.4	5.5	-16.2	-20.0	-6.6	-5.5	74.5	80.1
Russia	-0.6	0.7	7.2	5.7	34.8	61.1	-3.7	-2.2	13.2	14.6
India	7.5	7.2	5.5	5.1	-21.0	-28.4	-3.8	-3.6	52.0	50.7
China	6.5	6.1	2.3	2.1	335.9	277.1	-3.8	-4.2	20.1	24.8

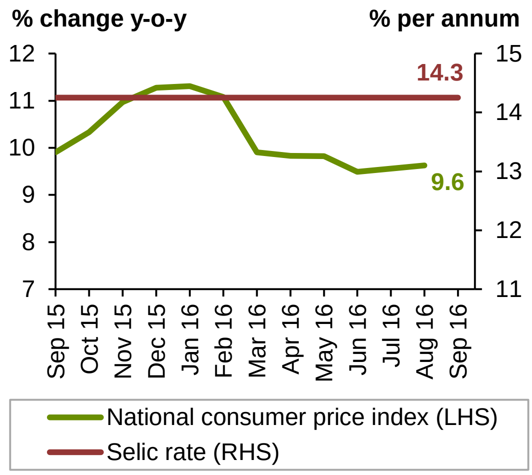
Note: 2016 and 2017 = forecast.

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

Brazil

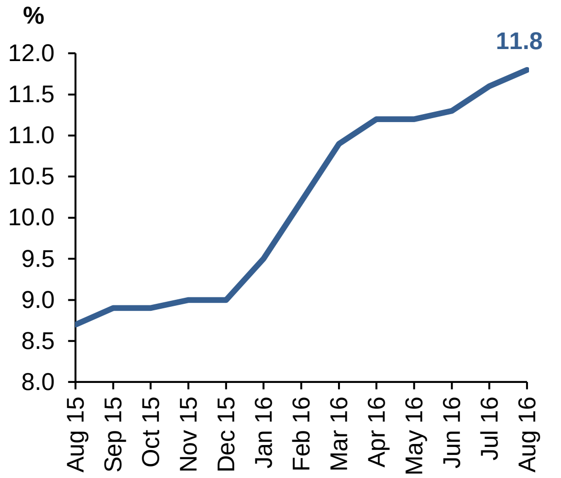
Following the 5.4% decline in 1Q16, Brazil's **GDP** posted a contraction of 3.8% y-o-y in 2Q16. Contractions in **private consumption** and **Gross Fixed Capital Formation (GFCF)** were notably less in 2Q16, while **government spending** shrank more. The **real** depreciated 1.5% m-o-m in September, ending the streak of seven consecutive months of appreciation. The central bank kept its benchmark **interest rate** unchanged for the 14th month in a row in September at 14.25%, while **inflation** also remained at 9.6% in August similar to the previous month. The three-month moving average **unemployment rate** increased to 11.8% in August, from 11.6% in July, the highest rate on record since March 2012.

Graph 3.6: Brazilian inflation vs. Interest rate



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

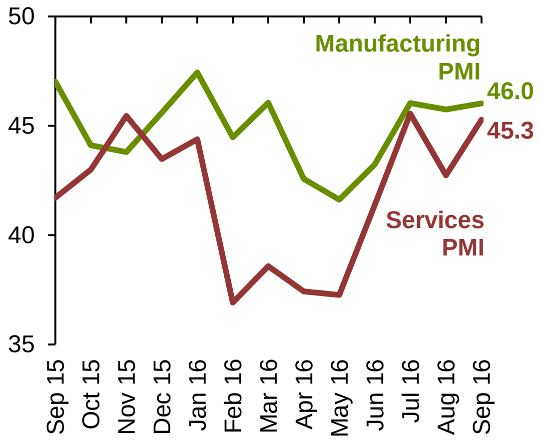
Graph 3.7: Brazilian unemployment rate



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

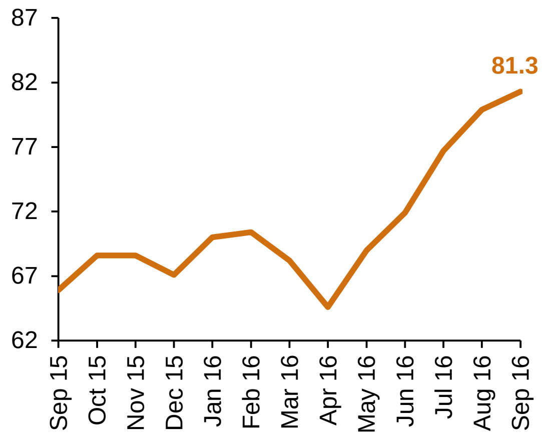
The country's **manufacturing sector** continued its downturn in September, according to IHS Markit, as the Manufacturing PMI posted 46.0 compared to 45.7 in August. The quicker decline in production led firms to reduce employment, inventories and purchasing. The survey also revealed that new export orders declined by the sharpest rate since May 2009. Recession in the country's services sector continued in September on a sizeable decrease in output and new business inflows as high unemployment and sluggish economic activities hit demand. The respective PMI posted 45.3 in September, from 42.7 in August.

Graph 3.8: Brazilian manufacturing and services PMIs



Sources: IHS Markit and Haver Analytics.

Graph 3.9: Brazilian consumer confidence index



Sources: Fundação Getúlio Vargas and Haver Analytics.

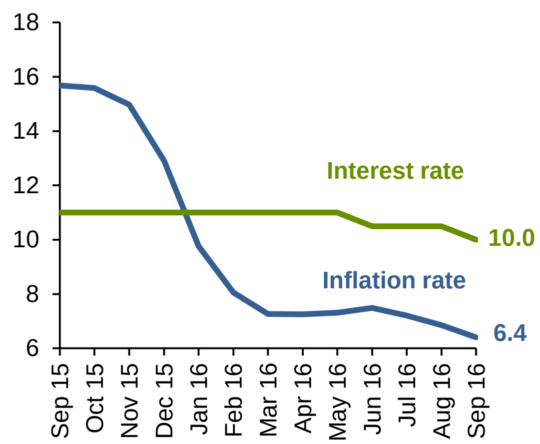
Despite some improvement in consumer and business sentiment on the perception of less economic policy uncertainty going forward and following the impeachment of the previous president, it remains unclear whether the still open corruption scandals and public governance issues would affect the new government or not. Besides, recent indications about the actual economy have not yet mirrored any of that optimism in the sentiment indices.

GDP forecasts remain intact this month at -3.4% for 2016 and 0.4% for 2017.

Russia

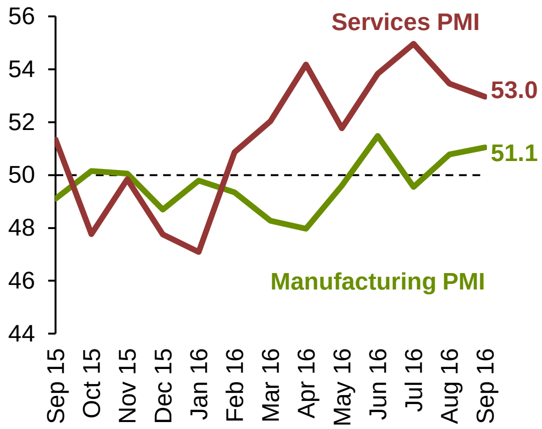
GDP contracted by 0.6% y-o-y in 2Q16, following the 1.16% decline in the previous quarter. **Net exports** increased by 5.7% y-o-y in 2Q16, after contracting by nearly 1% in 1Q16, while the deceleration in **final consumption** increased to 4.1%, from a 3.5% decline. The drop in **GFCF** eased from 9.9% in 1Q16 to 4.3% in the following quarter. The **ruble** appreciated 0.6% m-o-m in September.

Graph 3.10: Russian inflation vs. Interest rate



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

Graph 3.11: Russian PMIs

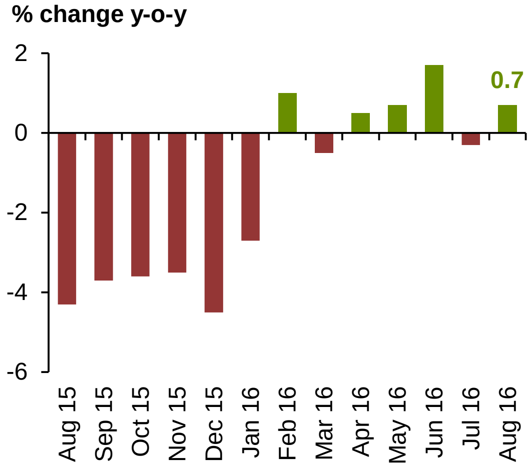


Sources: HSBC, IHS Markit and Haver Analytics.

Inflation eased in September to 6.4%, a level not seen since February 2014, which allowed the central bank to cautiously lower its benchmark **interest rate** to 10.0%, from 10.5%.

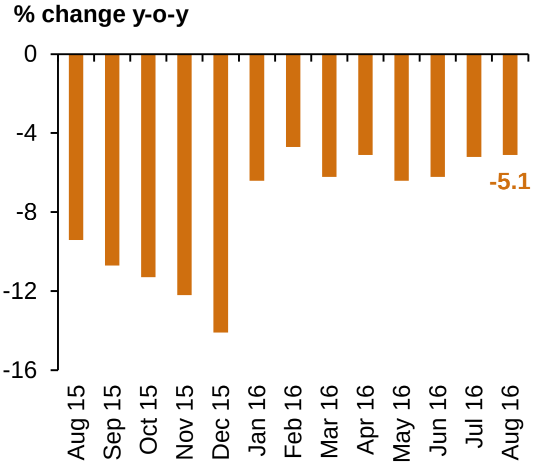
Last month, the **manufacturing sector** witnessed its highest growth in production since November 2014 according to IHS Markit. The manufacturing PMI in September registered 51.1, up from 50.8 in August. New business also increased at a notable pace. **Industrial production** increased by 0.7% y-o-y in August and was expected to improve more in September on the basis of the manufacturing PMI reading. Growth in the **services sector** continued last month, though at a slightly lesser pace. According to IHS Markit, Russia's services PMI posted 53.0 in September, down from 53.5 a month earlier. **Retail sales** dropped by 5.1% y-o-y in August, compared to a 9.4% decrease in the same month last year.

Graph 3.12: Russian industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3.13: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

The notable ease in the rate of inflation holds encouraging prospects for household consumption, which suffered from the sharp increases in consumer prices and currency depreciation last year. The cautious steps towards lower interest rates should be received positively and prompt better expectations for spending, lending and investment.

GDP is **forecast** to decelerate by only 0.6% this year, before returning to growth territory at 0.7% in 2017.

India

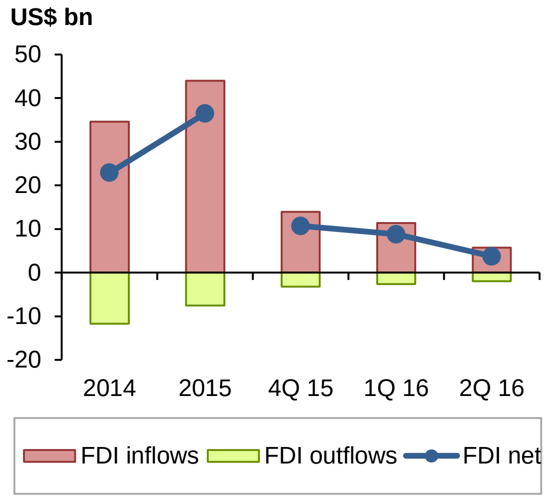
India's economy is well placed to grow at a robust pace due to strong domestic consumption and, to a lesser extent, government spending on infrastructure. Despite a new goods and services tax (GST), the tax base will stay narrow, and efforts to lead in public spending will have limited success. The government's new reform push – that is, the planned introduction of GST − should also attract fresh foreign investment, which would help balance the rising current-account deficit and potentially more volatile portfolio flows.

A recent narrowing of India's **current-account deficit** was due to a smaller merchandise trade deficit, which stood at $23.8 billion in the June quarter, down from $34.2 billion in the corresponding quarter of 2015. In turn, the improvement in India's

merchandise trade balance has been driven by a steep contraction in imports, which declined sharply by 11.5% y-o-y, offsetting a far milder 2.1% y-o-y fall in exports. On a **balance of payment** basis, merchandise **imports** declined sharply by 11.5% vis-à-vis merchandise **exports,** which declined by 2.1%, leading to a lower trade deficit in 1Q16 and 1Q17.

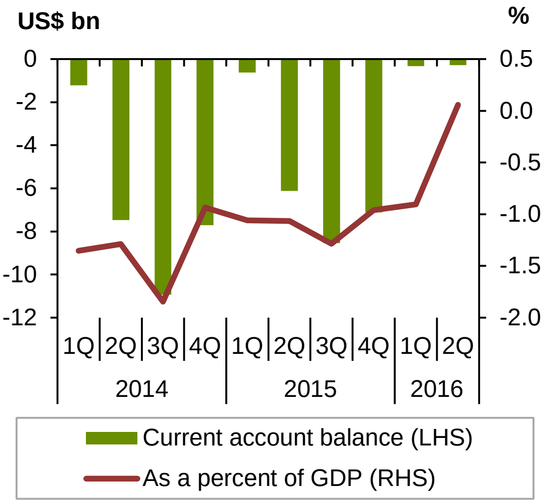
India's **financial account** also slipped into a small deficit of $42.5 million for the first time since 1Q15. **Net foreign direct investment** moderated to $3.7 billion in 2Q16 from $10.0 billion in 2Q15. On the other hand, portfolio investments recorded a net inflow of $2.1 billion in 1Q16, compared to a marginal outflow in the corresponding period of last year and an outflow of $1.5 billion in the preceding quarter, primarily reflecting net inflow in the equity component.

Graph 3.14: Indian financial account



Sources: Reserve Bank of India and Haver Analytics.

Graph 3.15: Indian current account balance

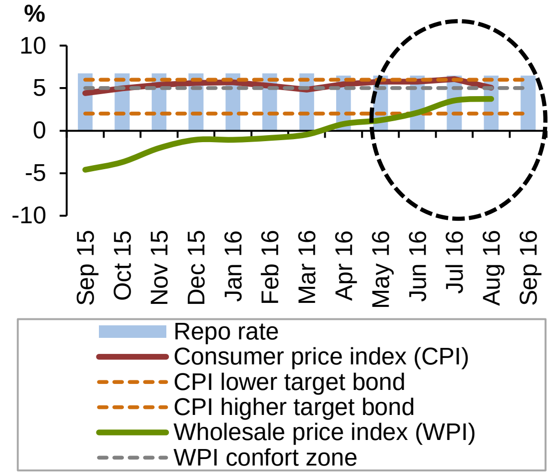


Sources: Reserve Bank of India and Haver Analytics.

India's **inflation** dynamics have altered considerably over the last few years. CPI has declined from double-digits during the period of 2012 and 2013 to below 6% since the end of 2014. India has also adopted an official inflation target framework, under which the RBI is responsible for lowering inflation towards the government's 4% target. However, the ±2% range around the target allows the central bank to accommodate short-run trade-offs between growth and inflation. To achieve this, the RBI has adopted a gentle glide path that aims to bring inflation to 5% by 1Q17. However, the monsoon in the southwest should lead to moderating food inflation over the next couple of quarters relative to that seen mid-year (indeed it slowed from 8% in July to 5.8% in August). Vegetables, sugar and pulses have been primary drivers of inflation this year, and it seems food inflation should benefit from a favourable seasonal pattern in 2H16. The WPI rose 3.8% y-o-y, up from 3.3% y-o-y in August.

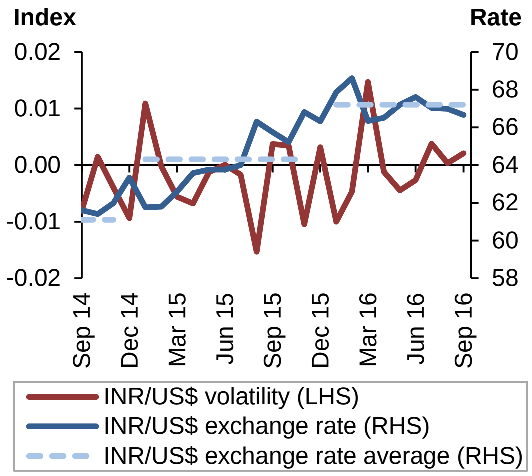
Despite market expectations, RBI cut the **interest rate** by 0.25 bp to 6.25%, sending a signal of possible additional easing ahead. It seems the Monetary Policy Committee is keen to support growth and ease monetary policy further if inflation remains contained. The rate cut means different things to different segments. Existing and potential home loan customers are delighted because it brings down their borrowing costs. The rupee rose against the US dollar after the central bank reduced the benchmark repo rate by 25 basis points to 6.25%, citing slower inflation and a pick up in growth momentum.

Graph 3.16: Indian inflation vs. Repo rate



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

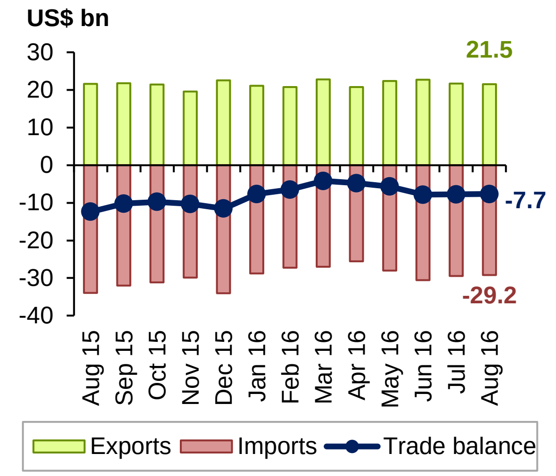
Graph 3.17: US$/INR exchange rate



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

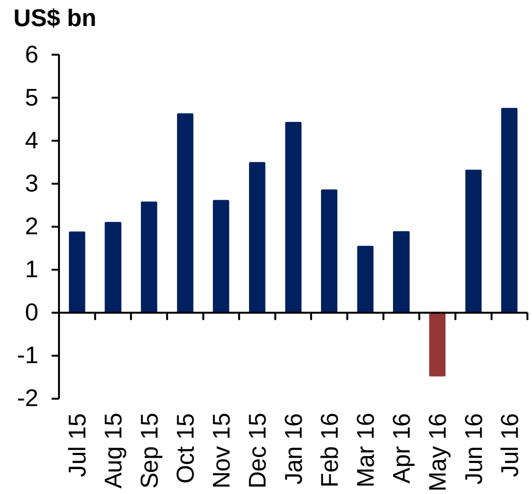
The **trade deficit** in India narrowed 38.1% y-o-y to $7.67 billion in August of 2016. **Exports** edged down 0.3% to $21.5 billion, mainly due to oil, while non-petroleum sales, which accounted for 88.7% of total exports, rose by 1.79%. **Imports** slumped by 14.1% to $29.2 billion. Considering April to August, exports were down 3%, while imports declined at a faster 15.9%, narrowing the trade deficit to $34.7 billion, from a $58.4 billion gap a year earlier.

Graph 3.18: Indian trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

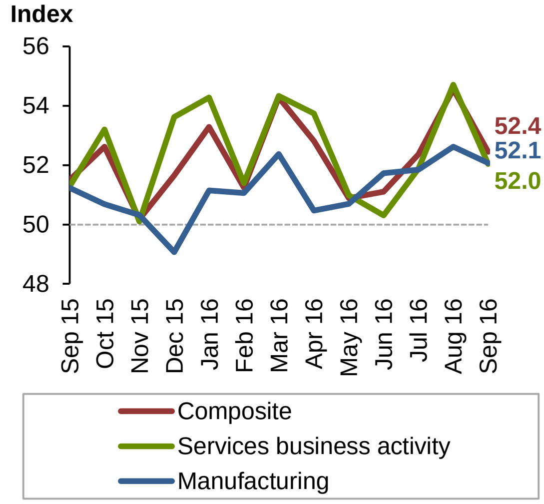
Graph 3.19: Indian net FDI



Sources: Reserve Bank of India and Haver Analytics.

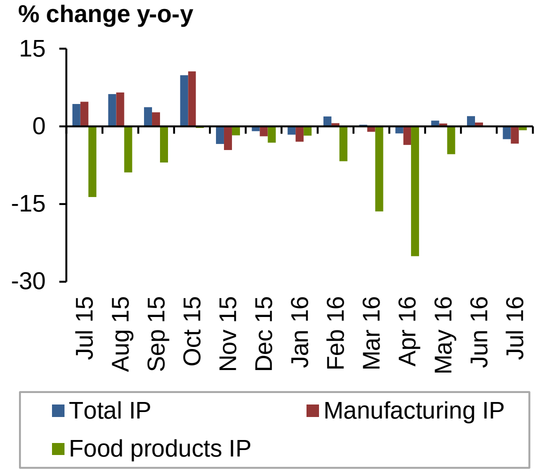
The Indian **manufacturing** industry lost momentum in September as growth of new orders eased from August's 20-month high. The PMI in India came in at 52.1 in September of 2016, down from 52.6 in August and below market expectations of 52.4. The latest PMI figures also showed an intensification of inflationary pressures. The **Services PMI** in India rose to 54.7 in August of 2016, from 51.9 in July. It was the strongest reading since January 2013's output, and new orders rose solidly. Business confidence rose to its highest level since the start of 2015 with over 27% of companies expecting activity to increase over the coming year, compared to 1% that forecast lower output volumes.

Graph 3.20: Indian PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3.21: Indian industrial production



Sources: Central Statistical Organisation of India and Haver Analytics.

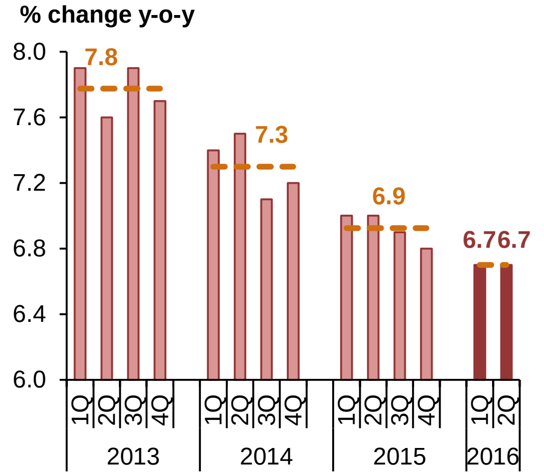
GDP growth expectations for the years 2016 and 2017 remained unchanged at 7.5% and 7.2%, respectively.

China

Despite real **GDP** growth of 6.7% y-o-y in 2Q16, a modest slowdown is expected in 2H16, but it seems that a fast pace of growth will remain reliant on continued fiscal and monetary easing to shore up domestic demand. Economic activity so far in 2016 has been driven by strong housing market activity and investment by state-owned enterprises (SOEs), but neither of these drivers are expected to perform as strongly in the coming months. After anemic growth in 2014 and 2015, the Chinese housing market rebounded this year, partly due to the effect of policy stimulus. Property prices skyrocketed in many cities. Home mortgages grew 30% from 2Q15 to 2Q16, doubling the average annual pace during the previous five years. Housing starts growth slowed down to 3.5% y-o-y in August from 8.9% in July. The real estate industry contributed 0.37 pp to economic growth in 1H16, while total housing inventory has fallen by 50 million square meters from a year earlier. Investment growth will accelerate slightly in 2016 as a whole. Meanwhile, consumption remained relatively robust. In 2016, following significant credit easing, news from the China's property sector has been good: prices are up, sales are higher and metal demand increased. Hence the vulnerability of the property market has risen and it seems that there are more risks for commercial than residential real estate in China.

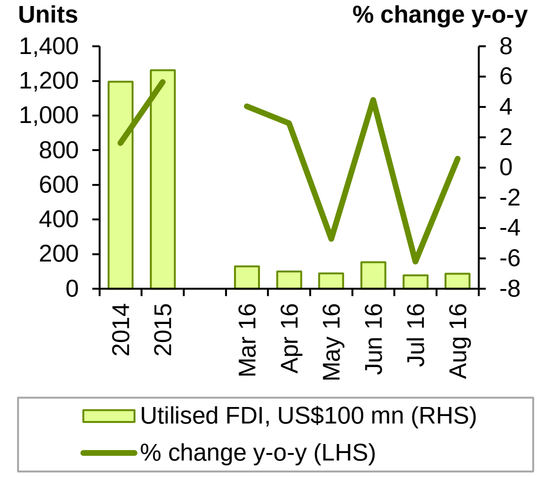
Overall, **fixed asset investment** (FAI) growth rebounded to 8.1% y-o-y in August, following a sharp drop to 3.9% in July, driven by a recovery in corporate and real estate FAI growth and infrastructure investment growth remaining relatively strong. China's utilized **foreign direct investment** (FDI) expanded by 0.5% in August, compared with 0.6% in the first seven months of the year. The stable rate of headline growth masks deeper contractions in investment into industry and construction, as well slower growth in agriculture. Services investment growth accelerated by more than 2 pp. FDI continues to highlight the extremes in China's two-track economy, with foreign investors flocking to high-growth sectors like healthcare and IT while fleeing from traditional manufacturing and real estate sectors.

Graph 3.22: Chinese GDP growth



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

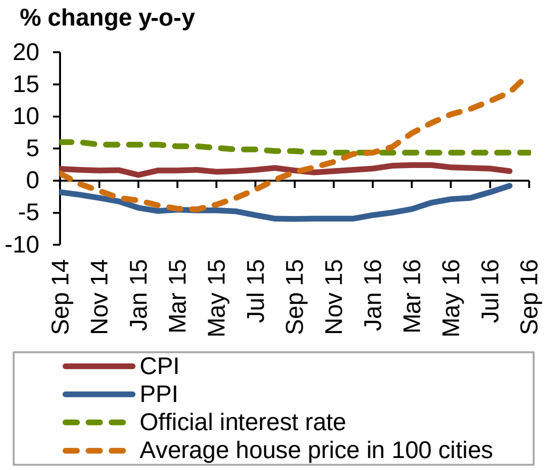
Graph 3.23: Chinese utilised FDI



Sources: China National Bureau of Statistics and Haver Analytics.

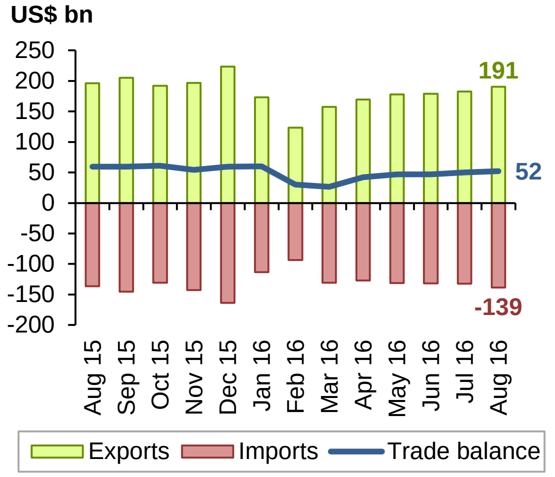
China's **consumer price index** (CPI) declined by 1.3% y-o-y in August from a year earlier, compared with a 1.8% increase in July. It was the lowest inflation rate since October 2015 as the politically sensitive food prices increased by 1.3%, while non-food costs rose at a faster 1.4%. Costs of consumer goods gained 0.9% and those of services advanced 2.1%.

Graph 3.24: Chinese CPI vs. PPI



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

Graph 3.25: Chinese trade balance

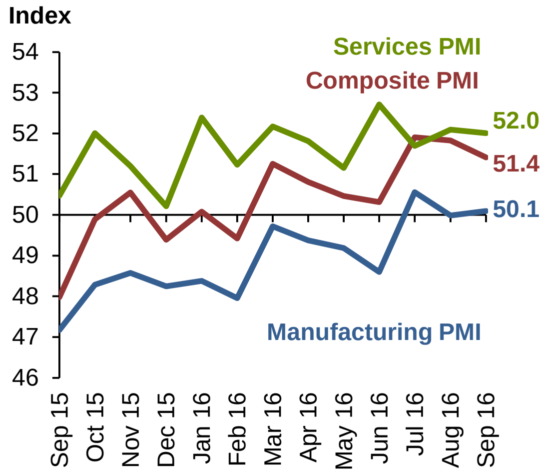


Sources: China Customs and Haver Analytics.

China's **trade balance** rose sequentially in 3Q16. This compares with the modest y-o-y declines in the first half, suggesting that net merchandise exports will play a marginally improved role in growth in 3Q, as exports fell less than expected while imports rose for the first time in 22 months. In August, **exports** declined by 2.8% y-o-y. **Imports** unexpectedly increased by 1.5%, compared to a 12.5% decrease in July. As positive news, initial data indicates that much of the August improvement is due to prices rather than volume changes. Improved volume data, due out on 12 September, would provide a clearer positive signal for industrial value-added growth. Even lacking that, the relative improvement in the price environment should nonetheless help with industrial financial data and perhaps investment activity.

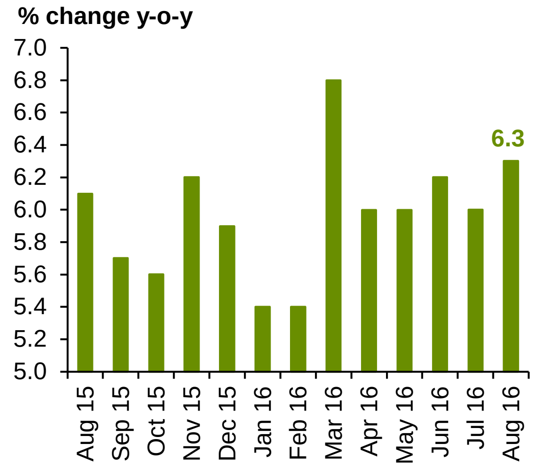
The official National Bureau of Statistics (NBS) **manufacturing PMI** in China came in at 50.4 in September of 2016, the same as in August, and in line with consensus. While output rose, new orders eased and employment fell marginally less than last month. At the same time, an increase was also seen in business expectations, import prices, buying activity and the purchase price of major raw materials. The Caixin Manufacturing PMI in China stood at 50.1 in September, up slightly from 50.0 in August and in line with market consensus. It was the third straight month of expansion as output and new orders went up marginally while new export orders stabilized. At the same time, job shedding eased and firms raised their purchasing activity for the third month in a row. The amount of outstanding business increased further, and inflationary pressures showed signs of picking up. The readings for the manufacturing PMI over the past three months seem to indicate that the economy has begun to stabilize. Non-Manufacturing PMI in China rose to 53.7 in September of 2016 from 53.5 in August. Business expectations increased markedly, and new orders rebounded, while new export orders fell further. The Caixin China **Services PMI** decreased to 52.0 in September from 52.1 in August.

Graph 3.26: Chinese PMIs



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3.27: Chinese industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

Chinese **GDP growth** expectation was kept unchanged this month at 6.5% in 2016 and 6.1% for 2017.

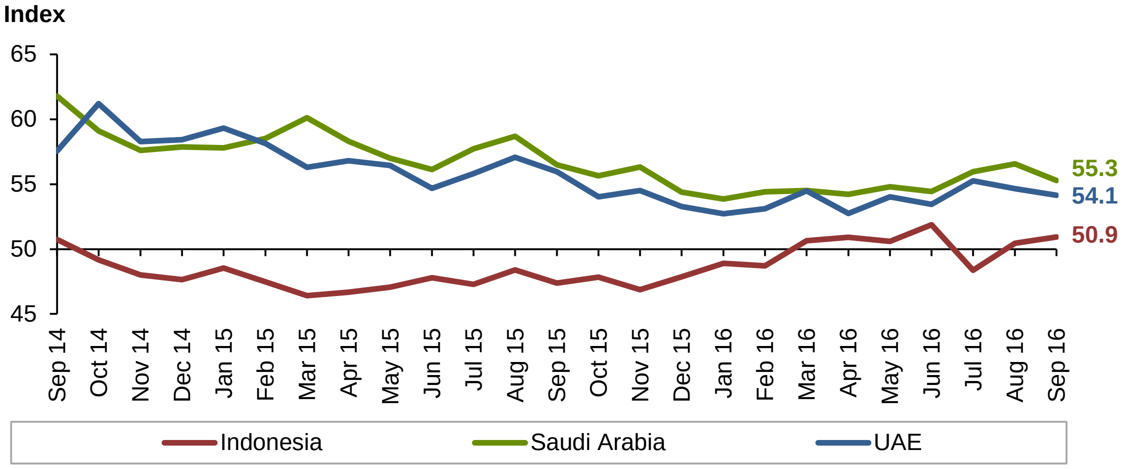
OPEC Member Countries

In **Saudi Arabia**, growth in the non-oil private sector continued in September, but at a slightly slower rate according to Emirates NBD. Saudi Arabia's PMI index registered 55.3 last month, down from 56.6 in August. Yet, the average PMI of 3Q16 is higher than that of 1H16, suggesting faster improvements in operating conditions. The survey showed a rapid rise in output versus slower growth in new orders received alongside a modest increase in employment.

For the second consecutive month, business conditions improved in **Indonesia**'s manufacturing sector due to the acceleration in production and new orders received. The manufacturing PMI posted 50.9 last month, up from 50.4 in August. The central bank lowered the benchmark interest rate to 5% last month, from 5.25%, citing ongoing macroeconomic stability as evidenced by low inflation, a controlled current account deficit and a relatively stable exchange rate.

Growth in the non-oil private sector of the **United Arab Emirates** continued last month, albeit at a slower pace. The country's PMI reading in September stood at 54.1, down from 54.7 in August. The survey noted a similar rate of growth in each of output and job creation in the months of September and August.

Graph 3.28: PMIs of Indonesia, Saudi Arabia and UAE



Sources: HSBC, Markit, Nikkei, SAAB, Stanbic IBTC Bank and Haver Analytics.

Other Asia

In the **Philippines**, the manufacturing sector expanded at the highest rate on record in September according to the Nikkei Philippines Manufacturing PMI. The index posted 57.5, up from 55.3 in the previous month on large improvements in production and new orders. GDP grew by nearly 7% y-o-y in 2Q16, its highest increase since 2Q13. The economy is supported by a high rate of growth in private consumption, which increased 7.3% y-o-y, signaling the highest growth rate since 1988. Government consumption and investment also supported higher growth, increasing by 13.5% and 27.6%, respectively. Inflation in the Philippines stood at 1.8% y-o-y in August, while the currency appreciated 0.8% m-o-m in August before depreciating 1.6% m-o-m in September.

In **Thailand**, inflation stood largely stable in September and August after posting a slightly negative reading in July. GDP expanded 3.5% y-o-y in 2Q16, up from 3.2% in the previous quarter. Growth in private consumption expenditure supported the economy vs. slower growth in government spending and GFCF in 2Q16. The baht exchange rate vs. the dollar was largely unchanged in September following the 1.0% appreciation a month earlier.

Africa

Inflation in **Egypt** registered 16.4% y-o-y in August, its highest in available data since December 2008. The country's total receipts from the Suez Canal declined 2% y-o-y in July. Net foreign direct investment in Egypt posted $2.8 billion in 1Q16, which is a level not seen since 2Q12. The value of imported goods decreased for the 12th consecutive month in July, while export values increased 3.4% y-o-y in the same month.

The economy of **South Africa** expanded by 1.4% y-o-y in 2Q16, following two consecutive quarters of decline. This improvement came on the back of somewhat better private consumption and increases in both net exports and business inventories. The country's private sector posted a notable improvement in September according to

Standard Bank South Africa's PMI, which increased to the expansion territory at 50.7 from August's 49.8. The survey showed that output increased last month for the first time since April 2015.

Latin America

The economy of **Argentina** posted a sharp decline in output, dropping by 3.4% y-o-y in 2Q16 for the first time since 4Q14. Private consumption fell by nearly 0.1% y-o-y in 2Q16 compared to the 1.6% increase in the previous quarter. Government consumption also dropped sharply by 2.0% y-o-y vs. 2.6% growth in 1Q16. The deceleration in GFCF continued at a higher pace in 2Q16, falling nearly 5% y-o-y, following the 3.3% decline in 1Q16. Exports fell by 1.9% y-o-y in 2Q16, down from the sharp increase of 12.8% in 1Q16, while imports increased less, by 8.7% vs. 12.6% in 1Q16. The peso depreciated 1.7% m-o-m in September.

In **Chile**, the central bank left its benchmark interest rate unchanged at 3.5% last month, while inflation eased to 3.4% in August, a 30-month low. The economy posted its slowest pace of growth in 2Q16 since 3Q14. GDP grew 1.5% y-o-y, down from 2.2% in the previous quarter.

Transition region

The GDP of **Czech Republic** grew by 3.6% y-o-y in 2Q16, higher than the first quarter's 2.7%. Exports of goods and services, which increased by only 5.0% in 1Q16, accelerated by more than 8% in 2Q16. Growth in household consumption slightly increased from 2.5% to 2.7%, while government expenditures also rose from 2.3% to 2.5%. However, investment declined by 2.9% in 2Q16 after growing 1.7% in the previous quarter.

Oil prices, US dollar and inflation

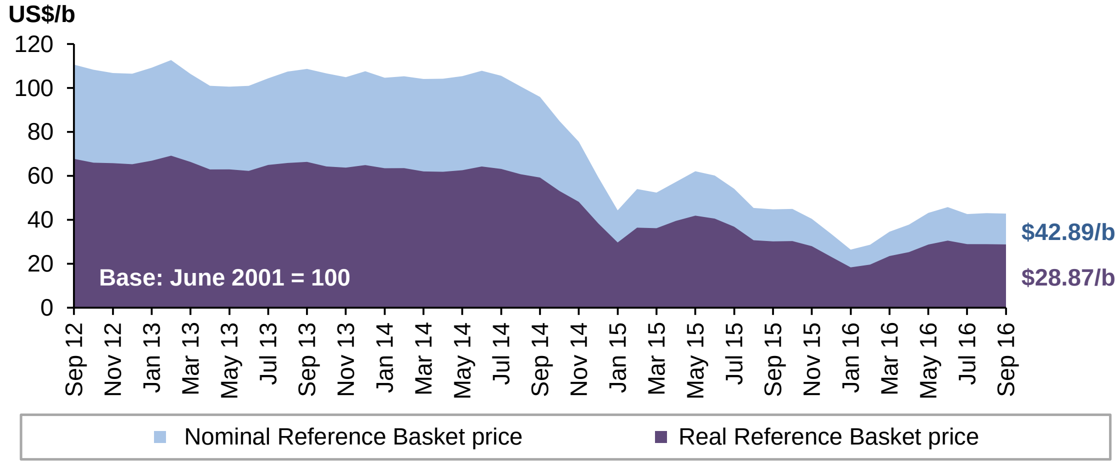
The **US dollar was relatively stable in September** against major currencies. On average, the dollar declined slightly by 0.2% against the pound sterling in September – its first monthly decrease since May – but has advanced against the pound by around 5% since the beginning of October after the announcement of the British PM regarding the start of exit negotiations from the EU by March 2017. Against the euro, the dollar declined marginally, while it advanced by 0.3% against the Swiss franc. Against the yen, the dollar advanced by 0.7%, its first advance since November 2015.

Compared to the Chinese yuan, the US dollar rose by 0.4% m-o-m on average in September. Against the Indian rupee, the US dollar declined by 0.3% m-o-m. Compared to the Brazilian real, it advanced by 1.5% m-o-m, breaking a 7-month decline. Against the Russian ruble, the US dollar fell by 0.6% m-o-m due to rising crude oil prices.

In September, the Fed kept interest rates unchanged. Nonetheless, it stated that "the case for an increase in the federal funds rate has strengthened" subject to further progress towards its policy objectives. Since then, market participants have increased their expectations for a rate hike in December, and the dollar has strengthened in response. As the Fed decision is data-dependent, factors such as the recent deceleration in the pace of job creation – if persistent − or the potential impact of a rate hike in emerging markets, could weigh on the decision of engaging in further tightening. Meanwhile, concerns about the impact of additional monetary stimulus appear to be weighing on the ECB, which kept its monetary policy unchanged, but is expected to remain accommodative. The BoJ overhauled its stimulus programme by adding a “yield control” commitment to keep bond yields around zero for 10-year maturities.

In nominal terms, the price of the ORB declined by 21¢, or 0.5%, from $43.10/b in August to $42.89/b in September. In real terms, after accounting for inflation and currency fluctuations, the ORB declined to $28.87/b from $28.98/b (base June 2001=100). Over the same period, the US dollar was flat against the import-weighted modified Geneva I + US dollar basket*, while inflation was also flat.

Graph 3.29: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price*



Source: OPEC Secretariat.

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

World Oil Demand

World oil demand growth in 2016 was adjusted marginally higher by 10 tb/d, to account for upward revisions in OECD Europe, Asia Pacific and Other Asia outpacing downward revisions in OECD America, Latin America and the Middle East. As a result, 2016 world oil demand growth currently stands at 1.24 mb/d, leading to total global consumption of 94.40 mb/d.

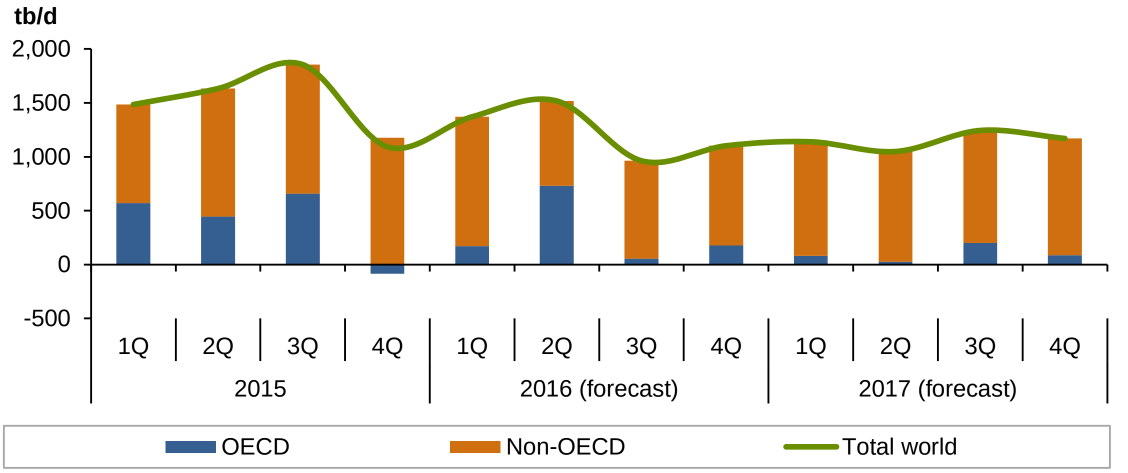
In 2017, world oil demand growth was kept relatively unchanged from last month's MOMR at 1.15 mb/d with total global consumption assumed at 95.56 mb/d.

Table 4.1: World oil demand in 2016, mb/d

							Change 2016/15	
	2015	1Q16	2Q16	3Q16	4Q16	2016	Growth	%
Americas	24.46	24.46	24.56	24.97	24.74	24.68	0.22	0.92
of which US	*19.70*	*19.79*	*19.86*	*20.12*	*19.91*	*19.92*	*0.22*	*1.11*
Europe	13.73	13.62	13.89	14.16	13.70	13.84	0.11	0.84
Asia Pacific	8.03	8.57	7.63	7.59	8.09	7.97	-0.06	-0.71
Total OECD	**46.21**	**46.65**	**46.08**	**46.72**	**46.53**	**46.50**	**0.28**	**0.61**
Other Asia	12.04	12.42	12.63	12.45	12.73	12.56	0.52	4.28
of which India	*4.05*	*4.51*	*4.25*	*4.17*	*4.44*	*4.34*	*0.29*	*7.23*
Latin America	6.56	6.19	6.49	6.79	6.47	6.49	-0.07	-1.11
Middle East	8.11	8.06	7.94	8.65	8.06	8.18	0.06	0.77
Africa	3.99	4.12	4.09	4.03	4.17	4.10	0.11	2.78
Total DCs	**30.71**	**30.80**	**31.15**	**31.92**	**31.42**	**31.33**	**0.62**	**2.01**
FSU	4.62	4.49	4.37	4.73	5.04	4.66	0.04	0.81
Other Europe	0.67	0.68	0.64	0.68	0.77	0.70	0.02	3.57
China	10.95	10.83	11.45	11.09	11.53	11.23	0.28	2.52
Total "Other regions"	**16.25**	**16.01**	**16.47**	**16.50**	**17.34**	**16.58**	**0.34**	**2.08**
Total world	**93.17**	**93.46**	**93.70**	**95.15**	**95.29**	**94.40**	**1.24**	**1.33**
Previous estimate	93.04	93.23	93.54	95.12	95.16	94.27	1.23	1.32
Revision	0.13	0.23	0.16	0.02	0.13	0.13	0.01	0.00

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

Graph 4.1: Quarterly world oil demand growth



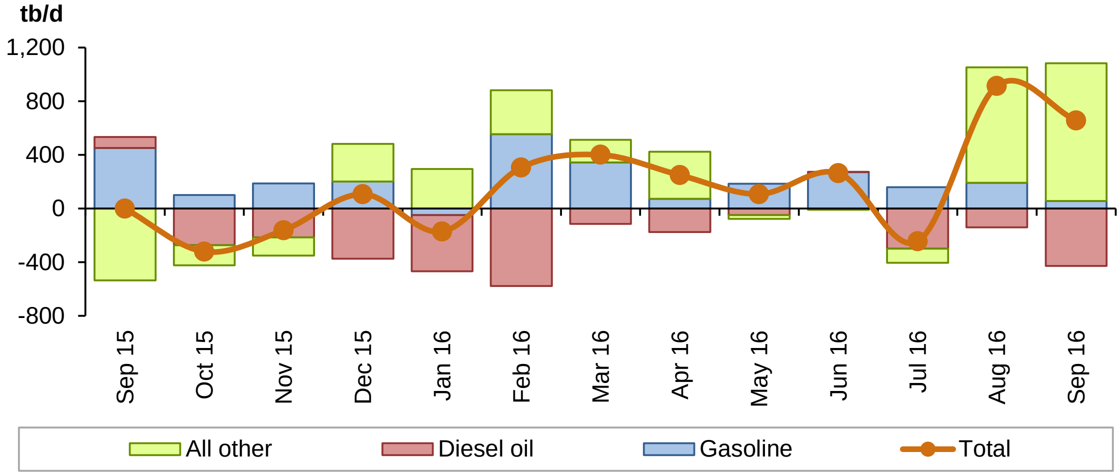
Source: OPEC Secretariat.

World Oil Demand for 2016 and 2017

OECD Americas

The latest **US** monthly data for July 2016 implied a decrease in oil demand by around 0.2 mb/d y-o-y, reversing the rising growth trend observed since the beginning of 2016. Motor gasoline requirements continued to grow by more than 0.1 mb/d, supported by the ongoing lower fuel oil price environment and positive economic growth. Jet/kerosene requirements in July 2016 registered a strong positive development as a result of increased traveling activities during the beginning of the customary holiday season. Gains were also seen in residual fuel oil, mainly due to fuel substitution with other commodities and the low historical consumption baseline, while distillate demand declined sharply y-o-y during the same month.

Graph 4.2: US oil consumption, y-o-y changes



Source: US Energy Information Administration.

With available data for the first three quarters in 2016 – consisting of monthly data until July and preliminary weekly data for August and September – US oil demand is shown to grow by around 0.2 mb/d. Gasoline is naturally the product category with the bulk of gains, while distillates remained deeply in decline compared with the same period of the previous year. Furthermore, residual fuel oil and jet/kerosene oil demand saw solid gains during the same period, y-o-y.

Table 4.2: US oil demand, tb/d

	Average January - September		Change 2016/15	
	2016	2015	tb/d	%
Propane/propylene	1,071	1,104	-32	-2.9
Gasoline	9,353	9,158	195	2.1
Diesel oil	3,783	4,023	-240	-6.0
Jet/kerosene	1,606	1,528	78	5.1
Fuel oil	367	246	121	49.1
Other products	1,071	1,104	-32	-2.9
US 50	**19,659**	**19,407**	**252**	**1.3**
US territories	**397**	**374**	**23**	**6.1**
Total	**20,055**	**19,780**	**275**	**1.4**

Source: US Energy Information Administration.

For the remainder of 2016 and in 2017, US oil demand is expected to be strongly determined by consumption of gasoline in the road transportation sector and hence, indirectly, by fuel price levels. Thus, the overall implied risk for the future development of US oil demand remains unchanged from last month. Upside potential lies in the projected growth of the economy and demand in the road transportation sector, while fuel substitution and vehicle efficiencies are the main downside risks.

Despite expanding **Mexican** manufacturing activity in August 2016 and strongly increasing gasoline demand, Mexican oil requirements declined by more than 4% y-o-y. Shrinking LPG and fuel oil demand accounted for the overwhelming share in losses and resulted largely from substitution with natural gas. The risks for 2016 and 2017 Mexican oil demand remained skewed to the downside and are connected to the development of the overall economy.

In **Canada**, oil demand increased y-o-y in July 2016. The demand for almost all main petroleum product categories registered gains, particularly gasoline, naphtha and LPG. The overall increase has been, however, partly offset by declining diesel demand. Canadian oil demand in 2017 is projected to remain roughly at the levels of 2016, seeing only marginal increases, with the risks being equally distributed to the up- and downside, and depending on the development of the country's economy.

In 2016, **OECD Americas oil demand** is expected to grow 0.22 mb/d compared with a year earlier to average 24.68 mb/d. 2017 OECD Americas oil demand is projected to increase by 0.20 mb/d compared with 2016.

OECD Europe

Following strong growth for the first two quarters of 2016, European oil demand switched to the negative for July 2016 and remained stagnant for August 2016, y-o-y, with the majority of the countries in the region being in the negative in both months.

Overall data for the first eight months of 2016 implied, nevertheless, increasing European oil demand by approximately 0.2 mb/d y-o-y. Diesel demand, notably for road transportation, naphtha, jet/kerosene and fuel oil requirements, were positive, while gasoline and LPG demand were flat, compared with the same period last year. Gains in road transportation fuels are in line with growth in auto sales, which showed solid increases of around 10% y-o-y in August 2016, expanding in all major auto markets.

European Big 4 oil demand was also in the negative y-o-y during both July and August 2016. With the exception of growing demand for gasoline, requirements for all other petroleum product categories were sluggish.

Table 4.3: Europe Big 4* oil demand, tb/d

	Aug 16	Aug 15	Change	Change, %
LPG	385	394	-9	-2.2
Naphtha	657	677	-20	-2.9
Gasoline	1,138	1,130	8	0.7
Jet/kerosene	825	825	0	0.0
Diesel oil	3,203	3,217	-15	-0.5
Fuel oil	240	260	-21	-7.9
Other products	566	586	-20	-3.5
Total	**7,014**	**7,090**	**-76**	**-1.1**

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

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

The general expectations for the region's oil demand growth during the remainder of 2016 are more conservative than those during the first half of the year, mainly due to the high historical baseline and the ongoing region's oil demand structure, such as high taxation polices in oil use and fuel substitution.

OECD Europe's oil demand is projected to grow by 0.11 mb/d in 2016, while 2017 oil demand will decline by 0.02 mb/d compared with 2016.

OECD Asia Pacific

Preliminary data implies that **Japanese** oil demand shrank by almost 0.2 mb/d in August 2016 y-o-y for another month in 2016 and following sharp declines in the first half of the year. The picture was less negative for gasoline, diesel oil, LPG and jet/kerosene demand with required volumes remaining stagnant y-o-y, while demand for all main petroleum product categories registered substantial losses compared with the same month in 2015; naphtha and fuel oil took the largest shares of decreases. Moreover, required volumes for direct burning of crude oil for electricity generation declined for another month y-o-y, despite warmer weather, compared with the historical norm, and as a result of fuel substitution with other primary energy commodities.

The outlook for Japanese oil demand in 2017 remained unchanged from last month's forecasts with the risks continuing to be skewed towards the downside, mainly due to weaker economic forecasts, increasing efficiencies in the road transportation sector, as well as fuel substitution. Projections for 2017 assume a firm likelihood that a number of nuclear plants will also re-join operations.

Table 4.4: Japanese domestic sales, tb/d

	Aug 16	Aug 15	Change	Change, %
LPG	400	396	4	1.0
Naphtha	742	772	-29	-3.8
Gasoline	1,032	1,033	-1	-0.1
Jet/kerosene	190	218	-28	-24.0
Diesel oil	573	567	6	1.0
Fuel oil	361	397	-37	-9.2
Other products	51	52	-1	-1.5
Direct crude burning	61	138	-77	-55.6
Total	**3,410**	**3,573.2**	**-163**	**-4.6**

Source: Ministry of Economy Trade and Industry of Japan.

The expectations for oil demand growth in the region originate mainly in **South Korea**, apart from smaller additional volumes for Australia and New Zealand. Latest available Korean data for July 2016 indicates a strong increase of 0.13 mb/d, compared with the same month last year, with demand for all main product categories being on the rise, particularly those used in the country's industrial sector – fuel oil, LPG, and naphtha. Furthermore, diesel and gasoline demand also marked increases during July 2016, y-o-y. The outlook for South Korean oil demand in 2016 and 2017 remained positive, in line with last month's projections.

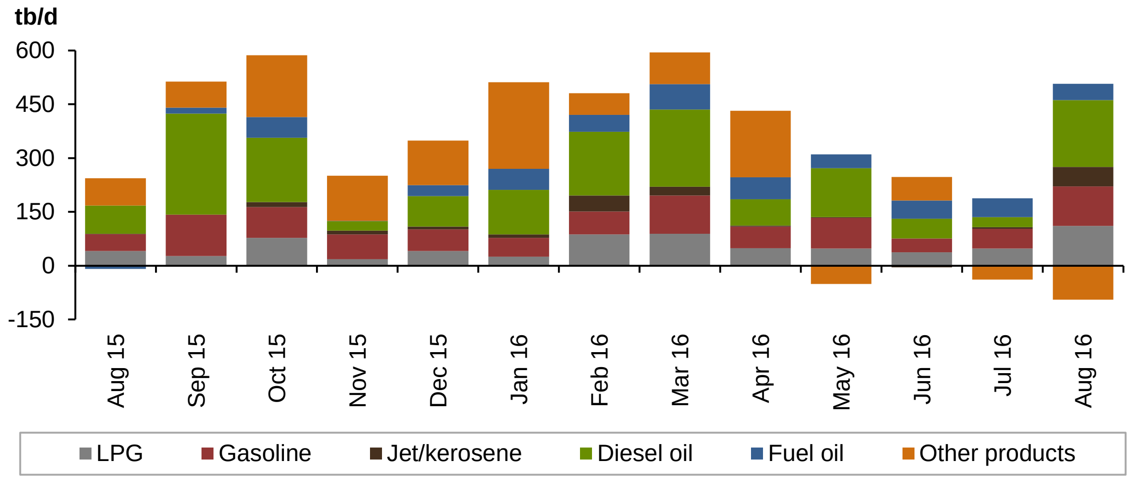
OECD Asia Pacific oil consumption is projected to fall by 0.06 mb/d in 2016, while the drop will also continue in 2017, at a slightly larger 0.08 mb/d.

Other Asia

During the month of August, oil demand growth in **India** recorded a significant rise of 0.41 mb/d, or 4%, y-o-y. The increased pace follows a noticeable slowdown in demand growth in July (0.15 mb/d y-o-y) from observed levels in 1Q16 of 0.53 mb/d. Demand for petroleum products increased at a double-digit pace with the exception of the "other product" category, which fell 5%. Growth was led by gasoline, LPG, jet/kerosene and fuel oil, which recorded a remarkable gain each of 20% y-o-y.

A number of factors contributed to the overall improvement in oil demand. The first was a general improvement in industrial activities, with the manufacturing PMI at a 13-month high of 52.6 in August, supporting gasoil demand. A second factor was total vehicle sales, which surged by a substantial 17% y-o-y in August, with a boost from two-wheeler sales gaining more than 26% y-o-y. Together, these supported motor fuel demand. Additionally, the Society of Indian Automobile Manufacturers (SIAM) had revised its vehicle sales projection for 2016 upward from 8% to forecasts of 12%. Finally, a strong monsoon season has had a positive impact on rural incomes in a country where farming and agriculture account for around 15%-17% of the country's GDP, increasing consumer spending and boosting demand for LPG and gasoline.

Graph 4.3: Changes in Indian oil demand, y-o-y



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

With the end of the monsoon season, demand should be supported by the projected uptick in economic activity this year. As a result, oil demand is estimated to grow by 0.29 m/d in 2016 before moderating next year to a still healthy increase of 0.16 mb/d. Hence, India will continue to provide important support to global oil demand growth in 2017.

Table 4.5: Indian oil demand by main products, tb/d

	Aug 16	Aug 15	Change	Change, %
LPG	668	556	111	20.0
Gasoline	605	495	110	22.2
Jet/kerosene	324	270	54	20.0
Diesel oil	1,614	1,427	187	13.1
Fuel oil	273	228	46	20.0
Other products	552	646	-94	-14.6
Total	**4,035**	**3,622**	**413**	**11.4**

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

In **Indonesia**, the latest July 2016 data shows flat oil demand growth y-o-y with mainly growing requirements for industrial fuels − diesel oil and fuel oil − which increased by 50 tb/d and 26 tb/d, respectively. In contrast, LPG and gasoline declined by around 13 tb/d and 100 tb/d, respectively. In **Thailand**, oil demand increased solidly in July 2016, showing a rise of around 38 tb/d, which equates to around 4% y-o-y, mainly driven by naphtha and transportation fuels. In **Taiwan**, LPG, naphtha and jet/kerosene saw solid increases during the month of July 2017 y-o-y, while diesel oil and fuel oil declined and gasoline remained broadly flat. Total consumption was also broadly unchanged, with a minor increase of around 0.6% y-o-y.

In 2016, the Other Asia region will continue to be the main driver for global oil demand growth, driven primarily by firm performances from India, Indonesia, Thailand and the Philippines. For 2017, oil demand assumptions are geared towards improving economic activities above the levels seen in 2016, while the effect of subsidy reductions is anticipated to be less than in the past years. In terms of products, the middle of the barrel is anticipated to lead growth, followed by transportation fuels.

Other Asia's oil demand is anticipated to grow by 0.52 mb/d y-o-y in 2016. As for 2017, oil demand is forecasted to increase by 0.37 mb/d.

Latin America

In **Brazil**, August's oil demand data was slightly encouraged by the summer Rio Olympic Games, however it remains in the negative. The magnitude of the decline has reduced from previous months, as oil demand contracted by 45 tb/d, or 1.7%, y-o-y compared with a year-to-date (y-t-d) decline of more than 0.11 mb/d y-o-y (comparing the periods from January to July of 2016 and 2015). Total oil demand stood at 2.39 mb/d in August.

All products declined during the month, with the exception of LPG and gasoline. Gasoline gained around 50 tb/d, or 7.5% y-o-y, as it remained more economical for end users than ethanol. Additional support was also received from increased numbers of Olympic Games visitors. However, passenger vehicle sales showed slower momentum in August with sales down by around 11% y-o-y, as the Olympic Games seemed to have affected the car market negatively. The y-t-d total showed an even sharper decline of around 23% y-o-y. On the other hand, ethanol consumption fell sharply, shedding off some 46 tb/d, or more than 14%, y-o-y, as drivers preferred to switch to cheaper gasoline than more expensive ethanol.

Diesel demand eased y-o-y, declining by around 26 tb/d, or 2.5%, y-o-y, largely as manufacturing and industrial activities remained subdued. The manufacturing PMI for August remained below the threshold of 50, at 45.7, also lower m-o-m, from July's PMI of 46.03. Jet/kerosene fell by around 9 tb/d, or 7.5%, y-o-y. Fuel oil demand declined the most, dipping by more than 30 tb/d, or 39%, y-o-y, mainly as demand in the industrial and power generation sectors eased in addition to the high base line of 2015.

The risks for 2016 oil demand in the region remained as highlighted in last month's report with major oil demand drivers expected to slow compared with a year earlier.

Additionally, in 2017, expectations of oil demand growth remain within the same levels as anticipated last month.

Table 4.6: Brazilian inland deliveries, tb/d

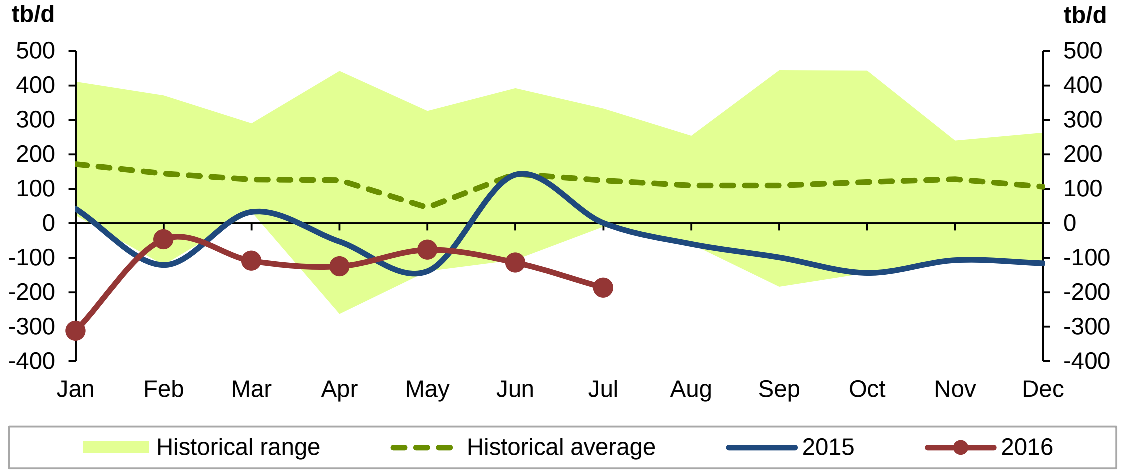
	Aug 16	Aug 15	Change	Change, %
LPG	250	235	15	6.5
Gasoline	719	668	50	7.5
Jet/kerosene	116	126	-9	-7.5
Diesel oil	992	1,018	-26	-2.5
Fuel oil	47	78	-30	-39.0
Alcohol	274	320	-46	-14.3
Total	**2,399**	**2,444**	**-45**	**-1.9**

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

In **Argentina**, oil demand dropped by around 16 tb/d y-o-y during the month of July. All products recorded flat-to-declining data, with the exception of jet/kerosene and fuel oil, which grew by around 2.6% and 11.6%, y-o-y, respectively.

The latest data from **Ecuador** for August 2016 also indicated lower oil demand compared with August 2015, dropping by around 28 tb/d, or 11.3%, as declines in fuel oil, naphtha and jet/kerosene led to total oil demand shrinkage.

Graph 4.4: Oil demand growth in Latin America, y-o-y



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

In 2017, projections for oil demand growth in Latin America are in line with last month's expectations. Slightly better assumptions for economic activities compared with 2016 will lend support to oil demand projections going forward. Brazil is projected to be the main contributor to growth with transportation fuels leading the increases.

Latin American oil demand is expected to decline in 2016 by 73 tb/d, while in 2017, it is forecast to increase by 70 tb/d.

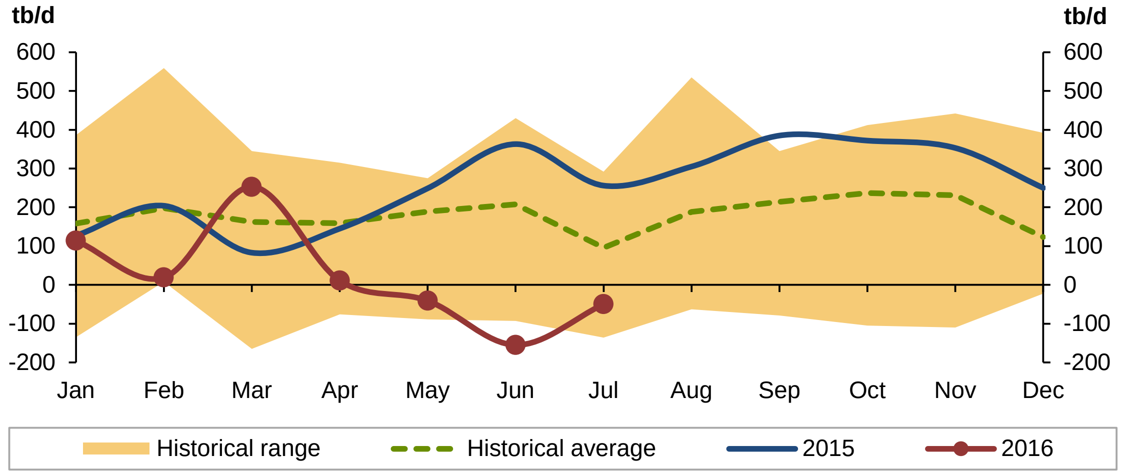
Middle East

Oil demand growth in **Saudi Arabia** registered positive growth in August after four consecutive months of declines and only for the third time in 2016. Oil demand growth increased by around 64 tb/d, or 2.2%, y-o-y to stand at 2.93 mb/d. All products had positive growth, with the exception of direct crude burning and diesel oil, which shrank by around 12.8% and 1.9% y-o-y, respectively. In contrast, jet/kerosene, fuel oil and LPG increased by 33.0%, 35.5% and 22.9% y-o-y, respectively. Growth in the transportation sector was supported by the summer holidays, especially in the aviation sector. Demand growth for fuel oil increased by 0.16 mb/d y-o-y, leading to total consumption of 0.62 mb/d on the back of additional summer power generation requirements, which tend to peak in the month of August.

Conversely, the decline in demand for crude for the purpose of direct burning by 0.11 mb/d is primarily a result of the high level of substitution with gas as indicated in the previous month's report. The commencement of the Wasit gas plant back in March 2016 has resulted in increasing amounts of crude oil being replaced by natural gas. Crude demand for the purpose of burning tends to peak in August and has exceeded the 0.75 mb/d level in the past five years. The highest reading was recorded in 2015 at around 0.85 mb/d, while in August 2016, it recorded a level of 0.74 mb/d.

Oil demand in **Iraq** decreased for the second consecutive month, marking the fourth monthly decline in 2016. Total demand shrunk by 12 tb/d y-o-y in August, equating to around 1.6%, y-o-y. Total oil demand, in absolute terms, is now around 0.74 mb/d. Fuel oil used for power generation registered positive readings of around 21 tb/d, or around 11.8%, y-o-y as demand for power generation tends to peak during the summer.

Graph 4.5: Oil demand growth in the Middle East, y-o-y



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

For 2017, oil demand growth is anticipated to be at the same levels as highlighted in previous month's report as economic activities gain further momentum. Demand is foreseen to be led by Saudi Arabia with transportation fuels, petrochemical feedstocks as well as crude oil for direct use projected to contribute to product growth. In contrast, geopolitical concerns are expected to have a negative impact on oil consumption in certain regions.

For 2016, **Middle East oil demand** is expected to grow by 63 tb/d and projected to increase by 0.18 mb/d in 2017.

China

Chinese oil consumption recorded positive growth in August 2016, adding some 0.27 mb/d y-o-y, to stand at 11.14 mb/d, led by large rises in LPG and gasoline.

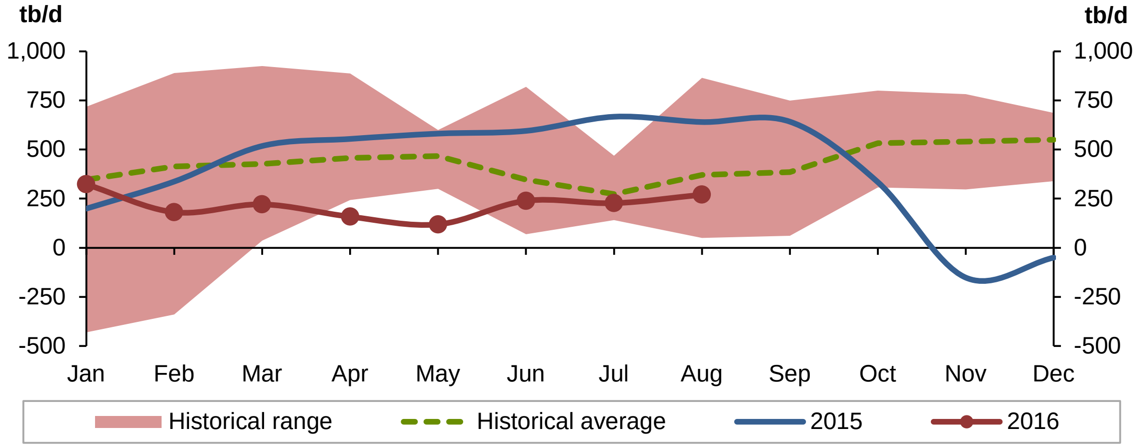
LPG demand rose by around 0.26 mb/d y-o-y, which equates to a solid 20.1% increase y-o-y with total consumption reaching 1.52 mb/d. Healthy demand growth for LPG is anticipated to continue until the end of the year despite a possible slowdown in September due to a ban on industrial activities during the G20 Summit in Hangzhou.

The planned commissioning of a 0.7 mt/y propane dehydrogenation plant (PDH) by Oriental Energy will provide extra supply of LPG in 4Q16.

Gasoline demand was higher by around 0.14 mb/d, which equates to around 5%, y-o-y, once more, motivated by robust sport utility vehicle (SUV) sales and warm weather conditions. Vehicle sales rose during the month of August, adding around 26% y-o-y as customers benefited from tax breaks. SUVs also rose substantially, adding around 44% compared with August 2015.

Jet/kerosene demand rose by 25 tb/d, or by around 4.0%, y-o-y, continuing its solid performance in 2016 as domestic air traffic edged up by 10.2% y-o-y in July, with a similar trend anticipated in August. Diesel oil demand remained in the negative during August, shedding off more than 0.1 mb/d, or 3.0%, mainly as a result of the limitation in construction and industrial activities ahead of the G20 Summit. Fuel oil dipped by 50 tb/d, or by around 10.0%, from August 2015 levels, largely due to the switch out of fuel oil to crude oil as feedstock for teapot refiners.

Graph 4.6: Changes in Chinese apparent oil demand, y-o-y changes



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

The overall 2016 oil demand projections for China remain at the scale projected in previous months with assumptions being focused on a healthy petrochemical industry coupled with support from solid gasoline demand. For 2017, projections for oil demand development are unchanged from last month's outlook. The projections will continue to be based on firm support from transportation and industrial fuels, lower GDP growth compared with the current year, a continuation of the fuel quality programs targeting fewer emissions and a continuation of fuel substitution with natural gas and coal.

For 2016, **China's oil demand** is anticipated to grow by around 0.28 mb/d. Growth is forecast at around 0.27 mb/d for 2017.

Table 4.7: World oil demand in 2017, mb/d

							Change 2017/16	
	2016	**1Q17**	**2Q17**	**3Q17**	**4Q17**	**2017**	**Growth**	**%**
Americas	24.68	24.67	24.72	25.22	24.91	24.88	0.20	0.80
of which US	*19.92*	*19.93*	*19.96*	*20.34*	*20.06*	*20.07*	*0.15*	*0.75*
Europe	13.84	13.57	13.85	14.16	13.70	13.82	-0.02	-0.15
Asia Pacific	7.97	8.49	7.54	7.55	8.01	7.89	-0.08	-0.97
Total OECD	**46.50**	**46.73**	**46.11**	**46.92**	**46.62**	**46.59**	**0.10**	**0.21**
Other Asia	12.56	12.75	13.02	12.83	13.10	12.93	0.37	2.92
of which India	*4.34*	*4.66*	*4.40*	*4.37*	*4.57*	*4.50*	*0.16*	*3.62*
Latin America	6.49	6.28	6.53	6.84	6.56	6.55	0.07	1.06
Middle East	8.18	8.25	8.12	8.80	8.24	8.36	0.18	2.18
Africa	4.10	4.23	4.19	4.14	4.29	4.21	0.11	2.63
Total DCs	**31.33**	**31.51**	**31.87**	**32.61**	**32.19**	**32.05**	**0.72**	**2.31**
FSU	4.66	4.55	4.41	4.78	5.09	4.71	0.05	1.08
Other Europe	0.70	0.70	0.65	0.69	0.79	0.71	0.01	1.71
China	11.23	11.11	11.71	11.38	11.77	11.49	0.27	2.38
Total "Other regions"	**16.58**	**16.36**	**16.78**	**16.85**	**17.65**	**16.91**	**0.33**	**1.99**
Total world	**94.40**	**94.60**	**94.75**	**96.39**	**96.46**	**95.56**	**1.15**	**1.22**
Previous estimate	94.27	94.37	94.59	96.37	96.33	95.42	1.15	1.22
Revision	0.13	0.23	0.16	0.02	0.13	0.13	0.00	0.00

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

World Oil Supply

World liquids supply in September 2016 increased by 1.46 mb/d m-o-m to average 96.4 mb/d, and grew by 0.95 mb/d compared to a year ago. The share of OPEC in the monthly increase was only 15%, while non-OPEC producers, including OPEC NGLs, added 1.24 mb/d. This was due to some non-OPEC supply outages in 2Q16 coming back on stream, such as oil sands production that was shut down due to wildfires in Canada, a lower decline in the US following a rise in rig counts and well completion and the end of seasonal maintenance.

Non-OPEC oil supply in 2016 is estimated to see a contraction of 0.68 mb/d, a downward revision of 70 tb/d, to now average 56.30 mb/d. This was due to the downward adjustment of 135 tb/d in 2Q16, mainly in Canada, Russia and the US, as well as an upward revision of 60 tb/d to the 2015 baseline, mainly coming from the US. In contrast, non-OPEC oil supply growth in 2017 was revised up by 40 tb/d to average 0.24 mb/d y-o-y from the previous assessment, to settle at an average of 56.54 mb/d, mainly due to new projects coming on stream in Russia.

OPEC NGL production in 2016 and 2017 is forecast to grow by 0.16 mb/d and 0.15 mb/d, respectively, to average 6.29 mb/d and 6.43 mb/d. In September 2016, OPEC production increased by 0.22 mb/d to average 33.39 mb/d, according to secondary sources.

Table 5.1: Non-OPEC oil supply in 2016, mb/d

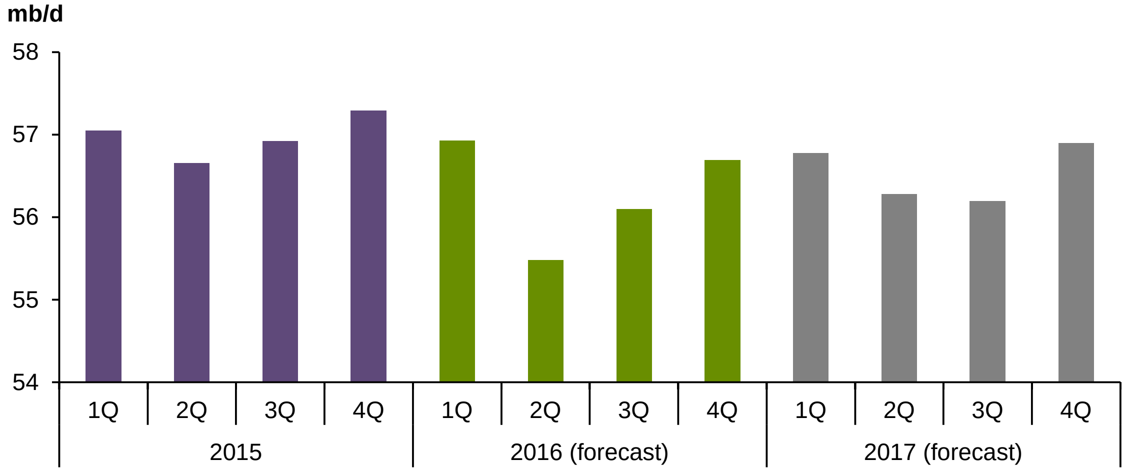
							Change 2016/15	
	2015	1Q16	2Q16	3Q16	4Q16	2016	Growth	%
Americas	21.07	21.00	20.08	20.50	20.46	20.51	-0.56	-2.64
of which US	*14.04*	*13.81*	*13.68*	*13.53*	*13.48*	*13.62*	*-0.42*	*-2.97*
Europe	3.76	3.90	3.74	3.78	3.89	3.83	0.07	1.81
Asia Pacific	0.46	0.44	0.42	0.45	0.46	0.44	-0.02	-4.48
Total OECD	**25.29**	**25.33**	**24.23**	**24.73**	**24.81**	**24.78**	**-0.51**	**-2.01**
Other Asia	2.72	2.76	2.68	2.71	2.76	2.73	0.01	0.27
Latin America	5.19	4.98	5.06	5.18	5.27	5.12	-0.07	-1.27
Middle East	1.27	1.27	1.28	1.30	1.28	1.28	0.01	0.70
Africa	2.13	2.10	2.07	2.14	2.16	2.12	-0.01	-0.57
Total DCs	**11.31**	**11.10**	**11.09**	**11.33**	**11.47**	**11.25**	**-0.06**	**-0.54**
FSU	13.69	13.95	13.73	13.68	13.98	13.84	0.14	1.05
of which Russia	*10.85*	*11.07*	*10.98*	*11.00*	*11.08*	*11.04*	*0.19*	*1.74*
Other Europe	0.14	0.13	0.13	0.13	0.15	0.14	0.00	-0.76
China	4.38	4.22	4.11	4.03	4.10	4.12	-0.27	-6.07
Total "Other regions"	**18.21**	**18.31**	**17.97**	**17.85**	**18.23**	**18.09**	**-0.12**	**-0.68**
Total non-OPEC production	**54.81**	**54.74**	**53.29**	**53.92**	**54.51**	**54.12**	**-0.69**	**-1.27**
Processing gains	2.17	2.19	2.19	2.19	2.19	2.19	0.01	0.60
Total non-OPEC supply	**56.98**	**56.93**	**55.48**	**56.10**	**56.69**	**56.30**	**-0.68**	**-1.19**
Previous estimate	56.92	56.94	55.61	56.13	56.57	56.32	-0.61	-1.07
Revision	0.06	-0.01	-0.14	-0.03	0.12	-0.01	-0.07	-0.13

Non-OPEC supply

Non-OPEC oil supply in 2016 is now expected to contract by 0.68 mb/d, following a downward revision of around 70 tb/d from the September *MOMR* to average 56.30 mb/d. This was mainly due to the revision in the base line, driven by the upward revision to US supply in 2015. Downward revisions during 2Q16 by 135 tb/d were due to lower-than-expected oil production from the US, Canada, UK, Argentina, Turkmenistan, Russia, and Congo. Moreover, a preliminary downward revision by 31 tb/d was also adjusted with actual production data in 3Q16 coming from Canada, Mexico, the UK Brunei, Argentina, Colombia, Congo, Kazakhstan, Turkmenistan and China, which was partially offset by upward revisions for Other OECD Europe, Australia, India, Brazil, Africa other, Russia and Azerbaijan. Finally, all of the downward revisions were partially offset by a positive revision of 121 tb/d in 4Q16, mainly due to the upgraded Russian oil production forecast.

Overall preliminary indications by the end of 3Q16 show that non-OPEC supply declined by 0.71 mb/d compared to the same period a year earlier.

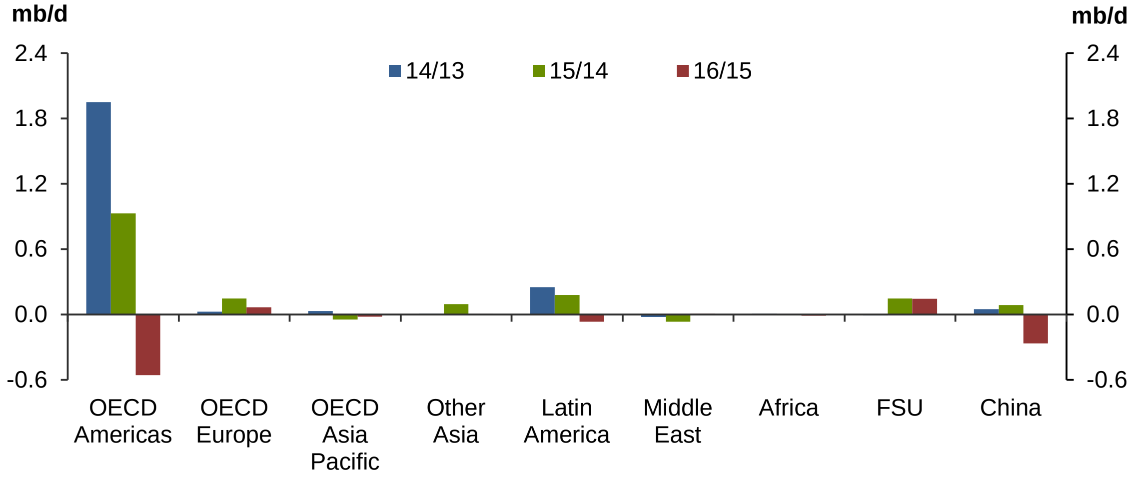
Graph 5.1: Non-OPEC quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

On a regional basis, OECD Americas, following growth of 0.98 mb/d in 2015 y-o-y, is expected to see a contraction in supply of 0.56 mb/d in 2016 y-o-y due to the strong impact of low oil prices on US tight oil production as well as Canadian conventional crude, although the unexpected event of the wildfires in Alberta, a heavy decline rate in mature fields and lack of investment in Mexico, have also affected oil output in this region, and to a lesser degree, in Latin America. Furthermore, Latin America's supply was mostly impacted by fewer projects in Brazil and sabotage in Colombia. China was also impacted by fewer implemented projects, but only in 2016, while in other regions, supply was affected by different factors, which are only partially relevant to low oil prices. Surprisingly, despite the low oil price environment, oil production in some countries – Russia, Norway and the UK − has increased so far.

Graph 5.2: Regional non-OPEC supply growth, y-o-y

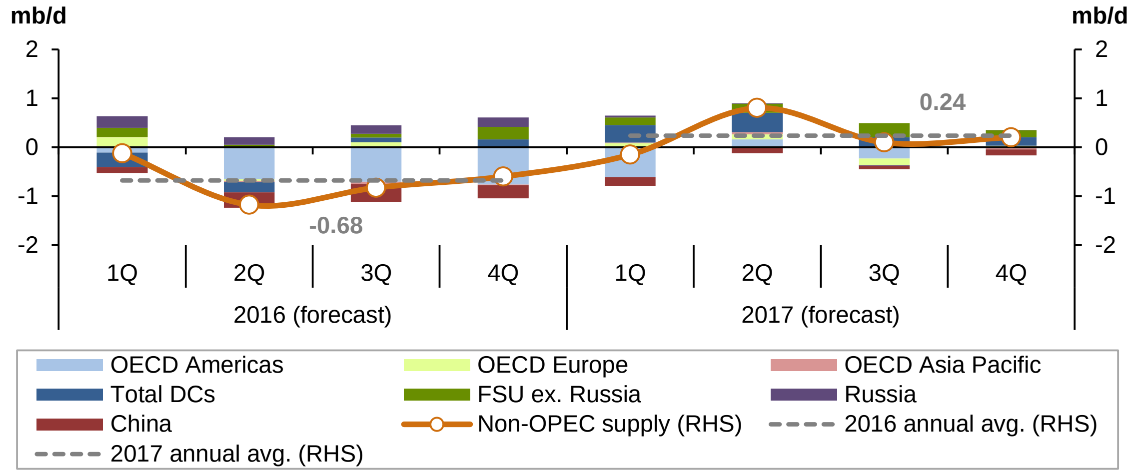


Source: OPEC Secretariat.

Non-OPEC supply, following two consecutive months of q-o-q declines by 0.36 mb/d and 1.45 mb/d in 1Q16 and 2Q16, respectively, is expected to grow by 0.62 mb/d in 3Q16, q-o-q, mainly due to production recovery in Alberta. The forecast for 4Q16 shows another quarterly increase of 0.59 mb/d to average 56.69 mb/d, mainly due to new projects unexpectedly coming onstream in the FSU, the end of seasonal maintenance and traditionally higher seasonal production, for instance, in Canada. Nevertheless, non-OPEC supply in 2H16 is expected to be only 200 tb/d higher than 1H16, while in a typical supply pattern (for example as per historical data in 2013 or 2014), the second half was much higher than the first half of the year.

Non-OPEC supply, after the latest revisions this month, is forecast to continue to increase into 1Q17 at 56.78 mb/d and then decrease in 2Q17 to 56.28 mb/d. Higher output is expected in 4Q17 than in 1Q17.

Graph 5.3: Non-OPEC quarterly supply change, 2016-2017, y-o-y change



Source: OPEC Secretariat.

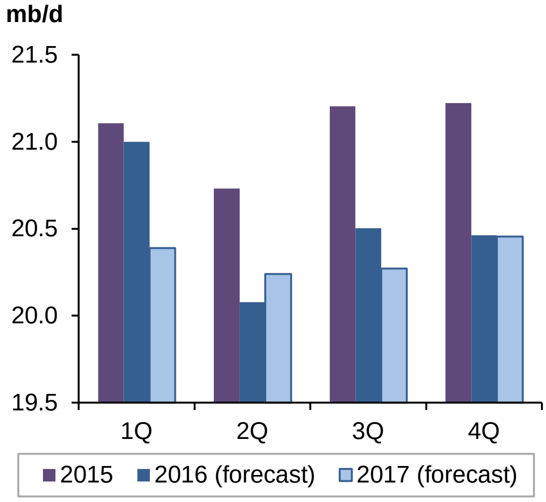
OECD

Total **OECD liquids production** in 2016 is expected to contract by 0.51 mb/d to average 24.78 mb/d, revised down by 110 tb/d from the last *MOMR,* mostly due to the revision in the baseline, driven by the upward revision of 69 tb/d in the US. The production data and output forecast for the OECD countries in 2Q, 3Q, and 4Q16 was revised down mostly in Canada. Y-o-y contraction in 2016 is expected to come from OECD Americas by 0.56 mb/d and OECD Asia Pacific by 0.02 mb/d, while OECD Europe will grow by 0.07 mb/d.

OECD Americas

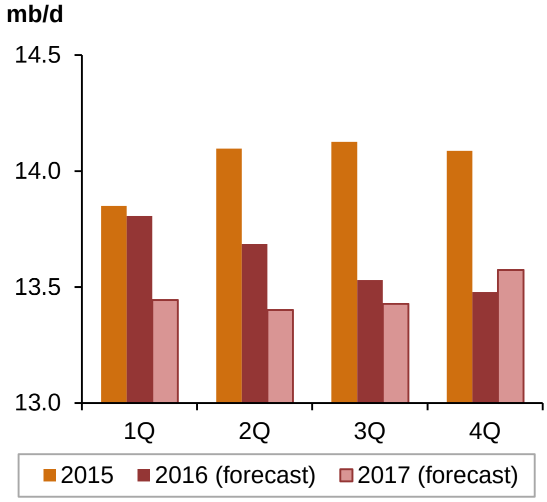
OECD Americas' oil supply is estimated to average 20.51 mb/d, showing a contraction of 0.56 mb/d y-o-y and representing a downward revision of 120 tb/d from the last monthly report. This was mainly due to the revision in the baseline and lower-than-expected output in Canada in 2Q16 and 3Q16. Liquids supply in the US, Canada and Mexico is expected to decline by 0.42 mb/d, 0.02 mb/d and 0.12 mb/d in 2016.

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.

US

US total oil production is anticipated to decline by 0.42 mb/d to average 13.62 mb/d in 2016, representing a downward revision of 70 tb/d from the last monthly report. This downward revision was only due to the revision in the base line. The US liquids supply fell by 30 tb/d m-o-m to 13.56 mb/d in July, much less than the decline of 177 tb/d in June. US total crude oil production decreased by only 20 tb/d to 8.68 mb/d in July. Crude oil output in Texas declined by 11 tb/d to average 3.16 mb/d, while oil production in the Gulf of Mexico (GOM) increased by 16 tb/d to average 1.56 mb/d. In Alaska, crude output declined by 32 tb/d to 0.44 mb/d, but production in North Dakota was steady at around 1 mb/d in July.

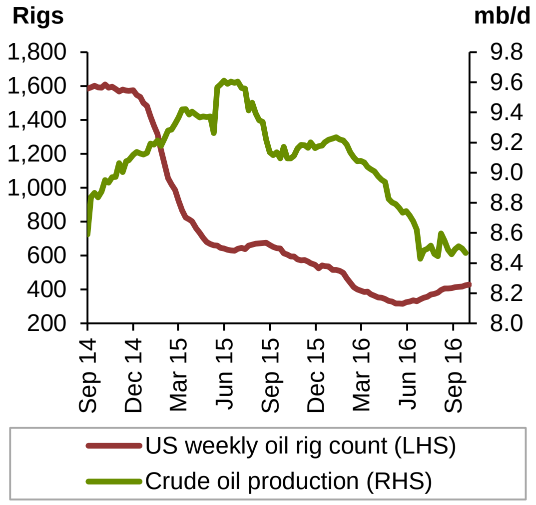
In Texas, total oil production from the Permian basin showed a decline of 8 tb/d m-o-m to average 1.97 mb/d in July 2016. The number of active rigs increased by 17 rigs to 162 rigs, and the production per rig reached 529 barrels per rig in July, according to the EIA's Drilling Productivity Report (DPR). Oil output in the Eagle Ford during the same month declined by 65 tb/d m-o-m to average 1.14 mb/d, despite an increase of three rigs to reach a total of 36 rigs in July. Production efficiency at Eagle Ford saw monthly growth of 18 barrels to average 1,118 barrels per rig per day (the highest efficiency growth rate in US regional production). The rate in the Bakken region reached 832 barrels per rig per day, while crude oil output declined by 21 tb/d to 1.01 mb/d in July, despite the rig count increasing by three to reach a total of 27 rigs.

Total quarterly US liquids production in 2016 remained unchanged at 13.81 mb/d, 13.68 mb/d, 13.53 mb/d and 13.48 mb/d in 1Q to 4Q, respectively.

US oil rig count

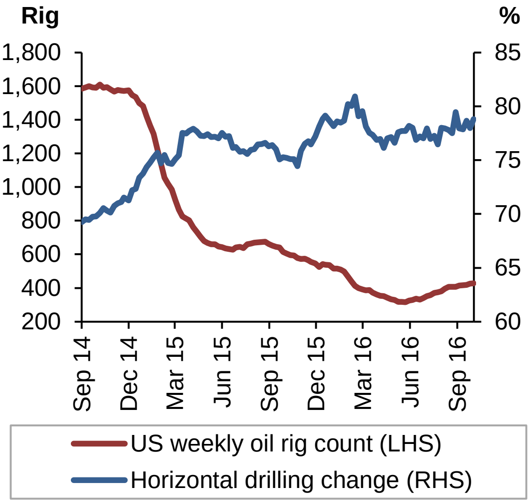
The **total US rig count** for the week ending 7 October 2016 added two units w-o-w to reach a total of 524. Y-o-y, the total rig count in the US indicated a drop of 271 rigs. At the same time, the **US oil rig count** added three rigs w-o-w, reaching 428 rigs, while gas rigs declined by two rigs w-o-w, reaching 94, according to Baker Hughes' latest survey.

Graph 5.6: US weekly oil rig count vs. Crude oil production



Sources: Baker Hughes and EIA.

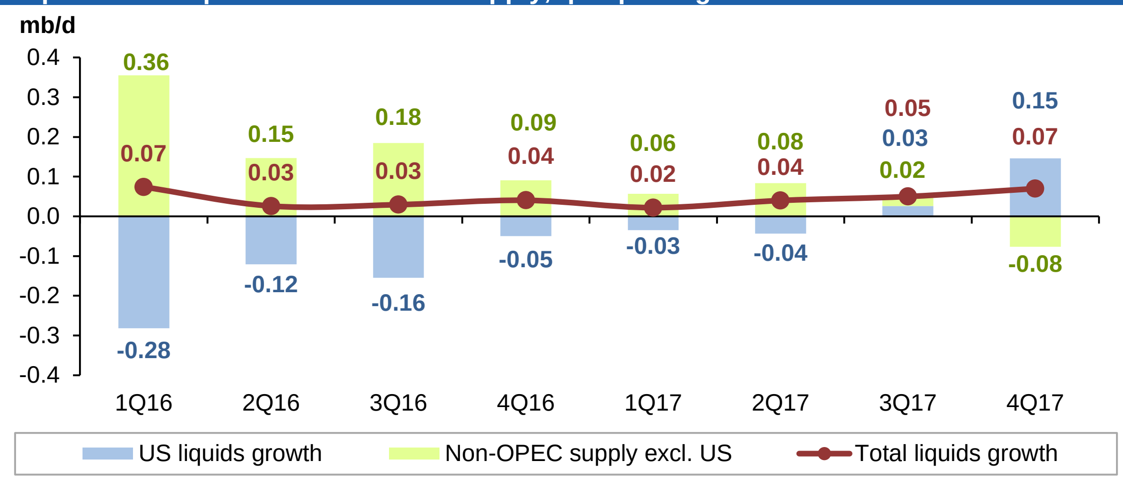
Graph 5.7: US weekly oil right count vs. Horizontal drilling change



Source: Baker Hughes.

Since 27 May 2016, when the number of oil rigs reached the minimum of 316 rigs, 112 rigs have been added, an increase of 35%, so far. It seems that by adding these rigs, the pace of US onshore crude oil production declines will slow down, as was seen in July with supply declining by only 20 tb/d.

Graph 5.8: US liquids vs. non-OPEC supply, q-o-q change

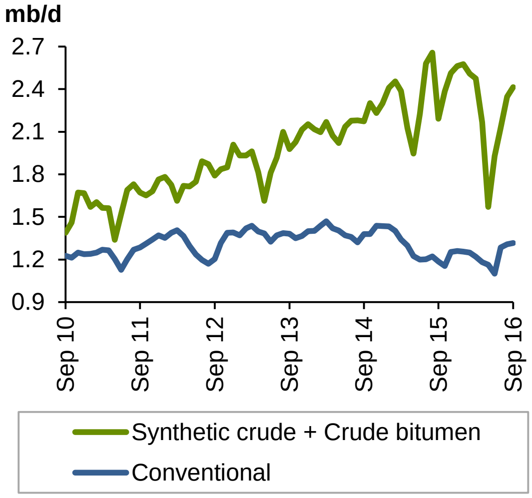


Source: OPEC Secretariat.

Canada and Mexico

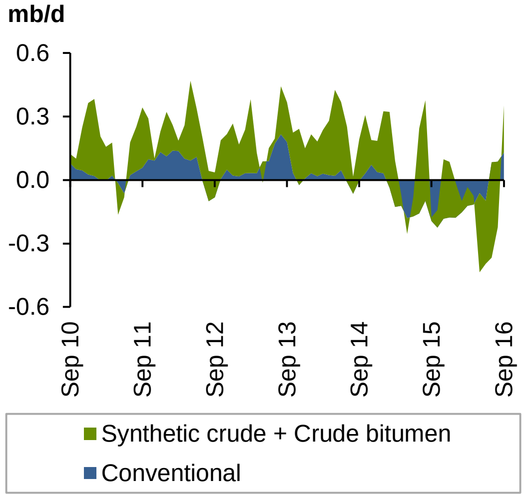
Oil supply in **Canada** is expected to decline by 20 tb/d in 2016 to average 4.40 mb/d y-o-y, revised down by 20 tb/d from the previous month. Preliminary estimates place June Canadian oil output at 3.89 mb/d, 300 tb/d higher than May output but 250 tb/d lower than initially estimated. Therefore, the 2Q estimate was revised down by 77 tb/d to 3.90 mb/d.

Graph 5.9: Canada production by crude type



Source: OPEC Secretariat.

Graph 5.10: Canada production by crude type, y-o-y change

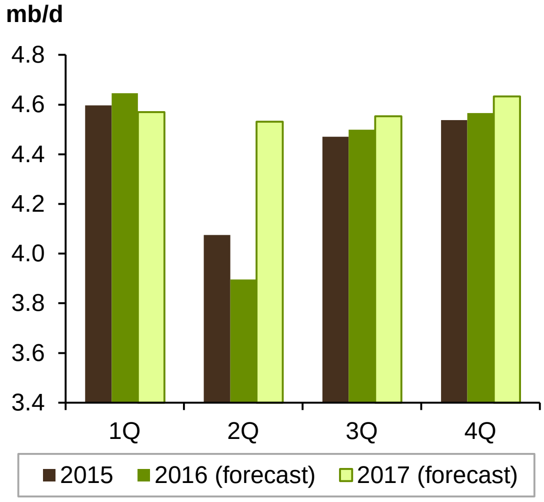


Source: OPEC Secretariat.

This indicates that Canadian oil output decreased by 0.75 mb/d in 2Q16 compared to 1Q16 due to the wild fires at Fort MacMurray in May 2016. In June, output of oil sands (bitumen and synthetic crude) increased by 0.36 mb/d to settle at 1.96 mb/d, while conventional oil declined by 62 tb/d to 1.10 mb/d. Production of NGLs declined by 20 tb/d to average 0.83 mb/d in 2Q16. Oil sands output is expected to increase by 0.41 mb/d to average 2.33 mb/d in 3Q16 over 2Q as the upgraders returned to work and the total liquids production will reach 4.50 mb/d. By adding the upgraders, the higher synthetic crude output is expected to be online in the coming months, but there is still a gap of about 300 tb/d to reach last year’s level of 0.95 mb/d.

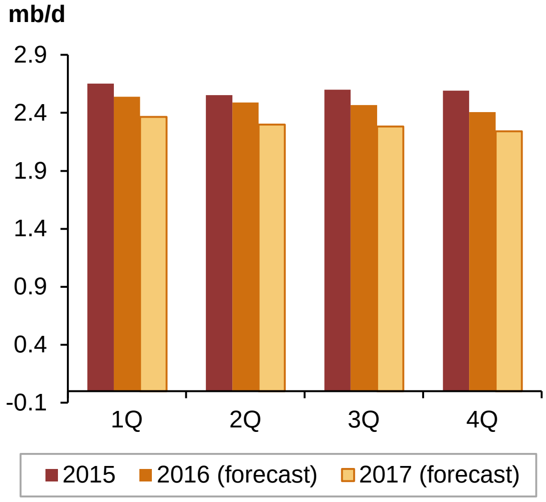
Canada’s overall rig count for the week ending 7 October 2016 added three units w-o-w to reach a total of 165. Y-o-y, the rig count in Canada indicated a decline of 15 rigs. The number of active rigs in Alberta, the main state for production of oil sands, after decreasing to the minimum of 26 rigs at the beginning of the wildfires in Fort MacMurray last May, reached an average of 112 rigs.

Graph 5.11: Canada quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5.12: Mexico quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Mexican liquids production in 2016 is expected to decline by 0.12 mb/d to average 2.48 mb/d following the heavy annual decline of 0.20 mb/d in 2015. Oil output in 3Q16 is expected to decline by 20 tb/d to average 2.47 mb/d, q-o-q. Therefore, the expected growth in annual terms was revised down by 10 tb/d. Crude outputs declined by 13 tb/d to average 2.14 mb/d in August.

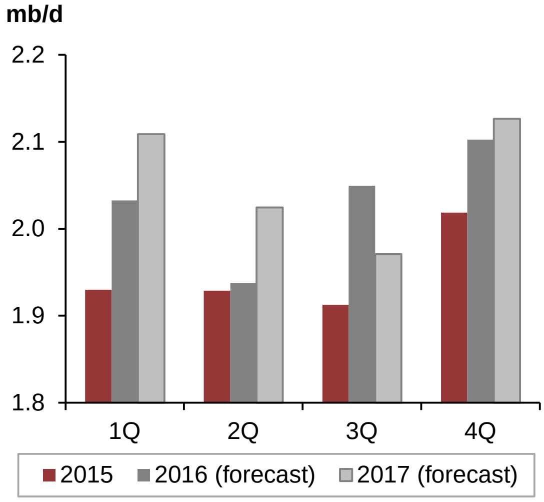
OECD Europe

Total **OECD Europe** oil supply, which grew by 0.15 mb/d to average 3.76 mb/d in 2015, is expected to grow this year at a slower pace, increasing by 70 tb/d due to the weak performances of oil production in other countries of the region, except Norway and the UK.

Norway's oil supply is expected to grow by 80 tb/d from the previous year to average 2.03 mb/d in 2016, unchanged from the previous *MOMR*. Preliminary production figures for August 2016 show an average production of 1.93 mb/d of oil, NGLs and condensate, which is 0.20 mb/d, or 9.5%, less than in July 2016.

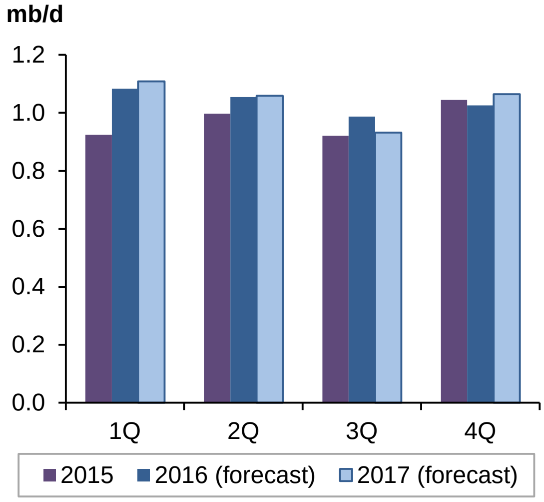
A report from the Norwegian Petroleum Directorate (NPD) showed that daily liquid production in August averaged 1.56 mb/d of oil, from 1.73 mb/d in the previous month, representing 0.34 mb/d of NGLs and 33 tb/d of condensate. Crude oil production in August was lower by 10% from a month earlier. This was due to production at the Kårstø oil field going offline for maintenance and production at the Goliat oil field being stopped at the end of the month following gas detection in an unexpected area during a planned venting of gas as part of a maintenance operation. Nevertheless, production has resumed at the Goliat field in the Barents Sea following a month-long shutdown. Despite the oil output decline in August, the y-t-d liquids production is still higher by 70 tb/d compared to the same period a year earlier. Therefore, annual growth is forecast at 80 tb/d, which is in line with actual growth so far.

Graph 5.13: Norway quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5.14: UK quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

The **UK**'s oil supply, despite higher maintenance this year, is anticipated to grow by 70 tb/d y-o-y to average 1.04 mb/d, with the ramp-up of new fields since 4Q15 offsetting steep underlying declines, although the growth has been revised down by 10 tb/d from the previous *MOMR* due to weak output in 3Q16. Two consecutive years into the reality of low oil prices, the UK's efforts to maintain competitiveness are bearing fruit as last year saw UK oil output jump for the first time in 15 years, increasing by 11.5% to 0.97 mb/d. UK liquids production in July 2016 was higher by 40 tb/d to average 1.05 mb/d, but lower output was seen in August, at 0.92 mb/d, indicating that some maintenance in various locations, such as at the oil fields in the J area, and at the Harding and Nelson fields, led to oil supply going partially offline in August. Moreover, production outages at the 0.18 mb/d Buzzard field during mid-September resulted in weaker production being forecast for 3Q16.

OECD Asia Pacific

OECD Asia Pacific's oil supply is expected to decline by 20 tb/d in 2016 to average 0.44 mb/d, revised up by 20 tb/d from the previous *MOMR*. Australia's oil supply, despite strong output in 3Q16 and an upward revision of 30 tb/d, which is carried over to 4Q16, is likely to decline by 20 tb/d, to average 0.36 mb/d this year.

Oil production in Other Asia Pacific (mainly New Zealand) during recent years has been stagnant. Therefore, average production of 0.08 mb/d is expected for 2016.

Developing Countries

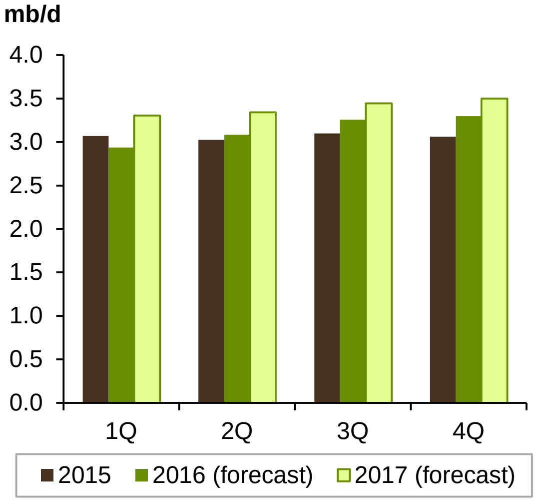
Total oil production from **developing countries (DCs) was** revised up this month by 20 tb/d to reach an average of 11.25 mb/d in 2016, a contraction of 0.06 mb/d y-o-y. The main reasons for this year's decline are much lower annual output in **Latin America** and, to a lesser degree, in Africa. Oil production in **Other Asia** is predicted to increase by 10 tb/d in 2016 to average 2.73 mb/d, unchanged from the previous *MOMR*. Total oil output in Malaysia and Thailand is forecast to grow by 50 tb/d, while oil production in India, Brunei and Vietnam will decrease. **Middle East** oil supply is also estimated to increase by 10 tb/d in 2016 from the previous year to average 1.28 mb/d, unchanged from the previous *MOMR*. Oman will grow by 20 tb/d to average 1.0 mb/d, while production in other countries of the region remains steady or experiences a minor decline.

Latin America

Latin America's oil supply is estimated to decline by 0.07 mb/d to average 5.12 mb/d in 2016, unchanged from the last *MOMR*. The expected growth this year from Brazil as the main driver of this region will be offset by oil production declines in other Latin American countries, particularly Colombia.

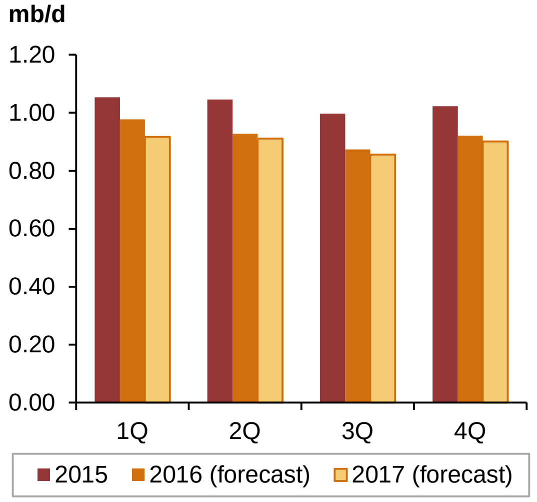
Brazil's liquid supply is expected to average 3.14 mb/d in 2016, an increase of 0.08 mb/d over the previous year, while it was revised up by 20 tb/d from the previous *MOMR*. Preliminary crude oil production shows an increase of 24 tb/d in August, following increased recovery from new well connections, mostly at the Lula field, reported by Petrobras. NGL output in August was more or less steady at 0.1 mb/d.

Graph 5.15: Brazil quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5.16: Colombia quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Petrobras plans to connect just 64 production and injection wells this year, with the majority of them in the Santos pre-salt fields, down from 73 in 2015 and a peak of 87 in 2014. Despite this reduction, well productivity increased remarkably – some pre-salt wells were already producing around 35 tb/d – to rise above the global average. 25 wells were completed from January to June and another 39 have been scheduled for the remainder of this year, including 11 pre-salt production wells.

Colombia

Oil production in Colombia is estimated to decline by 0.10 mb/d to average 0.92 mb/d in 2016, unchanged from the last *MOMR*. Following a peace agreement signed by the government and the main rebel group FARC on 27 September, a halt in military action could signal greater security for oil companies operating in Colombia. State-controlled Ecopetrol restarted the 220 tb/d Cano Limon-Coveñas crude pipeline on 10 September after the most recent rebel group attack. This pipeline transports crude from US Occidental's Cano Limon complex and also receives other Llanos basin crude from the 120 tb/d Bicentenario pipeline. Ecopetrol says all pipelines are currently operating normally, except the 85 tb/d Transandino, which is out of service for maintenance, according to Argus. Ecopetrol allocated 47% of capex to production and development, 41% to midstream and downstream, and 12% to exploration during 2014-2015.

In 2015, the company's capital expenditures totaled $6.5 bn. This year, the company plans to spend $3 bn-$3.4 bn.

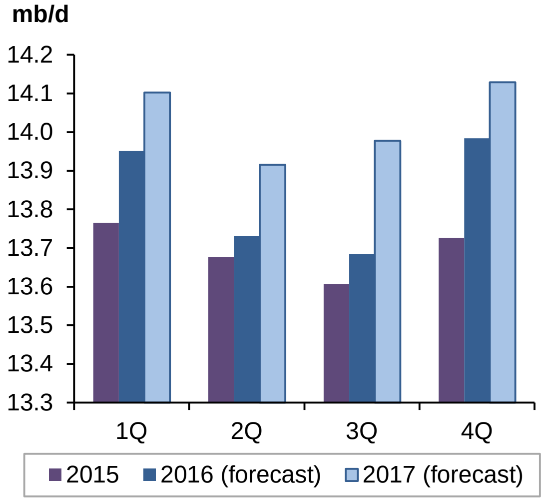
Africa

Africa's oil supply is projected to average 2.12 mb/d in 2016, a decline of 10 tb/d y-o-y and revised up by 10 tb/d from the previous *MOMR*. In 2016, oil production from Congo is expected to grow by 50 tb/d to average 0.31 mb/d, while output in other African countries – despite increasing output from Ghana's production start-up in the "TEN" project and the production ramp-up at the Jubilee field in 2H16 – will decline or remain stagnant in 2016.

FSU, other regions

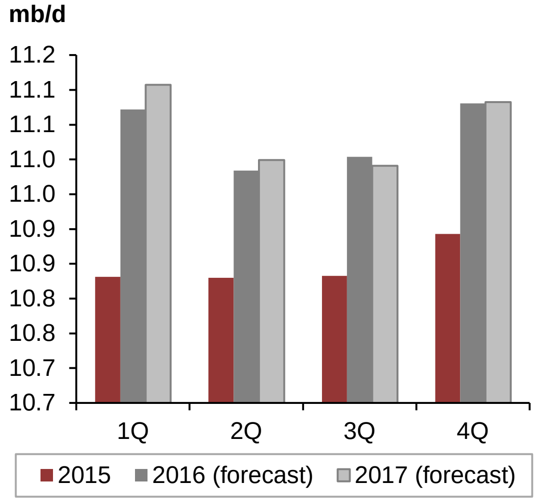
Total FSU oil supply is expected to grow by 0.14 mb/d in 2016 at an average of 13.84 mb/d, revised up by 30 tb/d from the previous month's estimation. In 2016, oil production in Russia and Azerbaijan will increase, while oil production in Kazakhstan and FSU others is expected to decrease.

Graph 5.17: FSU quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5.18: Russia quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Russia

Russian oil output is expected to increase by 0.19 mb/d, revised up by 50 tb/d from the previous *MOMR,* to average 11.04 mb/d in 2016. Russia's oil production has been growing for several years in a row. Output in 2015 stood at 10.85 mb/d of liquids, up by 1.6% y-o-y, and is expected to achieve the same growth rate in 2016. The first joint upstream project of Gazprom Neft and Rosneft started up in late September. Oil output decreased in August by 0.14 mb/d to average 10.85 mb/d – dropping to a 13-month low as a result of maintenance at the Sakhalin-1 field. The Russian oil industry is performing well, and both investment and production are growing despite low oil prices. Robust investment in the energy sector, which should rise by 15% this year to 3.6 trillion rubles ($55.5 billion), has been materialized despite the challenging market environment. Crude oil production in the first eight months of 2016 increased by 0.11 mb/d to average 10.22 mb/d. Oil production in 1H16 increased by 0.20 mb/d to average 11.03 mb/d compared to 1H15. Russian oil production is expected to grow by at least 10 tb/d in 2H16 compared to 1H16, up by 0.18 mb/d from the same period a year earlier.

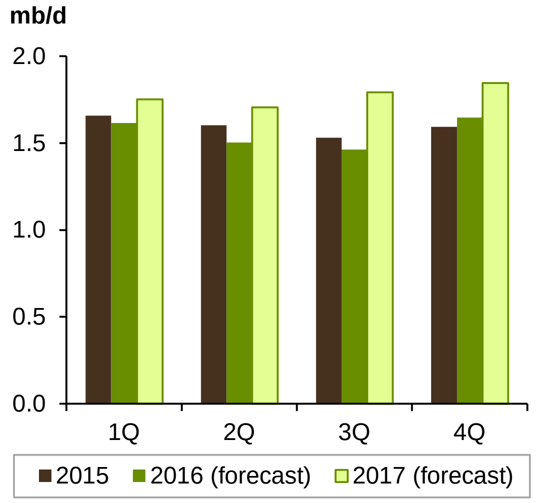
Oil production in Russia will increase by adding new production coming from the Vostochno-Messoyakhskoye (East Messoyakh) field, Russia's northernmost onshore field, harboring recoverable crude oil and gas condensate reserves of 2.49 billion barrels. Oil production flowed commercially from 21 September, with production planned at 44 tb/d this year. Rosneft also aims to launch the Suzunskoye field this October as part of the Vankor cluster of fields. Suzunskoye's output would be around 90 tb/d. Another new volume coming on stream in Russia is the Filanovsky field in the Caspian Sea in early October with a total output of 70 tb/d for this year. Its official start-up will be on 3 October 2016.

Caspian

Kazakhstan's oil supply, despite Kashagan's production start-up in 4Q16, is expected to decrease by 40 tb/d over the previous year to average 1.56 mb/d in 2016. Kazakhstan's oil production in August dropped by 0.3 mb/d to average 1.27 mb/d, due to the steep 40% drop in production at the Tengizchevroil field as a result of scheduled field maintenance. However, output is expected to recover in September to the same level as in July. According to Nefte Compass, the timeline for Kashagan's start-up is becoming clearer, but uncertainties remain over the future direction of oil flows from the 9 billion-barrel reservoir.

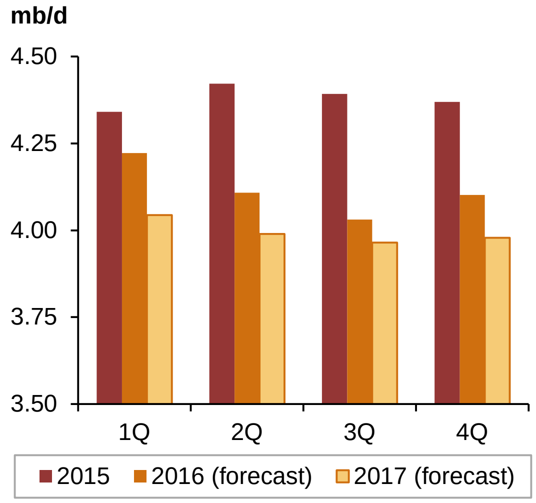
Azerbaijan's oil supply is anticipated to average 0.87 mb/d, unchanged from the previous *MOMR*, indicating minor growth of 10 tb/d in 2016. Azeri crude oil output in August decreased by 30 tb/d to average 0.86 mb/d. Nevertheless, total oil production (crude plus NGLs) was pegged at 0.87 mb/d in 1H16, the same as 1H15, but higher by 20 tb/d than 2H15.

Graph 5.19: Kazakhstan quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

Graph 5.20: China quarterly oil supply, 2015-2017



Source: OPEC Secretariat.

China

China's supply is expected to contract by 0.27 mb/d over the previous year to average 4.12 mb/d in 2016, revised down by 10 tb/d, due to a downward adjustment of 24 tb/d in 3Q16 from last month's forecast. Chinese oil output in August, following a drop of 110 tb/d in July, decreased again, this time by 60 tb/d to 3.97 mb/d m-o-m (the first time it fell below 4 mb/d).

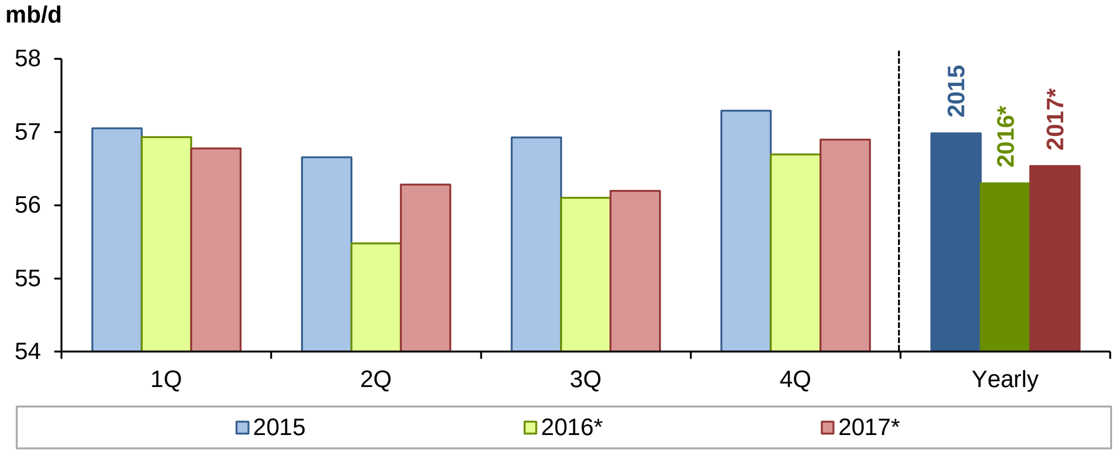
Nevertheless, CNOOC started production from the Enping 18-1 oilfield in the South China Sea in late September. Currently, three wells are online, producing around 2 tb/d. Within a year, production should reach the designed peak of roughly 11.8 tb/d. Declining oil output in China could be attributed to hefty spending cuts in 2016 by major Chinese oil companies – CNPC, Sinopec and CNOOC.

Forecast for 2017

Non-OPEC supply

Non-OPEC oil supply growth in 2017 was revised up by 40 tb/d this month to stand at 0.24 mb/d over the current year, to average 56.54 mb/d. This revision was due to the downward 2016 base change and also partially due to a change in Russia's production forecast. Non-OPEC supply contraction estimated for 2016 will change to growth in 2017 for several reasons – lower declines in OECD Americas and China as well as higher growth in Latin America, Africa and FSU. Supply growth in DCs and FSU of 0.28 mb/d and 0.19 mb/d will be partially offset by declines in OECD and China by 0.15 mb/d and 0.12 mb/d, respectively, in 2017. The forecast remains subject to growing uncertainties over the world economy and impacts on the performance of non-OPEC production, including the behaviour of US tight oil production, a possible change in Russia's oil output, the on-time implementation of Brazilian projects, geopolitical concerns, as well as the effects of downward spending revisions by international oil companies (IOCs).

Graph 5.21: Non-OPEC supply, quarterly, 2015-2017



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

On a country basis, the main contributors to growth in 2017 are: Brazil with 0.25 mb/d, Kazakhstan with 0.22 mb/d, Canada with 0.17 mb/d, Congo with 0.07 mb/d, Other Africa with 0.06 mb/d, and Malaysia with 0.04 mb/d. On the other hand, Mexico, US, China, Colombia, and Azerbaijan are, expected to show the main declines.

The main risk factors, such as geopolitical tensions in some oil producing territories, technical developments, bottlenecks and, most importantly, oil price levels, will continue to have an impact on supply growth expectations.

Table 5.3: Non-OPEC supply forecast comparison in 2016 and 2017

Region	2016	Change 2016/15	2017	Change 2017/16
OECD Americas	20.51	-0.56	20.34	-0.17
OECD Europe	3.83	0.07	3.85	0.02
OECD Asia Pacific	0.44	-0.02	0.44	0.00
Total OECD	**24.78**	**-0.51**	**24.63**	**-0.15**
Other Asia	2.73	0.01	2.75	0.02
Latin America	5.12	-0.07	5.33	0.21
Middle East	1.28	0.01	1.26	-0.03
Africa	2.12	-0.01	2.20	0.08
Total DCs	**11.25**	**-0.06**	**11.53**	**0.28**
FSU	13.84	0.14	14.03	0.19
Other Europe	0.14	0.00	0.15	0.02
China	4.12	-0.27	3.99	-0.12
Non-OPEC production	54.12	-0.69	54.34	0.23
Processing gains	2.19	0.01	2.20	0.01
Non-OPEC supply	**56.30**	**-0.68**	**56.54**	**0.24**

Source: OPEC Secretariat.

Key drivers for 2017 non-OPEC supply developments

In the **US**, total liquids production is forecast to pick up only marginally by the beginning of 3Q17, with minor growth of 30 tb/d to average 13.43 mb/d, while it is expected to decline by 0.16 mb/d on average to stand at 13.46 mb/d for the whole year. Crude oil is estimated to decline by 0.55 mb/d to average 8.87 mb/d in 2016, then decline again by 0.23 mb/d to average 8.64 mb/d in 2017. Some of the declines in onshore crude will be offset by growth of 0.15 mb/d in the Gulf of Mexico. Nevertheless, growth for NGLs and biofuels output is expected to increase by 47 tb/d and 20 tb/d, respectively. The main component of US oil output, tight oil, is forecast to contract by 0.29 mb/d y-o-y.

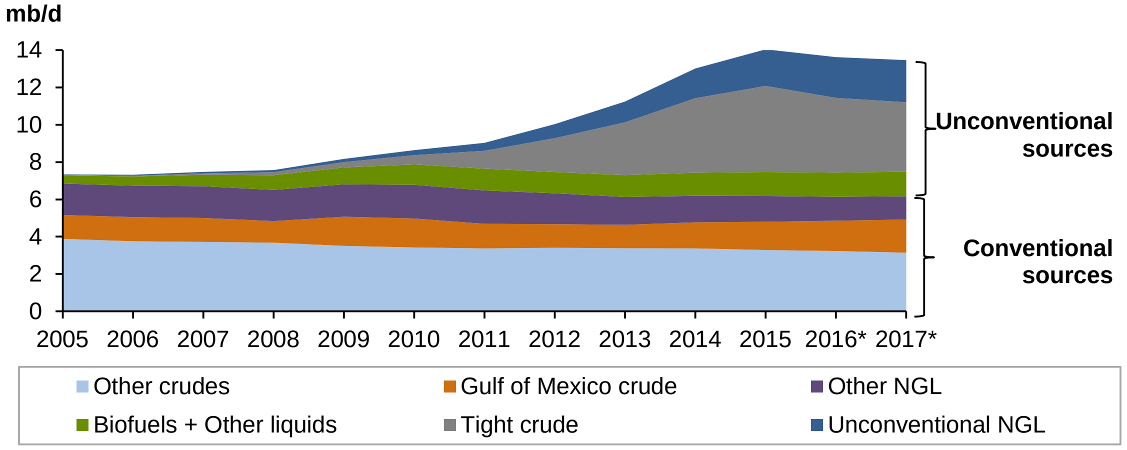
Table 5.4: US liquids production breakdown forecast, 2016-2017, tb/d

	2014	2015	*Change*	2016 *	*Change*	2017 *	*Change*
Tight crude	3,992	4,614	*621*	4,007	*-607*	3,718	*-289*
Gulf of Mexico crude	1,397	1,515	*118*	1,625	*110*	1,775	*150*
Other crudes	3,374	3,286	*-88*	3,234	*-52*	3,144	*-90*
Unconventional NGL	1,594	1,961	*367*	2,183	*222*	2,260	*77*
Other NGL	1,420	1,382	*-39*	1,280	*-102*	1,250	*-30*
Biofuels + Other liquids	1,238	1,283	*45*	1,295	*11*	1,315	*20*
US total supply	**13,016**	**14,041**	***1,025***	**13,624**	***-418***	**13,462**	***-162***

*Note: * 2016-2017 = forecast.*
Source: OPEC Secretariat.

US oil and gas companies will step up activity in 2017 as they start to increase their spending amid a recovery in prices. According to consultancy Deloitte, the bulk of activity will be focused on the completion business with very little investments going into exploration. A survey by the consultancy of 251 oil and gas industry executives, done between June and July, shows that 43% expect an increase in upstream capital expenditures (capex) next year, while 25% expect an increase this year. About 28% expect capex levels to remain unchanged this year and 27% think it will stay flat next year.

Graph 5.22: Trend of US oil production's components, 2005-2017



*Note: *2016-2017= forecast.*
Source: OPEC Secretariat.

Canada is expected to be the third largest source of non-OPEC supply growth after Brazil and Kazakhstan in 2017, expanding by 0.17 mb/d m-o-m to 4.57 mb/d. The 2017 production forecast was revised down by 20 tb/d due to a base change. Growth will come mainly from the ramp-up of oil sands projects (Surmont 2, Christian Lake, Sunrise and Kearl), as well as new start-ups of heavy oil thermal projects (Edam East, West and Vawm) in 2017.

In **Brazil**, following three planned projects of Lula Central, Lula Alto and Lapa, of which two projects have been implemented with a total peak capacity of 0.38 mb/d in 1H16, Brazil's Petrobras, as of 2017, will begin seeking offers for the construction of seven new offshore oil platforms envisioned in its current investment plans. Petrobras has planned to add these seven FPSOs in the Santos Basin, including three in the Lula field – including Lula South (FPSO P-66) and Lula South Extension (FPSO P-68), two in the Buzios field, one in the Lapa field and one at the giant Libra area. Oil production is expected to increase by 0.25 mb/d to average 3.40 mb/d when these seven new projects materialize next year. Petrobras is seeking to ramp up production as part of a five-year, $74.1 billion capital spending plan announced in late September. It slashed investments from a prior plan by 25%, seeking to refocus on core operations.

In **Russia**, oil production growth forecast for 2017 has been revised up by 70 tb/d to average 10 tb/d y-o-y. Production ramp-ups of three new projects − the Vostochno-Messoyakhskoye (East Messoyakh) field, the Suzunskoye field and the Filanovsky field in the Caspian Sea − are the main drivers for this revision. It is expected that Russian oil production in 2017 will reach 11.04 mb/d.

In the **Caspian**, according to the latest news, the start-up of the giant Kashagan field in **Kazakhstan** in late October 2016 will add new volume in 4Q16 and is planned to reach an initial plateau of 0.37 mb/d in Phase 1 by mid-2017. Therefore, Kazakh oil production growth is currently forecast at 0.22 mb/d in 2017.

In **China**, oil production, following a heavy decline in 2016, is expected to continue in the same direction but at a slower pace, dropping by 0.12 mb/d y-o-y to an average annual oil supply of 3.99 mb/d. Offshore companies plan to start up new projects at Chunxiao, Weizhou 11-4 North Phase II and Enping 23-1 in 2017, but the main state-owned oil companies have cut their capital expenditures as well as output.

Table 5.2: Non-OPEC oil supply in 2017, mb/d

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	%
Americas	20.51	20.39	20.24	20.27	20.46	20.34	-0.17	-0.84
of which US	*13.62*	*13.44*	*13.40*	*13.43*	*13.57*	*13.46*	*-0.16*	*-1.19*
Europe	3.83	3.98	3.84	3.65	3.93	3.85	0.02	0.58
Asia Pacific	0.44	0.45	0.46	0.45	0.42	0.44	0.00	0.51
Total OECD	**24.78**	**24.82**	**24.54**	**24.37**	**24.80**	**24.63**	**-0.15**	**-0.60**
Other Asia	2.73	2.76	2.75	2.75	2.74	2.75	0.02	0.79
Latin America	5.12	5.27	5.29	5.33	5.42	5.33	0.21	4.00
Middle East	1.28	1.27	1.26	1.25	1.24	1.26	-0.03	-2.10
Africa	2.12	2.17	2.19	2.21	2.23	2.20	0.08	3.95
Total DCs	**11.25**	**11.47**	**11.49**	**11.54**	**11.63**	**11.53**	**0.28**	**2.52**
FSU	13.84	14.10	13.92	13.98	14.13	14.03	0.19	1.40
of which Russia	*11.04*	*11.11*	*11.00*	*10.99*	*11.08*	*11.04*	*0.01*	*0.09*
Other Europe	0.14	0.15	0.15	0.15	0.16	0.15	0.02	12.89
China	4.12	4.04	3.99	3.96	3.98	3.99	-0.12	-2.95
Total "Other regions"	**18.09**	**18.30**	**18.06**	**18.10**	**18.27**	**18.18**	**0.09**	**0.49**
Total non-OPEC production	**54.12**	**54.58**	**54.08**	**54.00**	**54.70**	**54.34**	**0.23**	**0.42**
Processing gains	2.19	2.20	2.20	2.20	2.20	2.20	0.01	0.50
Total non-OPEC supply	**56.30**	**56.78**	**56.28**	**56.20**	**56.90**	**56.54**	**0.24**	**0.42**
Previous estimate	56.32	56.71	56.24	56.19	56.92	56.52	0.20	0.36
Revision	-0.01	0.07	0.04	0.01	-0.02	0.02	0.04	0.06

Source: OPEC Secretariat.

OPEC NGLs and non-conventional oils

OPEC natural gas liquids (NGLs) and non-conventional liquids (mostly GTLs) were estimated to average 6.29 mb/d in 2016, representing growth of 0.16 mb/d over the previous year. In 2017, OPEC NGLs and non-conventional liquids are projected to average 6.43 mb/d, an increase of 0.15 mb/d over the previous year. There are no changes in the 2016 estimation and 2017 predictions for OPEC NGLs and non-conventional liquids production compared with the last *MOMR*.

Table 5.5: OPEC NGLs + non-conventional oils, 2014-2017

	2014	2015	Change 15/14	1Q16	2Q16	3Q16	4Q16	2016	Change 16/15	2017	Change 17/16
Total OPEC	**6.00**	**6.13**	0.13	6.24	6.27	6.30	6.34	**6.29**	0.16	**6.43**	0.15

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

OPEC crude oil production

According to secondary sources, OPEC crude oil production averaged 33.39 mb/d in September, an increase of 0.22 mb/d over the previous month. Crude oil output increased mostly from Iraq, Nigeria and Libya, while production in Saudi Arabia showed the largest drop.

Table 5.6: OPEC crude oil production based on *secondary sources*, tb/d

	2014	2015	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16	*Sep/Aug*
Algeria	1,123	1,106	1,092	1,084	1,087	1,090	1,087	1,085	*-1.4*
Angola	1,654	1,754	1,766	1,772	1,772	1,769	1,780	1,766	*-14.1*
Ecuador	544	546	547	549	546	549	544	546	*1.8*
Gabon	222	219	219	217	217	219	221	211	*-10.3*
Indonesia	695	696	714	722	724	725	723	722	*-1.0*
Iran, I.R.	2,778	2,840	3,096	3,539	3,644	3,623	3,643	3,665	*21.4*
Iraq	3,267	3,933	4,237	4,289	4,376	4,326	4,350	4,455	*105.0*
Kuwait	2,781	2,730	2,765	2,731	2,810	2,795	2,810	2,826	*16.3*
Libya	470	405	370	312	311	303	270	363	*92.6*
Nigeria	1,953	1,867	1,786	1,547	1,465	1,443	1,429	1,524	*95.3*
Qatar	714	667	667	662	660	665	657	659	*2.0*
Saudi Arabia	9,688	10,123	10,147	10,297	10,551	10,582	10,578	10,491	*-87.5*
UAE	2,759	2,856	2,815	2,860	2,980	2,970	2,976	2,994	*17.9*
Venezuela	2,361	2,357	2,278	2,176	2,104	2,117	2,107	2,089	*-18.0*
Total OPEC	**31,010**	**32,099**	**32,499**	**32,755**	**33,246**	**33,175**	**33,174**	**33,394**	***220.1***

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

Table 5.7: OPEC crude oil production based on *direct communication*, tb/d

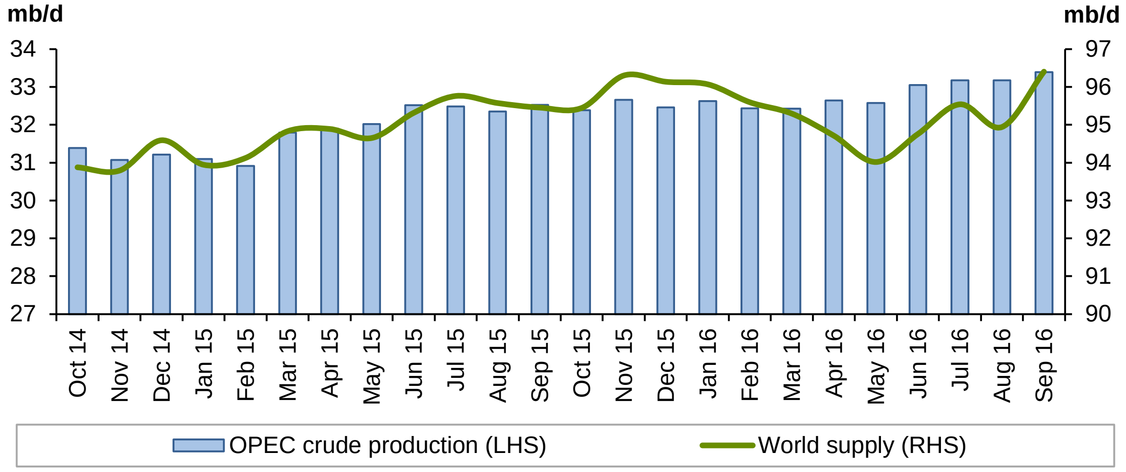
	2014	2015	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16	*Sep/Aug*
Algeria	1,193	1,157	1,128	1,126	1,162	1,145	1,159	1,182	*23.0*
Angola	1,654	1,767	1,773	1,730	1,720	1,761	1,747	1,649	*-98.0*
Ecuador	557	543	548	554	551	546	549	560	*11.0*
Gabon	..	..	..	..	..	..	..	..	..
Indonesia	697	690	739	739	..	745	742	..	..
Iran, I.R.	3,117	3,152	3,385	3,570	..	3,620	3,630	..	..
Iraq	3,110	3,504	4,598	4,523	4,667	4,606	4,622	4,775	*153.0*
Kuwait	2,867	2,859	3,000	2,934	2,969	2,950	2,987	2,970	*-17.0*
Libya	480	..	..	..	..	..	..	..	..
Nigeria	1,807	1,748	1,667	1,485	1,252	1,270	1,104	1,385	*280.7*
Qatar	709	656	675	655	644	677	643	610	*-32.4*
Saudi Arabia	9,713	10,193	10,225	10,360	10,651	10,673	10,630	10,650	*20.0*
UAE	2,794	2,989	2,944	3,035	3,174	3,181	3,154	3,186	*32.2*
Venezuela	2,683	2,654	2,510	2,392	2,339	2,355	2,328	2,334	*6.0*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

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

World oil supply

Preliminary data indicates that global oil supply increased by 1.46 mb/d to average 96.40 mb/d in September 2016 compared with the previous month. The increase of both non-OPEC supply, including OPEC NGLs, by 1.24 mb/d and OPEC crude oil production by 0.22 mb/d in September increased global oil output. The share of OPEC crude oil at 34.6% of total global production was revised down by 0.3% in September compared to a month earlier. Estimates are based on preliminary data for non-OPEC supply as well as OPEC NGLs and non-conventional liquids from direct communications, while estimates for OPEC crude production come from secondary sources.

Graph 5.23: OPEC and world oil supply

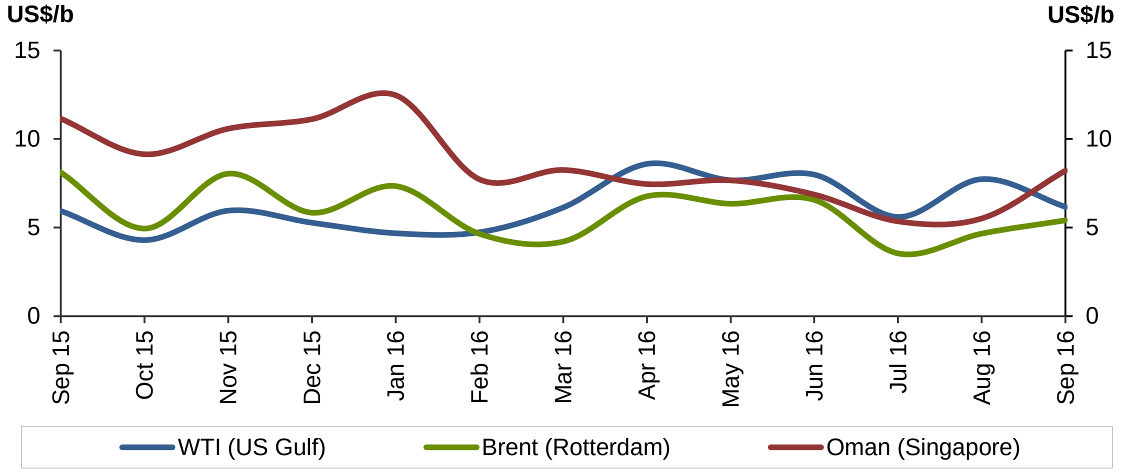


Source: OPEC Secretariat.

Product Markets and Refinery Operations

Product markets in the Atlantic Basin showed mixed performances as margins fell in the US, hit by a seasonal slowing of gasoline domestic demand as the driving season ended. In Europe, margins were supported by higher export opportunities along with slowing inflows, which eased the oversupply in the gasoil market in the region. Meanwhile, Asian margins strengthened on the back of stronger regional demand amid the onset of the autumn refinery maintenance season.

Graph 6.1: Refinery margins, 2015-2016



Sources: Argus Media and OPEC Secretariat.

US gasoline demand weakened during September with the end of the driving season amid high inventories and increased imports in the USEC due to operational issues in the Colonial Pipeline. This weaker performance at the top of the barrel outweighed the recovery seen in the gasoil and fuel oil markets, causing margins to fall. USGC refinery margins for WTI crude lost more than $1 versus the previous month's levels to average around $6/b.

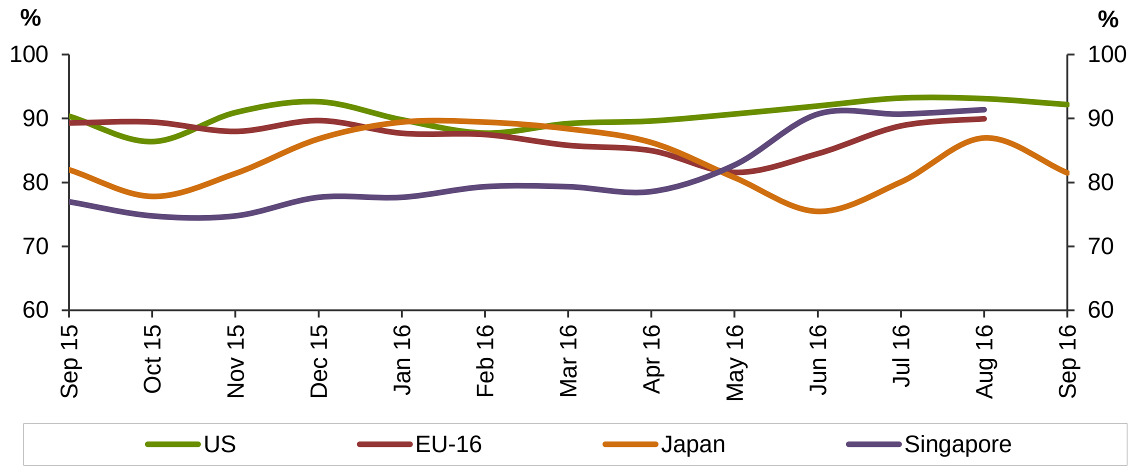
Product markets in **Europe** strengthened during September as the improvements seen across the barrel, led by gasoline and supported by higher demand and stronger export opportunities, allowed refinery margins to continue on the rise. The refinery margin for Brent crude in NWE showed a gain of 70¢ versus the previous month to average $5.4/b.

The **Asian** market was supported during September by firm regional demand amid the onset of the autumn maintenance season in the region. After the end of the monsoon season, demand for middle distillates and gasoline was strengthened in several countries, allowing refinery margins in Singapore to show a sharp recovery of almost $3 to average $8/b.

Refinery operations

Refinery utilization in the **US** averaged around 93% in September, corresponding to 16.5 mb/d, some 160 tb/d lower than the previous month and 320 tb/d lower than in the same month a year ago. Refinery levels slowed after peaking in the previous month, following the end of the driving season and amid the onset of some refinery maintenance.

Graph 6.2: Refinery utilisation rates, 2015-2016



Sources: Argus Media and OPEC Secretariat.

European refinery runs averaged around 90% of capacity in August, corresponding to a throughput of 10.7 mb/d, which was 130 tb/d higher than in the previous month and at a similar level to the same month last year. Refinery runs continued on the rise following the recovery seen in refinery margins during the previous month and signs of an easing overhang in the middle distillates market.

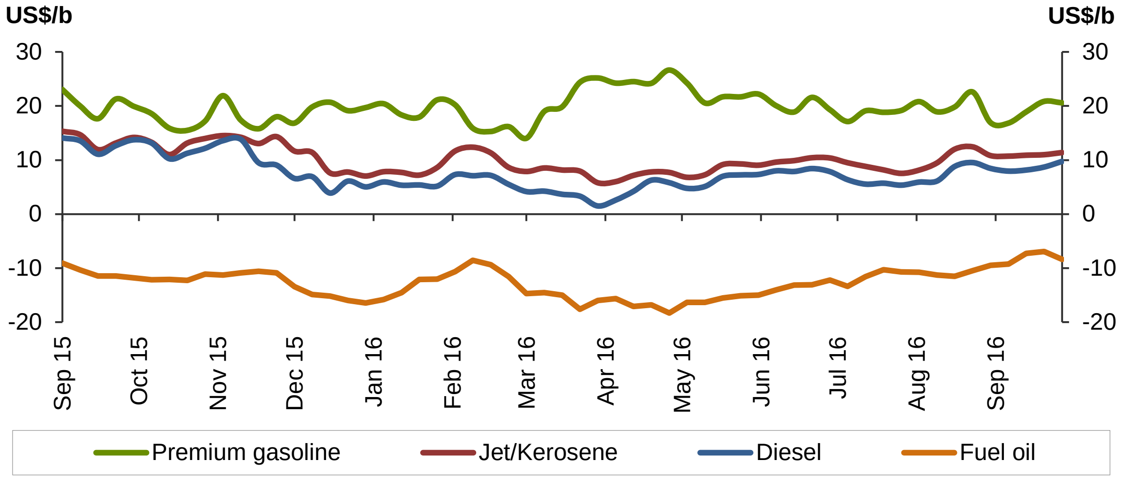
In **Asia**, refinery utilization rates fell recently, being impacted by some outages amid the onset of the maintenance season in the region. Refinery runs in China averaged 10.5 mb/d during August, around 150 tb/d lower than in the previous month, as the sector was impacted by maintenance activities at several teapot refineries. Refinery runs in Singapore for August averaged around 91%, a similar level to the previous months, while Japanese throughputs averaged 82% of capacity in September, 5 pp lower than in the previous month.

US market

US **gasoline** demand stood at around 9.3 mb/d in September, approximately 320 tb/d lower than in the previous month and more than 60 tb/d higher than in the same month a year earlier. Gasoline demand had hit a record level in August, however, with the end of the driving season, domestic gasoline demand showed a typical seasonal slowdown. In addition, operational issues at of the Colonial Pipeline produced a gasoline glut in the USGC, thus impacting the margins. This limitation in transportation caused the USEC market to tighten, leading to increased imports from Europe and the Caribbean.

The gasoline crack spread lost more than $1 compared with the previous month’s level to average $19/b in September.

Graph 6.3: US Gulf crack spread vs. WTI, 2015-2016



Sources: Argus Media and OPEC Secretariat.

Middle distillate demand stood at around 3.6 mb/d in September, some 150 tb/d lower than in the previous month and around 420 tb/d lower than in the same month a year earlier. The middle distillate market continued to receive support from higher export opportunities to Latin America, where refinery runs have slowed, mainly in Brazil and Mexico, amid issues at the Colonial Pipeline. The USGC gasoil crack averaged around $8.5/b, gaining almost $1 from the previous month. Potentially higher upticks were capped by increases seen in inventory levels.

At the **bottom of the barrel**, the fuel oil market continued its recovery trend, supported by slowing production, as, in addition to some maintenance, refinery yields continued to be low, which contributed to lower inventories in the USGC. Additional support came from higher requirements from feedstocks for secondary processing units. The USGC high sulphur fuel oil crack gained around $3 to average minus $8/b in September.

European market

Product markets in Europe continued to strengthen during September, with gasoline getting support from stronger export opportunities to the USEC amid increased domestic demand and lower inflows into the region, which lent support to the middle and bottom of the barrel.

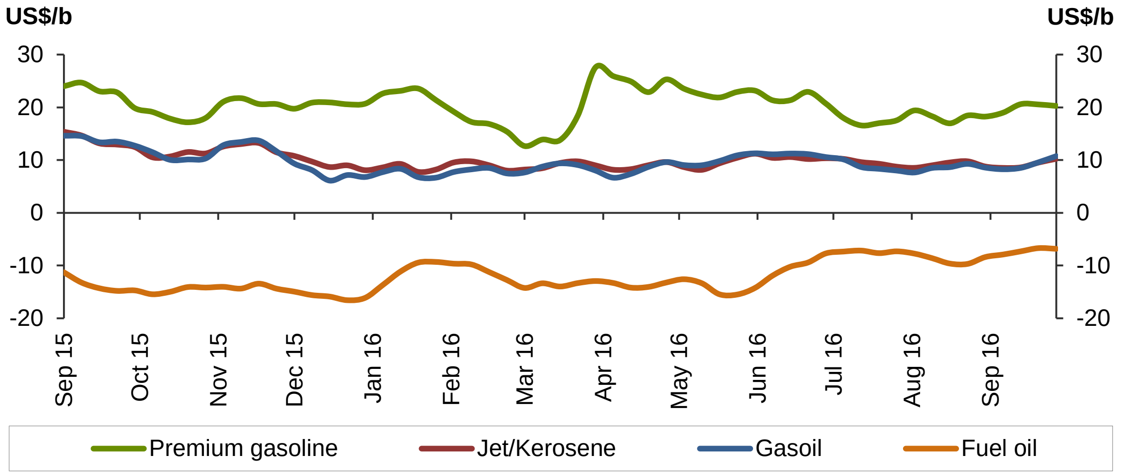
The **gasoline** market continued to receive support from increasing arbitrage to the US. This was due to tightening sentiment in the USEC, as a result of limited availability through the Colonial Pipeline amid refinery maintenance, which continued to favour the transatlantic arbitrage.

Additional support came from the reported stronger regional demand, mainly from France, amid higher export opportunities to West Africa and increasing requirements from Algeria.

The gasoline crack spread against Brent saw an increase of almost $2 from the previous month to average around $20/b.

The light distillate **naphtha** crack slightly recovered some ground as the oversupply in the region eased with some condensate splitter shutdowns. However, market fundamentals remained relatively weak due to reduced arbitrage to the Asia Pacific region amid inflows from the Middle East.

Graph 6.4: Rotterdam crack spreads vs. Brent, 2015-2016



Sources: Argus Media and OPEC Secretariat.

The European **gasoil** market recovered some ground last month on the back of support from the supply side with lower inflows into the region due to maintenance at several refinery hubs amid increasing domestic demand, which has started to balance the oversupplied market.

The gasoil crack spread against Brent crude at Rotterdam averaged around $9/b in September, gaining around 70¢ versus the previous month's level. The market was supported by tightening sentiment fueled by reduced imports from the US and the Baltics due to refinery maintenance and lower arbitrage. In addition, inflows from the Middle East are expected to fall in the coming weeks due to the stricter winter grade specifications.

At the **bottom of the barrel**, the fuel oil market recovered the ground it lost last month on the back of stronger regional demand, amid lower inflows to the region due to higher demand for power generation in Russia and the Middle East. This contributed to reducing the overhang and caused ARA inventories to fall. Meanwhile, a tightening market was reported in the bunkering port of Hamburg. Another supporting factor was the reopened arbitrage opportunities to Singapore.

The NWE fuel oil crack gained almost $2 compared with the previous month to average around minus $7/b in September.

Asian market

The Asian market exhibited a recovery on the back of firm regional demand amid tightening sentiment fueled by the onset of autumn maintenance in the region.

The Asian **gasoline** market showed a strong recovery during September, supported by increased demand from several countries in the region, mainly from Indonesia and India, where demand continued on the rise after exhibiting a sharp increase of more than 20% during August.

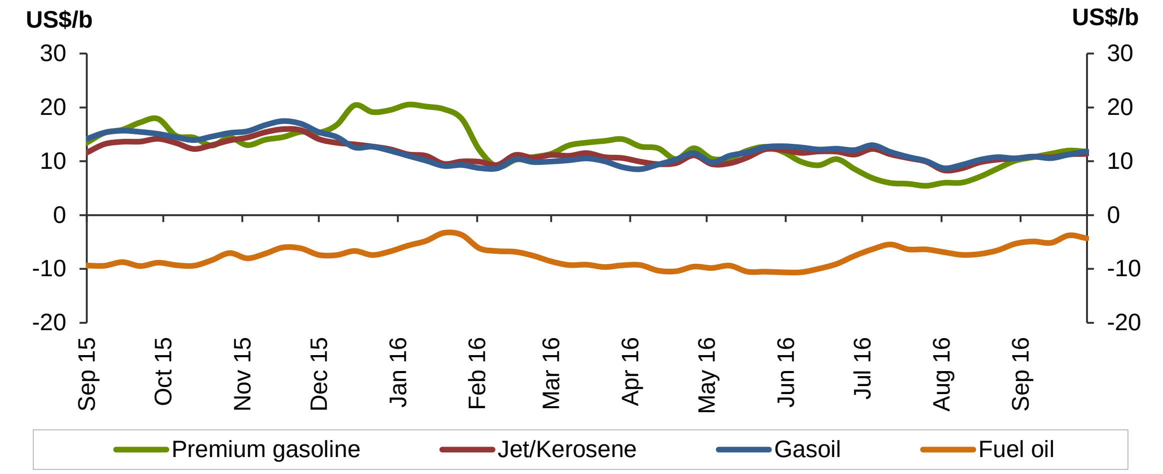
Another positive factor was the falling exports from South Korea's refineries due to stronger domestic demand, which, along with operational issues in the RFCC unit in the Taiwanese refinery, contributed to tightening sentiment ahead of the autumn maintenance season in the region.

The gasoline crack spread against Oman crude in Singapore averaged $12/b in September, gaining more than $4 compared with the previous month's level.

The Singapore **naphtha** crack reversed its downward trend, recovering more than $3/b over the month, on the back of easing oversupply in the previous month with lower inflows from the West, as improving petrochemical margins in the European market kept volumes there.

On the other hand, a potential upside in the naphtha crack spreads was limited due to the cheaper LPG competing with petrochemical feedstocks amid some cracker maintenance.

Graph 6.5: Singapore crack spread vs. Oman, 2015-2016



Sources: Argus Media and OPEC Secretariat.

At the **middle of the barrel,** the gasoil crack spread exhibited some recovery on the back of a more balanced market with stronger regional demand amid the onset of the heavy autumn maintenance season in the region.

Demand continued to show a typical seasonal rise, mainly in China and India, where the heavy monsoon season hit domestic demand in previous months. Additional support came from the continued decline in exports from South Korea, following domestic demand growth that reached record-high levels in August.

The gasoil crack spread in Singapore against Oman averaged around $11.5/b in September, gaining more than $1 compared with the previous month's level.

The Asian **fuel oil** market strengthened, supported by stronger demand seen in Singapore and higher buying interest from Pakistan.

The fuel oil crack spread in Singapore against Oman averaged about minus $4/b in September, gaining more than $2 from the previous month. An additional uptick was somehow capped by expectations of higher inflows from the West in the coming weeks.

Table 6.1: Refined product prices, US$/b

		Aug 16	Sep 16	Change Sep/Aug	Year-to-date 2015	Year-to-date 2016
US Gulf (Cargoes FOB):						
Naphtha*		46.23	45.45	-0.78	62.34	43.29
Premium gasoline	*(unleaded 93)*	65.03	64.10	-0.93	83.46	61.41
Regular gasoline	*(unleaded 87)*	61.78	59.26	-2.52	72.51	55.72
Jet/Kerosene		55.33	56.11	0.78	68.31	50.28
Gasoil	*(0.2% S)*	52.51	53.74	1.23	67.79	47.45
Fuel oil	*(3.0% S)*	34.50	36.33	1.83	44.45	29.08
Rotterdam (Barges FoB):						
Naphtha		40.52	43.57	3.05	52.72	40.41
Premium gasoline	*(unleaded 98)*	64.07	66.62	2.55	79.51	61.88
Jet/Kerosene		54.91	55.92	1.01	70.40	50.96
Gasoil/Diesel	*(10 ppm)*	54.28	55.93	1.65	70.05	50.59
Fuel oil	*(1.0% S)*	36.83	39.48	2.65	43.93	30.91
Fuel oil	*(3.5% S)*	32.87	34.97	2.10	44.59	26.62
Mediterranean (Cargoes FOB):						
Naphtha		39.93	43.20	3.27	49.74	39.49
Premium gasoline**		56.45	59.69	3.23	73.64	54.50
Jet/Kerosene		53.33	54.82	1.48	67.46	49.37
Diesel		55.56	57.13	1.57	71.67	51.80
Fuel oil	*(1.0% S)*	37.35	40.02	2.67	45.54	31.26
Fuel oil	*(3.5% S)*	35.36	37.45	2.09	44.38	29.26
Singapore (Cargoes FOB):						
Naphtha		39.96	42.54	2.58	55.18	40.49
Premium gasoline	*(unleaded 95)*	54.18	58.00	3.82	72.46	53.79
Regular gasoline	*(unleaded 92)*	51.52	55.38	3.86	69.26	50.91
Jet/Kerosene		53.55	55.07	1.52	68.13	50.25
Gasoil/Diesel	*(50 ppm)*	53.99	55.12	1.13	69.64	50.21
Fuel oil	*(180 cst 2.0% S)*	38.67	41.11	2.44	49.86	33.83
Fuel oil	*(380 cst 3.5% S)*	36.61	38.72	2.11	48.01	31.64

*Note: * Barges.*
*** Cost, insurance and freight (CIF).*
Sources: Argus Media and OPEC Secretariat.

Table 6.2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				*Refinery utilization, %*			
	Jul 16	Aug 16	Sep 16	Change Sep/Aug	Jul 16	Aug 16	Sep 16	Change Sep/Aug
US	16.71	16.69	16.52	-0.17	93.20	93.11	92.18	-0.93
France	1.11	1.19	-	-	78.73	84.57	-	-
Germany	1.90	1.91	-	-	86.65	87.16	-	-
Italy	1.30	1.32	-	-	63.29	64.47	-	-
UK	1.05	1.08	-	-	74.75	77.25	-	-
Euro-16	10.53	10.66	-	-	88.84	89.96	-	-
Japan	3.14	3.41	3.19	-0.21	80.07	86.96	81.50	-5.46

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

Tanker Market

Average spot freight rates in the tanker market increased in September from the previous month by 23%. The average increase was driven mainly by gains registered for the Suezmax class, which benefited from higher activity in the Atlantic and cargo loading requirements in West Africa, in addition to the replacement vessel requirements. Similarly, Aframax freight rates exhibited some gains in September, though to a lesser extent than Suezmax. Aframax enhanced sentiment was detected in several markets, including the Mediterranean and North Sea, while VLCC was the exception, as its average rates dropped mostly in September, despite positive earnings on the West Africa-to-East routes, which were mainly supported by higher Suezmax rates achieved on the same route. Generally, the dirty tanker market suffered from excess availability of tankers, which prevented rates from registering worthwhile gains.

Product tanker spot freight rates continued on the same downward trend as seen in recent months, with no clear signs of recovery, declining by 10% and 12%, respectively, on the East and West directions of Suez.

Spot fixtures

Chartering activity rose during September on most routes with total spot fixtures increasing by 1.1% m-o-m and estimated OPEC spot fixtures rising by 3%, compared with the last month, to average 9.92 mb/d. A decline in fixtures was seen only for Outside Middle East fixtures, which dropped by 0.46 mb/d in September, while those for the Middle East-to-West and Middle East-to-West were higher by 14.1% and 4.2%, respectively, from the previous month, to average 5.27 mb/d and 2.5 mb/d.

Table 7.1: Tanker chartering, sailings and arrivals, mb/d

	Jul 16	Aug 16	Sep 16	*Change* Sep 16/Aug 16
Spot Chartering				
All areas	16.57	13.72	13.88	0.15
OPEC	11.47	9.63	9.92	0.29
Middle East/East	5.18	4.62	5.27	0.65
Middle East/West	3.17	2.40	2.50	0.10
Outside Middle East	3.11	2.61	2.15	-0.46
Sailings				
OPEC	24.07	23.68	23.66	-0.02
Middle East	17.47	16.91	17.15	0.24
Arrivals				
North America	10.62	9.65	9.46	-0.18
Europe	12.09	12.36	12.26	-0.11
Far East	8.50	8.34	8.61	0.27
West Asia	4.69	4.85	4.58	-0.27

Source: Oil Movements.

Sailings and arrivals

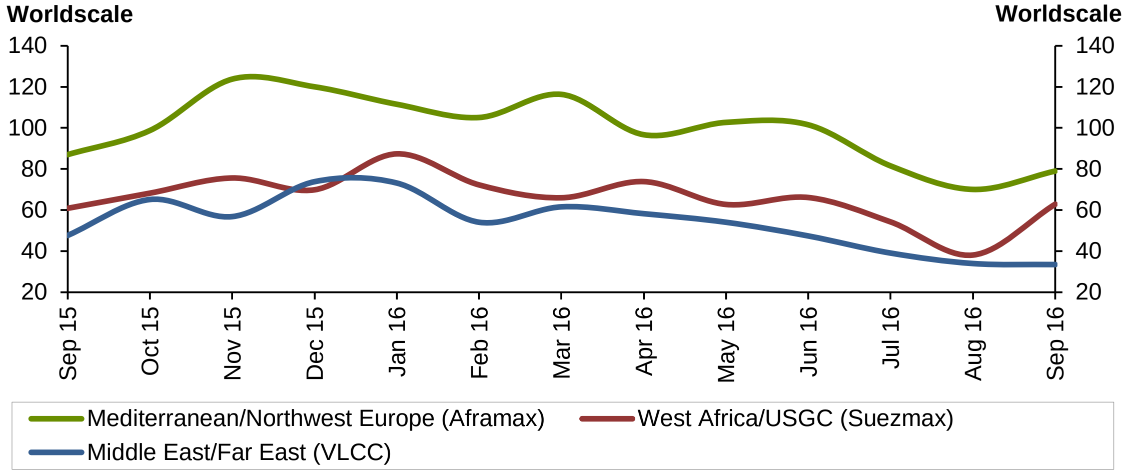
OPEC sailings dropped by 0.02 mb/d in September from the previous month to stand at 23.66 mb/d. On the contrary, sailings from the Middle East were higher by 0.24 mb/d. As for port arrivals, arrivals in Far Eastern ports increased in September by 0.27 mb/d, while arrivals at all other ports, including North America, Europe and West Asia, were down from a month before by 0.18 mb/d, 0.11 mb/d and 0.27 mb/d, respectively.

Spot freight rates

VLCC

VLCC freight rates saw gains and losses on different routes in September. VLCC activities remained mostly steady with positive volumes of fixtures, leading to a gradual enhancement in freight rates from the previous month, however, the increase in activity and the amount of fixtures during the month were met with plentiful vessel supply as was the case in recent months due to new tonnage deliveries in the current year. Therefore, spot freight rates for tankers operating on the Middle East-to-East route showed a further drop from the previous month, down by 7%, to stand at WS 35 points. Middle East-to-West spot freight rates were flat in September from the previous month, to average WS 24 points, while VLCC freight rates in West Africa edged up as the firmer Suezmax market underpinned the VLCC market and encouraged VLCC owners to push towards higher freight rates. Tankers trading on the West Africa-to-East route stood at WS 42 points in September, higher by 3% from the previous month, though still 25% lower than the same month a year earlier.

Graph 7.1: Monthly averages of crude oil spot freight rates



Sources: Argus and Platts.

Suezmax

Suezmax freight rates showed remarkable enhancements in September from one month before. Despite a very quiet beginning early in September, the Suezmax market and rates picked up afterwards as activity in the Atlantic increased, combined with prompt loading requirements as replacements for late running ships. Freight rates showed great increases, mainly for first decade October loadings, where tonnage lists appeared to be relatively shorter. Cargo loading requirements in West Africa also supported freight rates. On average, Suezmax spot freight rates on the West Africa-to-USGC route increased by WS 31 points from the previous month to average 67 points. Freight rates registered for tankers operating on the Northwest Europe (NWE)-to-

USGC route showed an increase of WS 18 points from the month before, to stand at WS 59 points. Suezmax freight rates on both routes showed an increase from last year.

Table 7.2: Spot tanker crude freight rates, Worldscale

	Size				Change
	1,000 DWT	Jul 16	Aug 16	Sep 16	Sep 16/Aug 16
Crude					
Middle East/East	230-280	43	37	35	-3
Middle East/West	270-285	26	24	24	0
West Africa/East	260	49	41	42	1
West Africa/US Gulf Coast	130-135	55	35	67	32
Northwest Europe/US Gulf Coast	130-135	54	41	59	18
Indonesia/East	80-85	89	71	64	-7
Caribbean/US East Coast	80-85	79	82	92	10
Mediterranean/Mediterranean	80-85	82	66	87	21
Mediterranean/Northwest Europe	80-85	76	62	74	12

Sources: Argus Media and OPEC Secretariat.

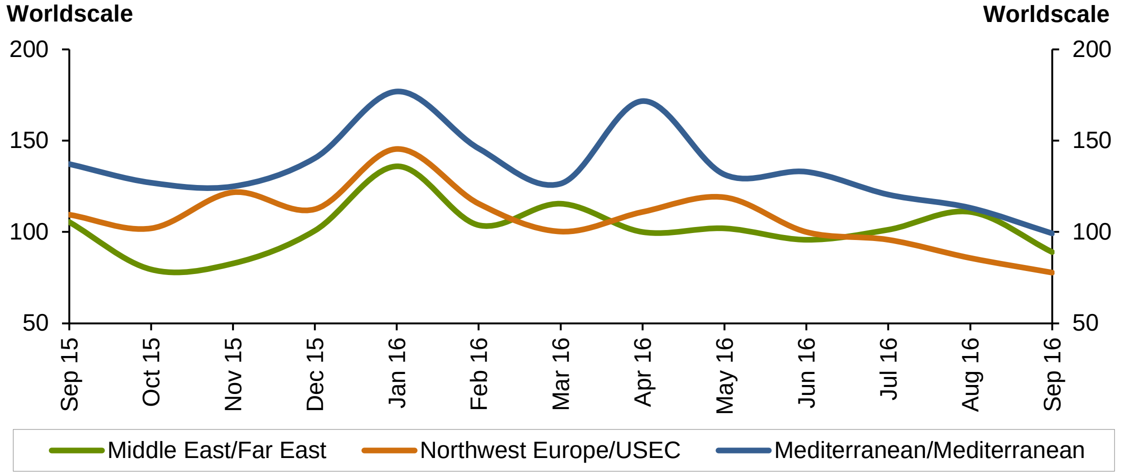
Aframax

In September, Aframax freight rates increased by 13% on average. Rates in the Baltics and North Sea firmed at the beginning of the month as a result of an active market. The firming trend continued afterwards and included the Mediterranean market as the available prompt vessels offering tightened. Therefore, spot freight rates for the Mediterranean to-Mediterranean and Mediterranean-to-NWE routes edged up by 32% and 19% to stand at WS 87 and WS 74 points, respectively. On the other hand, Caribbean-to-US East Coast (USEC) spot freight rates showed lower gains, standing at WS 92 points, up by 12% compared with a month earlier. The tighter position list was threatened by Aframax tankers ballasting on lower activity in the market, halting recent gains as they added to the available tankers list.

Clean spot freight rates

Clean tanker market sentiment showed no signs of recovery in September as spot freight rates on all reported routes developed negatively, showing a downward trend on both monthly and annual bases. On average, spot freight rates for vessels trading on East-of-Suez routes dropped by 10% from the previous month, while showing a higher decline of 12% on the West of Suez routes. The product tanker market showed a softening of rates for its tankers in all classes as activity declined. Generally, the clean tanker market reported low activity in September in both directions of Suez. In the East, spot freight rates on the Middle East-to-East and Singapore-to-East routes dropped by 20% and 1% to stand at WS 89 points and WS 117 points, respectively, as a result of weak tonnage demand. West-of-Suez freight rates for medium-range (MR) vessels on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes decreased in September by 12% and 13% from the previous month, to average WS 99 and WS 108 points, respectively.

Graph 7.2: Monthly average of clean spot freight rates



Sources: Argus Media and OPEC Secretariat.

Table 7.3: Spot tanker product freight rates, Worldscale

	Size				Change
	1,000 DWT	Jul 16	Aug 16	Sep 16	Sep 16/Aug 16
Products					
Middle East/East	30-35	101	111	89	-22
Singapore/East	30-35	121	118	117	-1
Northwest Europe/US East Coast	33-37	96	86	78	-8
Mediterranean/Mediterranean	30-35	121	113	99	-14
Mediterranean/Northwest Europe	30-35	131	123	108	-16

Sources: Argus Media and OPEC Secretariat.

Oil Trade

In September, preliminary data shows that US crude oil imports declined to average 7.9 mb/d, down by 392 tb/d from the previous month, yet 690 tb/d, or 10%, higher than the year-ago level. US monthly product imports declined from the previous month by 72 tb/d, to stand at 2.2 mb/d, while on an annual comparison, they were up by only 20 tb/d or 1%.

Japan's crude oil imports increased in August by 62 tb/d, or 2%, to average 3.2 mb/d, while y-o-y, they dropped from the previous year by 288 tb/d or 8%. Product imports were also up in August, rising by 25 tb/d to average 575 tb/d, yet they dropped by 2% from a year earlier.

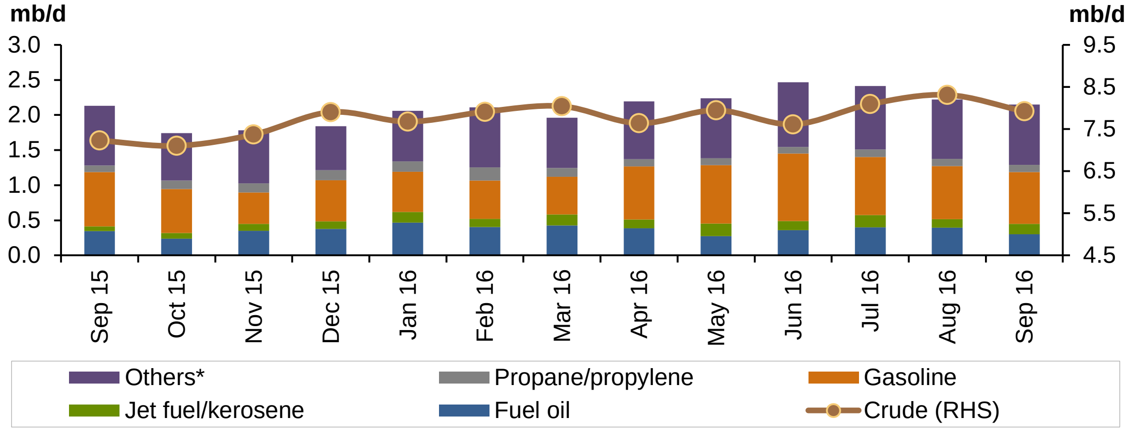
China's crude imports went up in August to the highest level since April, increasing by 421 tb/d, or 6%, to average 7.8 mb/d, while on an annual comparison, they were higher than the previous year by 1.5 mb/d or 24%. China's product imports increased slightly, rising by 29 tb/d from a month ago, however they were down by a slight 6 tb/d from a year earlier.

In August, India's crude imports went up by 377 tb/d, or 9%, from the previous month to average 4.4 mb/d, while y-o-y, they also went up by 372 tb/d or 9%. Product imports in August rose by 19 tb/d from the previous month to average 642 tb/d, while y-o-y, they decreased by 111 tb/d.

US

In September, preliminary data shows that US **crude oil imports** decreased to average 7.9 mb/d, down by 392 tb/d from last month, while they remained higher than last year by 690 tb/d, or 10%. In September, y-t-d, US crude imports were 578 tb/d higher from the same period a year ago.

Graph 8.1: US imports of crude and petroleum products

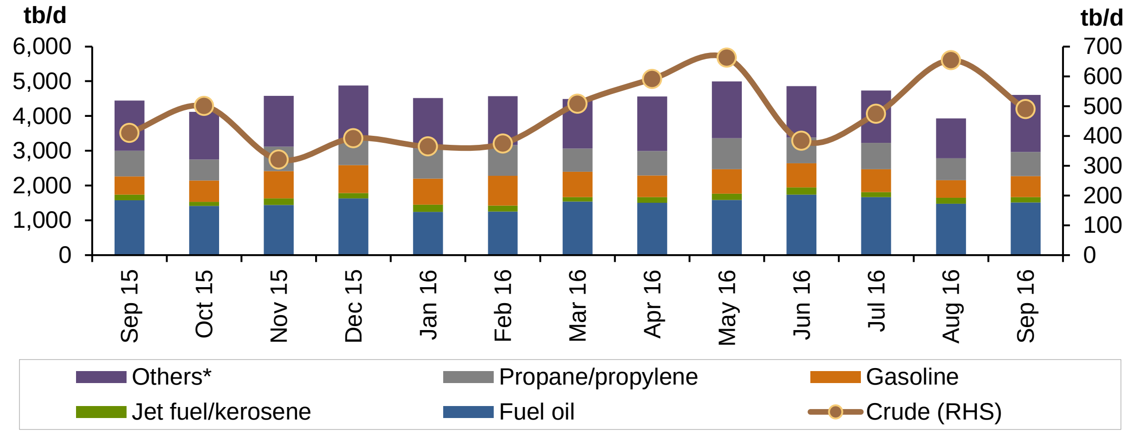


*Note: *Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.*
Sources: US Energy Information Administration and OPEC Secretatiat.

US monthly **product imports** declined from the previous month by 72 tb/d to stand at 2.2 mb/d, while on an annual comparison, they were up by only 20 tb/d, or 1%. Y-t-d, product imports remained almost stable.

As for **product exports**, in September, US product exports were 679 tb/d higher than a month ago to average 4.6 mb/d. On an annual comparison, product exports were higher than a year before by 169 tb/d or 4%. As a result, **US total net imports declined to average 5 mb/d,** however they remained higher than last year's level by 462 tb/d, or 10%.

Graph 8.2: US exports of crude and petroleum products



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

In July, the **top first and second crude suppliers** to the US maintained the same order as seen last month. Canada remained the premier crude supplier to the US accounting for 36% of total US crude imports, despite a drop by 63 tb/d from a month ago. Saudi Arabia came in again as the second largest supplier to the US, but also saw a drop in its exports to the US by 37 tb/d. Venezuela came in as the third top supplier accounting for 11% of total US crude imports, as it increased its exports to the US by 178 tb/d, or 26%, from a month before.

Crude imports from OPEC Member Countries went up in July from the previous month, increasing by 478 tb/d, or 16%, and accounted for 43% of total US crude imports. Alternatively, **US product imports from OPEC Member Countries** were up by 17 tb/d, or 6%, from last month. As for the product supplier share, Canada and Russia maintained their positions as first and second suppliers to the US, accounting for 21% and 19%, respectively. Canada's product exports to the US in July were higher by 14 tb/d, and Russia's volumes were up by 52 tb/d from a month ago. South Korea came in as the third supplier to the US as it increased its volumes from the previous month by 14 tb/d.

As for **crude imports by region**, in July, US crude imports from North America averaged 2.9 mb/d. North America came in as the top region for US crude imports, followed by Latin America, which stood at 24 mb/d, while the Middle East came in as the third region with an average of 1.8 mb/d. Imports from Africa were up from last month by 252 tb/d to stand at 726 tb/d, while imports from Asia were higher than the previous month's level by 18 tb/d.

Looking at crude imports by **PADDs**, in PADD 1, the highest crude imports to the East Coast were sourced from Africa and North America, which stood at 432 tb/d and 176 tb/d, respectively. Crude imports from Africa were higher in July than in the previous month by 110 tb/d. Imports from PADD 2 were mostly sourced from North America and stood at 1.9 mb/d, higher by 86 tb/d than in the previous month. PADD 2 imported small quantities from the Middle East, averaging 36 tb/d. PADD 3 sourced its imports from Latin America and the Middle East as both showed higher exports to the US than in the previous month by 147 tb/d and 90 tb/d to average 1.9 mb/d and

1.2 mb/d, respectively. PADD 4 only covered its imports from North America, averaging 287 tb/d in July. The West Coast's largest imports in July originated from the Middle East, which exported 464 tb/d to PADD 5, followed by Latin America and North America, which exported 401 tb/d and 228 tb/d, respectively.

Table 8.1: US crude and product net imports, tb/d

	Jul 16	Aug 16	Sep 16	*Change* Sep 16/Aug 16
Crude oil	7,618	7,657	7,429	-228
Total products	-2,320	-1,709	-2,460	-751
Total crude and products	**5,298**	**5,948**	**4,969**	**-979**

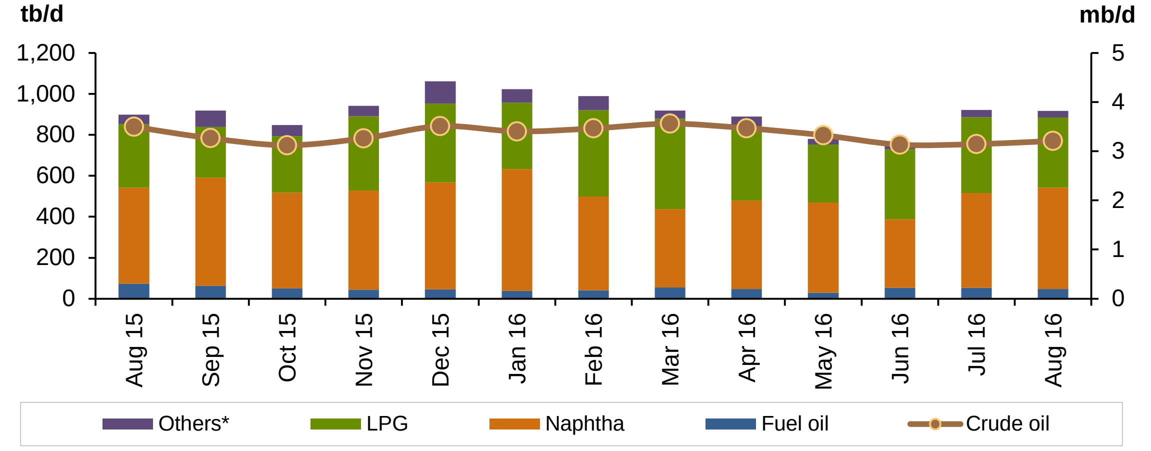
Sources: US Energy Information Administration and OPEC Secretatiat.

Japan

Japan's **crude oil imports** increased in August by 62 tb/d, or 2%, to average 3.2 mb/d. Y-o-y, crude imports dropped from last year by 288 tb/d, or 8%. Looking at **crude suppliers' shares**, as seen in the previous month, Saudi Arabia, UAE and Qatar were the top suppliers to Japan in August. Saudi Arabia came in as the first crude supplier to Japan, holding a share of 31% of total crude exports, although its exports were lower by 83 tb/d from a month before. UAE came in as the second largest supplier to Japan with a share of 26% of total crude exports. Qatar held the third position in August with a share of 10%. Volumes imported from the UAE were almost at the same level as in the previous month, while Qatar exported more crude to Japan, up by 54 tb/d.

Similarly, **product imports** were also up in August by 25 tb/d to average 575 tb/d, increasing by 5% m-o-m, yet dropping by 2% from a year earlier. Japan's **domestic oil product sales** fell again, decreasing by 3% in August from a year ago.

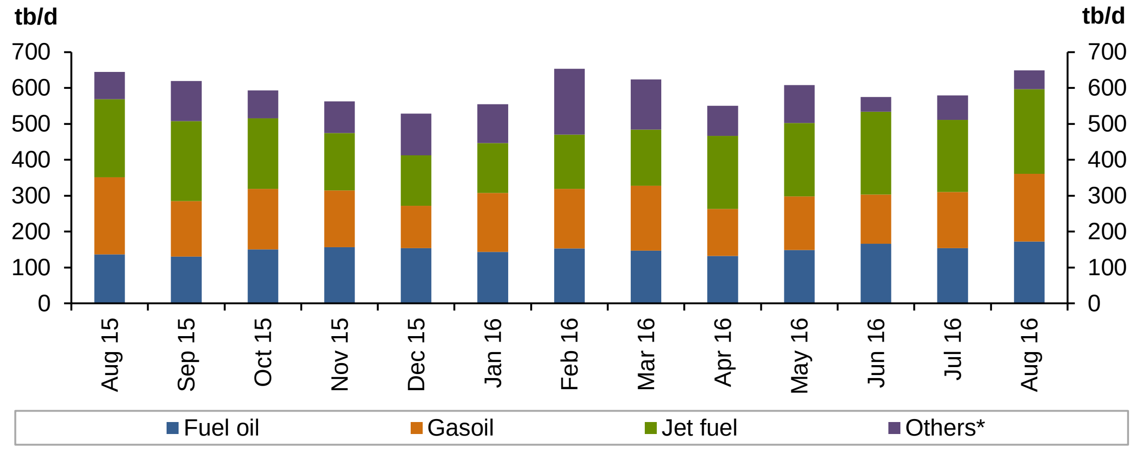
Graph 8.3: Japan's imports of crude and petroleum products



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

As for exports, **Japan's product exports** in August increased by 69 tb/d to average 649 tb/d. Y-o-y, the figure remained stable.

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 increased slightly in August by just 18 tb/d to average 3.1 mb/d**, which was 305 tb/d, or 9%, less than in the previous year.

Table 8.2: Japan's crude and product net imports, tb/d

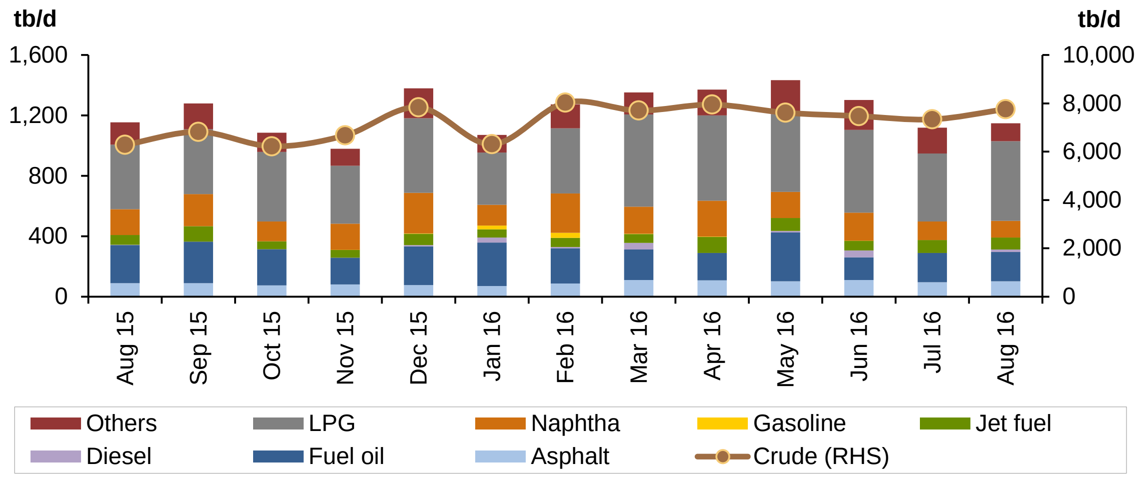
	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16
Crude oil	3,132	3,144	3,206	62
Total products	-163	-29	-73	-44
Total crude and products	**2,969**	**3,115**	**3,133**	**18**

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

China

China's **crude imports** went up in August to their highest level since April, increasing by 421 tb/d, or 6%, to average 7.8 mb/d. Nevertheless, refinery runs were lower in August. On an annual comparison, China's crude imports were higher than last year by 1.5 mb/d, or 24%. Y-t-d, the figures reflect an increase of 867 tb/d, or 13%. Russia, Oman and Iran showed the largest increases in their exports to China, by 332 tb/d, 297 tb/d and 180 tb/d, respectively.

Graph 8.5: China's imports of crude and petroleum products



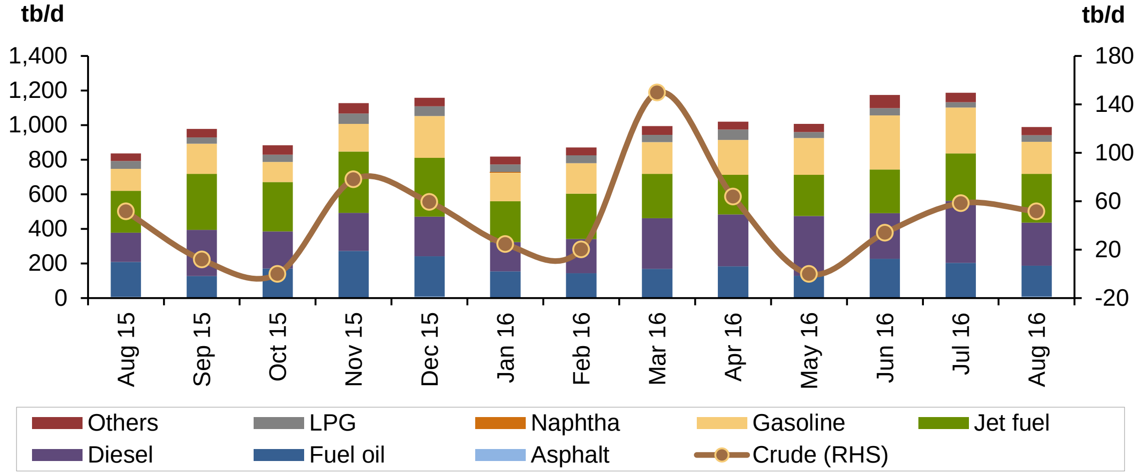
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

Nevertheless, the **top crude oil suppliers** to China were Russia, Saudi Arabia and Oman, accounting for 14%, 13%, and 11%, respectively, of total imports.

China's **product imports** increased slightly, rising by 29 tb/d from a month ago, however they were down by a slight 6 tb/d from last year with no significant changes within the imported product compositions.

In August, China **exported** 52 tb/d of **crude** oil, similar to the level of July. China's **product exports** in August were 197 tb/d less than in the previous month, to average 990 tb/d, but up by 153 tb/d, or 18%, y-o-y.

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 rose by 654 tb/d from the previous month to stand at 7.9 mb/d** and were up by 1.3 mb/d from a year ago.

Table 8.3: China's crude and product net imports, tb/d

	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16
Crude oil	7,438	7,278	7,706	428
Total products	129	-68	158	226
Total crude and products	**7,567**	**7,210**	**7,864**	**654**

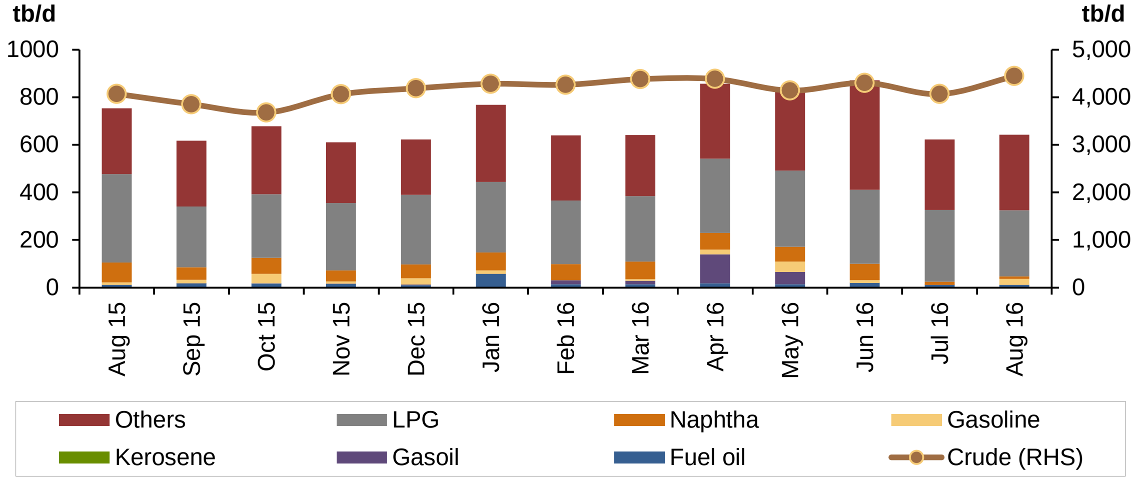
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

India

In August, India's **crude imports** went up by 377 tb/d, or 9%, from the previous month to average 4.4 mb/d, while y-o-y, they also increased, rising by 372 tb/d or 9%.

Product imports in August rose by 19 tb/d from the previous month to average 642 tb/d, while y-o-y, they were lower by 111 tb/d. Monthly product imports stayed almost stable as the imports of different products reflected no major changes from the previous month.

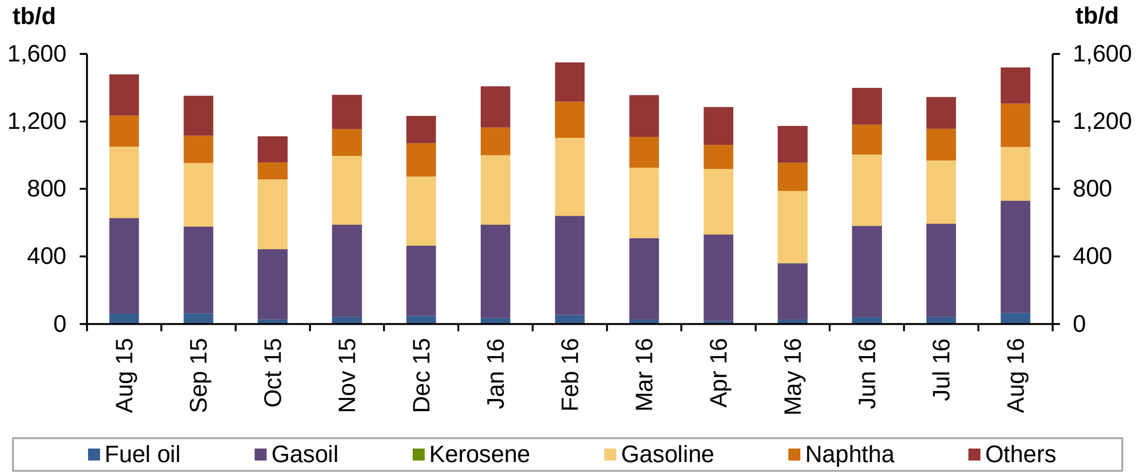
Graph 8.7: India's imports of crude and petroleum products



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

India's **product exports** were higher in August than in the previous month by 175 tb/d, or 13%, to average 1.5 mb/d, while y-o-y, exports were also higher, rising by 42 tb/d or 3%. India's monthly product exports reached their highest level since February 2016, mainly on exports of higher volumes of diesel oil, which rose to 111 tb/d from the previous month. Naphtha exports also went up from the previous month by 70 tb/d.

Graph 8.8: India's exports of petroleum products



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

Consequentially, **India's net imports increased by 221 tb/d to average 3.6 mb/d,** reflecting an increase of 7% m-o-m and y-o-y.

Table 8.4: India's crude and product net imports, tb/d

	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16
Crude oil	4,302	4,065	4,442	377
Total products	-527	-723	-879	-156
Total crude and products	**3,775**	**3,342**	**3,563**	**221**

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 August, **total crude oil exports from the Former Soviet Union dropped by 845 tb/d**, or 13%, to average 5.9 mb/d. Crude exports through Russian pipelines declined as well by 83 tb/d, or 2%, to average 4 mb/d.

Total shipments from the **Black Sea** dropped by 28 tb/d, or 5%, to average 519 tb/d, this drop came as shipments from Novorossiysk were lower compared with a month earlier.

Total Baltic Sea exports increased by 45 tb/d in August as shipments from the Primorsk port terminal increased by 92 tb/d, while Ust Luga port terminal exports were down by 47 tb/d.

Total shipments through the **Druzhba pipeline** stayed unchanged from the previous month to average 1.1 mb/d, while **Kozmino** shipments declined by 100 tb/d, or 15%, to average 577 tb/d.

Exports through the **Lukoil system** were down from the previous month. In the **Barents sea**, the Varandey offshore platform exports declined by 52 tb/d, while **Baltic sea** exports through the Kalinigrad port terminal stayed flat from July's volume.

On other routes, **Russian Fareast** total exports were down by 228 tb/d from the previous month, as volumes from the De Kastri terminal dropped. **Central Asian** total export stood at 183 tb/d, with no major changes from the previous month. **Black Sea** total exports went down by 393 tb/d, mainly as exports through Novorossiysk (CPC) dropped by 327 tb/d. In the **Mediterranean Sea**, BTC supplies showed a drop of 89 tb/d, or 12%, from the previous month to average 536 tb/d.

Looking into product exports, **FSU total product exports** rose by 272 tb/d, or 10%, from last month to average 3.1 mb/d. This gain in product exports came as a result of higher exports of naphtha, gasoil, fuel oil and VGO, which all went up in August from a month earlier, by volumes between 26 tb/d and 213 tb/d.

Table 8.5: Recent FSU exports of crude and petroleum products by source, tb/d

		2014	3Q15	4Q15	Jul 16	Aug 16
Transneft system						
Europe	**Black sea total**	**605**	**653**	**622**	**548**	**519**
	Novorossiysk port terminal - total	605	653	622	548	519
	of which: Russian oil	438	502	461	407	347
	Others	166	151	161	141	172
	Baltic sea total	**1,304**	**1,511**	**1,632**	**1,536**	**1,581**
	Primorsk port terminal - total	842	922	1,062	979	1,071
	of which: Russian oil	834	922	1,062	979	1,071
	Others	8	0	0	0	0
	Ust-Luga port terminal - total	462	590	570	558	511
	of which: Russian oil	284	359	388	371	325
	Others	177	231	182	186	186
	Druzhba pipeline total	**1,005**	**1,044**	**1,047**	**1,090**	**1,090**
	of which: Russian oil	973	1,012	1,015	1,058	1,058
	Others	32	32	32	31	32
Asia	**Pacific ocean total**	**507**	**617**	**645**	**676**	**577**
	Kozmino port terminal - total	507	617	645	676	577
	China (via ESPO pipeline) total	**342**	**349**	**348**	**300**	**300**
	China Amur	342	349	348	300	300
Total Russian crude exports		**3,763**	**4,174**	**4,295**	**4,149**	**4,067**
Lukoil system		**2014**	**3Q15**	**4Q15**	**Jul 16**	**Aug 16**
Europe & N. America	**Barents sea total**	**120**	**161**	**157**	**184**	**132**
	Varandey offshore platform	120	161	157	184	132
Europe	**Baltic sea total**	**12**	**19**	**14**	**11**	**11**
	Kalinigrad port terminal	12	19	14	11	11
Other routes		**2014**	**3Q15**	**4Q15**	**Jul 16**	**Aug 16**
Asia	**Russian Far East total**	**275**	**369**	**424**	**344**	**116**
	Aniva bay port terminal	112	118	128	92	93
	De Kastri port terminal	162	251	296	252	23
	Central Asia total	**228**	**199**	**183**	**188**	**183**
	Kenkiyak-Alashankou	228	199	183	188	183
Europe	**Black sea total**	**982**	**1,158**	**979**	**1,127**	**735**
	Novorossiysk port terminal (CPC)	855	1,029	862	962	635
	Supsa port terminal	80	94	81	104	63
	Batumi port terminal	39	35	36	61	37
	Kulevi port terminal	9	0	0	0	0
	Mediterranean sea total	**602**	**695**	**701**	**743**	**653**
	BTC	602	695	701	743	653
Russian rail		**2014**	**3Q15**	**4Q15**	**Jul 16**	**Aug 16**
	Russian rail	**46**	**17**	**46**	**35**	**39**
	of which: Russian oil	8	*10*	*42*	*32*	*36*
	Others	38	7	4	3	2
Total FSU crude exports		**6,028**	**6,792**	**6,798**	**6,781**	**5,936**
Products		**2014**	**3Q15**	**4Q15**	**Jul 16**	**Aug 16**
	Gasoline	124	226	204	189	115
	Naphtha	485	525	479	436	649
	Jet	5	25	39	67	41
	Gasoil	933	1,113	1,000	833	923
	Fuel oil	1,487	1,074	1,052	969	1,012
	VGO	245	248	284	313	339
Total FSU product exports		**3,280**	**3,212**	**3,058**	**2,807**	**3,079**
Total FSU oil exports		**9,308**	**10,004**	**9,856**	**9,588**	**9,015**

Sources: Argus Nefte Transport and Argus Global Markets.

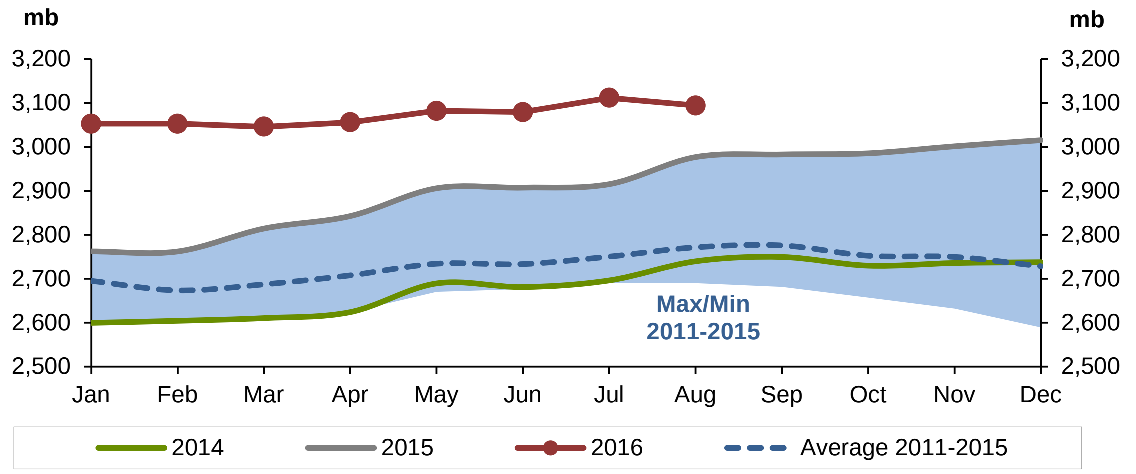
Stock Movements

OECD commercial oil stocks fell in August to stand at 3,094 mb, which is around 322 mb above the latest five-year average. Crude and products indicated surpluses of around 191 mb and 131 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 66.7 days, 6.7 days higher than the latest five-year average. Preliminary data for September shows that total commercial oil stocks in the US fell by 11.2 mb to stand at 1,379.7 mb, which is around 74 mb above the same period a year ago and 220 mb higher than the latest five-year average. Within the components, crude stocks fell by 11.6 mb, while products rose slightly by 0.4 mb. The latest information for China showed a drop of 5.1 mb in total commercial oil inventories in August to stand at 376 mb. Within the components, crude rose by 9.8 mb, while product inventories fell by 14.9 mb.

OECD

Preliminary data for August shows that **total OECD commercial oil stocks** fell by 17.4 mb to stand at 3,094 mb, which is around 117 mb higher than at the same time one year ago and 323 mb above the latest five-year average. Within the components, crude stocks fell by 21.3 mb, while products rose by 3.8 mb. OECD commercial stock builds have shown signs of slowing since the beginning of this year as they increased by only 41 mb compared with a build of 214 mb last year during the same period.

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 ended August at 1,528 mb, standing 41 mb above the same time one year earlier and around 191 mb higher than the latest five-year average. All OECD regions experienced a drop, with more than half of the total decline coming from North America.

In contrast, **OECD product inventories** rose by 3.8 mb for the fourth consecutive month, to stand at 1,566 mb, which is 76 mb higher than a year ago at the same time and 131 mb above the seasonal norm. Within the regions, OECD North America and OECD Europe saw declines, while OECD Asia Pacific experienced a build.

In terms of **days of forward cover**, OECD commercial stocks rose slightly in August by 0.1 days to stand at 66.7 days, which is 2.1 days above the previous year in the same period and 6.7 days higher than the latest five-year average. Within the regions, OECD Americas had 8.1 more days of forward cover than the historical average to stand at 66.5 days in August. OECD Asia Pacific stood 3.4 days above the seasonal average to finish the month of August at 56.8 days. At the same time, OECD Europe indicated a surplus of 6.1 days above the seasonal norm, averaging 72.5 days in August.

Commercial stocks in **OECD Americas** fell by 11.8 mb in August, following a build of 32.5 mb in July, to settle at 1,641 mb, a surplus of 78 mb above a year ago and 226 mb higher than the seasonal norm. Within the components, crude stocks fell by 11.2 mb, while products dropped slightly by 0.6 mb.

At the end of August, **commercial crude oil stocks** in **OECD Americas** fell, ending the month at 850 mb, which was 46 mb above the same time one year ago, and 151 mb above the latest five-year average. The decline came from lower crude imports resulting from the closure of temporary offshore platforms due to tropical storms in Florida and the GOM at the end of the month.

Product stocks in OECD Americas fell slightly, by 0.6 mb, ending August at 791 mb, a surplus of 32 mb above the same time one year ago and 75 mb higher than the seasonal norm. Higher gasoline consumption in the US contributed to the fall in product inventories.

OECD Europe's commercial stocks fell by 3.4 mb in August, ending the month at 1,014 mb, which is 50 mb higher than at the same time a year ago and 86 mb above the latest five-year average. Crude and products fell by 2.7 mb and 0.7 mb, respectively.

OECD Europe's commercial crude stocks fell in August, ending the month at 429 mb, which is 17 mb above the same period a year earlier and 38 mb higher than the latest five-year average. The fall in crude oil stocks came on the back of higher crude throughput, which increased by 130,000 b/d in August, compared with July.

OECD Europe's commercial product stocks also fell by 0.7 mb to end August at 584 mb, which is 33 mb higher than a year ago at the same time and 48 mb higher than the seasonal norm. The small drop could be attributed to higher demand in the region during the summer holiday.

OECD Asia Pacific commercial oil stocks fell by 2.2 mb in August, reversing the build of the third consecutive month, to settle at 439 mb, which is 10.4 mb lower than a year ago, yet 11 mb above the five-year average. Within the components, crude fell by 7.4 mb, while product stocks rose by 5.2 mb. In August, crude inventories ended the month at 249 mb, which is 22 mb below a year ago, yet 1.6 mb above the seasonal norm. OECD Asia Pacific's total product inventories ended August at 189 mb, standing 11 mb higher than the same time a year ago and 9 mb above the seasonal norm.

Table 9.1: OECD's commercial stocks, mb

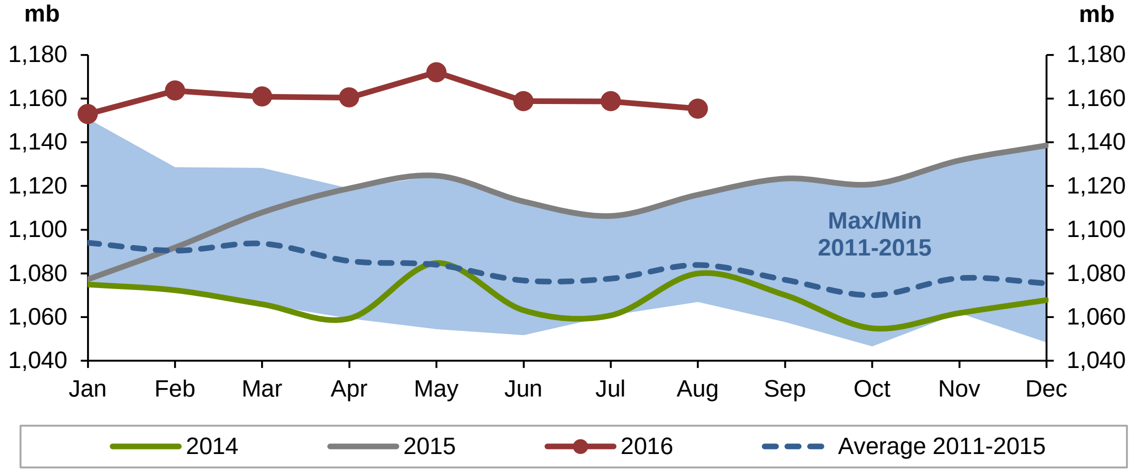
	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16	Aug 15
Crude oil	1,550	1,549	1,528	-21.3	1,487
Products	1,529	1,562	1,566	3.8	1,490
Total	**3,079**	**3,111**	**3,094**	**-17.4**	**2,977**
Days of forward cover	**65.7**	**66.6**	**66.7**	**0.1**	**64.6**

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

EU plus Norway

Preliminary data for August shows total **European stocks** fell by 3.4 mb to stand at 1,155.3 mb, which is 39.3 mb, or 3.5%, above the same time a year ago and 71.5 mb, or 6.6%, higher than the latest five-year average. Crude fell by 2.7 mb, while total product stocks declined by 0.7 mb.

Graph 9.2: EU-15 plus Norway's total oil stocks



Source: Euroilstock.

European crude inventories fell in August for the third consecutive month to stand at 489.0 mb, which is 5.4 mb, or 1.1%, above the same period a year ago and 21.5 mb, or 4.6%, higher than the seasonal norm. The decline could derive from higher crude throughput, which increased by 130,000 b/d to reach 10.53 mb/d.

European products stocks fell by 0.7 mb, ending August at 666.3 mb, which is 33.9 mb, or 5.4%, above the same time a year ago, and 49.9 mb, or 8.1%, above the seasonal norm. Within products, the picture was mixed with gasoline and distillate stocks rising, while residual fuel oil and naphtha witnessed stock draws.

Gasoline stocks rose by 0.5 mb in August to stand at 118.7 mb, which is 13.1 mb, or 12.4%, above a year earlier, and 12.0 mb, or 11.3%, higher than the seasonal norm. The build may have been driven by higher gasoline output, as demand was almost unchanged in August, compared with July.

Distillate stocks rose slightly, by 0.1 mb, ending August at 448.7 mb, which is 23.2 mb, or 5.4%, higher than at the same time one year ago and 23.2 mb, or 5.4%, above the latest five-year average. The slight build in distillate stocks could be attributed to the fall in distillate demand in August.

In contrast, **residual fuel oil stocks** fell by 0.1 mb in August to stand at 75.7 mb, which is 1.5 mb, or 2.0%, less than the same month a year ago and 9.0 mb, or 10.7%, lower than the latest five-year average. The decline was a result of higher fuel oil demand, especially for marine bunkers.

Table 9.2: EU-15 plus Norway's total oil stocks, mb

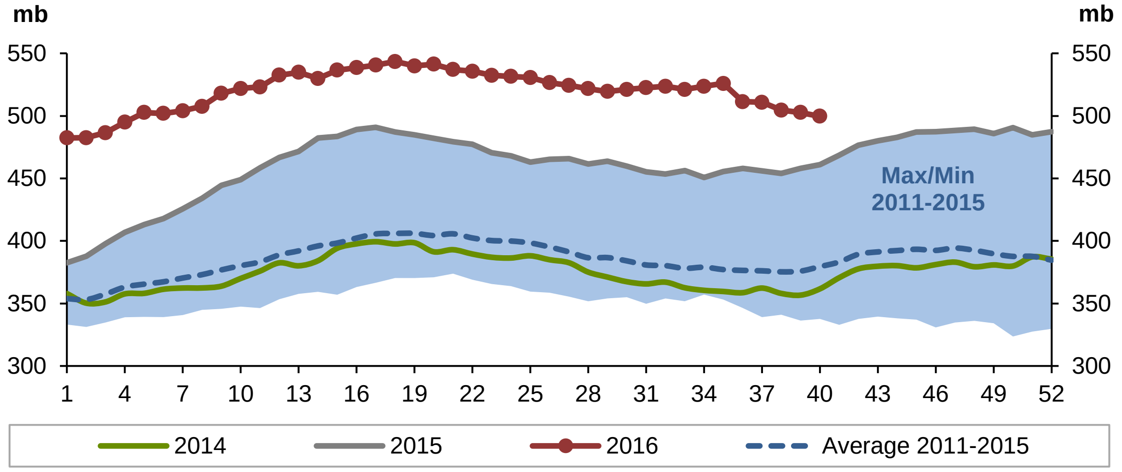
	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16	Aug 15
Crude oil	**493.0**	**491.7**	**489.0**	**-2.7**	**483.6**
Gasoline	120.1	118.2	118.7	0.5	105.6
Naphtha	24.6	24.6	23.3	-1.3	24.1
Middle distillates	442.7	448.5	448.7	0.1	425.5
Fuel oils	78.5	75.7	75.7	-0.1	77.2
Total products	**665.9**	**667.0**	**666.3**	**-0.7**	**632.4**
Total	**1,158.8**	**1,158.8**	**1,155.3**	**-3.4**	**1,116.0**

Sources: Argus and Euroilstock.

US

Preliminary data for September shows that **total commercial oil stocks** in the US fell by 11.2 mb, reversing the build of the last two months, to settle at 1,379.7 mb, which is around 74 mb, or 5.6%, above the same period a year ago and 220 mb, or 19%, higher than the latest five-year average. Within the components, crude stocks fell by 11.6 mb, while products rose slightly by 0.4 mb.

Graph 9.3: US weekly commercial crude oil stocks



Sources: US Energy Information Administration and OPEC Secretariat.

US commercial crude stocks fell in September, reversing the build of last month to stand at 499.7 mb, which is 39.0 mb, or 8.5%, above the same time one year ago and 120.4 mb, or 31.8%, above the latest five-year average. US commercial crude stocks fell in the last week of September by 3.0 mb for the fifth time in a row despite slowing refinery activity, although overall oil inventories remained at their highest level. The five-week run of drawdowns has surprised some because it was kicked off with a 14 mb drop − the largest plunge since 1999 − at the beginning of September, resulting in reduced imports due to severe Gulf Coast weather. Indeed, US crude imports in September averaged 7.9 mb/d, around 400,000 b/d less than in the previous month. At the same time, lower crude oil refinery inputs, which stood at 16.5 mb/d, 170,000 tb/d lower than in August, limited further drops in crude oil stocks.

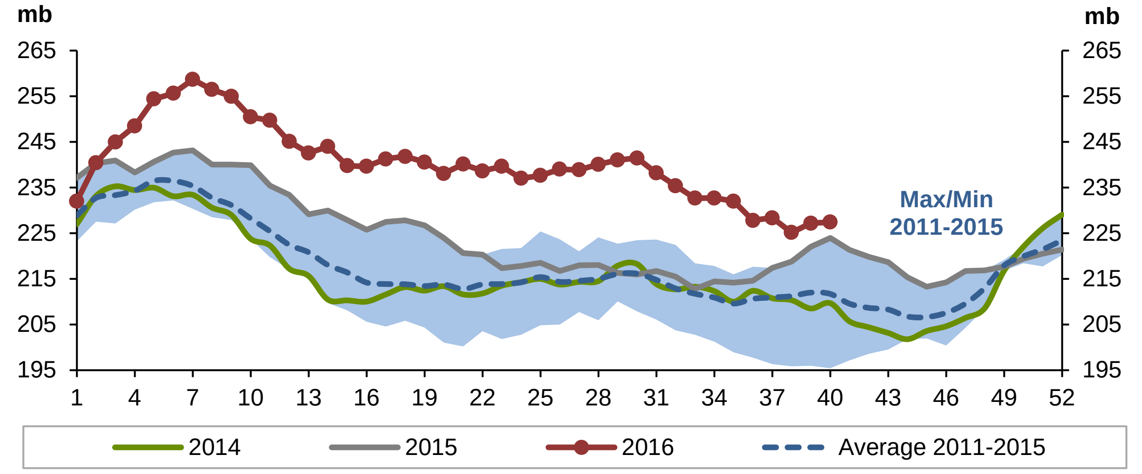
In contrast, **total product stocks** rose slightly by 0.4 mb in September, ending the month at 880.0 mb, which is around 34.7 mb, or 4.1%, above the level seen at the same time a year ago, and 100 mb, or 13.6%, above the seasonal norm. Within products, the picture was mixed with distillates, jet fuel and propylene stocks witnessing a build, while gasoline and residual fuel oil inventories experienced a drop.

Distillate stocks rose by 2.6 mb in September, ending the month at 168.7 mb, indicating a surplus of 2.6 mb, or 11.9%, above the same period a year ago and 22.6 mb, or 16.4%, above the latest five-year average. The build in middle distillate stocks came mainly on lower demand, which averaged around 3.6 mb/d, about 150,000 b/d below last month, while lower output limited a further build in distillate stocks.

Jet fuel stocks also rose by 2.2 mb, ending September at 44.0 mb, which is 2.2 mb, or 3.6%, above the same period a year ago and 9.0 mb, or 1.8%, higher than the latest five-year average.

In contrast, **gasoline stocks** fell by 0.4 mb in September, following a massive drop of 12.5 mb in August, to settle at 227.4 mb, which is 2.3 mb, or 1.0%, above the same period a year ago and 12.5 mb, or 5.8%, above the latest five-year average. The decline came mainly on the back of lower production, which averaged 9.9 mb/d, more than 200,000 b/d lower than in the previous month.

Graph 9.4: US weekly gasoline stocks



Sources: US Energy Information Administration and OPEC Secretariat.

Residual fuel oil inventories also fell by 0.4 mb to 39.2 mb in September, which is 2.1 mb, or 5.1%, lower than the same period a year ago, yet 2.5 mb, or 6.8%, above the seasonal norm.

Table 9.3: US onland commercial petroleum stocks, mb

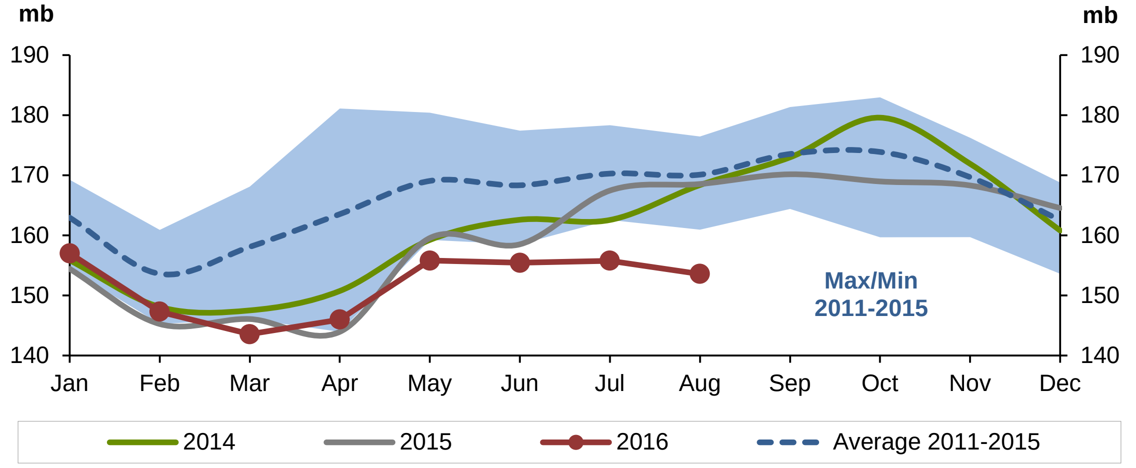
	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16	Aug 15
Crude oil	**498.0**	**490.0**	**511.4**	**21.3**	**425.9**
Gasoline	242.1	240.3	227.8	-12.5	218.3
Distillate fuel	149.2	156.0	158.1	2.2	152.5
Residual fuel oil	40.3	38.3	39.6	1.2	38.9
Jet fuel	40.4	41.9	41.8	0.0	43.0
Total	**1,351.8**	**1,367.4**	**1,390.9**	**23.6**	**1,266.5**
SPR	695.1	695.1	695.1	0.0	695.1

Source: US Energy Information Administration.

Japan

In Japan, total **commercial oil stocks** fell by 2.2 mb in August to stand at 153.6 mb, which is 15.0 mb, or 8.9%, less than the same time a year ago and 16.5 mb, or 9.7%, below the five-year average. Within the components, crude stocks went down 7.4 mb, while product stocks rose by 5.2 mb.

Graph 9.5: Japan's commercial oil stocks



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

In August, Japanese commercial **crude oil stocks** fell, ending the month at 86.1 mb, which is 13.1 mb, or 13.2%, below the same period a year ago, and 10.1 mb, or 10.5%, below the seasonal norm. The decline came on the back of higher crude throughput, which rose by 194,000 b/d, or 6.1%, to stand at 3.4 mb/d. The increase in crude oil imports by 62,000 b/d, or 2.0%, to average 3.2 mb/d, limited further builds in crude oil stocks.

In contrast, Japan's **total product inventories** rose by 5.2 mb in August for the second consecutive month to stand at 67.5 mb. This build was mainly driven by the fall in Japanese oil sales, which dropped by 3% from a year earlier to 2.9 mb, the lowest level for the month since 1986. Despite the build in total product inventories, they stood 1.8 mb, or 2.6%, below the same time a year ago, and 16.5 mb, or 9.7%, below the five-year average. Within products, the picture was mixed. Distillate stocks, naphtha and residual fuel experienced builds, while gasoline inventories witnessed a drop.

Distillate stocks rose by 3.6 mb in August to stand at 33.1 mb, which is 0.3 mb, or 0.9%, lower than the same period a year ago and 1.7 mb, or 5.0%, below the seasonal average. All distillate components saw builds with jet fuel rising by 2.0% on the back of higher output, and kerosene and gasoil stocks increasing by 14% and 17%, respectively, also on the back of higher production. However, the increase in domestic sales limited further builds.

Total **residual fuel oil** stocks rose by 0.6 mb in August to stand at 13.7 mb, which is 0.8 mb, or 5.2%, lower than a year ago and 2.6 mb, or 16.0%, below the latest five-year average. Within fuel oil components, fuel oil A fell by 1.3%, while fuel oil B.C stocks rose by 8.1%. The build in fuel oil B.C inventories came on the back of higher output, which rose by 2.3%, and lower domestic sales, which declined by 6.9%.

Naphtha inventories rose by 1.3 mb, ending August at 10.4 mb, which is 1.3 mb, or 11%, lower than a year ago at the same time and 0.1 mb, or 1.0%, lower than the seasonal norm. This build was driven by higher imports, which rose by nearly 7%, combined with an increase of 2.1% in output. Higher domestic sales, which increased by 6.2%, limited further builds in naphtha inventories.

In contrast, **gasoline** inventories fell by 0.3 mb, ending August at 10.2 mb, which is 0.5 mb, or 5.5%, above last year at the same time, yet 1.9 mb, or 15.7%, below the five-year average. The decline was mainly driven by higher domestic sales, which increased by 8.6% versus last month.

Table 9.4: Japan's commercial oil stocks*, mb

	Jun 16	Jul 16	Aug 16	*Change* Aug 16/Jul 16	Aug 15
Crude oil	**96.4**	**93.4**	**86.1**	**-7.4**	**99.2**
Gasoline	10.8	10.6	10.2	-0.3	9.7
Naphtha	8.6	9.1	10.4	1.3	11.7
Middle distillates	26.2	29.6	33.1	3.6	33.5
Residual fuel oil	13.4	13.1	13.7	0.6	14.4
Total products	**59.1**	**62.3**	**67.5**	**5.2**	**69.3**
Total**	**155.4**	**155.8**	**153.6**	**-2.2**	**168.5**

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

China

The latest information for China showed a drop of 5.1 mb in **total commercial oil inventories** in August to stand at 375.9 mb, which is 31.5 mb lower than the previous year at the same time. Within the components, crude rose by 9.8 mb, while product inventories fell by 14.9 mb.

In August, **commercial crude stocks** rose to 228.9 mb, reversing the drop of the previous month. At this level, they were 23.5 mb below the previous year at the same time. The build could be attributed to lower crude throughput, which shrank by 2.3 mb compared with the previous month. Higher crude oil imports, which increased by around 421,000 b/d to average 7.8 mb/d, also contributed to this build.

In contrast, total **product stocks** in China fell by 14.9 mb, ending August at 147.0 mb, which is 8.0 mb lower than the same time a year ago. All products dropped, with diesel experiencing the largest fall.

Diesel inventories fell 12.4 mb in August to stand at 61.2 mb, the lowest since December 2014. At this level, diesel stocks are 27.3 mb below the same time a year ago. This fall was driven mainly by lower output as a result of lower crude oil throughput, but also by stronger diesel demand in August, which rebounded by more than 400,000 b/d from the previous month.

Gasoline and **kerosene** stocks fell in August by 1.1 mb and 1.5 mb, respectively. At 67.5 mb, gasoline stocks stood at 16.5 mb above the same time a year ago, while kerosene ended August at 18.3 mb, which is 2.8 mb above the same period last year. The declines in both product stocks were due to the fall in output combined with higher demand.

Table 9.5: China's commercial oil stocks, mb

	Jun 16	Jul 16	Aug 16	Change Aug 16/Jul 16	Aug 15
Crude oil	**232.4**	**219.1**	**228.9**	**9.8**	**252.4**
Gasoline	70.1	68.6	67.5	-1.1	51.1
Diesel	71.1	73.6	61.2	-12.4	88.5
Jet kerosene	19.9	19.8	18.3	-1.5	15.4
Total products	**161.1**	**161.9**	**147.0**	**-14.9**	**155.0**
Total	**393.5**	**381.1**	**375.9**	**-5.1**	**407.4**

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

At the end of August, **product stocks in Singapore** fell by 6.9 mb, reversing the build of the previous month, to settle at 48.3 mb, which is 3.0 mb, or 5.9%, below the same period a year ago. Within products, the picture was mixed with light distillate and fuel oil stocks falling and middle distillate inventories rising.

Middle distillate stocks rose by 0.9 mb to end August at 14.1 mb, which is 0.6 mb, or 4.6%, above the previous year at the same time. The build was driven by lower middle distillate demand in the region combined with lower exports from the Singapore hub.

In contrast, **light distillate** stocks fell by 1.7 mb, ending the month of August at 13.6 mb, which is 1.6 mb, or 13.5%, above the same time a year ago. **Residual fuel** oil stocks also fell by 6.9 mb, reversing the build of last month, to end August at 20.6 mb, which is 5.3 mb, or 20.4%, less than at the same time a year ago. The decline could be attributed to higher marine bunker demand in the region.

Product stocks in Amsterdam-Rotterdam-Antwerp (ARA) fell by 3.5 mb to end August at 44.0 mb, which is 7.0 mb, or 13.7%, lower than at the same time a year ago. All product inventories went down, with the exception of gasoil stocks.

Gasoline stocks fell by 2.5 mb, ending August at 8.0 mb, which is 0.6 mb, or 7.2%, above the previous year at the same time. **Fuel oil stocks** fell by 0.5 mb in August to stand at 4.9 mb, which is 2.9 mb, or nearly 35%, lower than at the same period a year ago. This fall was mainly driven by higher demand from marine bunkers in the region.

In contrast, **gasoil** inventories rose by 0.1 mb, ending August at 24.1 mb, which is 2.0 mb, or around 8.0%, lower than the same month of the previous year.

Balance of Supply and Demand

Demand for OPEC crude in 2016 was revised up by 0.1 mb/d to stand at 31.8 mb/d, which is 1.8 mb/d higher than the 2015 level. In 2017, the demand for OPEC crude is projected at 32.6 mb/d, around 0.1 mb/d higher than last report and 0.8 mb/d higher than this year.

Forecast for 2016

Demand for OPEC crude in 2016 was revised up by 0.1 mb/d to stand at 31.8 mb/d, representing an increase of 1.8 mb/d from last year's level. Within the quarters, 1Q16, 2Q16 and 3Q16 were revised up by 0.2 mb/d, 0.3 mb/d and 0.1 mb/d, respectively, while 4Q16 remained unchanged. 1Q16 and 2Q16 rose by 1.2 mb/d and 2.6 mb/d, respectively, versus the same quarters last year; while 3Q16 and 4Q16 are estimated to show growth of 1.7 mb/d and 1.5 mb/d, respectively.

Table 10.1: Summarized supply/demand balance for 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016
(a) World oil demand	**93.17**	**93.46**	**93.70**	**95.15**	**95.29**	**94.40**
Non-OPEC supply	56.98	56.93	55.48	56.10	56.69	56.30
OPEC NGLs and non-conventionals	6.13	6.24	6.27	6.30	6.34	6.29
(b) Total non-OPEC supply and OPEC NGLs	**63.11**	**63.17**	**61.75**	**62.40**	**63.03**	**62.59**
Difference (a-b)	**30.06**	**30.29**	**31.95**	**32.75**	**32.26**	**31.82**
OPEC crude oil production	32.10	32.50	32.75	33.25		
Balance	2.04	2.21	0.80	0.49		

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

Forecast for 2017

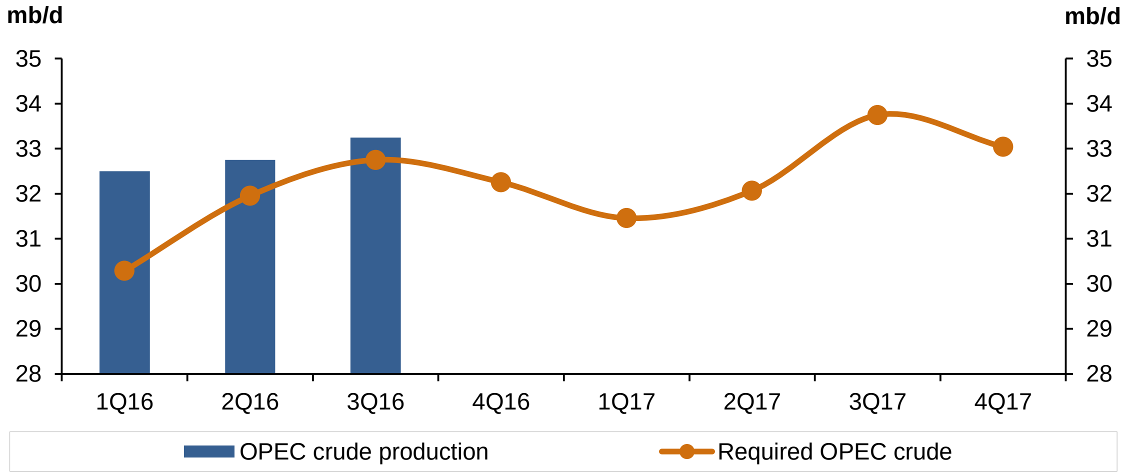
For 2017, demand for OPEC crude was also revised up by 0.1 mb/d from the previous report and was projected to increase by 0.8 mb/d to average 32.6 mb/d. Within the quarters, 1Q17 and 2Q17 were revised up by 0.2 mb/d and 0.1 mb/d, respectively, while 3Q17 remained unchanged. 4Q17 was revised up by 0.1 mb/d. 1Q17 and 2Q17 are expected to increase by 1.2 mb/d and 0.1 mb/d, respectively, while 3Q17 and 4Q17 are projected to increase by 1.0 mb/d and 0.8 mb/d, respectively, versus the same quarters this year.

Table 10.2: Summarized supply/demand balance for 2017, mb/d

	2016	1Q17	2Q17	3Q17	4Q17	2017
(a) World oil demand	**94.40**	**94.60**	**94.75**	**96.39**	**96.46**	**95.56**
Non-OPEC supply	56.30	56.78	56.28	56.20	56.90	56.54
OPEC NGLs and non-conventionals	6.29	6.36	6.40	6.45	6.52	6.43
(b) Total non-OPEC supply and OPEC NGLs	**62.59**	**63.14**	**62.68**	**62.65**	**63.42**	**62.97**
Difference (a-b)	**31.82**	**31.46**	**32.07**	**33.75**	**33.04**	**32.59**

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

Graph 10.1: Balance of supply and demand



Source: OPEC Secretariat.

Table 10.3: 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	46.2	46.7	46.1	46.7	46.5	46.5	46.7	46.1	46.9	46.6	46.6
Americas	24.2	24.2	24.5	24.5	24.6	25.0	24.7	24.7	24.7	24.7	25.2	24.9	24.9
Europe	13.6	13.5	13.7	13.6	13.9	14.2	13.7	13.8	13.6	13.9	14.2	13.7	13.8
Asia Pacific	8.3	8.1	8.0	8.6	7.6	7.6	8.1	8.0	8.5	7.5	7.6	8.0	7.9
DCs	29.2	30.0	30.7	30.8	31.2	31.9	31.4	31.3	31.5	31.9	32.6	32.2	32.0
FSU	4.5	4.6	4.6	4.5	4.4	4.7	5.0	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	10.2	10.6	11.0	10.8	11.5	11.1	11.5	11.2	11.1	11.7	11.4	11.8	11.5
(a) Total world demand	**90.7**	**91.7**	**93.2**	**93.5**	**93.7**	**95.1**	**95.3**	**94.4**	**94.6**	**94.7**	**96.4**	**96.5**	**95.6**
Non-OPEC supply													
OECD	22.2	24.3	25.3	25.3	24.2	24.7	24.8	24.8	24.8	24.5	24.4	24.8	24.6
Americas	18.2	20.1	21.1	21.0	20.1	20.5	20.5	20.5	20.4	20.2	20.3	20.5	20.3
Europe	3.6	3.6	3.8	3.9	3.7	3.8	3.9	3.8	4.0	3.8	3.6	3.9	3.8
Asia Pacific	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4
DCs	10.9	11.1	11.3	11.1	11.1	11.3	11.5	11.2	11.5	11.5	11.5	11.6	11.5
FSU	13.6	13.5	13.7	14.0	13.7	13.7	14.0	13.8	14.1	13.9	14.0	14.1	14.0
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
China	4.2	4.3	4.4	4.2	4.1	4.0	4.1	4.1	4.0	4.0	4.0	4.0	4.0
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	53.2	55.5	57.0	56.9	55.5	56.1	56.7	56.3	56.8	56.3	56.2	56.9	56.5
OPEC NGLs + non-conventional oils	5.8	6.0	6.1	6.2	6.3	6.3	6.3	6.3	6.4	6.4	6.4	6.5	6.4
(b) Total non-OPEC supply and OPEC NGLs	**59.0**	**61.5**	**63.1**	**63.2**	**61.7**	**62.4**	**63.0**	**62.6**	**63.1**	**62.7**	**62.6**	**63.4**	**63.0**
OPEC crude oil production (secondary sources)	31.2	31.0	32.1	32.5	32.8	33.2							
Total supply	90.2	92.5	95.2	95.7	94.5	95.6							
Balance (stock change and miscellaneous)	-0.5	0.9	2.0	2.2	0.8	0.5							
OECD closing stock levels (mb)													
Commercial	2,589	2,738	3,015	3,046	3,079								
SPR	1,584	1,580	1,587	1,593	1,591								
Total	4,174	4,318	4,602	4,639	4,670								
Oil-on-water	909	924	1,017	1,055	1,094								
Days of forward consumption in OECD													
Commercial onland stocks	56.5	59.2	64.8	66.1	65.9								
SPR	34.6	34.2	34.1	34.6	34.0								
Total	91.1	93.4	99.0	100.7	99.9								
Memo items													
FSU net exports	9.0	8.9	9.1	9.5	9.4	9.0	8.9	9.2	9.6	9.5	9.2	9.0	9.3
(a) - (b)	**31.7**	**30.2**	**30.1**	**30.3**	**32.0**	**32.8**	**32.3**	**31.8**	**31.5**	**32.1**	**33.7**	**33.0**	**32.6**

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

Source: OPEC Secretariat.

Table 10.4: 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	-0.1	-	-
Americas	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	0.1	-	-	-	-	0.1	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	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
(a) Total world demand	0.1	0.1	0.1	0.2	0.2	-	0.1	0.1	0.2	0.2	-	0.1	0.1
World demand growth	0.1	-	-	0.1	-	-0.1	-	-	-	-	-	-	-
Non-OPEC supply													
OECD	-	-	0.1	-	-0.1	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Americas	-	-	0.1	-	-0.1	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	0.1	0.1
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	0.1	-	-0.1	-	0.1	-	0.1	-	-	-	-
Total non-OPEC supply growth	-	-	0.1	-0.1	-0.2	-0.1	0.1	-0.1	0.1	0.2	-	-0.1	-
OPEC NGLs + non-conventionals	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	-	-	0.1	-	-0.1	-	0.1	-	0.1	-	-	-	-
OPEC crude oil production (secondary sources)	-	-	-	-	-	-							
Total supply	-	-	0.1	-	-0.1	-							
Balance (stock change and miscellaneous)	-0.1	-0.1	-0.1	-0.2	-0.3	-							
OECD closing stock levels (mb)													
Commercial	-	-	-	0	-14								
SPR	-	-	-	-	-2								
Total	-	-	-	0	-16								
Oil-on-water	-	-	-	-	-								
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	0	0								
SPR	-	-	-	-	-								
Total	-	-	-	0	0								
Memo items													
FSU net exports	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	0.1	0.1
(a) - (b)	0.1	0.1	0.1	0.2	0.3	-	-	0.1	0.2	0.1	-	0.1	0.1

*Note: * This compares Table 10.3 in this issue of the MOMR with Table 10.3 in the September 2016 issue.*
This table shows only where changes have occurred.

Source: OPEC Secretariat.

Table 10.5: OECD oil stocks and oil on water at the end of period

		2012	2013	2014	2015	3Q14	4Q14	1Q15	2Q15	3Q15	4Q15	1Q16	2Q16
Closing stock levels, mb													
OECD onland commercial		**2,683**	**2,589**	**2,738**	**3,015**	**2,749**	**2,738**	**2,814**	**2,907**	**2,983**	**3,015**	**3,046**	**3,079**
	Americas	1,365	1,316	1,446	1,590	1,416	1,446	1,483	1,537	1,571	1,590	1,620	1,636
	Europe	912	881	886	990	898	886	939	940	967	990	1,004	1,005
	Asia Pacific	405	392	405	435	436	405	392	430	445	435	421	438
OECD SPR		**1,547**	**1,584**	**1,580**	**1,587**	**1,578**	**1,580**	**1,583**	**1,585**	**1,579**	**1,587**	**1,593**	**1,591**
	Americas	696	697	693	697	693	693	693	696	697	697	697	697
	Europe	436	470	470	473	469	470	470	471	467	473	477	473
	Asia Pacific	415	417	417	416	417	417	420	418	415	416	419	421
OECD total		**4,230**	**4,174**	**4,318**	**4,602**	**4,328**	**4,318**	**4,397**	**4,492**	**4,562**	**4,602**	**4,639**	**4,670**
Oil-on-water		**879**	**909**	**924**	**1,017**	**952**	**924**	**864**	**916**	**924**	**1,017**	**1,055**	**1,094**
Days of forward consumption in OECD													
OECD onland commercial		**58**	**57**	**58**	**57**	**59**	**59**	**62**	**62**	**64**	**65**	**66**	**66**
	Americas	55	55	57	54	58	59	61	62	64	65	66	65
	Europe	68	66	67	65	66	66	69	66	71	73	72	71
	Asia Pacific	49	47	49	48	53	47	52	56	54	51	55	58
OECD SPR		**34**	**33**	**34**	**35**	**34**	**34**	**35**	**34**	**34**	**34**	**35**	**34**
	Americas	30	29	29	29	28	28	29	28	28	29	28	28
	Europe	30	31	32	35	35	35	35	33	34	35	34	33
	Asia Pacific	51	49	50	51	50	48	55	55	51	49	55	55
OECD total		**92**	**90**	**92**	**91**	**93**	**93**	**97**	**96**	**98**	**99**	**101**	**100**

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

Table 10.6: 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	13.5	13.5	13.6	-0.4	13.4	13.4	13.4	13.6	13.5	-0.2
Canada	4.0	4.3	4.4	4.5	4.6	4.4	0.0	4.6	4.5	4.6	4.6	4.6	0.2
Mexico	2.9	2.8	2.6	2.5	2.4	2.5	-0.1	2.4	2.3	2.3	2.2	2.3	-0.2
OECD Americas*	**18.2**	**20.1**	**21.1**	**20.5**	**20.5**	**20.5**	**-0.6**	**20.4**	**20.2**	**20.3**	**20.5**	**20.3**	**-0.2**
Norway	1.8	1.9	1.9	2.0	2.1	2.0	0.1	2.1	2.0	2.0	2.1	2.1	0.0
UK	0.9	0.9	1.0	1.0	1.0	1.0	0.1	1.1	1.1	0.9	1.1	1.0	0.0
Denmark	0.2	0.2	0.2	0.1	0.2	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	0.6	0.6	-0.1	0.6	0.6	0.6	0.6	0.6	0.0
OECD Europe	**3.6**	**3.6**	**3.8**	**3.8**	**3.9**	**3.8**	**0.1**	**4.0**	**3.8**	**3.6**	**3.9**	**3.8**	**0.0**
Australia	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 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**	**0.5**	**0.5**	**0.4**	**0.0**	**0.4**	**0.5**	**0.4**	**0.4**	**0.4**	**0.0**
Total OECD	**22.2**	**24.3**	**25.3**	**24.7**	**24.8**	**24.8**	**-0.5**	**24.8**	**24.5**	**24.4**	**24.8**	**24.6**	**-0.1**
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
Malaysia	0.6	0.7	0.7	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	0.0
Thailand	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
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	0.3	0.2	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Other Asia	**2.6**	**2.6**	**2.7**	**2.7**	**2.8**	**2.7**	**0.0**	**2.8**	**2.8**	**2.7**	**2.7**	**2.8**	**0.0**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.6	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	0.9	0.9	0.9	0.0
Trinidad & Tobago	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Latin America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Latin America	**4.8**	**5.0**	**5.2**	**5.2**	**5.3**	**5.1**	**-0.1**	**5.3**	**5.3**	**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**	**1.3**	**1.3**	**1.3**	**1.2**	**1.3**	**0.0**
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	0.4	0.4	0.4	0.4	0.4	0.1
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	0.2	0.2	0.2	0.0
Africa other	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.4	0.4	0.4	0.4	0.1
Africa	**2.1**	**2.1**	**2.1**	**2.1**	**2.2**	**2.1**	**0.0**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	**0.1**
Total DCs	**10.9**	**11.1**	**11.3**	**11.3**	**11.5**	**11.2**	**-0.1**	**11.5**	**11.5**	**11.5**	**11.6**	**11.5**	**0.3**
FSU	**13.6**	**13.5**	**13.7**	**13.7**	**14.0**	**13.8**	**0.1**	**14.1**	**13.9**	**14.0**	**14.1**	**14.0**	**0.2**
Russia	10.6	10.7	10.8	11.0	11.1	11.0	0.2	11.1	11.0	11.0	11.1	11.0	0.0
Kazakhstan	1.6	1.6	1.6	1.5	1.6	1.6	0.0	1.8	1.7	1.8	1.8	1.8	0.2
Azerbaijan	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.8	0.8	0.8	0.8	0.0
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**	**0.2**	**0.2**	**0.2**	**0.2**	**0.0**
China	**4.2**	**4.3**	**4.4**	**4.0**	**4.1**	**4.1**	**-0.3**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**-0.1**
Non-OPEC production	**51.0**	**53.3**	**54.8**	**53.9**	**54.5**	**54.1**	**-0.7**	**54.6**	**54.1**	**54.0**	**54.7**	**54.3**	**0.2**
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	**53.2**	**55.5**	**57.0**	**56.1**	**56.7**	**56.3**	**-0.7**	**56.8**	**56.3**	**56.2**	**56.9**	**56.5**	**0.2**
OPEC NGL	5.6	5.7	5.8	6.0	6.0	6.0	0.1	6.0	6.1	6.1	6.2	6.1	0.1
OPEC non-conventional	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
OPEC (NGL+NCF)	**5.8**	**6.0**	**6.1**	**6.3**	**6.3**	**6.3**	**0.2**	**6.4**	**6.4**	**6.4**	**6.5**	**6.4**	**0.1**
Non-OPEC & OPEC (NGL+NCF)	**59.0**	**61.5**	**63.1**	**62.4**	**63.0**	**62.6**	**-0.5**	**63.1**	**62.7**	**62.6**	**63.4**	**63.0**	**0.4**

*Note: * Chile has been included in OECD Americas.*
Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 10.7: World Rig Count

	2012	2013	2014	2015	*Change* 15/14	3Q15	4Q15	1Q16	2Q16	Aug 16	Sep 16	*Change* Sep/Aug
US	1,919	1,761	1,862	977	-885	866	754	551	420	481	508	27
Canada	364	354	380	192	-188	191	169	172	49	130	140	10
Mexico	106	106	86	52	-34	42	39	36	22	26	25	-1
Americas	2,390	2,221	2,327	1,221	-1,107	1,098	962	759	490	637	673	36
Norway	17	20	17	17	1	18	15	18	17	17	16	-1
UK	18	17	16	14	-2	13	12	9	9	9	8	-1
Europe	119	135	145	117	-28	109	110	104	92	96	92	-4
Asia Pacific	24	27	26	17	-9	16	15	10	6	6	4	-2
Total OECD	**2,533**	**2,383**	**2,499**	**1,355**	**-1,144**	**1,222**	**1,087**	**873**	**588**	**739**	**769**	**30**
Other Asia	172	180	194	175	-19	177	167	157	161	169	167	-2
Latin America	180	166	172	145	-27	149	128	83	62	61	64	3
Middle East	136	102	108	102	-6	100	106	98	92	83	81	-2
Africa	26	35	47	30	-16	27	22	21	19	14	14	0
Total DCs	**513**	**484**	**521**	**452**	**-69**	**454**	**423**	**359**	**334**	**327**	**326**	**-1**
Non-OPEC rig count	**3,046**	**2,867**	**3,019**	**1,807**	**-1,213**	**1,676**	**1,511**	**1,232**	**922**	**1,066**	**1,095**	**29**
Algeria	36	47	48	51	3	51	49	52	54	56	53	-3
Angola	9	11	15	11	-4	8	11	9	9	4	4	0
Ecuador	20	26	24	12	-12	12	4	3	3	4	6	2
Gabon	5	6	7	4	-3	4	2	1	1	0	0	0
Indonesia	45	38	34	27	-7	24	24	19	17	19	19	0
Iran**	54	54	54	54	0	54	54	57	57	57	57	0
Iraq**	58	83	79	52	-27	47	51	49	42	38	40	2
Kuwait**	31	32	38	47	8	44	42	41	42	47	48	1
Libya**	9	15	10	3	-8	1	1	1	1	1	1	0
Nigeria	36	37	34	30	-4	28	28	27	25	25	24	-1
Qatar	8	9	10	8	-3	7	6	7	7	5	9	4
Saudi Arabia	112	114	134	155	21	154	158	157	154	155	155	0
UAE	24	28	34	42	8	41	52	50	50	51	53	2
Venezuela	117	121	116	110	-6	114	112	111	103	95	93	-2
OPEC rig count	**562**	**620**	**637**	**606**	**-31**	**589**	**592**	**584**	**566**	**557**	**562**	**5**
Worldwide rig count*	**3,608**	**3,486**	**3,656**	**2,412**	**-1,244**	**2,265**	**2,103**	**1,816**	**1,488**	**1,623**	**1,657**	**34**
of which:												
Oil	2,594	2,611	2,795	1,727	-1,068	1,606	1,471	1,268	1,043	1,144	1,177	33
Gas	886	746	743	563	-180	536	509	422	315	344	348	4
Others	106	109	95	100	5	99	102	106	110	117	114	-3

Note: Totals may not add up due to independent rounding.
na: Not available.
Sources: Baker Hughes Incorporated & Secretariat's estimates.

* *Excludes China and FSU.*
** *Estimated figure when Baker Hughes Incorporated did not reported the data.*

Monthly Endnotes

OPEC Conference agrees to production target range and to develop framework of high-level consultations with other producers

The OPEC Conference opted for an OPEC-14 production target ranging between 32.5 and 33.0 mb/d, in order to accelerate the ongoing drawdown of the stock overhang and bring forward a rebalancing of the oil market. The decision came at an Extraordinary Meeting of the Conference held in Algiers, Algeria, on 28 September 2016.[1]

As a part of this effort, OPEC Member Countries also decided to conduct a serious and constructive dialogue with non-member producing countries, with the objective to stabilize the oil market and avoid adverse impacts in the short- and medium-term. The Conference further concurred that there was firm and common ground that continuous collaborative efforts among producers – both within and outside OPEC – would help restore the balance and sustainability in the market.

To this end, the Conference agreed to establish a High Level Committee comprising representatives of Member Countries, supported by the OPEC Secretariat, to study and recommend the implementation of the production level of the Member Countries. The Committee will also develop a framework of high-level consultations between OPEC and non-OPEC oil-producing countries, including identifying risks and taking pro-active measures that would ensure a balanced oil market on a sustainable basis, to be considered at the November OPEC Conference.

In its review of recent developments, the Conference noted that in the last two years the global oil market had witnessed many challenges, originating mainly from the supply side. As a result, prices had more than halved, while volatility increased. Oil-exporting countries' and oil companies' revenues had dramatically declined, putting strains on their fiscal position and hindering their economic growth. In light of this challenging environment, the oil industry was facing deep cuts in investment and massive layoffs, leading to a potential risk that oil supply may not meet demand in the future, with a detrimental effect on security of supply.

Taking into account current market conditions and immediate prospects, the Conference concluded that it is not advisable to ignore the potential risk that the present stock overhang may continue to weigh negatively well into the future, with a worsening impact on producers, consumers and the industry.

[1] *http://www.opec.org/opec_web/en/press_room/3706.htm*

US Federal Reserve proposes stronger limits on financial firm activities in physical commodities

The US Federal Reserve has proposed strengthening requirements and limitations on financial firms active in physical commodity markets, as well as greater transparency regarding their activities.[2]

The Fed has signaled the need to restrict the commodity activities of banks since the start of regulatory reform efforts following the financial crisis, claiming that they were exploiting a "gap" in regulation. A congressional study in 2014 also called financial firm activities in commodity markets "outsized" and charged that firms had an unfair competitive advantage.

Deregulation in 1999 allowed banks to engage in non-banking activities and services, including a broader range of physical commodity activities if determined by the Fed to be complementary to their financial activity. Some 14 banks have used this authority including Bank of America, Barclays, BNP Paribas, Citigroup, Deutsche Bank, JPMorgan and Wells Fargo. Additionally, Goldman Sachs and Morgan Stanley were exceptionally given 'grandfathered' authority to store, extract and transport commodities, even though other banks are barred from doing so. They maintained this even after converting to bank holding companies in 2008 at the height of the financial crisis when the Fed was engaged in preventing a collapse of the financial system.

As background to the proposal, the Fed highlighted a "number of legal, reputational and financial risks associated with the conduct of physical trading activities." Particularly noted were the monetary damages associated with environmental catastrophe involving physical commodities, as well as damages associated with "unauthorized release of many physical commodities from a storage facility or transportation vessel". Additionally, the Fed also noted that experience gained in supervising financial firms had also raised concerns whether some of these activities "were sufficiently connected to financial activities."

The current proposal uses existing Fed authority to establish risk-based requirements as well as to rescind authority to conduct certain activities that are not deemed sufficiently connected to financial activities. The Fed proposal would do the following:

- set a punative 1,250% risk weighted capital charge for grandfathered activities, as well as a 300% charge for complementary activities.
- revoke permission to engage in physical commodities tied to power plants.
- reclassify copper from a precious metal to an industrial metal, thus barring financial firms from holding inventories.
- require more detailed and regular data reporting of commodity holdings and activities of these banks.

Even before the release of the proposals, many financial firms had already pulled out of physical commodity activities in anticipation of stronger rules. JP Morgan sold its physical commodity business in 2014 and Morgan Stanley exited its extensive physical oil business in 2015. Goldman Sachs continues to trade physical commodities, particularly natural gas, but has sold off commodity trading infrastructure.

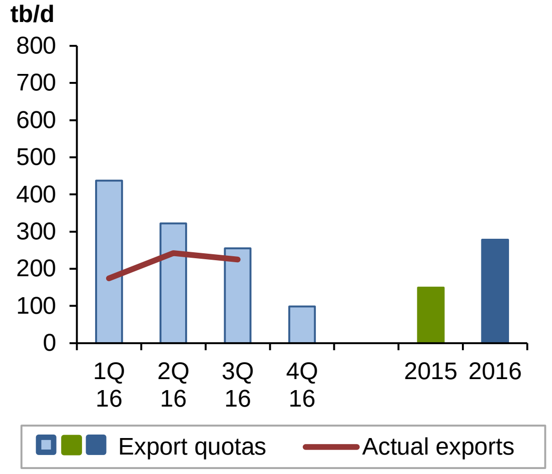
In a separate report to Congress earlier in September, the Fed also called for the repeal of the exemption granting Goldman Sachs and Morgan Stanley unique permission to own pieces of commodity infrastructure.

[2] *https://www.federalreserve.gov/newsevents/press/bcreg/20160923a.htm*

China's product export quotas reflect growing export outflows of transportation fuels

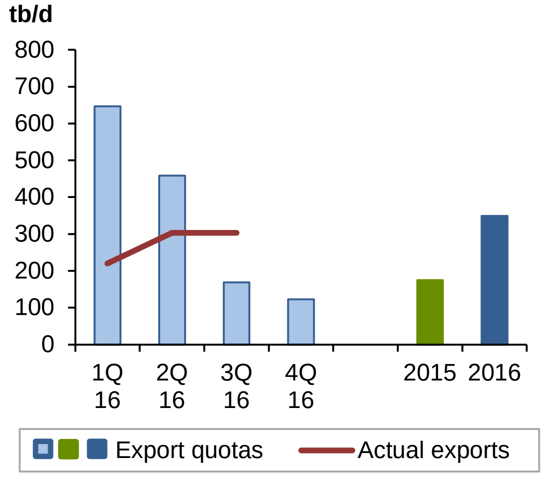
China's government set its fourth round of product export quotas in September. Taken together with the other three rounds, this brings total quotas for the respective oil products to 973 t/bd, up almost 60% from the previous year. The government sets quotas for four oil products, namely gasoline, gasoil, and jet fuel (***Graph 11.1-11.3***) as well as for naphtha.

Graph 11.1: Gasoline export quotas



Sources: Energy Aspects, Thomson Reuters and OPEC Secretariat.

Graph 11.2: Gasoil export quotas

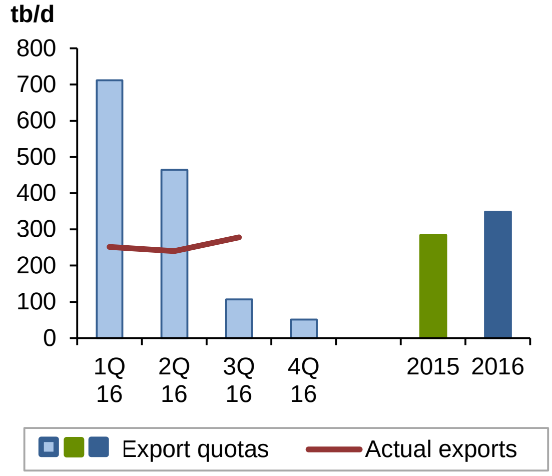


Sources: Energy Aspects, Thomson Reuters and OPEC Secretariat.

In past years, the quotas have only been allotted to the four state-run refineries, namely, Sinopec, PetroChina, CNOOC and Sinochem. The quotas are set in four rounds released each quarter. This year, the independent Chinese refineries – known as 'teapots' – have also been included in the quota system. These include Shouguang Luqing, Huifeng Petrochemical, Chambroad Petrochemicals and Beifeng. Unused quota volumes can be carried over into subsequent quarters, although not into the following year. This year, the government set quotas higher in the first half of the year and then reduced them in 2H16.

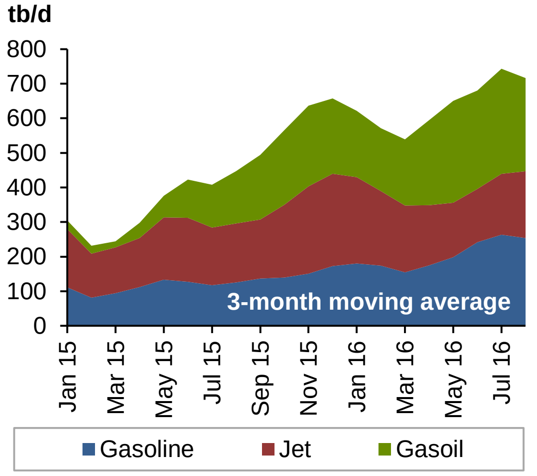
In total, product export quotas for gasoil this year have been set at 349 tb/d, up 100% from last year. Quotas for gasoline at 279 tb/d (+87%) and jet fuel at 334 tb/d (+18%). Export quotas are also set for naphtha, however, both quotas and actual exports are quite negligible. The increase in quotas is in line with the acceleration in net exports of these products seen since the beginning of last year (***Graph 11.4).***

Graph 11.3: Jet fuel export quotas



Sources: Energy Aspects, Thomson Reuters and OPEC Secretariat.

Graph 11.4: Net exports, selected products



Sources: OPEC Secretariat.

IMF members pledge to use all policy tools to achieve stronger growth, resist protectionism

Member states of the International Monetary Fund (IMF) pledged to use all policy tools – including structural reforms, fiscal and monetary policies – both individually and collectively, to achieve "strong, sustainable, inclusive, job-rich, and more balanced growth".

"We are strengthening policies to bolster confidence and resilience, safeguard financial stability, and ensure that all members of society have the opportunity to benefit from globalization and technological change," according to the Communique of the 34th Meeting of the International Monetary and Financial Committee (IMFC).

Members also reaffirmed their commitment to communicate policy stances clearly and resist all forms of protectionism. "We will also redouble our commitment to maintain economic openness and reinvigorate global trade as a critical means to boost global growth," according to the Communique.

In its review of the global economy, the IMFC observed that the recovery continues slowly and unevenly, and growth is expected to pick up only slightly next year, mostly on account of emerging market economies. It further noted that economic performance and resilience have improved in some economies and near-term risks in financial markets have largely abated.

However, concerns were also noted. The outlook for the global economy remains subdued against the backdrop of modest global demand growth and remaining output gaps; a slowdown in global trade, investment, and productivity; and rising geopolitical uncertainty and medium-term financial risks. The persistently low growth has exposed underlying structural weaknesses, and risks further dampening potential growth and prospects for inclusiveness. Lower productivity growth and remaining crisis legacies in advanced economies, challenges from ongoing adjustments and vulnerabilities in some large emerging market economies, and the effects of lower commodity prices on exporting countries continue to weigh on the outlook. "Overall, uncertainty and downside risks are elevated, while longstanding headwinds persist," the Communique said.

The IMFC expressed its concern that the outlook is increasingly threatened by inward-looking policies, including protectionism, and stalled reforms, despite the fact that the global economy has benefited tremendously from globalization and technological change. Members highlighted their commitment to "design and implement policies to address the concerns of those who have been left behind and to ensure that everyone has the opportunity to benefit from globalization and technological change."

OPEC, along with some international organizations, attended the meeting as an observer. In a statement to the IMFC, the OPEC Secretary General, HE Mohammad Sanusi Barkindo, reaffirmed OPEC's longstanding commitment to support oil market stability for the mutual benefit of consuming and producing nations. He noted that crude oil prices have recovered from the multi-year lows seen at the start of the year and that the market has been supported by expectations for a continued re-balancing of market fundamentals.

Contributors to the OPEC Monthly Oil Market Report

Editor-in-Chief

Oswaldo Tapia, Head, Energy Studies Department, In Charge of Research Division
email: otapia(at)opec.org

Editor

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

Analysts

Crude Oil Price Movements	Eissa Alzerma email: ealzerma(at)opec.org
Commodity Markets	Hector Hurtado email: hhurtado(at)opec.org
World Economy	Afshin Javan email: ajavan(at)opec.org Imad Al-Khayyat email: ial-khayyat(at)opec.org Joerg Spitzy email: jspitzy(at)opec.org
World Oil Demand	Hassan Balfakeih email: hbalfakeih(at)opec.org
World Oil Supply	Mohammad Ali Danesh email: mdanesh(at)opec.org
Product Markets and Refinery Operations	Elio Rodriguez email: erodriguez(at)opec.org
Tanker Market *and* Oil Trade	Anisah Almadhayyan email: aalmadhayyan(at)opec.org
Stock Movements	Aziz Yahyai email: ayahyai(at)opec.org
Monthly Endnotes	Douglas Linton email: dlinton(at)opec.org
Technical and editorial team	Aziz Yahyai email: ayahyai(at)opec.org Douglas Linton email: dlinton(at)opec.org

Data services

Adedapo Odulaja, Head, Data Services Department (aodulaja(at)opec.org),
Hossein Hassani, Statistical Systems Coordinator (hhassani(at)opec.org),
Pantelis Christodoulides (World Oil Demand),
Klaus Stoeger (World Oil Supply and World Economy),
Mouhamad Moudassir (Product Markets and Refinery Operations),
Mohammad Sattar (Crude Oil Price Movements, Commodities, Tanker Market and Oil Trade), Ryszard Pospiech (Stock Movements)

Editing, production, design and circulation

Alvino-Mario Fantini, Maureen MacNeill, Scott Laury,
Viveca Hameder, Hataichanok Leimlehner, Andrea Birnbach

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OPEC Basket average price *US$/b*

down 0.21 in September

September 2016	42.89
August 2016	43.10
Year-to-date	**38.54**

September OPEC crude production *mb/d, according to secondary sources*

up 0.22 in September

September 2016	33.39
August 2016	33.17

Economic growth rate *per cent*

	World	OECD	US	Japan	Euro-zone	China	India
2016	2.9	1.6	1.5	0.7	1.5	6.5	7.5
2017	3.1	1.7	2.1	0.9	1.2	6.1	7.2

Supply and demand *mb/d*

2016		**16/15**	**2017**		**17/16**
World demand	94.4	1.2	World demand	95.6	1.2
Non-OPEC supply	56.3	–0.7	Non-OPEC supply	56.5	0.2
OPEC NGLs	6.3	0.2	OPEC NGLs	6.4	0.1
Difference	**31.8**	**1.8**	**Difference**	**32.6**	**0.8**

OECD commercial stocks *mb*

	Jun 16	Jul 16	Aug 16	Aug 16/Jul 16	Aug 15
Crude oil	1,550	1,549	1,528	–21.3	1,487
Products	1,529	1,562	1,566	3.8	1,490
Total	**3,079**	**3,111**	**3,094**	**–17.4**	**2,977**
Days of forward cover	65.7	66.6	66.7	0.1	64.6

Next report to be issued on 11 November 2016.