OPEC

Monthly Oil Market Report

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Feature article:

The Winter Product Markets Outlook

Organization of the Petroleum Exporting Countries

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Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket rose to $53.44/b in September, its highest value since July 2015. Crude futures prices also saw gains, with ICE Brent averaging above the $55/b, supported by increasing evidence that the oil market is heading toward rebalancing. Geopolitical tensions and lower distillates stocks also pushed prices higher. ICE Brent averaged $55.51/b in September, a gain of $3.64, while NYMEX WTI increased $1.82 to average $49.88/b. Hedge funds raised net long position in ICE Brent and NYMEX WTI futures and options by almost 200,000 contracts. At the end of the month, the Brent crude contract curve had flipped into backwardation through December 2021. The sweet/sour spread widened significantly in Asia and Europe.

World Economy

Growth in the world economy continues to improve, with the forecast for 2017 revised up to 3.6% from 3.5% in last month's report. Similarly, the 2018 forecast has been adjusted higher to 3.5% from 3.4%. The improving momentum is visible in all economies, particularly the OECD, which is seen growing by 2.2% in 2017 and by an upwardly revised 2.1% in 2018. US growth in 2018 has been revised up to 2.3% and the EU to 1.9% for the same year. Russia has also seen an upward revision for 2018 to now stand at 1.6%, compared to 1.4% in the previous report. Growth expectations for India and China were left unchanged for both 2017 and 2018.

World Oil Demand

World oil demand growth in 2017 is now expected to increase by 1.5 mb/d, representing an upward revision of around 30 tb/d from last previous report, mainly reflecting recent data showing an improvement in economic activities. Positive revisions were primarily a result of higher-than-expected oil demand from the OECD region and China. In 2018, world oil demand is anticipated to grow by 1.4 mb/d, following an upward adjustment of 30 tb/d over the previous report, due to the improving economic outlook in the world economy, particularly China and Russia.

World Oil Supply

Non-OPEC oil supply is expected to grow by 0.7 mb/d in 2017, following a downward revision of 0.1 m/bd from the previous report. In 2018, the growth in non-OPEC oil supply saw a downward revision of 60 tb/d to stand at 0.9 mb/d. OPEC NGLs and non-conventional liquids production are seen averaging 6.5 mb/d in 2018, representing an increase of 0.2 mb/d, broadly in line with growth in the current year. In September, OPEC crude oil production increased by 88 tb/d, according to secondary sources, to average 32.75 mb/d.

Product Markets and Refining Operations

Product markets in the Atlantic Basin improved further in September as the top of the barrel saw support from higher gasoline demand. Middle distillate markets continue to improve globally on the back of healthy demand, depleted stocks and along with regional refinery maintenance. However, the bottom of the barrel in Asia and Europe saw some pressure on low demand and high inventory levels. Product markets are expected to see support in 4Q17 from healthy demand for winter fuels.

Tanker Market

Average dirty vessel spot freight rates rose in September, compared to the previous month, supported by enhanced activity across several trading routes. Higher Aframax rates were the main driver behind the strength in sentiment, while average VLCC and Suezmax freight rates showed lesser growth. However, the tanker market still suffers from oversupply of ships which often cap rates gains. In the clean tanker market, spot freight rates showed also a positive development mostly attributed to stronger west of Suez market as tonnage demand in the Mediterranean increased. Additionally, prompt replacements gave a further support to freight rates. Spot freight rates are expected to strengthen in 4Q17 supported by winter seasonal demand.

Stock Movements

Total OECD commercial oil stocks fell in August to stand at 2,996 mb. At this level, OECD commercial oil stocks are 171 mb above the latest five-year average. Crude and products stocks indicate a surplus of around 146 mb and 25 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stand at 63.2 days in August, 2.6 days higher than the latest five-year average.

Balance of Supply and Demand

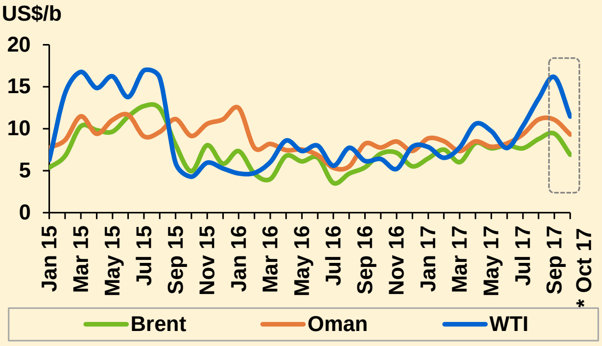
Based on the current global oil supply/demand balance, OPEC crude in 2017 is estimated at 32.8 mb/d, around 0.6 mb/d higher than in 2016. Similarly, OPEC crude in 2018 is projected at 33.1 mb/d, about 0.3 mb/d higher than in 2017.

Feature Article

The Winter Product Markets Outlook

Oil product markets in the major consuming regions performed well this summer, favoured by the seasonally-higher gasoline demand. US refinery markets averaged as high as $20/b by the end of the summer, representing an improvement over the same period last year and close to the high levels seen in July 2015 (***Graph 1***). Products markets in Europe were also healthy, supported by the strengthening middle distillate complex, as well as planned maintenance. Meanwhile, a slight improvement was observed in the Asian market due to continued healthy demand in the region this year. In terms of individual products, the gasoline market performed better this summer compared to the same period last year. Healthy demand along with arbitrage volumes heading to the US Atlantic Coast supported the refinery margins. Middle distillates also improved, boosted by healthy economic activity.

Graph 1: Refinery margins

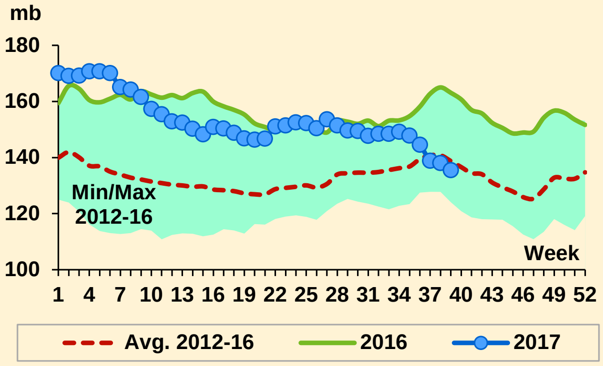


*Note: * Based on data for week ending 6 October.*
Sources: Argus and OPEC Secretariat.

Looking ahead to the coming quarters, crack spreads tend to peak during the driving season and then drop into the fourth quarter, as lower gasoline demand outweighs the pick-up in distillate consumption from colder weather. Last year, the warmer-than-normal winter weather particularly weighed on product markets. In contrast, the current forecast for this year expects winter temperatures to be colder than last year, leading to higher consumption in distillates, which include heating oil.

With the market moving into the winter season, distillate fuel supplies are notably tight, representing a change from the excess supplies seen in the last two years. US distillate inventories started 2017 above the five-year range but have since fallen below the five-year average (***Graph 2***). As noted in last month's Feature Article, disruptions caused by Hurricane Harvey have deepened the already steady drawdown in US distillate stocks. Although daily refinery margins fell back from a spike to $26.20/b, they still remained around $12/b, well above the $6-7/b level seen over the same period last year.

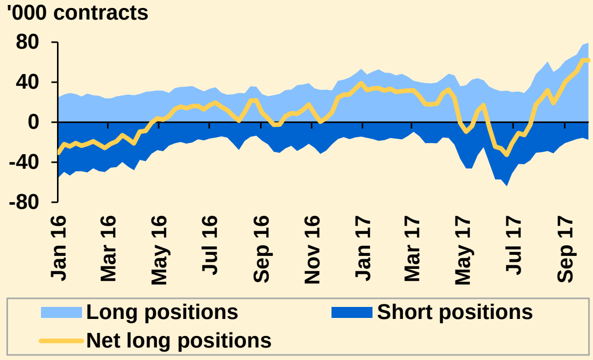
Graph 2: US weekly distillates inventories



Sources: Energy Information Administration and OPEC Secretariat.

An additional factor supporting middle distillates has been support from bullish sentiment in the futures market. Hedge funds have accumulated a record high heating oil futures positions (***Graph 3***), anticipating distillate stocks will remain relatively tight this winter.

Graph 3: US heating oil managed money futures positions, NYMEX



Sources: CFTC and OPEC Secretariat.

As a result, refinery margins are likely to continue to see support, remaining at seasonally-high levels. This, together the ongoing improvement in global economic activity, should provide support for the oil market over the winter season.

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Crude Oil Price Movements

The OPEC Reference Basket (ORB) increased by about 8% for the third consecutive month in September to reach $53.44/b, its highest value since July 2015.The ORB also ended 3Q17 higher at about $50/b, while its year-to-date (y-t-d) value rebounded to above the $50/b level. Oil prices found major support from improving market fundamentals, particularly as related to oil market rebalancing with OPEC and participating non-OPEC oil producers continuing to successfully drain the oil market of excess barrels as demonstrated by a voluntary conformity level with production adjustments that has surpassed 100% so far. The physical crude oil market was also very strong over the month. Y-t-d, the ORB's value was 30.1%, or $11.59 higher, at $50.13/b.

Month-on-month (m-o-m), oil futures surged further in September, with ICE Brent gaining more than 7% and averaging above $55/b, supported by increasing evidence that the oil market is heading toward rebalancing, geopolitical tensions in Iraq's Kurdistan region and lower distillate stocks ahead of the winter season. ICE Brent ended $3.64, or 7%, higher, to stand at $55.51/b on a monthly average basis, while NYMEX WTI increased $1.82, or 3.8%, to $49.88/b. Y-t-d, ICE Brent is $9.33, or 21.6%, higher at $52.51/b, while NYMEX WTI rose by $7.84, or 18.9%, to $49.36/b.

The ICE Brent/NYMEX WTI spread widened significantly to reach its widest level since August 2015, making US crude the most attractive grades for arbitrage into both Europe and Asia. Hurricane damage to US refineries hit demand for WTI and pressured prices, while Brent prices were boosted by OPEC and non-OPEC output adjustments, maintenance to North Sea oil fields and strengthening demand in Europe. The spread widened to $5.64/b m-o-m, a $1.83, or 48%, expansion.

The surge in oil prices attracted fresh speculative length in September. Hedge funds have become strongly bullish on the outlook for all parts of the petroleum complex. Hedge funds and other money managers raised their combined net long position in futures and options linked to ICE Brent and NYMEX WTI by 196,579 contracts, about 197 mb of crude oil, over the month to the week ending 26 September.

Since last month, the front end of the Brent crude contract curve flipped into backwardation through December 2019, reflecting tighter supplies and strong refinery demand. In contrast, the WTI contango worsened, which continues to signal large oversupply. Hurricane Harvey exacerbated the excess of US domestic supply. The Dubai market structure was in backwardation, causing differentials for Middle Eastern crudes to reach their highest premiums in months.

Sweet/sour differentials in Asia and Europe widened significantly, as light sweet Brent outright prices improved markedly compared to sour grades. In the US Gulf Coast (USGC), the spread remained almost unchanged for the second consecutive month at $3.11/b. The Tapis/Dubai, Brent/Dubai and Brent/Urals spreads widened to $4.76/b, $2.56/b and $1.18/b, respectively.

OPEC Reference Basket

The **ORB** monthly and y-t-d values rebounded to above $50/b in September. The ORB increased sharply for the third consecutive month, jumping a hefty 8% to reach its highest value since June 2015 and nearing the $55/b level. The ORB also ended 3Q17 higher at about $50/b.

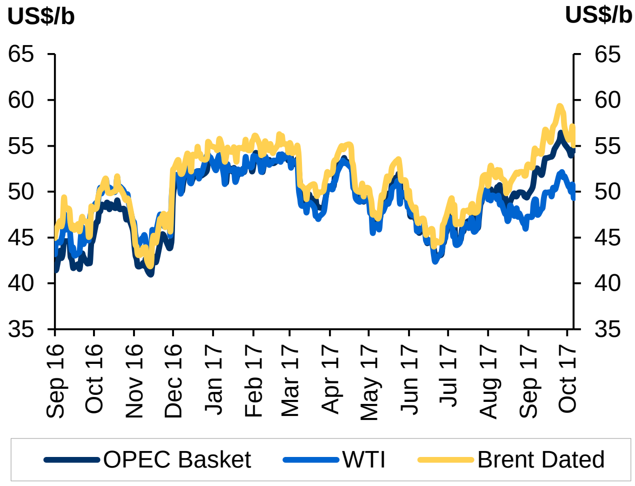
Oil prices rose steeply in September amid major support from improving market fundamentals, particularly as relates to the oil market rebalancing as OPEC and key non-OPEC oil producers continue to successfully drain the oil market of excess barrels as demonstrated by a more than 100% conformity level so far with their voluntary production adjustments this year. Supporting this surge in oil prices was heightened geopolitical risk as Turkey threatened to cut oil flows from Iraq's Kurdistan region toward its ports, putting more pressure on the Kurdish region over its independence referendum. Prices also rose on tightening US distillate stocks as its supplies contracted while exports continue to be robust. Physical crude oil differentials also showed a noticeable improvement due to strong demand, firm refining margins and tight supplies.

In addition to seasonal refined products demand, unplanned refinery shutdowns in Europe and the USGC have helped refining margins globally. Oil field maintenance as well as the ongoing lower supply of sour crudes, particularly in Asia and Europe, due to the OPEC and non-OPEC production adjustment, has underpinned physical crude oil values. Oil price gains have also been supported by anticipated demand from US refiners resuming operations after shutdowns due to Hurricane Harvey.

Nevertheless, the market was also under pressure from a build in US oil inventories resulting from lower refinery runs on the USGC due to the shutdown of several refineries when Hurricane Harvey hit.

M-o-m, the **ORB value** rose $3.84, or 7.7%, to settle at $53.44/b on a monthly average basis. For 3Q17, the ORB was 3.1%, or $1.50, higher at $49.98/b. Compared to the previous year, the ORB value was 30.1%, or $11.59, higher at $50.13/b.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

ORB component values improved along with relevant crude oil benchmarks and monthly changes in their respective OSP differentials. A healthy physical market, particularly in the North Sea, also supported ORB components linked to Brent. Crude oil physical benchmarks, namely Dated Brent, Dubai and WTI spot prices, increased by $4.41/b, $3.27/b and $1.68/b, respectively.

The uplift in the Brent crude benchmark along with elevated price differentials supported light sweet crude **Basket components from West and North Africa**, boosting prices sizably to above $55/b. Saharan Blend, Es Sider, Girassol, Bonny Light, Equatorial Guinea's Zafiro and Gabon's Rabi values increased by $4.74 on average, or 9.2%, to $56.07/b. Physical crude price differentials for these grades remain high, on higher demand from Asia, particularly China and India. Booming refinery profits are helping West African oil producers to sell cargoes at higher values, aided by a shortage in certain types of crude amid the OPEC and non-OPEC producing countries' voluntary production adjustments and geopolitical disturbances. Nevertheless, sales from storage, spurred on by a flat forward structure in Brent prices, capped West African crude price differentials.

Latin American ORB components Venezuelan Merey and Ecuador's Oriente edged up to $49.13/b and $51.30/b, gaining $3.75, or 8.3%, and $3.85, or 8.1%, respectively. Tight sour crude supplies in the USGC and high exports continue to support these grades, despite the shutdown of several heavy conversion refineries on the USGC.

Buoyed again by the uplift in OSP offsets and support from healthy Asian demand as they prepared to ramp up heating oil production for peak winter demand in the northern hemisphere, the value of **multiple-region destination grades** Arab Light, Basrah Light, Iran Heavy and Kuwait Export improved further. On average, these grade values expanded by $3.63 for the month, or 7.4%, to $52.71/b.

Middle Eastern spot components, Murban and Qatar Marine, saw their values improve by $3.43, or 6.7%, to $54.94/b and $3.20, or 6.4%, to $52.91/b, respectively. Spot premiums for Middle East crude for year-end loading have hit multi-month highs, spurred on by robust demand in Asia. Asian buyers snapped up spot cargoes this month after Saudi Aramco and the Abu Dhabi National Oil Company lowered supplies and as they both prepared to ramp up heating oil production for peak winter demand.

On 10 October, the ORB stood at $54.23/b, 79¢ above the September average.

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

			Change		*Year-to-date*	
	Aug 17	Sep 17	Sep/Aug	%	2016	2017
Basket	**49.60**	**53.44**	**3.84**	**7.7**	**38.54**	**50.13**
Arab Light	49.63	53.29	3.66	7.4	38.73	50.24
Basrah Light	49.26	53.03	3.77	7.7	37.25	49.57
Bonny Light	51.69	56.55	4.86	9.4	42.09	52.12
Es Sider	50.31	55.07	4.76	9.5	40.91	50.34
Girassol	52.31	56.83	4.52	8.6	41.78	52.03
Iran Heavy	48.70	52.27	3.57	7.3	37.14	49.60
Kuwait Export	48.70	52.23	3.53	7.2	36.90	49.39
Qatar Marine	49.71	52.91	3.20	6.4	39.24	50.75
Merey	45.38	49.13	3.75	8.3	31.24	45.47
Murban	51.51	54.94	3.43	6.7	42.79	52.68
Oriente	47.45	51.30	3.85	8.1	36.16	47.52
Rabi Light	50.69	55.10	4.41	8.7	40.84	50.79
Sahara Blend	51.31	56.32	5.01	9.8	42.57	51.55
Zafiro	51.67	56.57	4.90	9.5	40.56	51.55
Other Crudes						
Dated Brent	51.66	56.07	4.41	8.5	41.91	51.81
Dubai	50.24	53.51	3.27	6.5	39.14	51.02
Isthmus	52.92	55.20	2.28	4.3	39.96	52.83
LLS	51.08	54.68	3.60	7.0	43.14	51.74
Mars	47.91	51.57	3.66	7.6	38.12	48.30
Minas	45.91	49.20	3.29	7.2	39.79	47.24
Urals	51.30	54.89	3.59	7.0	40.23	50.72
WTI	48.03	49.71	1.68	3.5	41.35	49.33
Differentials						
Brent/WTI	3.63	6.36	2.73	-	0.56	2.48
Brent/LLS	0.58	1.39	0.81	-	-1.23	0.08
Brent/Dubai	1.42	2.56	1.14	-	2.77	0.79

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

The oil futures market

Oil futures surged further in September, with **ICE Brent** gaining more than 7% and averaging above the $55/b level, supported greatly by increasing evidence that the oil market is heading toward rebalancing, geopolitical tensions in Iraq's Kurdistan region and lower distillate stocks ahead of the winter season.

Earlier in the month, US oil futures edged higher as oil refineries and pipelines in the USGC slowly resumed activity as damage by Hurricane Harvey to the oil infrastructure in the USGC appeared less extensive than some had feared. Prices were also supported by a rally in the oil product markets, with US gasoline futures hitting a two-year high above $2/gal, buoyed by fears of a fuel shortage just days ahead of the Labour Day weekend that typically brings a surge in driving. Hurricane Harvey, which brought record flooding to the US oil heartland of Texas, had paralysed at least 4.4 mb/d of refining capacity.

Oil prices rose further as strong global refining margins and the reopening of USGC refineries provided a more bullish outlook after sharp drops due to the hurricane. A few days later, crude oil futures tumbled on worries that energy demand would be hit hard as Hurricane Irma, the second major hurricane to approach the US in two weeks, one of the most powerful storms in a century, headed toward Florida and the Southeast. Oil prices rebounded with Brent closing at a five-month high, as the dollar weakened and after a string of reports forecast the market would tighten further as fuel demand increased.

Oil prices further improved despite a rise in US crude inventories, with the market heading for its largest third-quarter gain in 13 years after news that OPEC and non-OPEC producers were considering extending output adjustments. OPEC, Russia and several other oil producers have adjusted production by about 1.8 mb/d since the start of 2017, helping lift oil prices by about 15% in the past three months. In subsequent days, oil prices soared after major producers said the global market was on its way to rebalancing, while Turkey threatened to cut oil pipeline flows from Iraq's Kurdistan region toward its ports.

Toward the end of the month, oil prices ended lower after investors took profits following a rally to 26-month highs, but on average, oil prices closed the month up.

ICE Brent ended September $3.64, or 7.0% higher, to stand at $55.51/b on a monthly average basis, while **NYMEX WTI** increased $1.82, or 3.8%, to $49.88/b. Y-t-d, ICE Brent is $9.33, or 21.6%, higher at $52.51/b, while NYMEX WTI rose by $7.84, or 18.9%, to $49.36/b.

Crude oil futures prices improved in the second week of September. On 10 October, ICE Brent stood at $56.61/b and NYMEX WTI at $50.92/b.

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

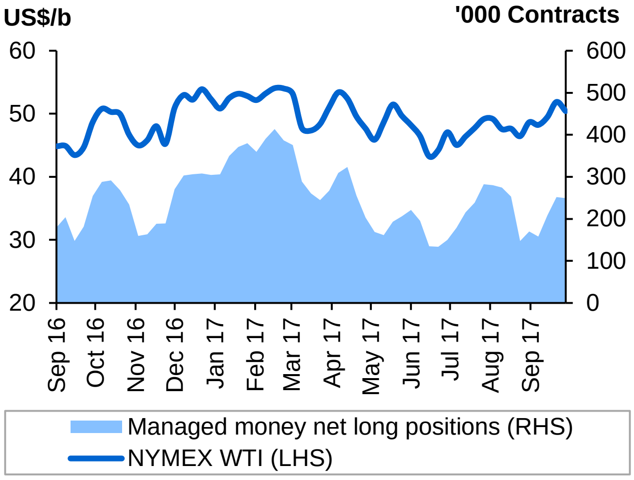
			Change		*Year-to-date*	
	Aug 17	Sep 17	Sep/Aug	%	2016	2017
NYMEX WTI	48.06	49.88	1.82	3.8	41.53	49.36
ICE Brent	51.87	55.51	3.64	7.0	43.17	52.51
Transatlantic spread	**3.81**	**5.64**	**1.83**	**47.9**	**1.65**	**3.15**

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

The boost in oil prices attracted fresh **speculative length** in September. Hedge funds have become strongly bullish on the outlook for all parts of the petroleum complex, amid signs that global crude stocks are declining and fuels will be in short supply after hurricane-related refinery outages. But with so many fund managers already betting heavily on a further rise in prices, the market has become disproportionate, and the risk of a sharp reversal has increased significantly.

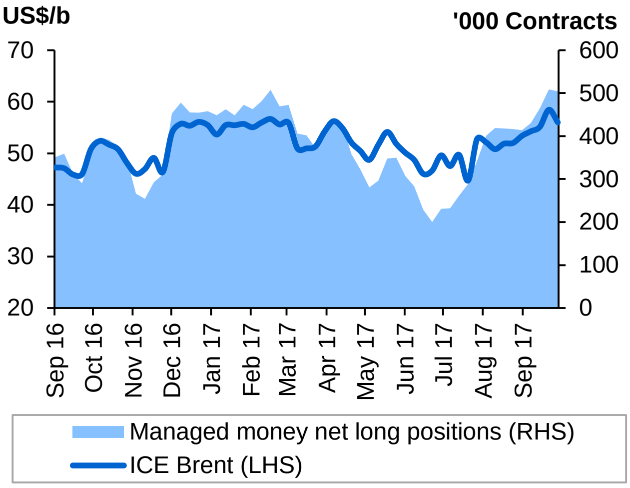
Hedge funds and other money managers raised their **combined net long positions** in futures and options linked to ICE Brent and NYMEX WTI by 196,579 contracts, about 197 mb of crude oil, over the month to the week ending 26 September. Fund managers have amassed net long positions amounting to 760,433 lots, or 760 mb of oil, in a clear sign of returning confidence.

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



Sources: CFTC , CME Group and OPEC Secretariat.

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



Sources: Intercontinental Exchange and OPEC Secretariat.

The net long positions in **Brent** rose by 92,094 contracts to 508,645 lots, or 509 mb of oil, the highest level in six months, according *the US Commodity Futures Trading Commission (CFTC)* and *ICE data*. Meanwhile, net long positions in **WTI** increased by 104,485 contracts to 251,788 lots. Hedge fund positioning in Brent and especially WTI is less lopsided, with net positions and ratios in both crudes well below the peaks set earlier this year. The total futures and options **open interest** volume in the two exchanges was also up 8.6% at 6.16 million contracts.

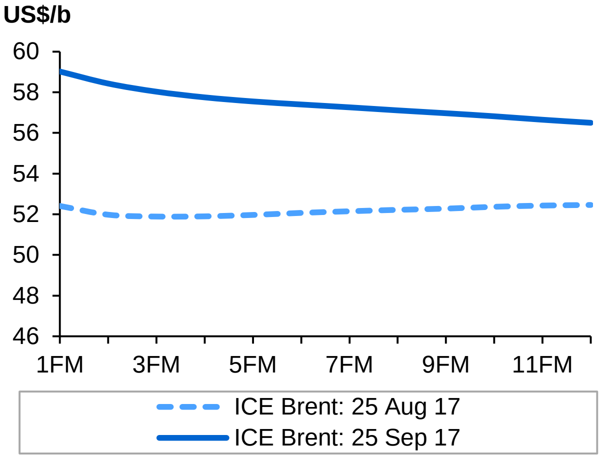
The **daily average traded volume** for **NYMEX WTI** contracts dropped by 131,254 lots, or 8.7%, to 1,378,549 contracts, while that of **ICE Brent** was just 2,499 contracts higher, up by 0.3% at 944,497 lots. Daily aggregate traded volume for both crude oil futures markets decreased by 128,756 contracts to 2.32 million futures contracts, or about 2.3 billion b/d of crude oil. Total traded volume NYMEX WTI and ICE Brent futures in September was lower at 27.57 million and 19.83 million contracts, respectively, due to shorter days of trading over the month compared to the previous month.

The futures market structure

Since last month, the front end of the Brent crude contract curve has flipped into backwardation, where prices in the near term are more expensive than those further out, while US crude futures remain in a contango, where near-term supplies are cheaper, through next year.

Global marker **Brent**'s backwardation extended past close-by months to contracts through December 2021, reflecting tighter supplies due to the supply adjustments by OPEC and non-OPEC producers as also more West African crude moving to Asia and floating storage disappeared. Strong refinery demand both in Europe and Asia has helped clear up an overhang of oil that was stored at sea when the structure of the physical forward market was in a contango. Meanwhile, unplanned global production outages, which were at a five-month high of 1.85 mb/d in September, up from a multi-year low in July, is helping to strengthen backwardation in the Brent forward curve. Several of the supply disruptions are set to extend through to year-end, when refinery runs will pick up amid exceptionally higher margins and new capacity starting in China, so the strength in physical grades will persist. This backwardation will help drain inventories at a faster rate in the months ahead.

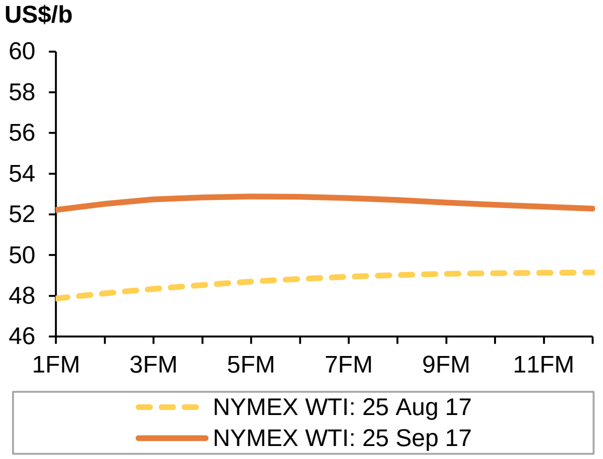
Graph 1 - 4: ICE Brent forward curves



Note: FM = future month.
Sources: Intercontinental Exchange and OPEC Secretariat.

In contrast, the **WTI** contango worsened, which continues to signal large oversupply. Hurricane Harvey exacerbated excess US domestic supply by forcing the closure of nearly 25% of US refining capacity and half a dozen USGC ports and pipelines earlier in the month. At the US storage hub of Cushing, Oklahoma, the delivery point of the WTI contract, inventories are still near seasonal highs at almost 60 mb. During the height of summer demand, stocks fell by around 2.5 mb per month, but those stocks will need to fall faster to allow a switch to backwardation.

Graph 1 - 5: NYMEX WTI forward curves



Note: FM = future month.
Sources: CME Group and OPEC Secretariat.

The Dubai market structure was in backwardation over most of August and September, during which period differentials for some Middle Eastern crudes reached their highest premiums against Dubai in months, which suggests that refiners drew down some of the massive stocks they had built up. The backwardation in the Dubai markets enticed further commercial refinery crude stock draws in China, a trend that has continued in September.

The Dubai M1 8¢/b discount to M3 flipped into a premium of 24¢/b, improving 32¢. The North Sea Brent M1/M3 30¢ backwardation strengthened to 56¢/b, a 26¢ improvement. In the US, the WTI contango worsened by 35¢ as WTI's (M1-M3) widened to 80¢/b.

The NYMEX WTI crude front month discount to the same month of ICE Brent futures fell to $5.64/b, its lowest since August 2015, making US crude the most attractive grade for arbitrage into both Europe and Asia. Hurricane damage to US refineries hit demand for WTI and pressured prices, while Brent prices were boosted by OPEC and non-OPEC producers' output adjustments, maintenance to North Sea oil fields and strengthening demand in Europe for distillates. With this large gap in the price of a barrel of US WTI crude and Brent, the international benchmark, US oil exports rose to an all-time high of 1.98 mb/d in the last week of September, surpassing the previous record of nearly 1.5 mb/d that was seen during the previous week. This has also created an opportunity for USGC condensate, such as Eagle Ford, to find its way into the Asian market. This increasing arrival of arbitrage crude is set to put significant pressure on locally-sourced grades. The first-month ICE Brent/NYMEX WTI spread widened to $5.64/b in September, a $1.83, or 48%, expansion.

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

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	25 Aug 17	47.87	48.12	48.34	48.83	49.15	1.28
	25 Sep 17	52.22	52.52	52.74	52.86	52.28	0.06
	Change	**4.35**	**4.40**	**4.40**	**4.03**	**3.13**	**-1.22**
ICE Brent	25 Aug 17	52.41	51.98	51.89	52.07	52.46	0.05
	25 Sep 17	59.02	58.43	58.03	57.40	56.50	-2.52
	Change	**6.61**	**6.45**	**6.14**	**5.33**	**4.04**	**-2.57**

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

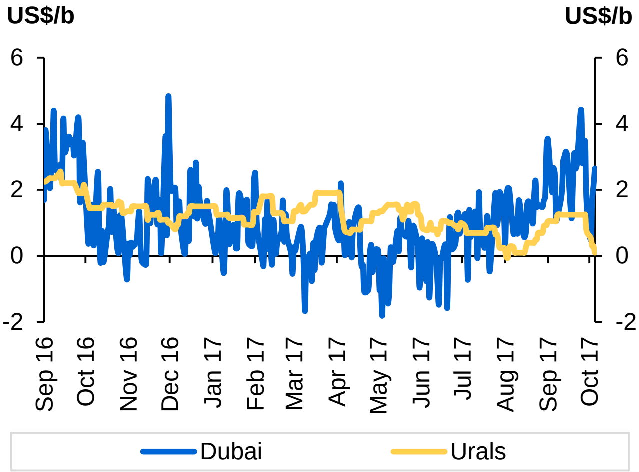
The light sweet/medium sour crude spread

The sweet/sour differentials in Asia and Europe widened significantly in all markets, as outright prices from light sweet Brent improved markedly compared to sour grades. In the USGC, the spread remained unchanged for the second consecutive month.

In **Asia**, the Tapis premium over Dubai increased for the fourth month in a row, despite ongoing lower sour crudes supplies. The spread widened as the Brent/Dubai spread increased further to climb above $2.50/b, which further slowed the west-east arbitrage movement for Atlantic Basin crudes. This made the domestic Asian grade more attractive despite the arbitrage flows of light sweet and condensate barrels from the USGC to Asia. The lack of arbitrage flows from the northern Atlantic Basin helped Asian-sourced grades perform well on the spot market as refiners increased their intake. Higher crude differentials for West African crudes also made them less attractive to Asian buyers. Moreover, the continuing healthy demand for Asia Pacific light sweet crudes amid firm refining margins in Asia and the brief requirement for refined products to export to the US as a result of Hurricane Harvey supported the trend. Condensate pricing also firmed on steady demand coupled with supply issues. The shorter supply picture came from news that the Iranian South Pars field has to undergo unplanned maintenance in October as well as less Qatari condensate being offered in recent months. This has created an opportunity for USGC condensate, such as Eagle Ford, to find its way into the Asian market.

The Tapis/Dubai spread widened by $1.32 to $4.76/b. The Dated Brent/Dubai spread widened, improving by $1.40 to the advantage of Brent, at a $2.56/b premium compared with the previous month's $1.42/b premium.

Graph 1 - 6: Brent Dated vs. sour grades (Urals and Dubai) spread



Sources: Argus Media, OPEC Secretariat and Platts.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude increased sharply by 82¢ to $1.18/b, strongly revising the two-year low premium of the previous month. Urals price differentials to sour crude in the Atlantic Basin were marked by the strength of physical Brent.

A considerable decrease in floating storage in the North Sea and healthy margins fuelled higher refinery intake. Furthermore, the sweet-sour spread widened as Urals differentials underwent a significant downward correction after having almost reached parity against Dated Brent. This improved the incentive to process the Russian medium, sour grade, especially for European and Asian refiners, but the wider Brent/Dubai spread is set to limit the ability of arbitrage into Asia.

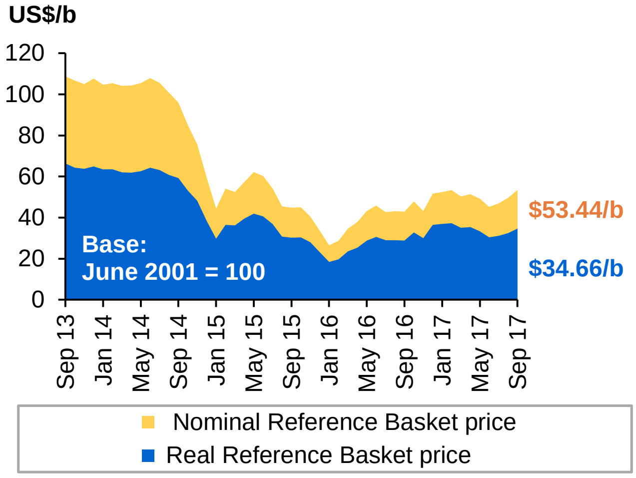
In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium sour Mars remained almost unchanged at $3.11/b. Meanwhile, USGC crude price differentials to WTI rose sharply after Brent's premium widened over WTI, with sour grades such as Mars trading at a premium to WTI. Strong exports were also a driving factor for the increase in certain USGC grades. Additional support for Mars also came from production disruptions, with BP having closed its Thunder Horse platform, just as some relief was expected to come from the restart of the 375 tb/d Zydeco pipeline. This follows hurricane-related disruptions earlier in the month.

Impact of US dollar and inflation on oil prices

On average, the **US dollar (USD)** generally declined at the beginning of the month, as expectations for interest rate hikes by the US Federal Reserve were lower on uncertainties surrounding the potential economic impact of Hurricanes Harvey and Irma and those around the Korean peninsula. However, interest rate expectations were adjusted upward in the second half of September as those earlier concerns receded. Furthermore, the US Federal Reserve left the door open for an additional rate hike this year. These developments translated into strengthening of the US dollar. This trend continued at the beginning of October, helped by expectations of higher US growth related to tax reform proposals unveiled at the end of the month of September by the US government. On average, the dollar dropped by 0.9% m-o-m against the euro, but the trend of depreciation reversed, reflecting overall dollar strength towards the end of the month and the uncertainties surrounding the Catalonian government push for independence. The dollar was lower on average by 0.3% against the Swiss franc. It also lost 2.6% against its Canadian counterpart, due to the impact of the second-consecutive interest rate increase by the Bank of Canada in September. The dollar was down by 2.7% m-o-m against the pound sterling as Bank of England officials suggested their willingness to increase interest rates this year. However, the dollar advanced on the Japanese yen on average by 0.7% m-o-m.

However, the US dollar declined by 1.7% against Chinese yuan on average in August, though the majority of losses were reversed towards the end of the month on top of dollar strengthening. The dollar advanced by 0.7% m-o-m against the Indian rupee, but it recently weakened against it after the Reserve Bank of India left interest unchanged at the beginning of October. The dollar declined against commodity exporters' currencies; for example, by 0.5% m-o-m against the Brazilian real and 3.2% against the Russian rubble, mainly due to strengthening petroleum prices. The US dollar was stable during the month in relation to the Mexican peso.

Graph 1 - 7: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price[1]



Source: OPEC Secretariat.

In nominal terms, the price of the **OPEC Reference Basket (ORB)** increased by $3.84, or 7.7%, from $49.60/b in August to $53.44/b in September. In real terms, after accounting for inflation and currency fluctuations, the ORB increased to $34.66/b in September from $32.60/b (base June 2001=100) the previous month. Over the same period, the US dollar declined by 0.8% against the import-weighted modified Geneva I + US dollar basket*, while inflation was flat.

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

Commodity Markets

In September, energy commodity prices generally increased, led by higher crude oil prices. Natural gas prices in the US and Europe increased due to favourable weather patterns. Base metals continued to be supported by strong prospects for global manufacturing activity, but some signs of deceleration in the economy of China and rising copper inventories caused a dip in prices. Gold prices rose in the first half of the month due to increased geopolitical uncertainty but declined towards the end of the month on a relatively hawkish tone by the US Federal Reserve (Fed) at its September meeting.

Trends in selected commodity markets

Average **energy prices** in September increased by around 5.4% and have been around 26.2% in the January-to-September period compared with the previous year. In September, the **Henry Hub natural gas index** was up by 9¢, or 2.7%, to $2.96/mmbtu, after trading at an average of $2.88/mmbtu the previous month. The *US Energy Information Administration* said utilities added 42 bcf of **working gas to underground storage** during the week ending 29 September 2017. This was below the median 47 bcf injection expected by analysts. Total working gas in underground storage stood at 3,508 bcf, 4.4% lower than at the same time the previous year, and 0.2% lower than the previous five-year average. During the month, the US Climate Prediction Centre (CPC) issued a La Nina watch with a 55%-60% chance of occurrence in the Northern Hemisphere during fall-winter 2017/2018. This phenomenon is normally associated with colder winter conditions in some regions of the country, and if it materializes, it would be supportive of natural gas demand. Natural gas prices in Europe advanced with average prices increasing by 4.4% to $5.51/mmbtu. Natural gas inventories for EU Member States increased to 84.6% full at the end of September from 76.7% the previous month, though last year's end-of-September inventories were at 90.3%, according to data from *Gas Infrastructure Europe*. Australian **thermal coal prices** advanced on average by 1.0% to $96.9/Mt, though they declined in the second half of the month following readings of industrial production and fixed asset investments in China in August that were below market expectations. However, raw coal output in China decelerated in August to 4.1% higher y-o-y versus 8.5% higher y-o-y in July, and further output cuts due to environmental regulation could provide support in the winter months.

Table 2 - 1: Commodity price data

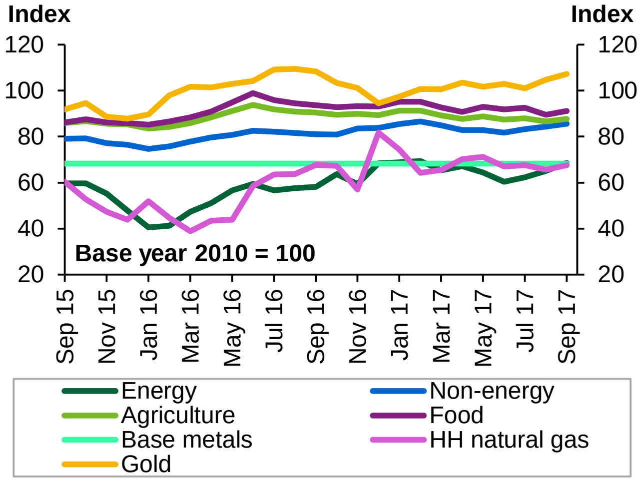
Commodity	Unit	*Monthly averages*			*% Change*	*Year-to-date*	
		Jul 17	Aug 17	Sep 17	Sep 17/Aug 17	2016	2017
Energy*		**62.3**	**65.0**	**68.5**	**3.5**	**52.1**	**65.7**
Coal, Australia	US$/mt	87.5	95.9	96.9	1.0	56.8	85.0
Crude oil, average	US$/b	47.7	49.9	53.0	3.0	40.7	50.8
Natural gas, US	US$/mbtu	3.0	2.9	3.0	0.1	2.3	3.0
Natural gas, Europe	US$/mbtu	5.2	5.3	5.5	0.2	4.4	5.5
Non-energy*		**83.3**	**84.3**	**85.6**	**1.3**	**79.5**	**84.2**
Agriculture*		**88.0**	**86.5**	**87.7**	**1.4**	**88.9**	**88.7**
Food*		**92.6**	**89.5**	**91.2**	**1.9**	**92.1**	**92.4**
Base metal*		**82.1**	**88.4**	**90.5**	**2.4**	**66.2**	**82.4**
Precious metals*		**95.6**	**99.4**	**101.8**	**2.4**	**98.1**	**97.6**

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

During the month, **average base metal prices** increased by 2.4%, partly due to baseline effects from the previous month. Metal prices are on average around 25% higher year-to-date, compared to the same period last year, and continue to show the best performance among the commodity groups since the beginning of the year. However, the metals rally that started in June stalled for some group components.

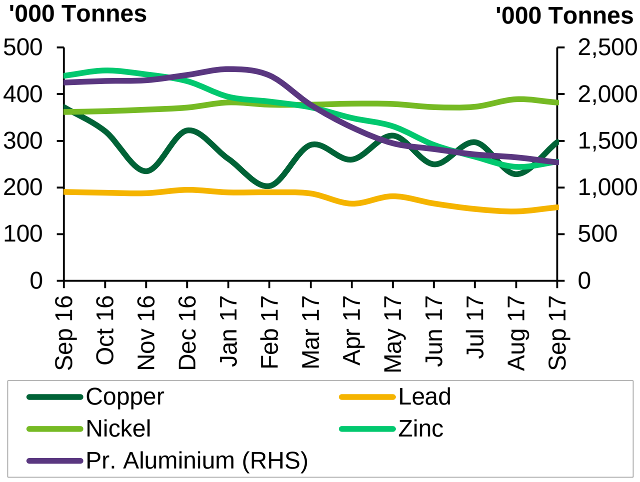
Copper inventories in the London Metal Exchange rose by around 30%, while the aforementioned deceleration in industrial production and fixed asset investment in China in August weighed on prices. Nonetheless, on the positive side, manufacturing surveys continued to signal resilient global manufacturing. The JP Morgan global manufacturing Purchasing Managers' Index (PMI) stayed unchanged at a 75-month high of 53.1 in September, thanks to further improvements in activity in the US and the Eurozone, providing support to metal prices at the beginning of October. Meanwhile, amid geopolitical uncertainty and the potential impact of the hurricane season on the US economy, gold prices reached their highest level since July 2016. However, as those concerns receded and the Fed left the door open for an additional rate hike this year, gold prices lost around 5% from their peak.

Graph 2 - 1: Major commodity price indices



Source: World Bank, Commodity price data.

Graph 2 - 2: Inventories at the LME



Sources: London Metal Exchange and Thomson Reuters.

Investment flows into commodities

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

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

	Open interest		*Net length*			
	Aug 17	Sep 17	Aug 17	% OI	Sep 17	% OI
Crude oil	2,246	2,365	247	11	198	8
Natural gas	1,324	1,316	66	5	99	8
Precious metals	675	755	206	31	296	39
Copper	329	303	117	36	109	36
Total	**4,574**	**4,739**	**636**	**82**	**703**	**91**

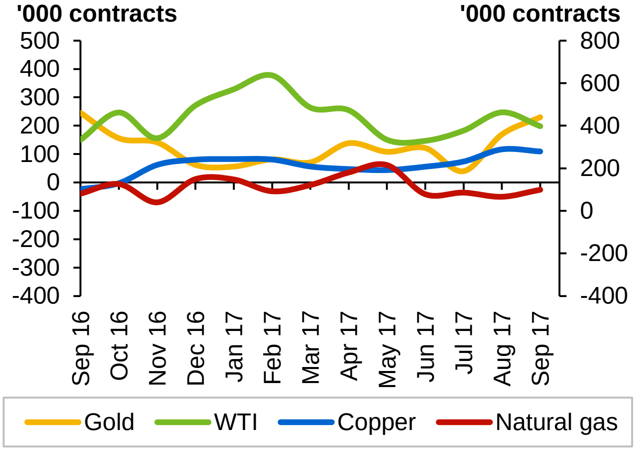
Note: Data on this table is based on monthly average.
Source: US Commodity Futures Trading Commission.

Henry Hub's natural gas OI decreased slightly by 0.7% m-o-m in September. Money managers increased their net length by half to 99,000 contracts, one month before the beginning of seasonal withdrawal.

Copper's OI decreased by 7.7% m-o-m in September. Money managers decreased their net long positions by 6.4% to 109,000 contracts in September. Speculator positions have increased and remain elevated since the start of the last rally, which spanned four months.

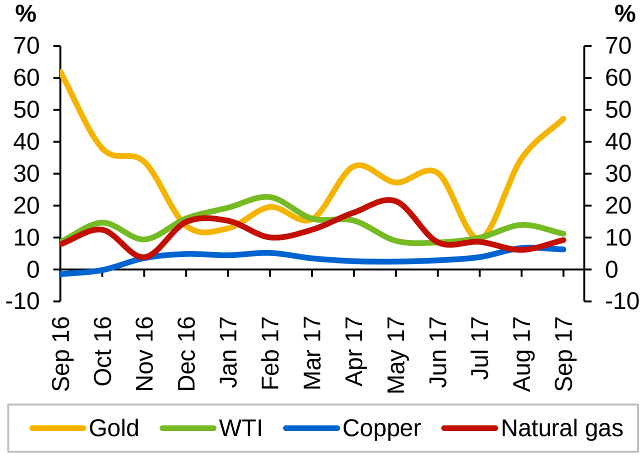
Precious metals' OI increased by 11.8% in September, while money managers turned more bullish, as shown by a jump in their net long positions by 44% during the month to 206,000 contracts. This put the money managers' net length as a share of open interest at 47.3%.

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



Note: Data on this graph is based on monthly average.
Source: US Commodity Futures Trading Commission.

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



Note: Data on this graph is based on monthly average.
Source: US Commodity Futures Trading Commission.

World Economy

Ongoing positive momentum in 2H17 OECD growth, coming after a better-than-expected 1H17 output, as well as the potential tax reform in the US in 2018, the ongoing growth dynamic in the Euro-zone (and to some extent in Japan), solid growth in China and India, and an improving situation in Russia are all lifting the global growth forecast to 3.6% in 2017 and 3.5% in 2018.

The OECD's GDP growth in 2017 remained at a solid level of 2.2%, while its 2018 GDP growth forecast was revised up to 2.1% from 2.0%. This uptick was mainly supported by expectations of an ongoing strong growth dynamic in the Euro-zone and the US in the coming year, the latter of which will gain further support from the underlying growth dynamic through a potential tax cut. In emerging economies, China's growth will slow somewhat in 2018 but remains considerable and has been better than expected so far in 2017. India's growth will pick up again in the coming year supported by ongoing reforms. Brazil and Russia's recovery will continue in 2018, with Russia's growth having been lifted to 1.8% in 2017 and 1.6% in 2018.

Geopolitical developments and the pace of monetary policy normalisation, particularly in the US and the Euro-zone, will be aspects that will need close monitoring. Seemingly high valuations in equity and bond markets, combined with low volatility, are another risk at a time when central banks have become more willing to reduce monetary stimulus measures. Debt levels also remain high in some key economies. Stability in the oil market remains a key determinant for global economic growth as well.

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

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
2017	**3.6**	**2.2**	**2.1**	**1.6**	**2.2**	**1.5**	**6.7**	**6.9**	**0.5**	**1.8**
Change from previous month	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.3
2018	**3.5**	**2.1**	**2.3**	**1.2**	**1.9**	**1.4**	**6.3**	**7.5**	**1.5**	**1.6**
Change from previous month	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2

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

OECD

OECD Americas

US

Underlying growth in the US is solid and most indicators point at a continuation of the current dynamic. The most recently published tax framework, which proposes simplifying the tax code along with lower corporate taxes and other reforms, may lift growth further in the coming year. The positive momentum has also been supported by improvements in the labour market, another positive aspect that was pushing up private household consumption. Importantly, the Federal Reserve (Fed) also acknowledged the improvements and highlighted that the normalisation of interest rates should not move forward too gradually since inflation may also be affected by this development.

In its third and final estimate, **US GDP growth** in 2Q17 was revised up to a considerable level of 3.1% q-o-q at a seasonally adjusted annualised rate (SAAR) after a previous estimate of 3.0% q-o-q SAAR and a first estimate of 2.6% q-o-q SAAR. The main driver for the strong number was personal household consumption, which expanded by 3.3% q-o-q SAAR, the outcome also of a considerably strengthening labour market. Exports rose by 3.5% q-o-q SAAR, after rising by 7.3% q-o-q SAAR in 1Q17, a development that was also positively impacted by the weakening of the US dollar in the 2Q17 and the 3Q17. Investments continued to grow, with a considerable share coming from the energy sector. The negative impacts of the hurricane season seem to be temporary and may affect mainly the 3Q17 by around 0.3 percentage points (pp), with ongoing reconstruction efforts to recover some of the lost economic activity in the 4Q17 and 1H18. Another and probably even more significant upside risk for 2018 may be the implementation of the US administration's envisaged tax reform. A tax framework was released at the end of September. While it lays out the main aspects of a potential tax reform, the main details will now need to be worked out by the relevant committees in Congress. In this regard, a potential upcoming debate on the debt ceiling as its expiration in December looms will also probably need close monitoring.

US administration's tax reform proposal

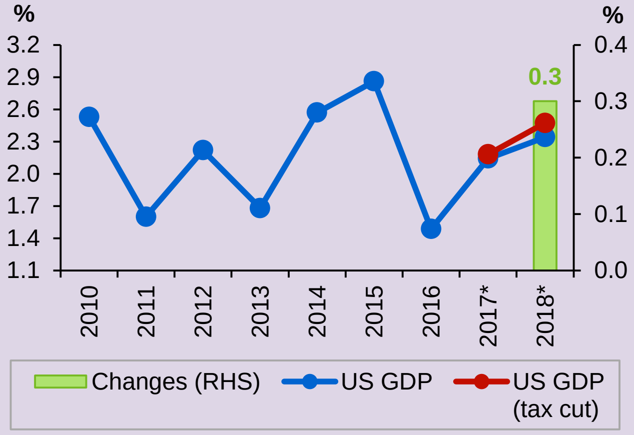
The US administration's proposal, **"Unified Framework for Fixing Our Broken Tax Code",** highlights the main principles of a tax reform proposal presented recently. This "framework" focuses on proposed changes to both corporate and individual taxes. Given the release of this proposal, the previously advocated **Border Adjustment Tax (BAT)** now seems to have been superseded.

With regard to corporate taxes, the main changes involve a rate reduction from the current **35%** to **20%**, a one-time repatriation tax to encourage companies to bring home a majority of the **$2.6 trillion** cash that are held by US corporations outside the US, and a provision allowing businesses to immediately write off all new depreciable investments.

Pertaining to individual taxes, the current seven tax brackets will be reduced to three (though to what incomes the three brackets would apply has not been specified), with a top tax rate reduction from **39.6%** to **35.0%** and allowing additional room for tax deductions.

The impact on the **US economy** remains somewhat unquantifiable pending further information. Based on a first estimate of the **Tax Policy Center**, this reform would amount to a tax cut of **$2.4 trillion** over the next **ten years**. As this would exceed budget deficit requirements, the final amount of savings will likely be lower. The latest 2018 Budget Resolution from the Senate considers tax cuts of up to **$1.5 trillion** in ten years. Considering this most recent debate and budgetary requirements, a tax cut of between **$500 billion** and **$1.5 trillion** over the next ten years seems reasonable, which could be implemented by the second half of 2018. Based on half-a-year effect of a **$500 billion** tax reform (i.e. of **$50 billion per annum)**, **2018 US GDP** growth may be positively impacted by a magnitude of **0.1 pp to 0.3 pp**. This also should have a consequent positive effect on oil demand.

Graph 3 - 1: US real GDP growth



*Note: * 2017 - 2018 = Forecast.*
Source: Haver Analytics, Oxford Economic Models and OPEC Secretariat.

The **global economy** would likely be **positively impacted** by a potential rise in US GDP, and trade counterparts should benefit from an increase in US consumption. Negatively, the likelihood of rising US interest rates – as an outcome of better economic performance – may lower capital flows to **Emerging Economies** (EMs), pressuring their economic activity and oil demand growth. The medium-term effect of the proposal, also depending largely on the counter-financing measures, remains to be seen.

The **US energy industry**, which currently pays an effective tax rate of up to **35%**, is set to potentially gain significantly from the corporate tax reform plan, also with new deductibility measures and a lower tax rate immediately having a positive effect on profits. Depending on oil price levels, this could also lead to rising **investments**, which may also be encouraged by rising **oil demand**, assuming that individual tax cuts would lead to rising oil consumption. Another important aspect in the tax framework is the capping of corporate deductions for interest payments, which could negatively impact the highly leveraged shale companies currently benefitting from this deductibility. However, the net effect due to the reforms may be positive for these producers.

Before this proposal is dealt with in greater detail in the coming months, looming budget issues will need to be finalised first. While this framework assumes so-called "dynamic scoring" – that a tax cut will be self-financed by rising economic growth, i.e. by an increase in tax revenues – it may be more realistic to assume that the budget deficit would grow with potential effects on the US public finances.

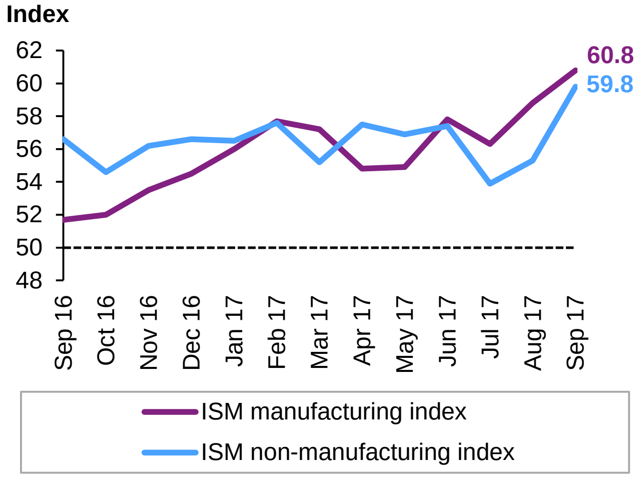
With regards to the **US monetary policy**, it seems the Fed may go ahead with its plans to gradually normalise its monetary policy, given the ongoing momentum in the US economy. In a unanimous decision at its September meeting, the Fed confirmed plans to reduce its balance sheet and, hence, monetary supply. Additionally, the Fed left the target range for the federal funds rate unchanged at 1.0% to 1.25%, while indicating that a hike in the key interest rate remains possible in December. The Fed highlighted that recently inflation had dropped more than expected and consequently lowered its core inflation target from 1.7% to 1.5%. Despite this development, most board members expect to raise rates at the end of the year as the decline in inflation was considered to be transitory. At the same time, the Fed will start the process of unwinding its balance sheet by gradually decreasing the reinvestment of principal by $10 billion as outlined in its June meeting. The decision was also a vote of confidence for the positive momentum in the US economy as the Fed gave a broadly optimistic outlook on the current economic picture. At 2.4%, the estimate for growth this year was somewhat stronger than June's outlook of 2.2%, with negative impacts from the recent hurricanes seen as temporary. While the Fed has highlighted that its future path is contingent on the development in the domestic economy in general, the labour market inflation and potential spill-overs to the global economy, the most recent comments seem to indicate that the Fed will pursue with its tightening cycle as planned. Inflation stood at 1.9% y-o-y in August, again rising for a second consecutive month. Core inflation, excluding volatile items as food and energy, remained at 1.7% y-o-y for the fourth consecutive month, below the Fed's inflation target of around 2%.

The **labour market's** positive momentum continued but was clearly negatively impacted by the hurricane season as non-farm payrolls fell by 33,000 in the latest August labour market report. It showed that jobs in the leisure and hospitality industry fell last month, with employment falling by 111,000 as many workers were off payrolls due to the hurricanes. Positively, the unemployment rate fell to 4.2% and average hourly earnings growth for the private sector moved up to 2.9% y-o-y, the highest since the end of 2016. Long-term unemployment numbers rose again to stand at 25.5% in September, after it had improved slightly to 24.7% in August. Finally, the participation rate rose to 63.1%, comparing to 62.9% in August and in July.

Industrial production also seems to have been impacted by the weather conditions in August as industrial production decelerated to 1.5%, compared to a rise of 2.4% in July. **Domestic demand** held up well in August and was supported by retail sales growth numbers, which stood at 3.2% y-o-y, albeit slightly below the July level of 3.5% y-o-y. The generally positive trend in domestic consumption was also visible in the Conference Board's Consumer Confidence Index, which stood at 119.8 in September, only slightly below the already considerable level of 120.4 in August.

August's **Purchasing Managers' Index** (PMI) for the manufacturing sector, as provided by the Institute of Supply Management (ISM), also indicated ongoing support in the underlying economy, with very strong numbers in both the manufacturing and non-manufacturing sectors. The manufacturing PMI increased to 60.8 in September, compared to an already high level of 58.8 in August and 56.3 in July. The important index for the services sector, which constitutes more than 70% of the US economy, rose to 59.8, after a level of 55.3 in August.

Graph 3 - 2: Manufacturing and non-manufacturing ISM indices



Sources: Institute for Supply Management and Haver Analytics.

The **GDP growth forecast** for both 2017 remained at 2.1%. While the 3Q17 growth may be negatively impacted by the weather related effects, further GDP growth may materialise via reconstruction efforts after the hurricane season in the 4Q17. By taking a slightly positive outcome of the US administration's tax proposal into consideration, the 2018 GDP growth forecast was revised up to 2.3% from 2.2%. There is further room to the upside, depending on the outcome of the now ongoing budget and tax related discussions in Congress.

Canada

After GDP growth in 2Q17 confirmed the ongoing recovery in the Canadian economy, the momentum seems to be well supported. **Industrial production** increased by 5.5% y-o-y, albeit slightly below the July level of 7.8% y-o-y. **Retail trade** also continued to expand to the considerable level of 7.8% y-o-y in July, comparing to 7.4% y-o-y in June and 7.3% y-o-y in May, all at a nominal seasonally adjusted level. The **PMI** for manufacturing rose again to a significant level of 55.0 in September, rising by 0.4 index points from the August level of 54.6. Another support factor will be the ongoing dynamic in the US economy and the impact this will have on the Canadian economy, given that the US is Canada's second-largest trading partner after China. Taking this positive momentum into consideration, the **GDP growth** forecast for 2017 was revised up to 2.8%, from 2.5%. GDP growth in 2018 was lifted to 2.1% from 1.9%.

OECD Asia Pacific

Japan

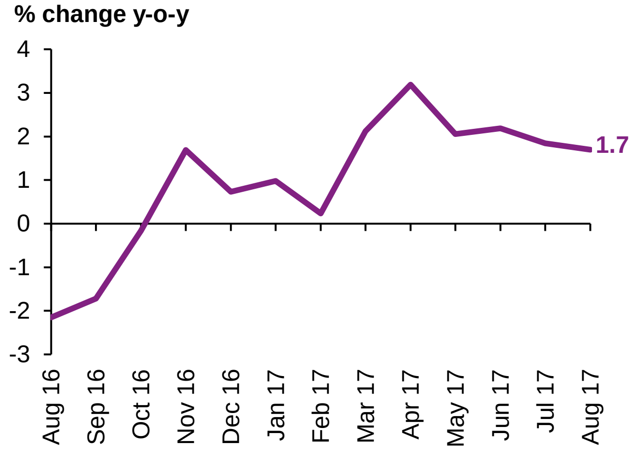
After the 2Q GDP level confirmed the good underlying momentum, the dynamic seems to continue with the latest Tankan Survey levels pointing at also solid economic growth in the 2H17. 2Q17 was slightly revised down to 2.5% q-o-q SAAR from its previous estimate of 2.6% q-o-q SAAR. While this underscores solid momentum and the strengthening of the Japanese economy, it is, however, much lower than the first growth estimate by the Statistical Office of 4.0% q-o-q SAAR for 2Q17. Private consumption, which makes up 60% of GDP growth, was confirmed at 3.4% q-o-q SAAR, significantly more than in 1Q17, when it only increased by 1.5% q-o-q. Ongoing ultra-low unemployment and again rising income levels are also supporting inflation, while it remains to be seen, if this development is temporary. Exports are also rising further and the ongoing monetary and fiscal stimulus is also providing a sound base for growth in the coming quarter. While 2017 is almost at its end, the outcome of the upcoming elections that were surprisingly called for by the Prime Minister to be held 22 October will certainly also have an impact in the near term economic development. So, political developments will be an influential factor for Japan, not only domestically, but also externally, considering the latest geopolitical tensions in the Asian region.

Inflation was higher in August, increasing by 0.7%, compared with 0.4% y-o-y in July. Tight labour markets are slowly supporting wage growth, which was up by 0.6% y-o-y in July, the highest level in the past four months. Core inflation (which excludes food and energy) also showed a better performance as it stood at 0.0% y-o-y in August, the highest level in five months and above the -0.1% seen in July. The **unemployment rate** remained at the extremely low level of 2.8% for a third month in a row, a situation that may also lead to rising wages and acceleration in inflation.

Japanese exports were again a considerable support in August, as external trade rose by a large 18.1% y-o-y in August after hitting 13.3% y-o-y in July. A strong increase in exports was seen in all main products but was mainly supported again by the group of industrial goods and capital equipment. Additionally, **industrial production** continued its recovery, rising for the twelfth consecutive month, up by 5.2% y-o-y in August, after 4.8% y-o-y in July. This was supported again by a strong trend in manufacturing, which climbed by 5.4% y-o-y in August, compared with 4.6% y-o-y in July. Manufacturing orders in August point at a continuation of a solid trend as orders rose by 10.2% y-o-y, after 4.3% y-o-y in July.

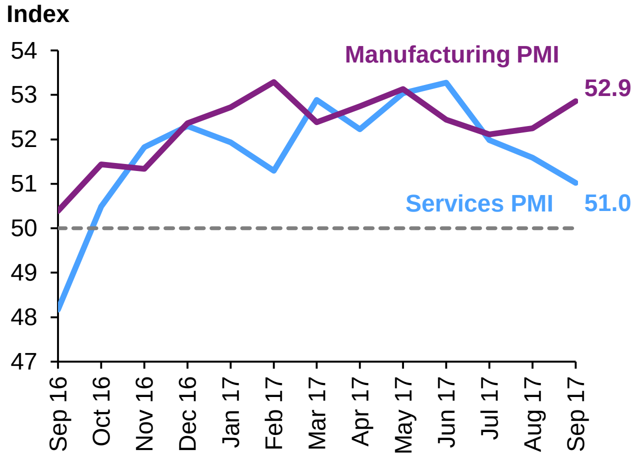
However, some deceleration continued in **domestic demand** as the level of retail trade retraced further to 1.7% y-o-y in August from 1.8% y-o-y in July. While it still shows good growth, it is the lowest level since March. The trend will also depend on wage growth developments but with a slight uptick in consumer confidence a continuation of a solid trend should be expected.

Graph 3 - 3: Japanese retail trade



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

Graph 3 - 4: Japanese PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

The latest **PMI** numbers confirmed a positive trend as they remained almost unchanged and above the growth-indicating level of 50 in August. The manufacturing PMI stood at 52.9 in September, after 52.2 in August and 52.1 in July. The services sector PMI slowed a bit, moving down to 51.0 in September, compared to 51.6 in August. Moreover, the BoJ's 4Q17 Tankan survey index reached a new multi-year high at a level of 19, the highest level in 10 years.

The most recent developments confirm a solid underlying growth dynamic in the Japanese economy. Hence, the 2017 **GDP growth** forecast was revised up to 1.6%, mainly by taking the strong 1H17 into consideration, while further upside may materialise in the 2H17. Moreover, the outcome of the upcoming elections will certainly need close monitoring as also numerous challenges in the economy persist, and given the tight labour market situation and high capacity utilisation rates, further growth advancements seem challenging. The 2018 growth forecast remains unchanged at 1.2%.

South Korea

While geopolitical concerns on the Korean-Peninsula continue, the latest output data underpinned solid momentum in the economy. Also, consumer sentiment is holding up and remains almost unchanged at a record level since around 6 months. **Industrial production** rose by 2.6% y-o-y in August, rising from 2.1% y-o-y in July and 1.6% y-o-y in June. Also the latest **PMI** number for the manufacturing sector in September indicated an improvement, as it moved back above the growth indicating level of 50 to stand at 50.6, after 49.9 in August. As this positive momentum is already considered in the **GDP growth** forecast number, GDP growth for 2017 remained at 2.7% in 2017. The growth figure for 2018 remains also unchanged at 2.4%.

OECD Europe

Euro-zone

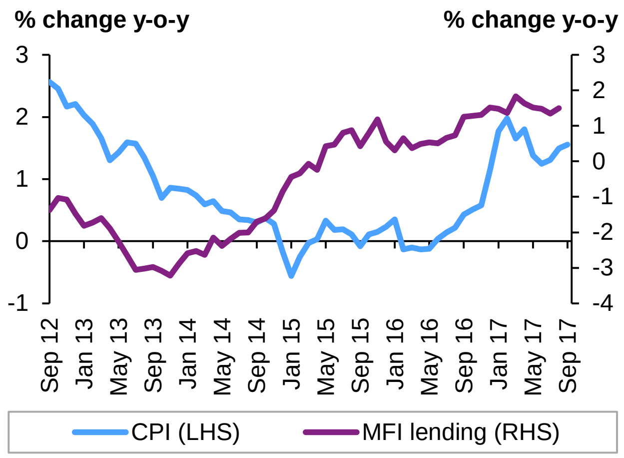
The latest GDP growth numbers from the 1H17 confirm better-than-expected growth, a momentum that to some extent is expected to be carried over into 2H17. As in the previous months, the positive trend is visible on all economies, at varying rates, and seems to be well supported across the various sectors. One important sector, however, that is continuing to face challenges is the banking sector, which has also led the European Central Bank (ECB) to conclude that higher capital levels are needed for the still large share of non-performing loans in in the Eurozone's banking system. This may have some negative, while digestible, impact in the near-term, as bank financing is a major source of funding for the important small and medium-sized enterprises (SMEs) in the Euro-zone. This may also come in combination with raising interest rates as the ECB has indicated that it may start to normalise its monetary policy in the coming year. Such a decision may also be supported by again rising inflation and the general economic improvement in the economy. Moreover, business sentiment has continued to reflect the bettering situation, with the European Commission's economic sentiment index improving to 113.0 in September, compared to 111.9 in August. This is the highest level of the index in more than 10 years. Challenges in the Euro-zone remain. Beside the mentioned issues in the banking sector, sovereign debt levels in some Euro-zone economies may become a re-emerging issue, if current economic improvements slow or interest rates would rise too soon or too quick as sovereign debt levels in several economies remain high. Also, political uncertainty has risen, after German elections did not provide a clear vote for the government and also as the independence seeking region of Catalonia has raised economic uncertainty in Spain.

Labour market developments continued to improve as the unemployment rate remained at 9.1% in July for the third month in a row, marking the lowest level since 2009. However, labour market developments differ widely within the Euro-zone. Germany's unemployment rate fell to 3.6% in August, down from 3.7% in July, while in Spain it was still at 17.1% in August for the third consecutive month. So far, the improving labour market seems to have been a positive driver for inflation as the job additions supported gradually rising wages. Nominal hourly wages and salaries increased by 2.0% in 2Q17, the latest available number. **Inflation** was backed only to some extent by these rising labour costs as it remained at 1.5% y-o-y. Core inflation – that is, the consumer price index (CPI), excluding energy, tobacco and food – fell slightly to 1.1% y-o-y, compared to 1.2% y-o-y in August. Both numbers must be compared with the ECB's approximately 2% inflation target.

While it seems more likely that inflation is rising and economic developments are improving, the **ECB** is more likely to decide upon a reduction in monetary stimulus in the coming months, as has been indicated already. While inflation has held up well over the past months in the Euro-zone, credit supply growth from financial institutions to the private, non-financial sector appears to have decelerated but now also seems to have stabilised again as it rose by 1.54% y-oy- in August. This is indeed a very important source of financing for the Euro-zone economy as the majority of the important SMEs rely on bank financing; hence the development of credit growth seems to support the ongoing recovery.

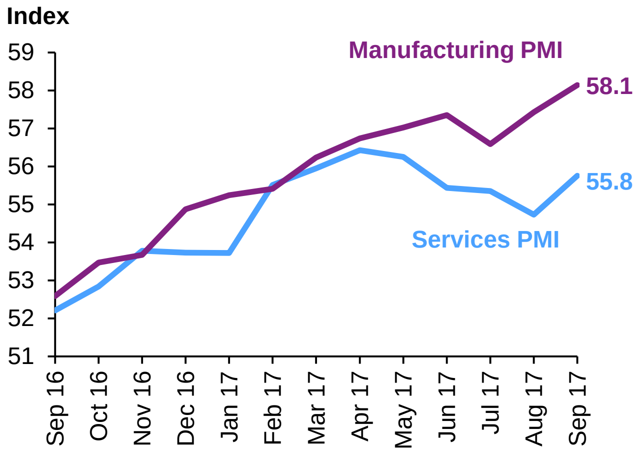
Industrial production grew by 3.4% y-o-y in July, after 2.7% y-o-y in June, again improving to a significant level. **Retail sales** growth in value terms were once again an important support factor for Euro-zone growth, increasing by 2.8% y-o-y, slightly below 3.2% y-o-y in July. These most recent indicators remained at considerable levels over the past months and now continue to demonstrate a healthy dynamic with ongoing improvements in the underlying economy. These are forecast to continue in 2H17 and also to some extent in the coming year. It remains to be seen, however, if the trend will stay as strong as in 1H17 or, as currently expected, it will slow down somewhat.

Graph 3 - 5: Euro-zone CPI and lending activity



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

Graph 3 - 6: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

The latest **PMI** indicators confirmed the ongoing improvement in the Euro-zone. The manufacturing PMI increased to 58.1 in September, comparing to 57.4 in August. This marks the highest level on record, i.e. since the initiation of this index back in 2012. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone improved as well as it moved to 55.8, after seeing a level of 54.7 in August.

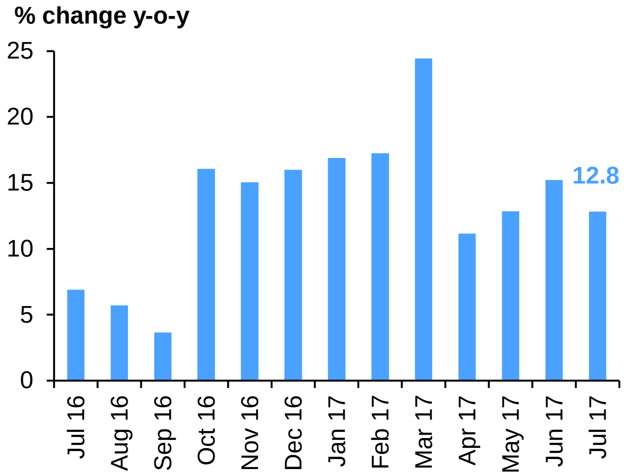
The underlying momentum has led to an upward revision in the 2017 **GDP growth** forecast for the Euro-zone, which now stands at 2.2%, compared with 2.1% in the previous month. The 2018 GDP growth was consequently also lifted to 1.9%, compared to the previous month's estimate of 1.8%. Political uncertainties, Brexit procedures, as well as monetary policies remain important factors to monitor.

UK

Little progress has been reported on the latest developments in **Brexit** negotiations. While some shift towards a soft Brexit has become visible in the past weeks, the political situation seems to be rather unclear. In the meantime, the economic activity continues to slow-down. Both quarters in the 1H17 have now been confirmed to have grown by only 0.3% q-o-q seasonally adjusted (sa). Household expenditures were reported at a low level of only 0.2% q-o-q growth, the lowest level in almost three years. The unemployment rate remained surprisingly low as it fell to 4.3% in June from at 4.4% in May. While wage growth in May and June stood at 2.0% and 2.9% y-o-y, respectively, it fell back to only 1.4% y-o-y in July. This compares to inflation numbers of 2.6% y-o-y in both June and July. As inflation remained high at 2.9% y-o-y in August, the Bank of England voiced its concerns about relatively high debt levels of private household in the UK as interest rates may go up in the near future.

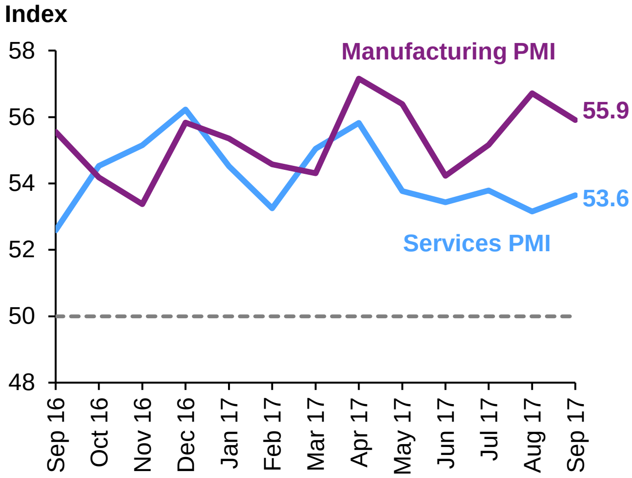
Continued support to the UK economy came from exports, amid the low sterling pound value. Exports compensated for some domestic economic challenges, as exports rose by 12.8% y-o-y in July, after 15.2% y-o-y in June. In connection to this more positive development, the **PMI** for manufacturing remained at a high level of 55.9, only slightly below the 56.7 in August. The services sector PMI even increased a bit, moving to 53.6 in September, compared to 53.2 in August.

Graph 3 - 7: UK exports



Sources: Office for National Statistics and Haver Analytics.

Graph 3 - 8: UK PMIs



Sources: CIPS, IHS Markit and Haver Analytics.

With indicators supporting a gradual slowdown in the UK economy, the **GDP growth** forecast remains unchanged at 1.5% for 2017. Growth in 2018 is forecast at 1.4%.

Non-OECD

BRICs

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

	GDP growth rate		Consumer price index, % change y-o-y		Current account balance, US$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Brazil	0.5	1.5	3.6	4.0	-11.6	-28.3	-8.1	-7.1	78.4	84.4
Russia	1.8	1.6	4.1	4.0	54.6	36.0	-2.1	-1.3	11.8	12.7
India	6.9	7.5	3.3	4.3	-26.1	-29.6	-3.2	-3.2	50.1	49.0
China	6.7	6.3	1.5	1.8	121.1	169.8	-3.9	-4.4	18.6	21.7

*Note: * 2017 and 2018 = Forecast.*
Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, OPEC Secretariat and Oxford.

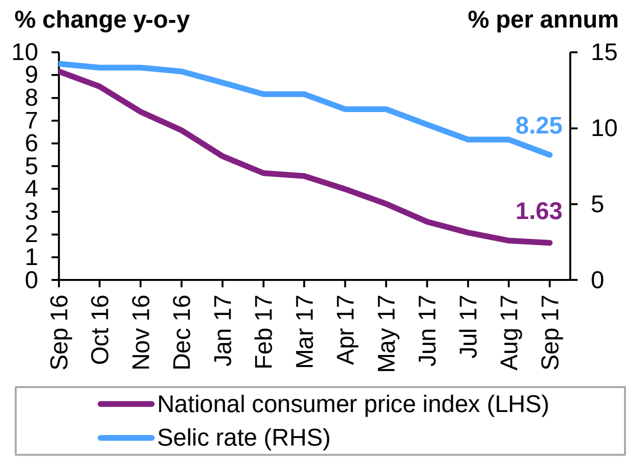
Brazil

Trade was a supportive factor behind the Brazilian economy's return to growth in 2Q17 as exports increased 2.5% and imports dropped 3.3% y-o-y. Moreover, the first acceleration in private consumption in more than two years lent notable momentum to GDP growth. Private consumption grew by 0.7% y-o-y in 2Q17 vs. a 1.9% y-o-y contraction in the previous quarter. The Brazilian economy was in contraction since 1Q14 before moving out of recession in 2Q17 with growth of 0.3% y-o-y. On the other hand, efforts to streamline government consumption resulted in a 2.4% y-o-y decline in government expenditure in 2Q17. Gross Fixed Capital Formation (GFCF) also declined by 6.5% y-o-y in 2Q17 after a contraction of 3.7% in the previous quarter.

The country's **trade surplus** widened in September to $5.2 billion, representing a 36.8% increase from a year earlier. **Exports** increased 18.1% y-o-y, supported by primary goods which increased by 30.2%. Manufactured products also grew by 12.4% in September. For the first half of 2017, the trade surplus increased by more than 53%, reaching $107.7 billion due to a record harvest of soy and higher prices for a number of main exports like iron ore, soy and oil.

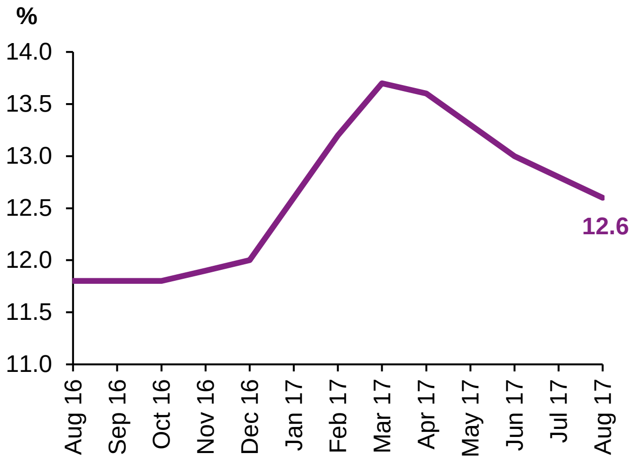
In August, exports to China, Brazil's top trading partner, increased around 41% y-o-y. **Imports**, on the other hand, grew at lower rate of 8.0% y-o-y in August.

Graph 3 - 9: Brazilian inflation vs. Interest rate



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

Graph 3 - 10: Brazilian unemployment rate



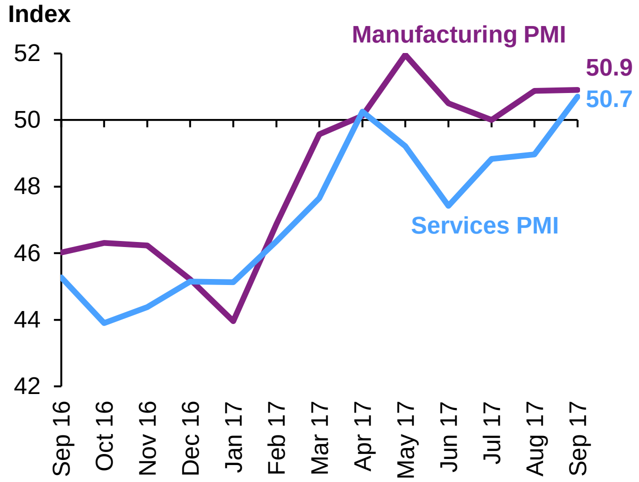
Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

Inflation continued its quick easing trend, reaching its lowest level ever at 1.6% y-o-y in September. This represents a quick fall in inflation from August's 1.7%. To catch up with rapidly declining inflation, the central bank lowered its benchmark **interest rate** by a full 10 pp in September, which now stands at 8.25%. The **unemployment rate** posted its fourth back-to-back fall in August, registering 12.6% vs. 12.8% in July. The consumer confidence index improved in September to 84.3 from August's 81.4.

In September 2017, business conditions in the **manufacturing sector** continued to improve due to an ongoing production increase that reflects a continued rise in factory orders. Manufacturing production rose in September for the seventh consecutive month and by the fastest rate since May. The IHS Markit Brazil Manufacturing PMI stood unchanged at 50.9 in September.

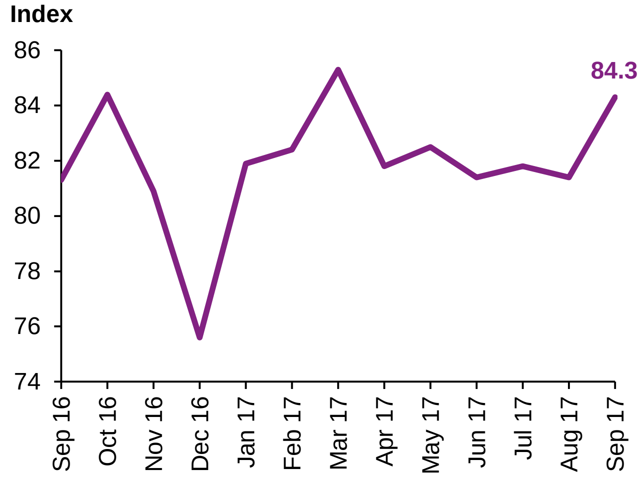
The **services sector** has returned to growth in September as suggested by the IHS Markit Brazil Services PMI Business Activity Index which registered 50.7, up from 49.0 in August. The survey showed that output grew in September for the first time in five months, while new orders increased by the highest rate since April. While employment in the services sector continued to decrease in September, the survey showed that the pace of contraction was at its weakest in nearly two and a half years.

Graph 3 - 11: Brazilian manufacturing and services PMIs



Sources: IHS Markit and Haver Analytics.

Graph 3 - 12: Brazilian consumer confidence index



Sources: Fundação Getúlio Vargas and Haver Analytics.

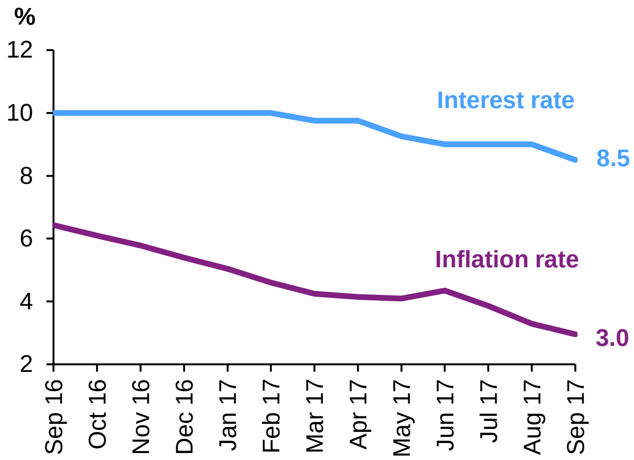
Household consumption and investment is anticipated to pick up next year due to low inflation and reduced interest rates. **Brazil's GDP** is expected to grow by 0.5% in 2017 and by 1.5% in 2018.

Russia

Data published by Russia's Federal Statistics Office showed that **household consumption** and **GFCF** were the main drivers behind the strong GDP growth posted in 2Q17. **GDP** posted growth of 2.5% y-o-y in 2Q17, up from 0.5% growth in the previous quarter. This represents the fastest rate of growth since 3Q12. Growth of household consumption accelerated to 4.4% y-o-y in 2Q17, up from 2.7% in the previous quarter. This also represents the highest rate of growth since 3Q13. GFCF rose by 6.3% y-o-y in 2Q17, up from a 2.3% rise in 1Q17, its highest since 1Q12. Trade, on the other hand, offset the final GDP growth figure due to a sharp increase in imports. While exports increased by 3.3% y-o-y in 2Q17, imports rose by more than 20% over the same period, resulting in a drop in net exports of nearly 56% y-o-y.

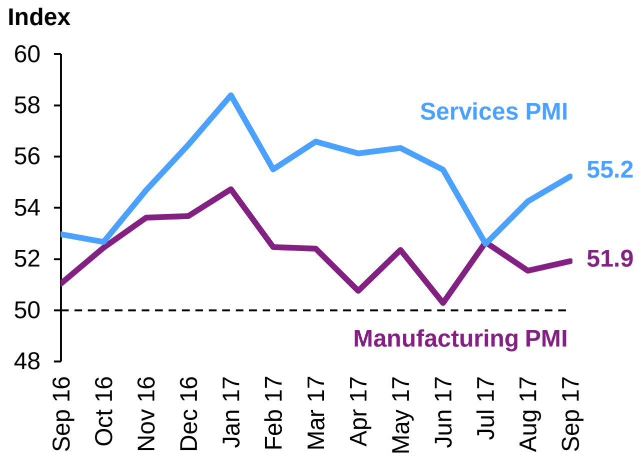
The **ruble** appreciated by an average of 3.2% m-o-m in September, after being largely stable in August. **Inflation** eased in September to 3.0% y-o-y from August's 3.3%. The central bank lowered its benchmark interest rate by five percentage points to 8.5% in September.

Graph 3 - 13: Russian inflation vs. interest rate



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

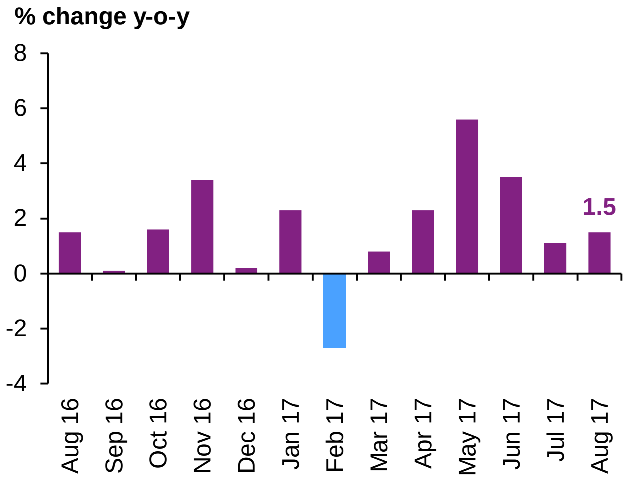
Graph 3 - 14: Russian PMIs



Sources: IHS Markit and Haver Analytics.

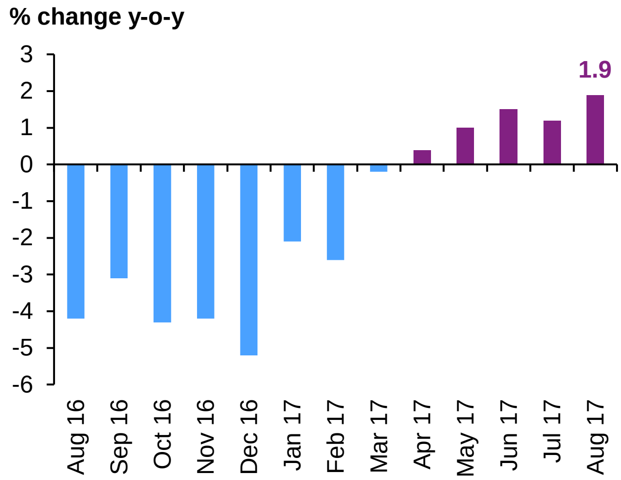
The IHS Markit Russia **manufacturing PMI** continued showing improvements in the sector's business conditions in September due to solid growth in new orders and production. The survey highlighted the first increase in exports since August 2013. The index slightly increased to 51.9 in September from 51.6 in August. The index survey showed the first increase in job creation in the sector in seven months. The manufacturing PMI data for 3Q17 suggests a stronger growth rate compared to 2Q17. **Industrial production** rose for the sixth consecutive month, rising by 1.5% y-o-y in August. The **services sector** activity PMI suggests solid growth in September, highlighting the tenth consecutive month of improvements. The index stood at 55.2 in September, up from 54.2 in the previous month. The survey highlighted acceleration in activity and new orders, together with strong growth in employment. For the fifth month in a row, **retail sales** were increasing in August. The rate of increase was 1.9% y-o-y, which represents the fastest rate of growth in retail sales since December 2014.

Graph 3 - 15: Russian industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 16: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

Taking into account the Russian economy's broad-based improvements noted since the beginning of the year (especially in 2Q17 and 3Q17), and its positive carry over to next year, with presidential elections scheduled to take place in March 2018 and the World Cup in mid-2018, Russia's **GDP** is anticipated to grow by 1.8% in 2017 and by 1.6% in 2018, y-o-y.

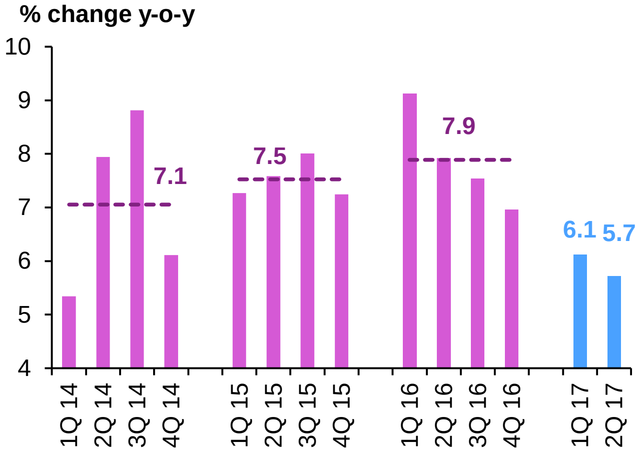
India

India's 2017 GDP growth expectation fell to 6.9%, for the year 2017 on the back of lower 2Q17 data. The breakdown suggests that this was largely the result of domestic factors such as demonetisation and the rollout of the Indian Goods and Services Tax (GST).

A key concern over the **GST** implementation is that it may fuel inflation and slow consumption temporarily, with tax increases being passed on to consumers faster than reductions. The Indian government argues that the GST's greater number of tax brackets and its anti-profiteering provision should ensure that the country's new tax regime is inflation-neutral. The slow effects of recent economic shocks continue to cast a shadow on India's GDP growth which could extend into the next quarter, but gradually will recover. The new GST regime is undoubtedly a milestone reform for India. At the macro level, the overall benefits of GST would provide some upside to the economy in the long-run.

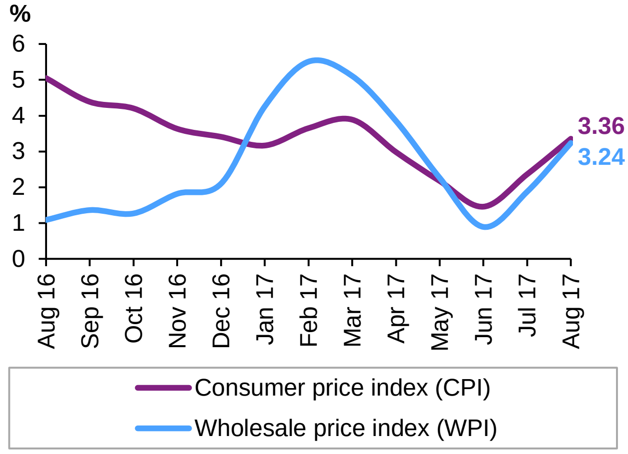
For the **energy sector**, inconsistencies in GST tax coverage could lead to some sectors, such as renewables, losing competitiveness. This will need to be monitored as details of the actual GST regime get ironed out by the government. As it stands, the proposed GST regime will include several petroleum products, including LPG, naphtha and kerosene, but not coal, electricity and the five major oil and gas products – crude, natural gas, aviation turbine fuel, diesel and petrol. Thus, it seems the impact on the oil and gas sector will be relatively soft. The three products which are excluded (petrol, diesel and aviation turbine fuel) account for more than 60% of refinery output. Hence, the overall impact of GST on existing refineries will be minimal compared to the potential of having new players.

Graph 3 - 17: Indian GDP growth



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

Graph 3 - 18: Indian inflation



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

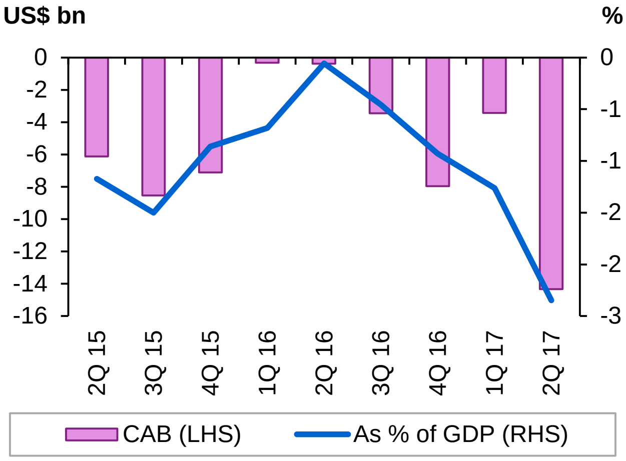
India's CPI inflation increased 3.36% y-o-y in August, following a 2.36% rise a month earlier and above market expectations of 3.2%. It is the highest inflation rate since March, due to a rebound in food prices. The Reserve Bank of India (RBI) expects an inflation rate in the range of 2% to 3.5% in the 1H17 fiscal year (that is, April to September 2017) and in the range of 3.5% to 4.5% in the 2H17 fiscal year (that is, October 2017 to March 2018). Prices went up at a faster pace for food and beverages. The food index alone jumped 1.52%, recovering from a 0.29% drop in July. In addition, prices went up faster for housing (5.58% from 4.98%), fuel and light (4.94% compared to 4.86% in July) and clothing and footwear (4.58% compared to 4.22%).

India's WPI rose 3.24% y-o-y in August of 2017, following a 1.88% increase in the prior month and above market estimates for a 3.0% gain. It was the highest wholesale inflation since April due to a surge in prices of food and fuel. High inflation contributed to an historic widening of the current account deficit and slowing growth. The RBI kept its **benchmark interest rate** steady at 6% on 4 October 2017 following a 25 basis points (bp) cut in August and in line with market expectations but it seems some investors expected a 25 bp rate cut.

High and persistent inflation in India has presented a serious macroeconomic challenge for the country in recent years. An increase in the country's domestic and external vulnerabilities as well as high inflation have contributed to a historical widening of the current account deficit and a slowdown in the GDP growth rate. India recorded a current account deficit of $14.3 billion, or 2.4% of GDP, in 2Q17, much higher than a $400 million gap a year earlier. It was the largest current account gap in four years, as the 2Q17 trade deficit widened to $41.2 billion from $23.8 billion with imports rising more than exports.

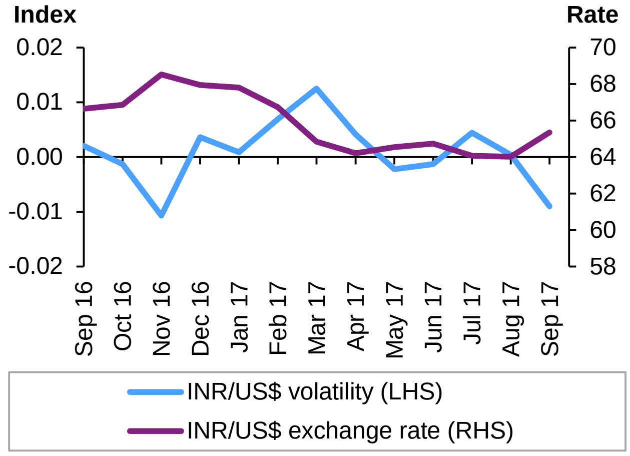
The **Indian Rupee (INR) strengthened** by 0.8% against the US dollar in the first week of October 2017, its biggest gain in seven months, after the Reserve Bank of India (RBI) kept key rates unchanged as expected.

Graph 3 - 19: Indian current account balance (CAB)



Sources: Reserve Bank of India and Haver Analytics.

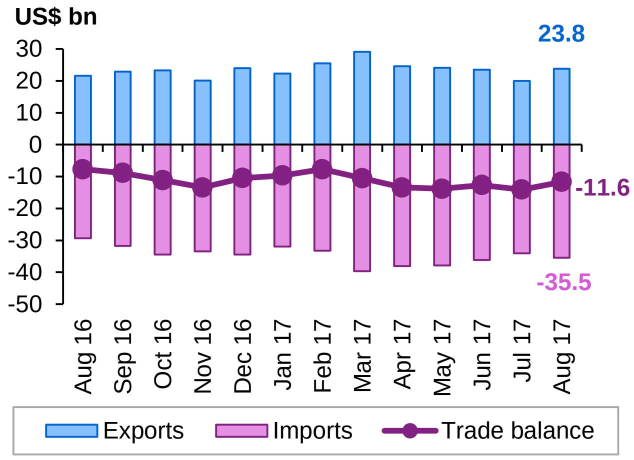
Graph 3 - 20: INR/US$ exchange rate and volatility



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

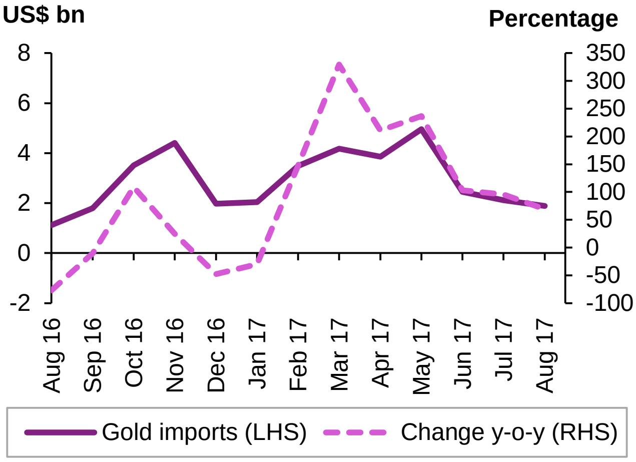
India's trade deficit widened sharply to $11.6 billion in August 2017 from $7.7 billion in the same month the previous year. **Merchandise exports** advanced 10.3% y-o-y to $23.8 billion in August 2017, as sales increased for engineering goods (19.5%), petroleum products (36.6%), organic and inorganic chemicals, 32.4% drugs, 4.2% pharmaceuticals, and 0.6% textiles. **Merchandise imports** to India rose by 21% y-o-y to $35.5 billion in August 2017, as purchases increased mainly for petroleum, crude and products (14.2%), electronic goods (27.4%), machinery, electrical and non-electrical goods (18.4%), pearls, precious and semiprecious stones (30.9%), and gold (68.9%).

Graph 3 - 21: Indian trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

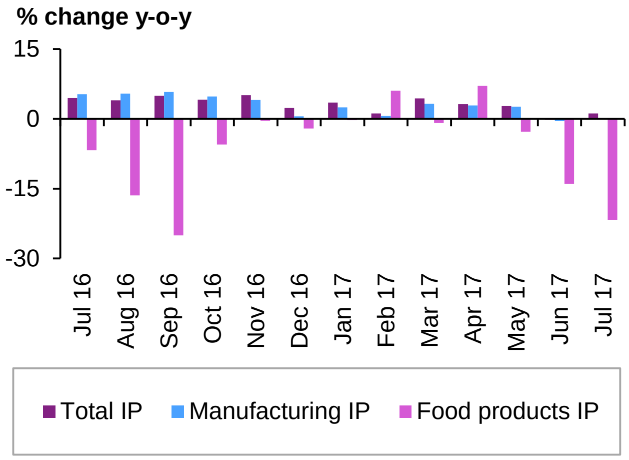
Graph 3 - 22: Indian gold imports



Sources: Ministry of Commerce and Industry and Haver Analytics.

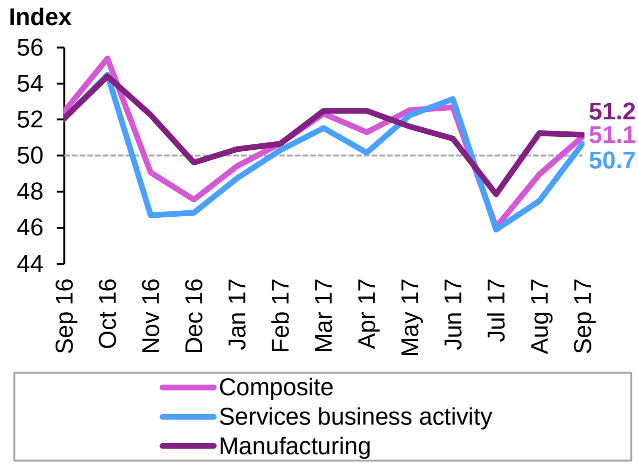
India's industrial production increased 1.2% y-o-y in July 2017, which was in line with the market consensus and followed an upwardly revised 0.2% drop in the previous month. Manufacturing production grew slightly, by 0.1%, after a 0.5 % contraction in June, and output expanded further for both electricity (rising to 6.5% from 2.1% in June) and mining (reaching 4.8% from 0.4% in June).

Graph 3 - 23: Indian industrial production



Sources: Central Statistical Organisation of India and Haver Analytics.

Graph 3 - 24: Indian PMIs



Sources: Nikkei, IHS Markit and Haver Analytics.

September saw a sustained expansion in the Indian manufacturing sector, supported by increases in both output and new orders. The **Nikkei Manufacturing PMI** in India came in at 51.2 in September, the same as in August. While output and new order growth remained weak in the context of historical survey data, employment grew the most since October 2012 and confidence strengthened. Meantime, new export orders declined for the first time in four months. The introduction of the GST, as well as greater prices for steel and petroleum products, reportedly caused cost pressures to increase during September.

The Nikkei Services PMI in India jumped to 50.7 in September from 47.5 in the preceding month. It was the first expansion of the services sector since June as the sector in July was impacted by the introduction of the GST. Output and new orders increased for the first time in 3Q17 while employment grew the most since June 2011. Output and new orders increased for the first time in 3Q17 while employment grew the most since June 2011. In the meantime, business sentiment softened to a three-month low, mirroring the trend observed for the private sector. Input cost inflation accelerated, which panellists linked with higher prices for fuel, stationary items and vegetables.

India's GDP growth remained unchanged at 6.9% in 2017 and 7.5% in 2018.

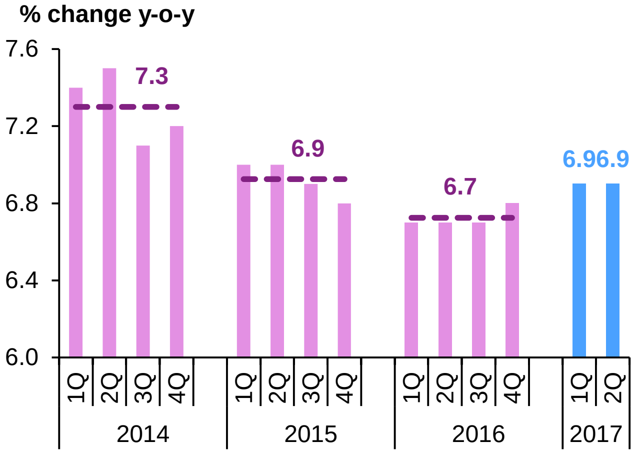
China

China's GDP growth expectation was kept unchanged at 6.7% in 2017 and 6.3% for 2018. It seems China's economy is in better shape than the same period last year. Output by both the industrial and service sectors is growing at a faster rate than in 2016. Exports have turned from contraction last year to expansion this year. Consumer demand has remained stable. Corporate profits have also improved. While cyclical economic growth is unlikely to decelerate in the near term, government-supported growth is unsustainable over the long-term.

Despite softening growth in July and August, China's economy still carries sufficient momentum. Economic activities so far this year improved from the same period in 2016. Industrial output in January to August this year grew 0.7% faster than the same period a year ago, while the service sector output grew 0.2% more. Exports rebounded significantly this year, swinging from a 8.4% contraction in January–August 2016 to a 7.6% expansion in the first eight months of 2017. Corporate profits also improved noticeably, rising 22.0% in the first seven months of this year, compared with 6.2% a year earlier.

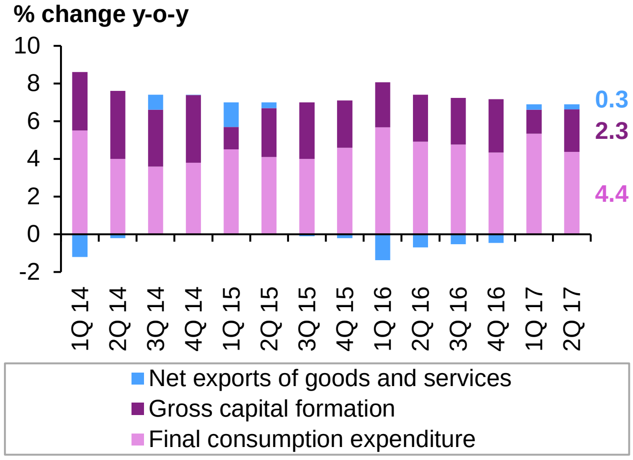
However economic activities decelerated across the demand side. Nominal fixed investment growth fell from 8.3% y-o-y through July to 7.8% y-o-y through August. Retail sales in August increased 10.1% y-o-y, down from 10.4% y-o-y in July. Goods exports rose 5.5% y-o-y in August, 1.3% lower than the July rate.

Graph 3 - 25: Chinese GDP growth



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

Graph 3 - 26: Chinese GDP breakdown



Sources: China National Bureau of Statistics and Haver Analytics.

On 18 October, the **Chinese Communist Party (CCP)** will hold its 19th Party Congress in Beijing. Appointments will be made to the Party's powerful Central Committee (CC), Politburo and **Politburo Standing Committee (PSC)**, and the Party will decide on a five-year policy agenda. It seems some significant economic challenges may be discussed at this Congress such as rural poverty, environmental degradation and the economic turbulence generated by the "new normal". China is now transitioning from export-led economic growth to consumer-driven growth. China's foreign policy and North Korea are also other highlighted issues.

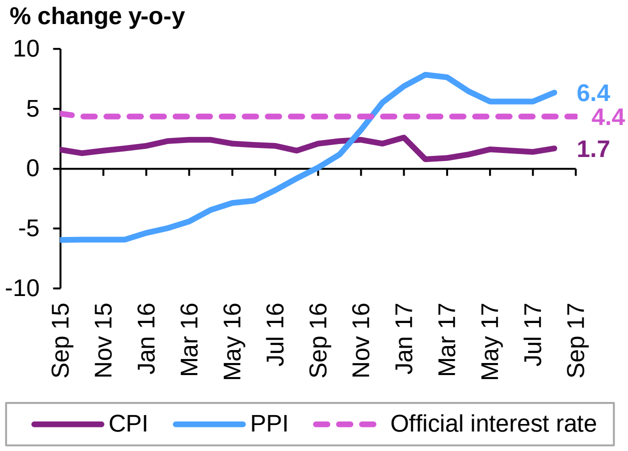
In terms of **market liberalisation**, China will release a timetable and roadmap for the opening-up of 12 major sectors to foreign investment soon. According to the State Council's release on promoting foreign investment in August, the 12 sectors include new energy vehicle manufacturing, ship design, banking, securities and insurance. China's progression towards opening market access to foreign capital has been gradual. However, at the moment, implementation of the new liberalisation policies will be carried out step-by-step, and will only apply to Free Trade Zones. Therefore, it is unlikely to markedly change nationwide productivity in these sectors.

Foreign direct investment (FDI) in China contracted y-o-y during the first eight months of 2017, while general purpose equipment, medical pharmaceutical products, raw chemical materials manufacturing and IT services continued to expand rapidly over the same period. Further liberalisation of market access should boost FDI in high-end manufacturing and the growing services sectors, but it is unlikely to change the downward trend of FDI growth in traditional heavy industries.

China's CPI inflation rose 1.7% y-o-y in August of 2017, following a 1.4% rise in July, while the market expected a 1.6% gain. It was the highest inflation rate since January, as the cost of non-food items rose at a faster pace and the cost of food fell much less than in the previous month.

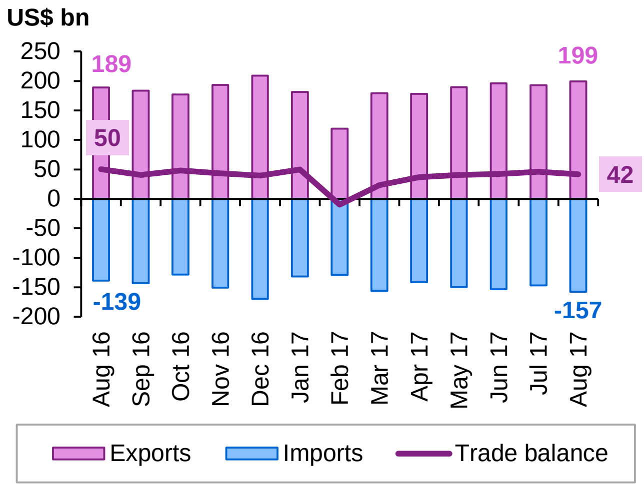
The **PPI** increased by 6.4% y-o-y, compared to a 5.6% rise in the previous three months. It was the twelfth straight month of increase in producer inflation and the highest since April.

Graph 3 - 27: Chinese CPI and PPI



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

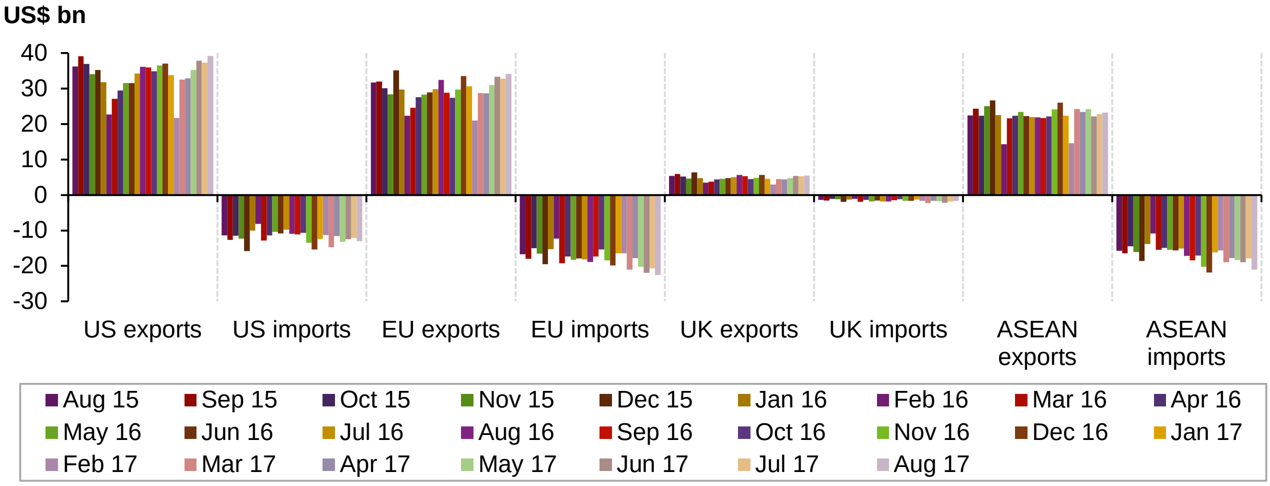
Graph 3 - 28: Chinese trade balance



Sources: China Customs and Haver Analytics.

China's merchandise trade surplus fell to $42 billion in August of 2017 from $50.2 billion in the same month a year earlier and below market consensus of $48.6 billion. It was the smallest trade surplus since May, as **exports** rose less than imports. In August, sales grew by 5.5% y-o-y to $199 billion, slowing from a 7.2% rise in the previous month while markets expected a 6.0% gain. This was the weakest increase in outbound shipments since the 2% fall in February, and was due to a softening of global demand. **Imports** increased by 13.3%, following an 11% increase a month earlier, to $157 billion. It marked the tenth straight month of growth in inbound shipments.

Graph 3 - 29: Chinese merchandise trade by selected countries, NSA



Sources: China Customs, Haver Analytics and OPEC Secretariat.

The **average prices of new homes** in 70 Chinese cities rose 8.3% y-o-y in August of 2017, slowing from a 9.7% increase in July. It was the 23rd straight month of gains but the weakest advance in house prices since July 2016.

China's monetary policy is set to remain relatively tight in the 4Q17. Although economic momentum moderated in August, financial market deleveraging and a rebound in inflation continue to support a cautious monetary tightening stance in 1H18.

The **trade surplus** with the US, China's largest export market, widened to $26.23 billion from $25.20 billion in July. It is the highest surplus since September 2015.

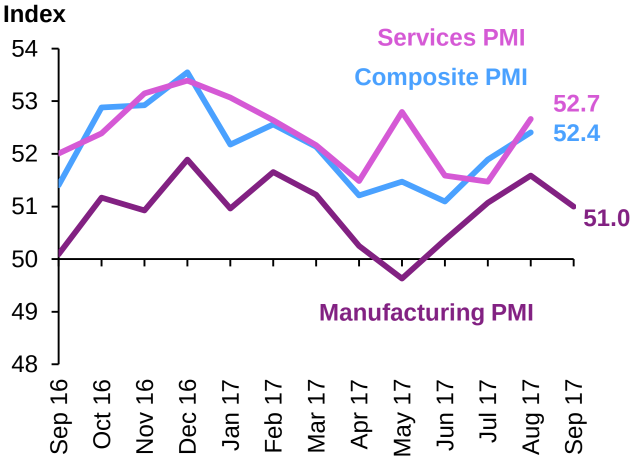
Industrial output continued to decelerate in August, growing 6.0% y-o-y, down from 6.4% y-o-y in July. Service sector activities, on the other hand, continued to grow at a faster pace.

The **Caixin Manufacturing PMI** in China fell to 51.0 in September from 51.6 in the previous month and missing market consensus of 51.5. It was the weakest expansion of the manufacturing sector since June, as both output and new orders rose the least in three months while growth in export sales slowed. At the same time, inflationary pressures picked up, with output prices and input costs hitting their highest level seen this year.

The **official Non-Manufacturing PMI** in China rose to 55.4 in September 2017 from 53.4 in the preceding month. It was the strongest growth in services activity since May 2014, as new orders growth accelerated significantly (reaching 52.3 from 50.9 in August) and business sentiment strengthened markedly (rising to 61.7 from 61.0). At the same time, new export orders and employment both improved from a month earlier, respectively rising to 49.7 from 49.0 and increasing to 49.7 from 49.5, but remaining in contraction territory.

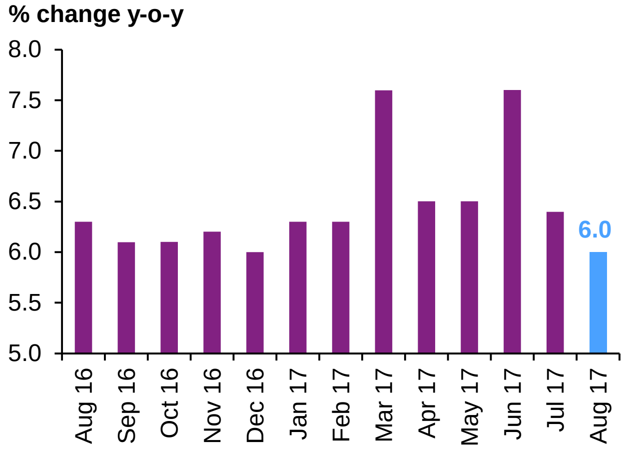
The **Caixin Services PMI** rose to 52.7 in August 2017 from 51.5 in July and beating the market consensus of 51.8. It was the fastest rise in services activity since May, as new orders increased solidly, employment went up the most in four months and business confidence strengthened. At the same time, the backlog accumulation rose the least in four months.

Graph 3 - 30: Chinese PMIs



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 31: Chinese industrial production



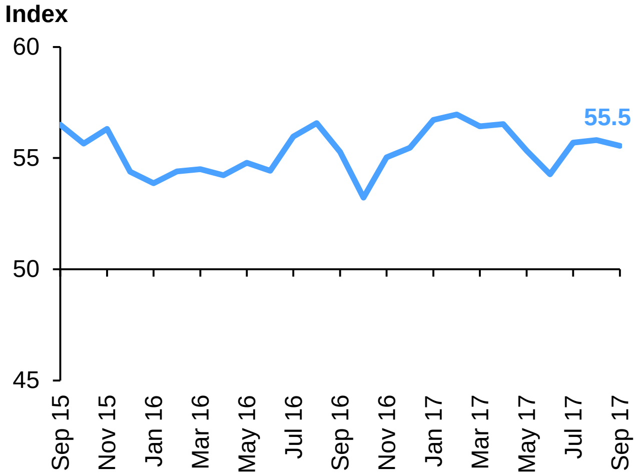
Sources: China National Bureau of Statistics and Haver Analytics.

China's industrial production increased 6.0% y-o-y in August, down from the 6.4% increase in the previous month. It was the weakest gain in industrial production since December, as output increased at a slower pace for electricity, gas and water production, and fell further for mining. In the meantime, manufacturing output grew further (6.9% from 6.7% in July).

OPEC Member Countries

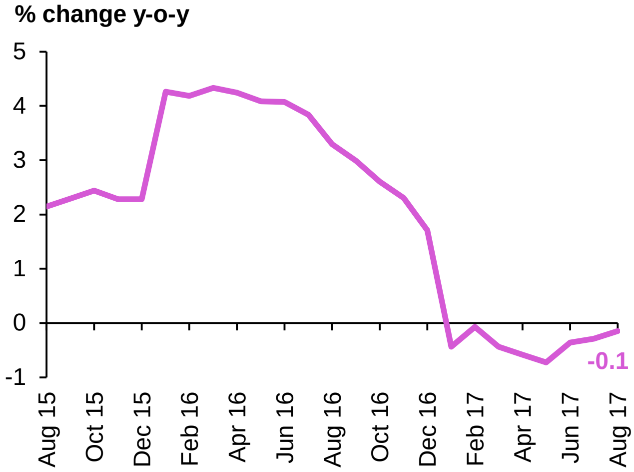
Inflation in **Saudi Arabia** posted a decline of 0.1% in August, from a decline of 0.3% y-o-y in July. The country has maintained a notable easing of inflation since the beginning of the year due to the base-line effect, which could be a supporting factor for private consumption. The non-oil private sector has continued growing at a strong pace in September. The Emirates NBD Saudi Arabia PMI of September registered 55.5 in September, from 55.8 in the previous month, suggesting continued solid improvements in the business conditions of the non-oil private sector. Employment showed a slight increase last month. The index average of 1H17 stood at 56.0, highlighting a higher rate of growth compared with the first six months of 2016. In 3Q17, the index was largely stable at an average of nearly 55.7.

Graph 3 - 32: Saudi Arabia manufacturing PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 33: Saudi Arabia inflation

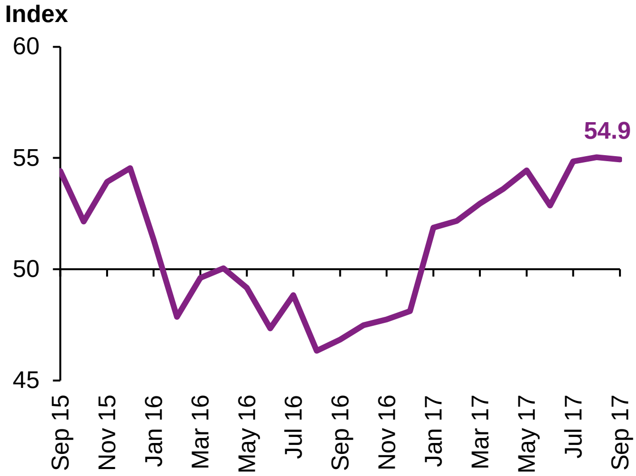


Sources: General Authority for Statistics and Haver Analytics.

The economy of **Nigeria** came out of recession in 2Q17 following five quarters of downturn. The economy registered 0.6% y-o-y growth in 2Q17, up slightly from a contraction of 0.5% y-o-y in the previous quarter, according to the National Bureau of Statistics. Inflation has been on an easing trend since the beginning of the year, posting 16.0% y-o-y in August vs. 18.7% in January. The naira was largely stable since the depreciation of 50% during June–August 2016. It appreciated slightly by 0.1% m-o-m in August.

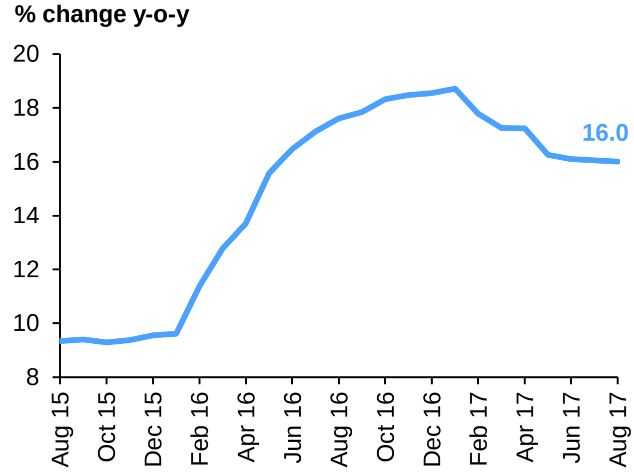
On another positive note, Nigeria's private sector showed strong growth in September as indicated by Stanbic IBTC Bank Nigeria PMI***.*** The index registered 54.9 in September, fractionally lower than August's 55.0. The survey showed strong growth in output and new orders alongside an increase in output price inflation.

Graph 3 - 34: Nigeria manufacturing PMIs



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

Graph 3 - 35: Nigeria inflation

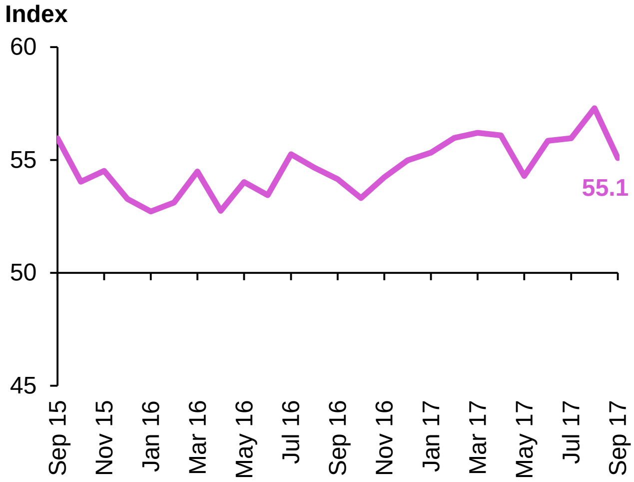


Sources: National Bureau of Statistics and Haver Analytics.

Inflation in the **United Arab Emirates** (UAE) eased from nearly 3.0% y-o-y in March to 1.2% y-o-y in July. In June, inflation stood at 2.0% y-o-y. The decrease in the prices of transportation, textiles and clothing, together with housing, water, electricity and gas, alongside furniture and household goods, was behind the fall in the overall index. The subcategory of housing, water, electricity and gas showed a decline from 1.0% y-o-y in June to 0.9% y-o-y in July. The prices of textiles and clothing witnessed a drop of 1.2% y-o-y in July from an increase of 1.0% a month earlier. Transportation prices also declined by 1.1% y-o-y in July vs. an increase of 5.1% in June. Most other categories of consumer prices were largely stable in July.

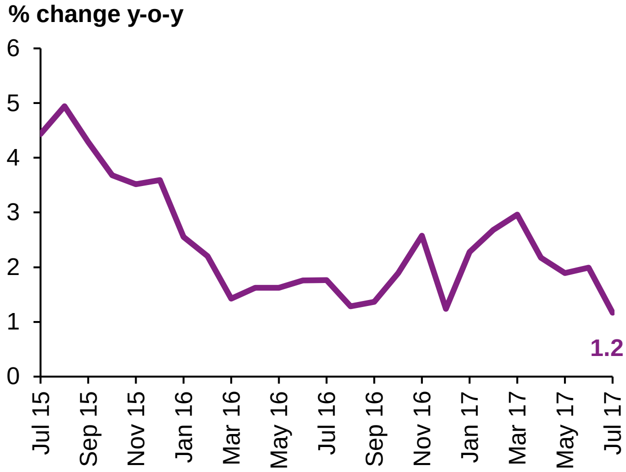
Expansion in the country's non-oil private sector continued in September, though at a slightly slower pace, following August's quickest pace of expansion since February 2015, according to the Emirates NBD UAE PMI. The index stood at 55.1 in September, down slightly from 57.3 in August. The survey showed a sharp expansion in output and new business. The average reading of the index for 3Q17 was the strongest in two years, highlighting solid domestic demand for goods and services produced in the country's non-oil private sector and robust economic growth in 3Q17. In August, new export orders increased for the first time in three months. However, new export orders contracted in September and most of the new orders inflow came from the domestic market.

Graph 3 - 36: UAE manufacturing PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 37: UAE inflation



Sources: General Authority for Statistics and Haver Analytics.

Other Asia

In **Indonesia**, consumer price inflation posted a 3.7% y-o-y increase in September, which is down slightly from a 3.8% y-o-y increase in August and the lowest inflation rate in six months. The Bank of Indonesia's policy rate was lowered to 4.25% in September from 4.50% a month earlier. Trade was supportive to growth in 2Q17 as the net exports of goods and services climbed by more than 36% y-o-y. While exports increased by 3.4% y-o-y in 2Q17, imports posted a slow increase of only 0.6% y-o-y. GDP registered growth of 5.0% y-o-y in 2Q17, similar to 1Q17. GFCF accelerated to 5.4% y-o-y growth in 2Q17, up from 4.8% in 1Q17. The growth of household consumption expenditure was unchanged from 1Q17 at nearly 5.0%. However, general government consumption expenditure dropped by 1.9% y-o-y in 2Q17, compared to a 2.7% growth in the previous quarter.

In the **Philippines**, GDP growth slightly accelerated in 2Q17 compared to 1Q17. GDP grew by 6.5% y-o-y in 2Q17, up slightly from 6.4% in the previous quarter. Government consumption expenditure had a notable increase of 7.1% y-o-y, up significantly from 0.2% in the previous quarter. This represents the fastest pace of growth since 2Q16. Private consumption expenditure, on the other hand, slightly increased to 5.9% y-o-y growth in 2Q17 from 5.8% in 1Q17. Expansion in GFCF also slowed from 14.7% y-o-y in 1Q17 to 9.4% in 2Q17. Changes in imports were minor, rising marginally from 18.6% y-o-y in 1Q17 to 18.7% in 2Q17. Growth in exports, however, dropped slightly from 20.3% y-o-y in 1Q17 to 19.8% in 2Q17.

Africa

The Standard Bank **South Africa** PMI suggests a slowdown in economic growth in 3Q17. The economy grew by its fastest pace since 3Q15 in 2Q17. Growth stood at 0.8% y-o-y, up from 0.2% in the previous quarter. The PMI reading of September dropped to 48.5 from 49.8 in August. The survey showed a decline in output for the sixth consecutive month amid contractions in new orders received by the private sector. Moreover, the rate of contraction was the fastest since April 2016. As a result, employment in the private sector dropped for the first time in three months and by the highest rate in 17 months. Reflecting a less optimistic outlook for the near future, inventories decreased, together with input purchases which dropped four times in the past five months.

In **Egypt**, the pound slightly appreciated for the third month in a row in September. It appreciated by 0.6% m-o-m against the US dollar in September, accumulating an overall 2.6% appreciation during July-September. The pound had earlier lost nearly 95% of its value against the US dollar during November 2016 through April 2017. Inflation continued posting a reading higher than 30% for the seventh consecutive month in August and is expected to rise further in the coming months due to the recent reduction in subsidies for some fuel/energy items and public services. The recession in the country's non-oil private sector continued in September, though firms showed more optimistic views for the coming year. The Emirates NBD Egypt PMI dropped to 47.4 in September after registering 48.9 in August, due to a decline in new export orders for the first time in six months, in addition to a fall in total new orders and output, which dropped at a faster rate compared to August.

Latin America

In **Colombia**, GDP expanded by 1.3% y-o-y in 2Q17 from 1.2% in the previous quarter. Government consumption sharply increased by 4.2% y-o-y in 2Q17, up from 2.6% in the first three months of 2017. This also represents the largest increase in government consumption since 4Q15. Household consumption growth was rather flat in 2Q17, while GFCF showed its first expansion since 3Q15. Household consumption grew by 1.1% y-o-y in 2Q17. With regard to trade, on the other hand, exports declined by 1.7% y-o-y in 2Q17, registering the fourth consecutive quarter of contraction, whereas imports rose by 3.7% y-o-y over the same period, following a streak of seven consecutive quarters of contraction.

Transition region

In **Czech Republic**, growth in GDP slowed from 4.0% y-o-y in 1Q17 to 3.4% in 2Q17. This was mainly a result of slower growth in government consumption and exports, whereas changes in household consumption, GFCF and imports were supportive. Government consumption posted a 1.8% y-o-y expansion in 2Q17, down slightly from 2.8% in the previous quarter. Exports grew by 3.9% y-o-y in 2Q17, nearly half the pace registered in 1Q17. Household consumption, on the other hand, slightly expanded from 3.7% y-o-y in 1Q17 to 3.8% in 2Q17, while the growth of imports showed a notable slowdown to 2.9% in 2Q17 from 5.3% in the previous quarter. The IHS Markit Czech Republic Manufacturing reading of September stood at a five-month high of 56.6, up from August's 54.9, due to a faster expansion in production and new orders.

World Oil Demand

2017 world oil demand growth was revised higher by around 30 tb/d, compared to the previous month's report, reflecting the positive momentum in the OECD region and China. As a result, world oil demand growth for 2017 now stands at 1.45 mb/d to average 96.80 mb/d.

World oil demand growth for 2018 was also revised upward by around 30 tb/d from the previous month's report. It is now anticipated to be around 1.38 mb/d, with total global consumption forecast at 98.19 mb/d.

World oil demand in 2017 and 2018

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

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	%
Americas	24.67	24.52	24.96	25.28	24.96	24.93	0.26	1.04
of which US	*19.94*	*19.84*	*20.24*	*20.43*	*20.21*	*20.18*	*0.25*	*1.24*
Europe	14.05	13.85	14.17	14.55	14.28	14.21	0.17	1.18
Asia Pacific	8.12	8.60	7.72	7.85	8.34	8.13	0.01	0.08
Total OECD	**46.84**	**46.97**	**46.85**	**47.67**	**47.59**	**47.27**	**0.43**	**0.92**
Other Asia	12.85	12.87	13.30	12.87	13.47	13.13	0.27	2.12
of which India	*4.39*	*4.43*	*4.42*	*4.19*	*4.81*	*4.46*	*0.08*	*1.74*
Latin America	6.47	6.27	6.51	6.82	6.46	6.52	0.05	0.72
Middle East	7.97	8.11	7.91	8.40	7.85	8.07	0.10	1.20
Africa	4.10	4.25	4.19	4.14	4.26	4.21	0.11	2.76
Total DCs	**31.39**	**31.49**	**31.90**	**32.23**	**32.04**	**31.92**	**0.53**	**1.68**
FSU	4.62	4.54	4.39	4.76	5.08	4.69	0.07	1.52
Other Europe	0.70	0.71	0.67	0.70	0.79	0.72	0.02	3.15
China	11.80	11.88	12.40	12.13	12.41	12.20	0.40	3.40
Total "Other regions"	**17.12**	**17.12**	**17.46**	**17.59**	**18.28**	**17.62**	**0.49**	**2.89**
Total world	**95.35**	**95.59**	**96.21**	**97.49**	**97.91**	**96.80**	**1.45**	**1.52**
Previous estimate	95.35	95.54	96.05	97.57	97.91	96.77	1.42	1.49
Revision	0.00	0.05	0.16	-0.08	0.00	0.03	0.03	0.03

*Note: * 2017 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

Table 4 - 2: World oil demand in 2018*, mb/d

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17 Growth	%
Americas	24.93	24.69	25.14	25.50	25.20	25.14	0.20	0.82
of which US	*20.18*	*19.97*	*20.44*	*20.65*	*20.40*	*20.37*	*0.18*	*0.91*
Europe	14.21	13.95	14.23	14.62	14.34	14.29	0.07	0.50
Asia Pacific	8.13	8.59	7.71	7.81	8.33	8.11	-0.01	-0.18
Total OECD	**47.27**	**47.23**	**47.08**	**47.93**	**47.87**	**47.53**	**0.26**	**0.55**
Other Asia	13.13	13.19	13.65	13.21	13.80	13.46	0.33	2.55
of which India	*4.46*	*4.63*	*4.64*	*4.28*	*4.94*	*4.62*	*0.16*	*3.55*
Latin America	6.52	6.36	6.59	6.91	6.55	6.60	0.09	1.30
Middle East	8.07	8.20	7.99	8.51	7.95	8.16	0.10	1.18
Africa	4.21	4.37	4.30	4.25	4.38	4.32	0.12	2.76
Total DCs	**31.92**	**32.11**	**32.53**	**32.87**	**32.68**	**32.55**	**0.63**	**1.98**
FSU	4.69	4.65	4.51	4.88	5.20	4.81	0.12	2.45
Other Europe	0.72	0.73	0.69	0.73	0.82	0.74	0.03	3.48
China	12.20	12.22	12.75	12.48	12.76	12.55	0.35	2.87
Total "Other regions"	**17.62**	**17.59**	**17.95**	**18.09**	**18.78**	**18.11**	**0.49**	**2.78**
Total world	**96.80**	**96.93**	**97.57**	**98.88**	**99.34**	**98.19**	**1.38**	**1.43**
Previous estimate	96.77	96.87	97.39	98.91	99.30	98.12	1.35	1.40
Revision	0.03	0.06	0.18	-0.03	0.04	0.06	0.03	0.03

*Note: * 2018 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

OECD

Based on the latest available data, **oil demand growth in the OECD** region was revised upward by 42 tb/d in 2017 on better-than-expected data for the 2Q17 in all regions within the OECD.

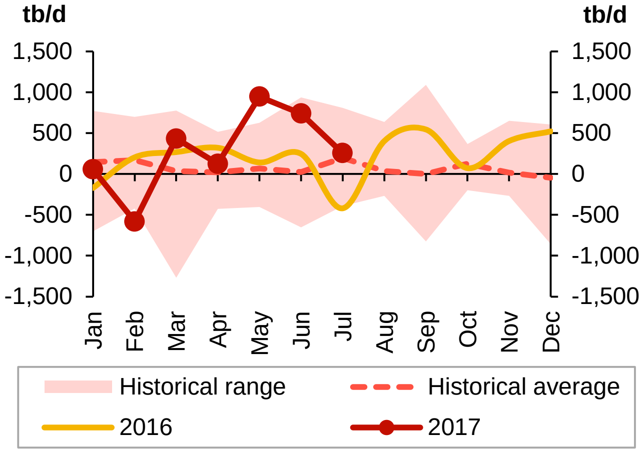
OECD America's oil demand showed moderate development in July. In the US better-than-expected oil demand growth in 2Q17, supported an upward revision of transportation fuels by 100 tb/d in the same quarter. For 2018, oil demand projections were revised marginally higher by around 15 tb/d, on a more positive economic outlook compared to last month's report.

OECD Europe's oil demand data outperformed initial projections. The upward adjustments of 30 tb/d in both 1Q17 and 2Q17, respectively, were caused by the low oil price environment, stable or improving economic conditions in many countries in Europe and healthy vehicle sales.

The upward adjustments for **OECD Asia Pacific**, by 30 tb/d in 2Q17 and 3Q17, were a result of the strong performance of the petrochemical industry mainly in Japan and South Korea, as well as higher than anticipated oil requirements in Australia.

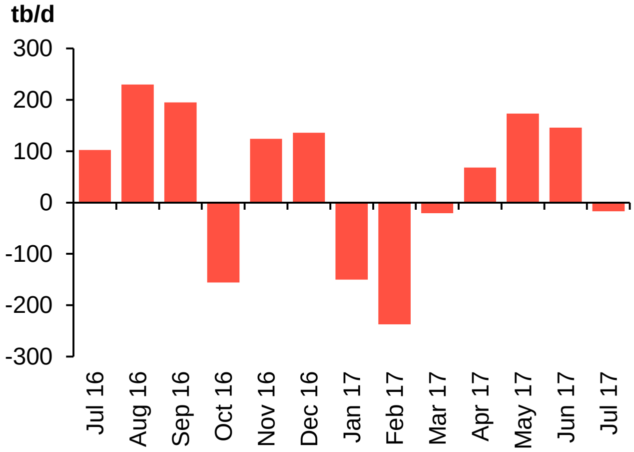
OECD Americas

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



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

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



Source: US Energy Information Administration.

US

Following bullish oil demand growth during May and June 2017, the latest available monthly data implies **US oil demand** growth for July 2017 at 0.26 mb/d or 1.3% y-o-y. Distillates overwhelmingly account for most of the growth in oil requirements, supported by the continued expansion of industrial activities, as well as LPG intended for the petrochemical industry. Gasoline, jet/kerosene and naphtha demand remained broadly flat compared to the same month in 2016, while residual fuel oil requirements fell sharply y-o-y as a result of fuel substitution.

The surprisingly flat gasoline demand in July 2017 correlated with slightly declining car sales and a only mild growth in mileage driven. Nevertheless, gasoline demand is expected to return to growth, constituting one of the main drivers behind US oil demand growth for the remainder of 2017 and 2018. These expectations are in line with an expanding US vehicle market, particularly for larger vehicles.

Seven months into 2017, US oil demand is higher by around 0.2 mb/d as compared to the same period last year. The first seven months of 2017 have seen growing demand for all the main petroleum categories with the exception of gasoline, which remained flat y-o-y. Growth was particularly strong for LPG, naphtha, jet/kerosene and distillates requirements. August 2017 figures, which are based on preliminary weekly data, show an increase of around 2.1% y-o-y, with the continuing rise in LPG, naphtha, distillates and jet/kerosene requirements being partly offset by disappointing gasoline demand. September 2017 preliminary data indicated another solid month in US oil demand for the main petroleum product categories, with distillates, gasoline and jet/kerosene being the leading products in the last month of the traditional summer holiday season. As a result of these factors, US oil demand is projected to remain strong throughout the remainder of 2017, with industrial and – to a lesser extent – transportation fuels, dominating the implied growth share. The US is projected to remain the main contributor to anticipated OECD oil demand growth during 2018.

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

	Jul 17	Jul 16	Change 2017/2016 tb/d	%
LPG	2,512	2,421	91	3.8
Naphtha	220	222	-2	-0.9
Gasoline	9,573	9,590	-17	-0.2
Jet/kerosene	1,729	1,731	-2	-0.1
Diesel oil	3,707	3,597	110	3.1
Fuel oil	272	424	-152	-35.8
Other products	2,298	2,068	231	11.2
Total	**20,311**	**20,053**	**259**	**1.3**

Sources: US Energy Information Administration and OPEC Secretariat.

In **Mexico**, August 2017 was marked by a large decrease in oil demand, affecting all main petroleum product categories, with the exception of naphtha and jet/kerosene. LPG, gasoline, residual fuel oil and diesel requirements fell y-o-y. Consequently, Mexican oil demand in August 2017 decreased by a considerable 4.8% y-o-y. 2017 Mexican oil demand is expected to contract y-o-y. 2018 oil demand is projected to grow slightly as a result of expected positive economic growth.

Canadian oil requirements rose solidly y-o-y in July 2017, with all main product categories, except LPG being positive. Overall, projections for Canadian oil demand in 2017 continue to show slight growth compared to 2016. Depending on the overall performance of the economy, Canadian oil requirements in 2018 are projected to again slightly exceed those of 2017.

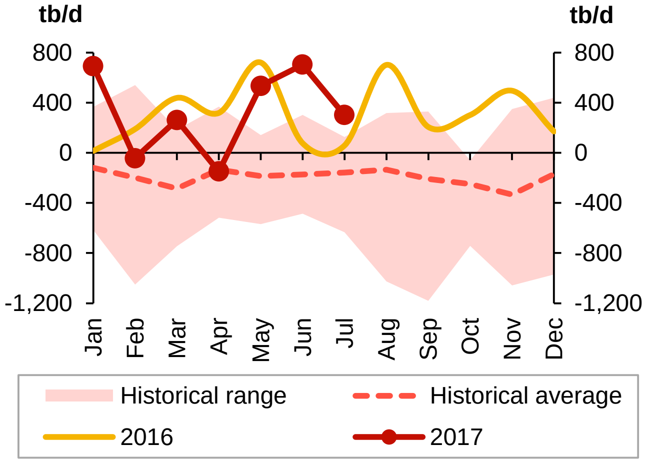
In 2017, **OECD Americas oil demand** is projected to grow by 0.26 mb/d compared to a year earlier. In 2018, OECD Americas oil demand is forecast to grow by 0.20 mb/d over the current year.

OECD Europe

European oil demand continued on a strong path during the first seven months of 2017. In relation to recent historical patterns, the increase was substantial and encompassed several factors: strongly improving economies in the large majority of countries in the region, positive oil price-related effects, as well as the impact of cold weather earlier in this year. There are certainly some concerns continuing to pose uncertainties for future oil requirements, most of them region-specific: high taxation schemes on oil usage and economic concerns in relation to some of the countries. Nevertheless, the expected oil demand in the region for 2017 and 2018 is dominated by positive factors, primarily with regard to industrial and road transportation fuels, similar to the trend in the US.

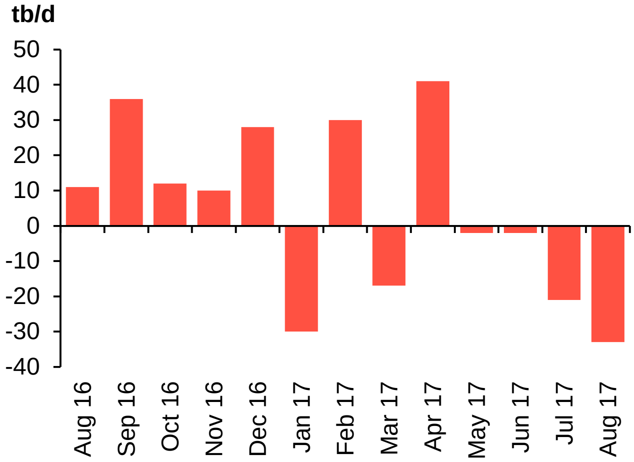
Data for the first seven months of 2017 showed European oil demand increasing by approximately 0.28 mb/d y-o-y, with road transportation and industrial fuels – notably diesel – accounting for the bulk of the increases. These developments are supported by the positive momentum in auto sales, and the solid expansions in all major auto markets. The general expectations for the region's oil demand during 2017 and 2018 have improved since last month's projections but are still coupled with uncertainties dependent on the region's economic development. High taxation polices on oil use and fuel substitution still remain the main factors that could curb oil demand despite economic growth, whereas the low historical baseline and low fuel price environment are the principal positive ones.

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



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

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



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

OECD Europe oil demand is projected to grow for the third consecutive year, by 0.17 mb/d in 2017, while 2018 oil demand will grow by 0.07 mb/d as compared to the levels of 2017.

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

			Change 2017/2016	
	Aug 17	Aug 16	tb/d	%
LPG	453	445	8	1.9
Naphtha	705	699	6	0.9
Gasoline	1,121	1,128	-7	-0.6
Jet/kerosene	865	847	18	2.2
Diesel oil	3,125	3,248	-123	-3.8
Fuel oil	226	232	-6	-2.4
Other products	539	648	-109	-16.8
Total	**7,035**	**7,247**	**-212**	**-2.9**

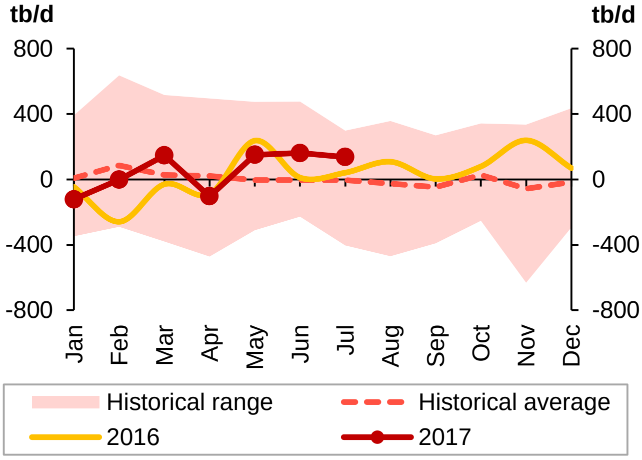
*Note: * Germany, France, Italy and the UK.*
Sources: JODI, UK Department of Energy and Climate Change, Unione Petrolifera and OPEC Secretariat.

OECD Asia Pacific

Japan

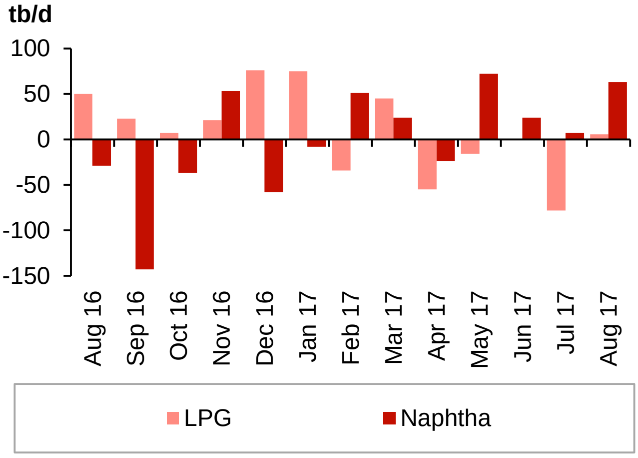
Preliminary data indicates that overall **Japanese oil demand** contracted by 0.03 mb/d in August 2017 y-o-y, with a mixed picture across product categories. Naphtha, gasoline and jet/kerosene demand grew solidly but have been outweighed by declines in the requirements for diesel oil, residual fuel oil and crude for direct burning. The latter came as a result of fuel substitution with natural gas and coal, and supported expectations that see further declines in direct oil usage for the remainder of 2017. New auto sales for August 2017 showed y-o-y increases.

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



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

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



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

The outlook for overall 2017 **Japanese oil demand** remains bearish, with risks continuing to be skewed towards the downside. Oil demand projections for 2018 assume a decline of around 0.1 mb/d as compared to 2017, with risks also pointing to the downside.

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

	Aug 17	Aug 16	Change 2017/2016 tb/d	%
LPG	413	407	6	1.4
Naphtha	803	740	63	8.5
Gasoline	989	1,030	-41	-4.0
Jet/kerosene	334	324	10	3.1
Diesel oil	719	733	-14	-1.9
Fuel oil	285	293	-8	-2.6
Other products	356	403	-47	-11.8
Total	**3,899**	**3,930**	**-31**	**-0.8**

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

South Korea

In **South Korea**, July 2017 demand was bullish, increasing by approximately 8.4%, y-o-y. Gains in the petrochemical industry, which resulted in strong demand for naphtha, diesel, gasoline and jet/kerosene have been somewhat offset by slightly shrinking requirements for residual fuel oil.

The outlook for South Korean oil demand during 2017 and 2018 remains healthy, unchanged from last month's projections.

The region's oil demand has also been supported by increasing oil usage in **Australia**, as a result of support to the country's booming mining industry and gains almost solely originating from diesel oil demand.

OECD Asia Pacific oil consumption growth is projected to increase marginally 2017 as compared to a year earlier. Oil demand in the region is projected to contract slightly by 0.01 mb/d y-o-y in 2018.

Non-OECD

Based on the latest available data, oil demand growth in **non-OECD regions** was adjusted lower by around 25 tb/d in 2017 despite some upward revisions, for example, in China by around 30 tb/d on average for 2017.

In Other Asia, oil demand growth was adjusted lower by 0.1 mb/d in 3Q17, mainly reflecting slower-than-expected oil demand development in India as heavy rain reduced transportation fuel demand and uncertainties around the Goods and Services Tax (GST) programme hindered oil demand growth.

The Middle East was also revised lower, by 50 tb/d in 2Q17, due to slower-than-expected oil demand growth data in 2Q17 from various countries in the region.

In the FSU, 2018 oil demand growth data was adjusted higher by 15 tb/d mainly to reflect better economic projections as compared to last month.

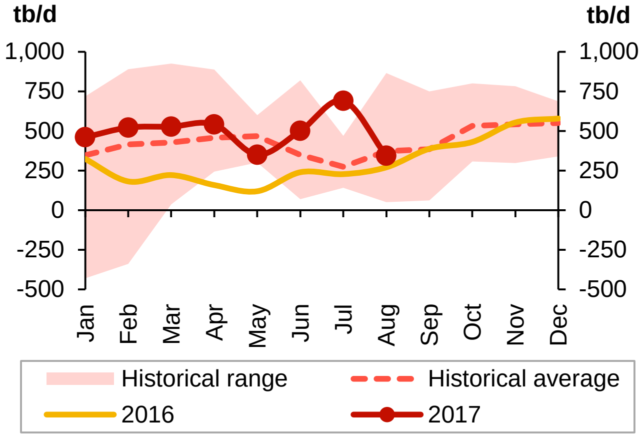
In China, the upward revision by 30 tb/d in 3Q17 was due to better than expected demand from the petrochemical and transportation sectors in the country.

China

According to the latest data, August 2017 **Chinese oil demand** registered growth of around 0.34 mb/d y-o-y with total demand pegged at 11.5 mb/d. Increasing LPG requirements for the petrochemical industry in combination with rising jet fuel and gasoline consumption in the transportation sector saw most of the gains.

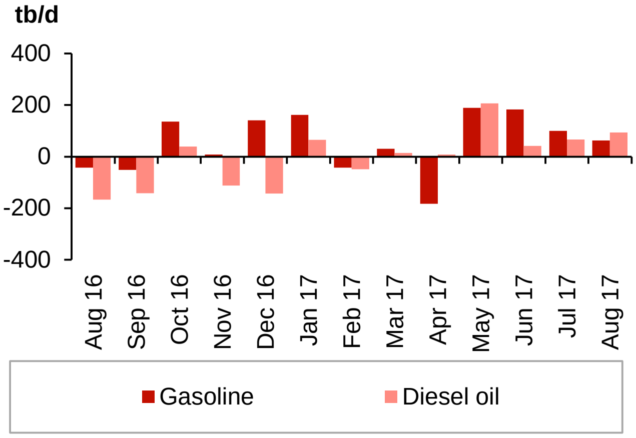
LPG demand growth exceeded 0.11 mb/d y-o-y with total consumption recording 1.64 mb/d as propane dehydrogenations capacities (PDH) continue to expand. Chinese PDH capacity is projected to reach 3 million tonnes per year (mt/y) in 2017 with the Dongguan Juzhengyuan (0.9 mt/y), Fujian Meide (0.66 mt/y) and Jiangsu Haili (0.51 mt/y) projects starting late this year, supporting LPG demand towards the end of the year.

Graph 4 - 7: Chinese apparent oil demand, y-o-y change



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

Graph 4 - 8: Chinese diesel oil and gasoline demand, y-o-y change



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

Gasoline demand inched up by 62 tb/d y-o-y. Vehicle sales data now suggests healthy gains, most notably in the Sport Utility Vehicle (SUV) category. According to statistics of *the China Association of Automobile Manufacturers (CAAM)*, in August the sales of passenger cars witnessed an increase of around 4% y-o-y with SUV sales adding around 18% y-o-y.

Jet/kerosene total consumption is now pegged at 0.71 mb/d, up by 36 tb/d y-o-y, propelled by an uplift in domestic travel in the country. According to the China Air Transport Association, air passenger travel increased by more than 6% on average for the first seven months of this year as compared to the same period last year.

The overall outlook for the remainder of **2017** is now equally balanced between the upside and the downside. Economic activities are anticipated to be the largest supporter of demand growth as are the performance of LPG as feedstock to newly commissioned PDH plants and the impact of the Golden Week holidays. The implementation of measures against air pollution in major cities such as Beijing, Fujian and Chengdu and substitution by other fuels such as gas are anticipated to dent oil demand growth going forward.

For **2018**, projections take into account assumptions such as rising demand for transportation and industrial fuels, slightly lower GDP growth as compared to 2017, a continuation of fuel quality programmes targeting fewer emissions and the continuation of fuel substitution with natural gas and coal.

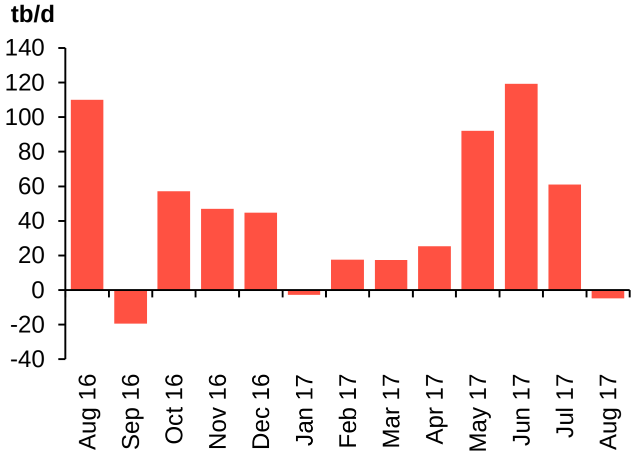
Chinese oil demand is projected to grow by 0.40 mb/d in 2017 and 0.35 mb/d in 2018.

India

Indian oil demand declined in August 2017 for the first time since March 2017 when cash limitations caused by the demonization policy hindered consumer spending. The decline was steep in August at 0.25 mb/d – or around 6% y-o-y compared to a year earlier, chiefly due to heavy rains and floods as well as the higher base line of comparison.

Slower-than-expected oil demand growth in June and July had already moderated expectations for Indian oil demand growth in 2017. These expectations were exacerbated by August data. On a cumulative basis, according to data from January to August, oil demand in India shows a surprise dip of around 20 tb/d as compared to the same period a year earlier. The heavy monsoon season, the introduction of the GST as well as lower consumer spending in 1Q17 adversely impacted the anticipated firm oil demand growth for the current year. As a result, oil demand projections were adjusted lower by 0.1 mb/d in the 3Q17. For August 2017, total product consumption reached 3.79 mb/d, dropping below the 4 mb/d for the first time in 2017. In terms of products, diesel oil was the major source of decline, shedding 60 tb/d, or 4% y-o-y. Diesel oil consumption, which accounts for around 40% of total Indian oil consumption, dropped to 1.55 mb/d in August. The contraction in demand for diesel oil resulted from moderations in manufacturing activities as floods in many areas of the country slowed trucking movements and construction work.

Graph 4 - 9:Indian gasoline demand, y-o-y change



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

Gasoline demand also declined marginally in August for the first time since January 2017, by around 5 tb/d y-o-y, while total product demand stood at 3.8 mb/d in August. Heavy flooding in Uttar Pradesh, Bihar, Assam, Maharashtra and Uttarakhand caused the closure of businesses and schools for some days thereby reducing miles travelled. Conversely, passenger car sales registered positive gains, rising by around 14% y-o-y with two-wheeler sales continuing their double-digit growth, rising by 15% y-o-y.

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

			Change 2017/2016	
	Aug 17	Aug 16	tb/d	%
LPG	746	668	79	11.8
Naphtha	299	323	-25	-7.6
Gasoline	600	605	-5	-0.8
Jet/kerosene	279	324	-45	-13.9
Diesel oil	1,554	1,614	-60	-3.7
Fuel oil	254	273	-19	-6.8
Other products	56	229	-173	-75.7
Total	**3,789**	**4,035**	**-247**	**-6.1**

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

While LPG continues to grow, demand edged up by around 80 tb/d y-o-y with total consumption reaching 0.75 mb/d, as robust housing demand continues to support Indian LPG demand.

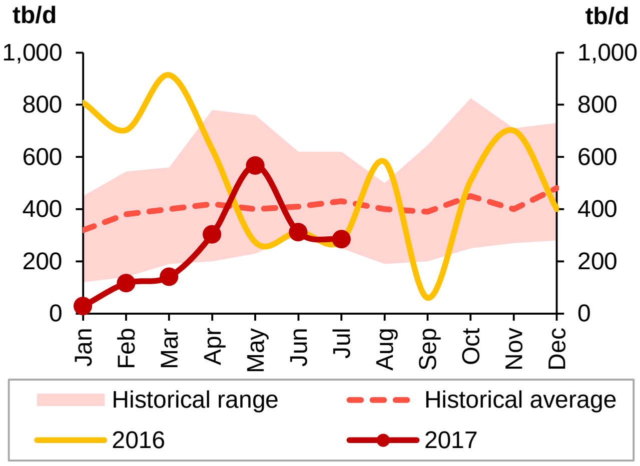
For the remainder of 2017, India is still projected to be the main contributor to growth in the **Other Asian region** as demand is expected to pick up during 4Q17. Hong Kong, Indonesia, Taiwan and Singapore are also projected to grow positively in the current year, supporting oil demand growth in the region. Middle distillates, followed by gasoline, will be the products leading oil demand in the region.

Other Asia

In **2018**, **Other Asia's oil demand growth** is anticipated to rise at a healthy pace along with positive economic growth projections. Within the region, India is foreseen to be the major contributor to growth and other countries in the region – such as Indonesia, Thailand, Singapore and the Philippines – are also projected to gain momentum in 2018. Light distillate products – which include LPG, naphtha and gasoline – will lead oil demand growth next year.

Other Asia's oil demand is estimated to grow at a rate of 0.27 mb/d in 2017. As for 2018, oil demand is forecast to grow by 0.33 mb/d over the current year.

Graph 4 - 10:Other Asia oil demand, y-o-y change



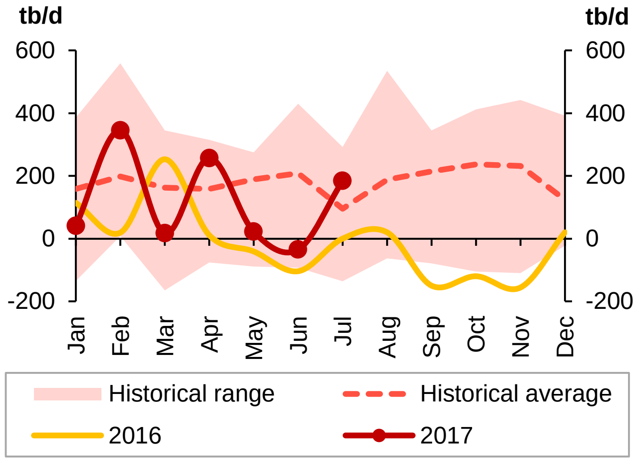
Sources: Joint Organisations Data Initiative, national and OPEC Secretariat.

Taiwan

Taiwan's latest available data for the month of July 2017 indicates oil requirements increasing by 58 tb/d, or 6% y-o-y. The bulk of the increase is attributed to diesel oil demand and light distillate fuels, namely, naphtha and gasoline, highlighting improvement in the industrial and transportation sectors.

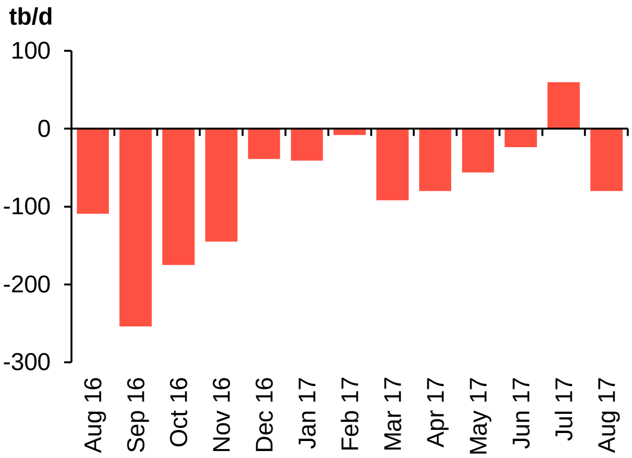
Middle East

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



Sources: Joint Organisations Data Initiative, national, direct communication and OPEC Secretariat.

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



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

Saudi Arabia

In **Saudi Arabia**, August 2017 oil demand returned to a declining trend as oil demand dipped steeply by 0.26 mb/d, or 9% y-o-y, to reach approximately 2.67 mb/d. On a cumulative basis, from January to August oil demand growth in the Kingdom weakened by around 70 tb/d equating to 3.0% y-o-y.

Most products saw negative growth during August with the exception of the “other product” categories. Diesel oil declined by a considerable 0.19 mb/d equating to 24% y-o-y amid less-than-expected consumption in the construction and transportation sectors. Fuel oil declined, only for the second time in 2017, shedding around 0.14 mb/d y-o-y. Historic high baseline levels of consumption in August 2016 and the easing of power generation demand resulted in declining growth for fuel oil. Moreover, direct crude burning declined by 80 tb/d in August, equating to 11% y-o-y, caused by substitution with natural gas particularly after the start-up of the Wasit gas plant and improving efficiency in various sectors. Direct crude for burning has dropped y-o-y continuously since the middle of last year. Total demand for direct crude for the purpose of burning was 0.66 mb/d in August. LPG and jet/kerosene also weakened as they dropped by 33% and 14% y-o-y, respectively.

Iraq

Similarly, oil demand figures for August 2017 in **Iraq** showed declining oil requirements by more than 0.1 mb/d, or 15% y-o-y, despite mixed product performance. While LPG, gasoline and middle distillates showed increases, naphtha, fuel oil and the “other product” category declined, with most of those declines appearing in the “other product” category.

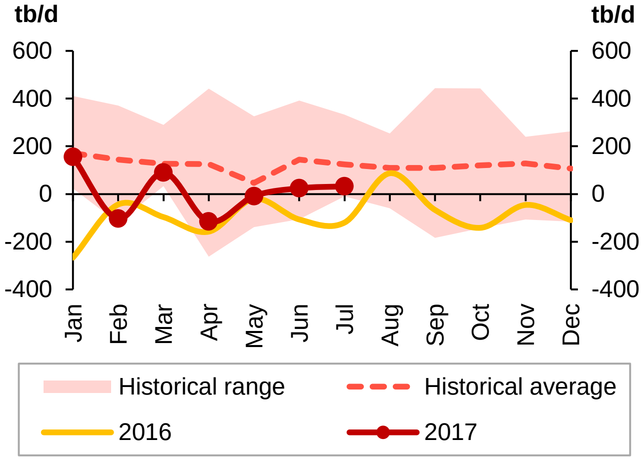
Oil requirements were flat in **Kuwait** and **Iran** during the month of August 2017 and rose in the **UAE** and **Qatar** by 15 tb/d and 20 tb/d y-o-y, respectively.

Expectations for the region for the remainder of **2017** appear skewed to the downside as the high level of substitution as well as possible subsidy reduction in Saudi Arabia should subdue demand growth. In **2018**, oil demand growth is expected to be at similar levels to the current year as the introduction of substitution programmes, efficiency gains and economic reforms are assumed to moderate oil demand growth in the short term.

For both 2017 and 2018, oil demand growth in the **Middle East** is expected to rise by 0.1 mb/d y-o-y, respectively.

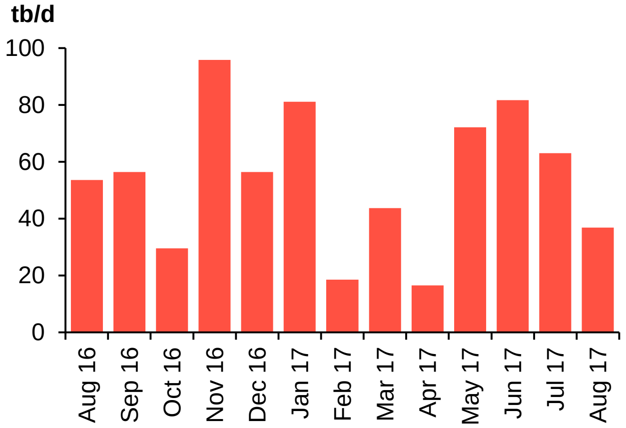
Latin America

Graph 4 - 13: Latin American oil demand, y-o-y change



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

Graph 4 - 14: Brazilian gasoline demand, y-o-y change



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

Brazil

Brazilian oil demand has been positive in 2017. On a cumulative basis, data up to August suggests moderate growth in oil requirements of around 11 tb/d y-o-y, compared to a decline of around 80 tb/d y-o-y during the same period last year.

The economic advantage of gasoline over ethanol played a big part in increasing gasoline demand growth in every single month of 2017. Currency exchange and weather conditions are usually factors impacting ethanol production. Farmers opted to produce sugar in lieu of ethanol as economics supported sugar production, limiting ethanol availability and increasing its relative value compared to gasoline. Gasoline was more economical for drivers as most vehicles in Brazil are equipped with dual-fuel engines that can burn both fuels. Gasoline consumption was 52 tb/d higher than the same period last year, while ethanol demand declined by similar quantities.

Diesel oil is flat on a year-to-date basis, despite y-o-y gains in June, July and August. These monthly increases are indicative of improving economic conditions in the country as inflation rates, consumer confidence and manufacturing PMI indexes are at stable, or rising, levels. As a result, diesel oil demand from the industrial and transportation sectors has improved.

Fuel oil demand declined by more than 15 tb/d, or 4% y-o-y, on a cumulative basis. As with diesel oil, strengthening economic conditions have contributed positively to fuel oil demand numbers as increased consumption was observed in the power generation sector and in the use of fuel oil as a bunker fuel.

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

			Change 2017/2016	
	Aug 17	Aug 16	tb/d	%
LPG	250	250	0	-0.2
Naphtha	144	143	1	0.7
Gasoline	759	722	37	5.1
Jet/kerosene	116	116	0	-0.4
Diesel oil	1,017	995	22	2.2
Fuel oil	121	90	31	34.9
Other products	358	396	-38	-9.5
Total	**2,765**	**2,712**	**53**	**1.9**

*Note: * = Inland deliveries.*

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

Argentina

Oil consumption in **Argentina** was flat during the month of July 2017 at 0.72 mb/d, with mixed product performance. All transportation fuels were in positive territory with the exception of diesel oil. Jet/kerosene and gasoline increased by around 17% and 4% y-o-y respectively. Conversely, fuel oil recorded a drop of 15% y-o-y.

Looking forward, the risks for **2017** for **Latin America** are currently balanced with a projection for economic improvement by the major consuming nation of the region, Brazil, which is anticipated to promote government spending. The continuation of lower oil prices as well as unusual weather conditions should also support for oil demand growth. Conversely, deteriorating economic conditions elsewhere in the region should cap oil requirements.

In **2018**, projections are largely dependent on possible improvements for the overall economy of the region, oil demand should also improve as a result, and the low baseline of comparison this year should provide additional support. In terms of products, diesel oil and gasoline will have higher growth potential and are expected to fuel the industrial and transportation sectors.

Latin American oil demand is anticipated to increase by 47 tb/d in 2017. During 2018, oil demand growth is forecast to be higher than 2017, recording growth of 85 tb/d.

World Oil Supply

World oil supply in September was revised up by 0.41 mb/d m-o-m from the previous MOMR to average 96.50 mb/d, representing an increase of 1.08 mb/d y-o-y.

Non-OPEC oil supply in September was up by 0.31 mb/d m-o-m to average 57.65 mb/d and is now projected to grow by 0.68 mb/d y-o-y in 2017 to average 57.69 mb/d, representing a downward revision of 0.10 mb/d from last month's report. While production in the FSU, OECD Americas and other Asia was revised down by a total 0.14 mb/d, oil supply in OECD Europe and Africa was revised up by 0.03 mb/d and 0.01 mb/d respectively. The non-OPEC oil supply forecast in 2018 was also revised downward by 0.06 mb/d to average 58.64 mb/d, indicating growth of 0.94 mb/d y-o-y.

OPEC NGLs and non-conventional liquids production averaged 6.31 mb/d in 2017, an increase of 0.17 mb/d y-o-y. In 2018, production is forecast to grow by 0.18 mb/d to average 6.49 mb/d.

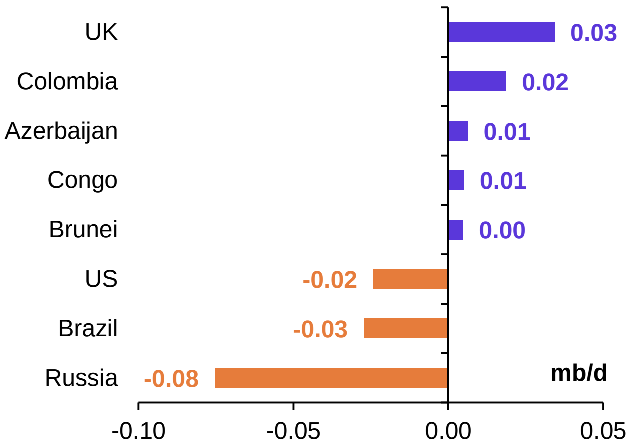
In September 2017, OPEC crude oil production increased by 88 tb/d, according to secondary sources, to average 32.75 mb/d.

Non-OPEC oil supply highlights in 2017

The forecast for non-OPEC supply growth for 2017 has been revised downward by 0.10 mb/d since last month's MOMR to 0.68 mb/d, thereby averaging 57.69 mb/d. While the supply forecast for the UK, Colombia and Africa others has marginally improved, the expected growth in the US, Mexico, Brazil, Russia and Chad has been adjusted down. Non-OPEC preliminary oil supply in September rose by 0.31 mb/d m-o-m, mainly in the US, Azerbaijan, Kazakhstan, Brazil and the UK to average 57.65 mb/d.

The US remains the key driver of non-OPEC supply growth, adding 0.60 mb/d to non-OPEC production in 2017. Brazil was the second largest contributor, adding 0.21 mb/d, followed by Canada, Kazakhstan and Ghana, which added 0.19 mb/d, 0.18 mb/d and 0.07 mb/d, respectively. Output in Mexico, China, Azerbaijan, Colombia, Russia and Oman saw declines in 2017.

Graph 5 - 1:Revisions in annual changes of 2017* for selected countries



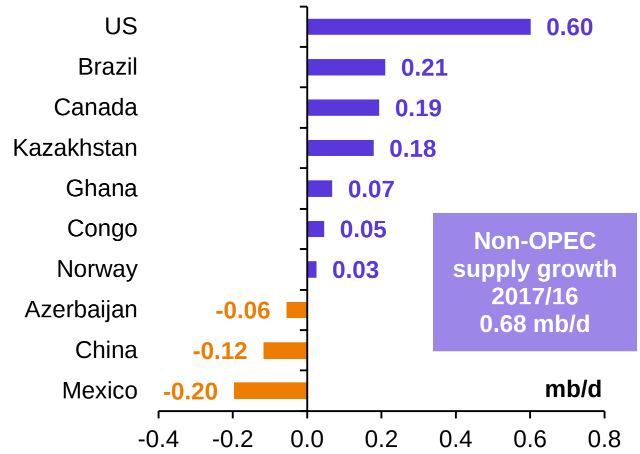
*Note: * 2017 = Forecast.*
Source: OPEC Secretariat.

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

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	Change 2017/16 %
Americas	20.61	21.10	20.94	21.20	21.58	21.21	0.60	2.91
of which US	*13.63*	*13.81*	*14.11*	*14.30*	*14.70*	*14.24*	*0.60*	*4.41*
Europe	3.81	3.94	3.80	3.73	3.92	3.85	0.04	1.10
Asia Pacific	0.42	0.39	0.39	0.42	0.41	0.40	-0.02	-4.99
Total OECD	**24.84**	**25.43**	**25.14**	**25.35**	**25.91**	**25.46**	**0.62**	**2.50**
Other Asia	3.72	3.72	3.63	3.60	3.64	3.65	-0.07	-1.89
Latin America	5.10	5.20	5.21	5.20	5.38	5.25	0.14	2.83
Middle East	1.28	1.24	1.24	1.24	1.22	1.24	-0.04	-3.32
Africa	1.80	1.80	1.82	1.87	1.91	1.85	0.05	2.96
Total DCs	**11.90**	**11.96**	**11.90**	**11.92**	**12.16**	**11.98**	**0.09**	**0.72**
FSU	13.86	14.13	13.90	13.81	13.93	13.94	0.08	0.58
of which Russia	*11.08*	*11.25*	*10.99*	*10.95*	*10.98*	*11.04*	*-0.04*	*-0.38*
Other Europe	0.13	0.12	0.12	0.13	0.13	0.13	0.00	-3.02
China	4.10	4.02	4.02	3.93	3.94	3.98	-0.12	-2.85
Total "Other regions"	**18.09**	**18.27**	**18.05**	**17.86**	**18.00**	**18.05**	**-0.04**	**-0.22**
Total non-OPEC production	**54.82**	**55.66**	**55.08**	**55.14**	**56.07**	**55.49**	**0.67**	**1.21**
Processing gains	2.19	2.21	2.21	2.21	2.21	2.21	0.01	0.50
Total non-OPEC supply	**57.02**	**57.87**	**57.29**	**57.34**	**58.28**	**57.69**	**0.68**	**1.19**
Previous estimate	57.02	57.87	57.56	57.53	58.23	57.80	0.78	1.36
Revision	0.00	-0.01	-0.27	-0.19	0.05	-0.10	-0.10	-0.18

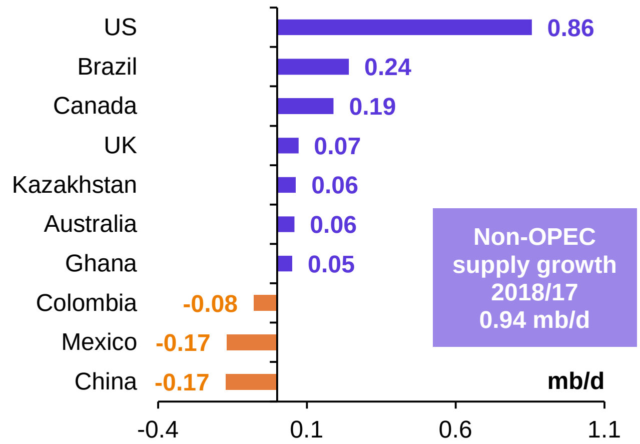
*Note: * 2017 = Forecast.*
Source: OPEC Secretariat.

Graph 5 - 2: Annual supply changes for selected countries in 2017*



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

Graph 5 - 3: Annual supply changes for selected countries in 2018*



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

Non-OPEC oil supply highlights in 2018

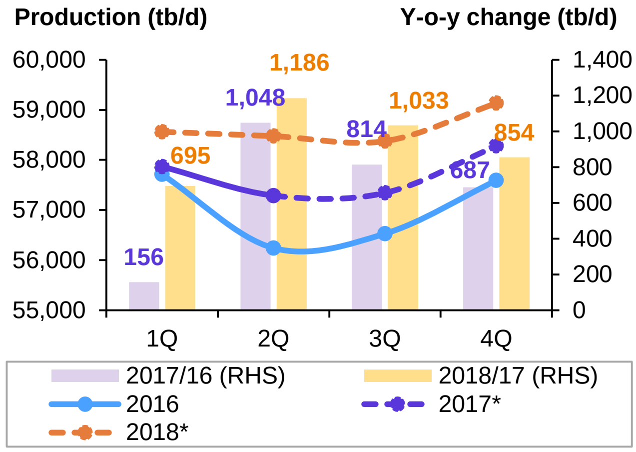
Non-OPEC production is expected to increase next year, primarily as a result of projects that were approved before the 2014 price collapse. When the WTI price remained below $50/b for a longer period, US production growth slowed as the oil rig count declined. Lower prices are beginning to weigh on US shale oil activity as concerns mount that aggressive development could lead to output declines. Oil prices are expected to remain at $50-55/b in the next year. A rise above that level would encourage US oil producers to expand their drilling activities, otherwise the lower prices could lead to a reduction in their Capex.

According to recent information, key shale oil producers are basing their plans on a price of $50-55/b. Leading companies such as Chesapeake and Pioneer have said that they are making investment decisions based on prices staying around $50/b. Nevertheless, other more structural factors have played a role. These include flat-to-lower oil well productivity in key regions since last year, particularly in the Permian and Eagle Ford.

Moreover, a drop of about 20% in drilling efficiency since 3Q16, increased service costs (10% higher y-t-d) and production costs - due in part to the use of heavier proppant and higher frack stages - are the main challenges that US producers are facing and are likely to continue to weigh on supply growth momentum in the coming year. This accounts for the recent downward revisions for US and non-OPEC supply for the current year, by major institutions and sources. The supply forecast for next year will be revised downward if higher oil prices and lower costs do not materialize.

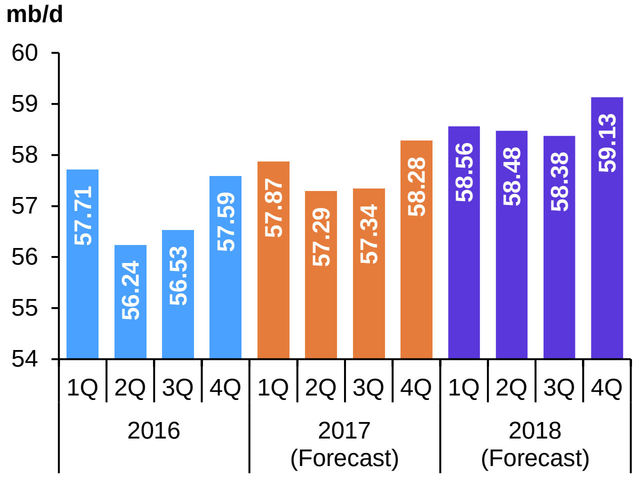
Non-OPEC supply in 2018 is expected to grow by 0.94 mb/d, following a downward revision of 0.06 mb/d in this month's assessment, to average 58.64 mb/d. This is mainly due to the lower supply level of Russia which was revised down for next year's forecast and is now expected to decline by 0.01 mb/d to average 11.03 mb/d in 2018. The US, Brazil, Canada, the UK, Australia, Kazakhstan, Ghana and India are expected to be the key countries driving growth next year, in contrast to China, Mexico, Colombia, Azerbaijan and Oman, which are expected to see a further decline in oil supply.

Graph 5 - 4: Non-OPEC liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 5: Non-OPEC oil supply, 2016-2018



Source: OPEC Secretariat.

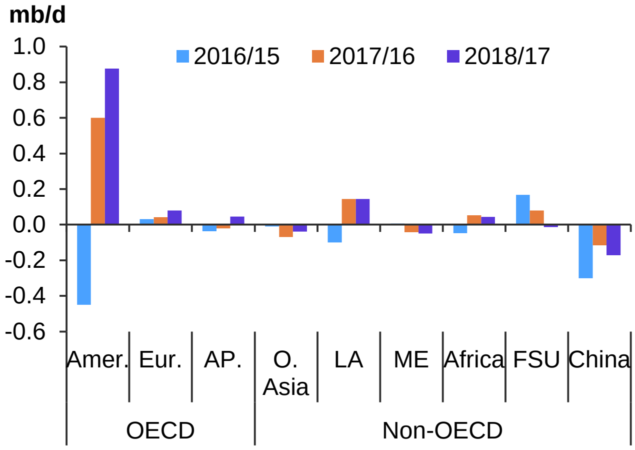
Graph 5 - 5 highlights actual non-OPEC quarterly oil supply in 2016 and the forecast for 2017 and 2018. The quarterly distribution for non-OPEC supply in 2017 indicates the regular seasonal pattern due to maintenance work, particularly in offshore areas, but with higher production levels compared to the same quarters in 2016. It is forecast that 4Q17 will be the highest quarter at 58.28 mb/d for oil supply compared to other quarters. For 2018, due to the increase in US shale production, higher growth is expected, as well as a higher quarterly distribution throughout the year.

The main factors for higher growth expectations for the remaining month of 2017 compared to last year are the current improving price environment, which is more suitable for shale producers; the start-up of giant projects, such as Kashagan; the increasing number of active rigs in North America; and notable investment in upstream projects. Nevertheless, non-OPEC supply is predicted to show milder growth of 0.23 mb/d in 2H17 compared to 1H17. It is expected that 1H18 will be higher by 0.71 mb/d than 2H17 and 2H18, at an average of 58.75 mb/d, could be higher by 0.23 mb/d than 1H18.

The quarterly oil supply forecast in 2017 and 2018 (***Graph 5 – 6*** and ***Table 5 – 2***) indicates a yearly higher oil output level from 2016, due to increased investment. This will lead to higher production and annual growth in non-OPEC supply in 2017 and 2018. Nevertheless, the forecast for non-OPEC supply in 2018 encompasses a high level of uncertainty as well as opportunity.

In terms of annual changes on a non-OPEC regional basis for the next year, it is expected that oil supply in all regions in the OECD – Americas, Europe and Asia Pacific – will grow by 0.88 mb/d, 0.08 mb/d and 0.04 mb/d, respectively. In DCs; Latin America and Africa are expected to grow while the Middle East and Other Asia regions will decline. Finally, the FSU and China are seen to decline by 0.01 mb/d and 0.17 mb/d, respectively.

Graph 5 - 6: Regional non-OPEC supply growth, y-o-y change



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

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

							Change 2018/17	
	2017	1Q18	2Q18	3Q18	4Q18	2018	Growth	%
Americas	21.21	21.84	21.96	22.10	22.44	22.09	0.88	4.13
of which US	*14.24*	*14.88*	*15.04*	*15.10*	*15.34*	*15.09*	*0.86*	*6.01*
Europe	3.85	3.99	3.88	3.81	4.02	3.93	0.08	2.06
Asia Pacific	0.40	0.42	0.45	0.46	0.45	0.45	0.04	11.16
Total OECD	**25.46**	**26.26**	**26.29**	**26.37**	**26.91**	**26.46**	**1.00**	**3.93**
Other Asia	3.65	3.63	3.62	3.60	3.58	3.61	-0.04	-1.08
Latin America	5.25	5.39	5.37	5.38	5.43	5.39	0.14	2.74
Middle East	1.24	1.20	1.19	1.18	1.17	1.19	-0.05	-3.98
Africa	1.85	1.89	1.89	1.90	1.90	1.90	0.04	2.36
Total DCs	**11.98**	**12.11**	**12.08**	**12.06**	**12.08**	**12.08**	**0.10**	**0.82**
FSU	13.94	13.93	13.93	13.82	14.02	13.93	-0.01	-0.10
of which Russia	*11.04*	*10.98*	*11.01*	*11.03*	*11.10*	*11.03*	*-0.01*	*-0.10*
Other Europe	0.13	0.13	0.13	0.13	0.12	0.13	0.00	-0.63
China	3.98	3.90	3.81	3.76	3.76	3.81	-0.17	-4.32
Total "Other regions"	**18.05**	**17.96**	**17.87**	**17.71**	**17.90**	**17.86**	**-0.19**	**-1.03**
Total non-OPEC production	**55.49**	**56.33**	**56.24**	**56.14**	**56.90**	**56.40**	**0.91**	**1.65**
Processing gains	2.21	2.23	2.23	2.23	2.23	2.23	0.03	1.32
Total non-OPEC supply	**57.69**	**58.56**	**58.48**	**58.38**	**59.13**	**58.64**	**0.94**	**1.63**
Previous estimate	57.80	58.61	58.54	58.55	59.50	58.80	1.00	0.00
Revision	-0.10	-0.05	-0.07	-0.18	-0.37	-0.17	-0.06	1.63

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

Non-OPEC oil supply in 2017 and 2018

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

Region	2017	Change 2017/16	2018	Change 2018/17
OECD Americas	21.21	0.60	22.09	0.88
OECD Europe	3.85	0.04	3.93	0.08
OECD Asia Pacific	0.40	-0.02	0.45	0.04
Total OECD	**25.46**	**0.62**	**26.46**	**1.00**
Other Asia	3.65	-0.07	3.61	-0.04
Latin America	5.25	0.14	5.39	0.14
Middle East	1.24	-0.04	1.19	-0.05
Africa	1.85	0.05	1.90	0.04
Total DCs	**11.98**	**0.09**	**12.08**	**0.10**
FSU	13.94	0.08	13.93	-0.01
Other Europe	0.13	0.00	0.13	0.00
China	3.98	-0.12	3.81	-0.17
Non-OPEC production	55.49	0.67	56.40	0.91
Processing gains	2.21	0.01	2.23	0.03
Non-OPEC supply	**57.69**	**0.68**	**58.64**	**0.94**

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

OECD

OECD liquids production in 2017 was revised down by 21 tb/d, mainly due to a downward revision in 3Q17 by 78 tb/d. OECD Americas had the largest downward revision by 144 tb/d, followed by 20 tb/d from OECD Asia Pacific, offset by an upward adjustment of 86 tb/d for OECD Europe - which is now expected to increase by 0.62 mb/d to average 25.46 mb/d in 2017.

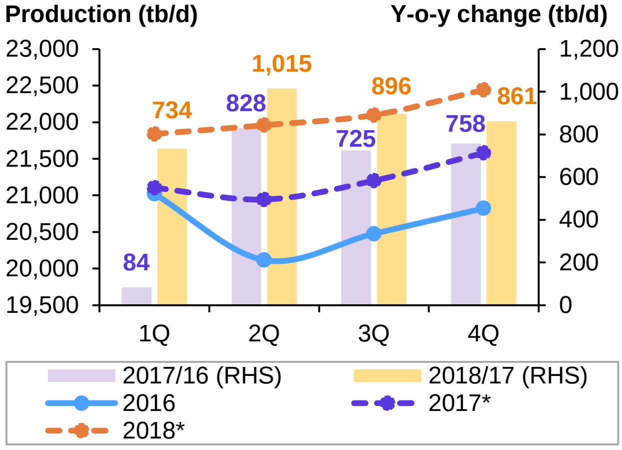
For 2018, OECD supply is forecast to average 26.46 mb/d, representing growth of 1.00 mb/d, mainly from OECD Americas.

OECD Americas

OECD Americas' oil supply in 2017 is predicted to average 21.21 mb/d, an increase of 0.60 mb/d y-o-y. The oil supply forecast was revised down by 48 tb/d this month owing to the downward adjustment of historical data in 3Q17 by 144 tb/d and in 4Q17 by 40 tb/d due to the revision of the forecast. Oil supply in the US and Canada will grow while a contraction is expected in Mexico.

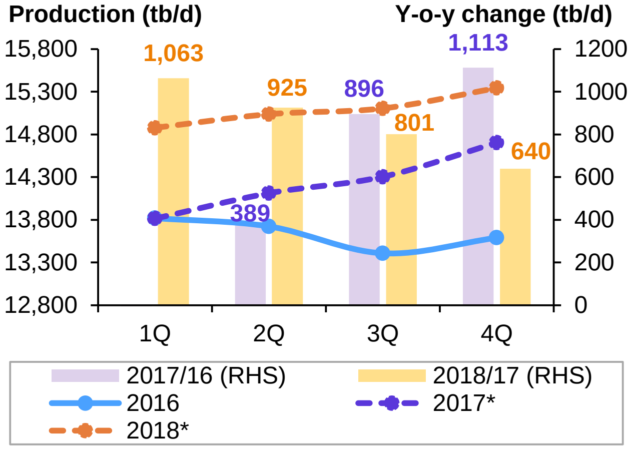
In 2018, supply in OECD Americas is expected to grow by 0.88 mb/d to average 22.09 mb/d. US and Canadian oil supply is expected to grow, while a continuation of the annual decline in Mexico is anticipated for next year.

Graph 5 - 7:OECD Americas liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 8: US liquids supply quarterly forecast, 2016-2018



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

US

According to the US Energy Information Administration (EIA), monthly crude oil production averaged 9.24 mb/d in July 2017, representing an increase of 141 tb/d from June. In July, US crude oil and total supply data showed a lower level compared to preliminary US weekly reports.

US total supply excluding processing gains grew by 0.12 mb/d to average 14.28 mb/d. US NGLs were up by 0.01 mb/d to average 3.76 mb/d, mainly from unconventional sources. Crude oil production increased m-o-m in Texas (+21 tb/d), North Dakota (+14 tb/d), Colorado (+18 tb/d) and most importantly in the Gulf of Mexico (+127 tb/d) to average 1.76 mb/d, while the main drop was seen in Alaska by 40 tb/d.

US crude oil production is expected to grow by 0.41 mb/d y-o-y to average 9.27 mb/d, while US NGLs output is expected to grow by 0.19 mb/d. US liquids supply in 2017 and 2018 is anticipated to increase by 0.60 mb/d and 0.86 mb/d to average 14.24 mb/d and 15.09 mb/d, respectively.

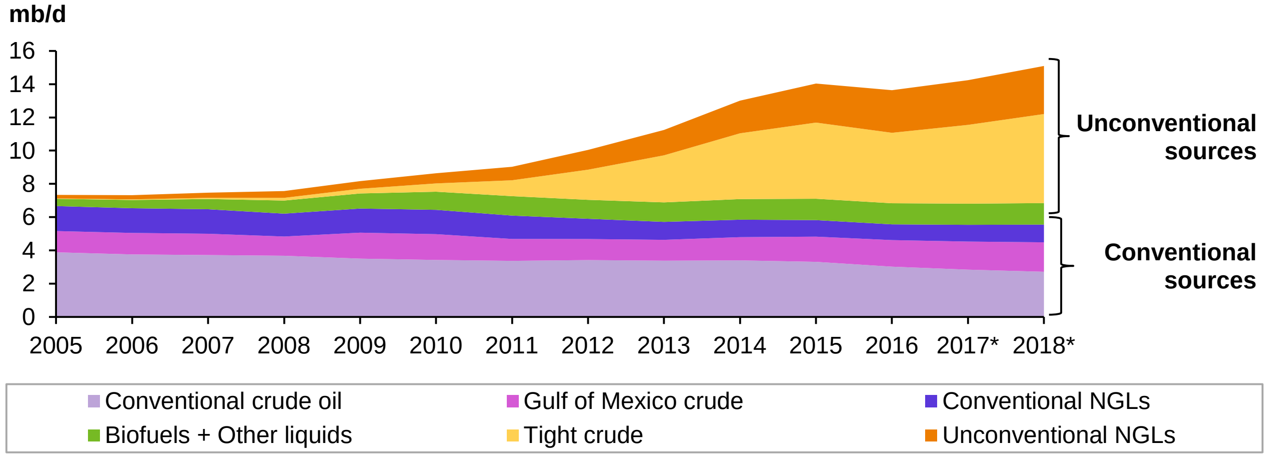
Table 5 - 4: US liquids production breakdown

	2015	2016	Change 2016/15	2017*	Change 2017/16	2018*	Change 2018/17
Tight crude	4,581	4,238	-344	4,738	500	5,357	619
Gulf of Mexico crude	1,515	1,598	83	1,690	92	1,770	80
Conventional crude oil	3,312	3,021	-291	2,841	-180	2,715	-126
Unconventional NGLs	2,347	2,562	215	2,688	126	2,891	203
Conventional NGLs	995	947	-48	1,007	60	1,067	60
Biofuels + Other liquids	1,283	1,268	-15	1,272	4	1,292	20
US total supply	**14,034**	**13,634**	**-400**	**14,236**	**602**	**15,092**	**856**

*Note: * 2017 and 2018 = Forecast.*
Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

US Lower 48 states' onshore crude oil output declined from a peak of 7.63 mb/d in March 2015 to 6.51 mb/d in December 2016, but gathered renewed momentum in 2017. In July 2017, it had grown by 532 tb/d over the December level to average 7.04 mb/d. US tight oil production grew by 105 tb/d m-o-m to average 4.78 mb/d in July, surpassing previous highest level of 4.70 mb/d in March 2015, according to EIA official data. Tight crude output from tight horizontal wells increased in the Permian by 0.05 mb/d to average 1.88 mb/d in July and for August, preliminary data indicates an even higher level at 1.92 mb/d, while tight crude output in the Eagle Ford dropped by 0.06 mb/d to average 1.17 mb/d following the heavy flooding caused by Hurricane Harvey. Other regions either stagnated or experienced minor declines.

Graph 5 - 9: US monthly liquids production breakdown



*Note: * 2017 and 2018 = Forecast.*
Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

Oil production in the US Gulf of Mexico increased by 127 tb/d m-o-m, reaching a new record of 1.76 mb/d in July, indicating growth of 201 tb/d, y-o-y. According to the US oil producer Hess Corp, higher investments in offshore oil production are essential in order to avoid a supply squeeze by 2020, as expanding shale output will not match the projected demand increases of the next few years.

Table 5 - 5: US shale play's production growth forecast in 2017 and 2018

Shale play	2017*		2018*	
tb/d	Production	*Y-o-y change*	Production	*Y-o-y change*
Permian	1,872	*410*	2,322	*450*
Bakken shale	1,000	*-20*	1,024	*24*
Niobrara	318	*23*	353	*35*
Eagle Ford	1,213	*40*	1,293	*80*
Other plays	347	*47*	377	*30*
Total	**4,750**	***500***	**5,369**	***619***

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

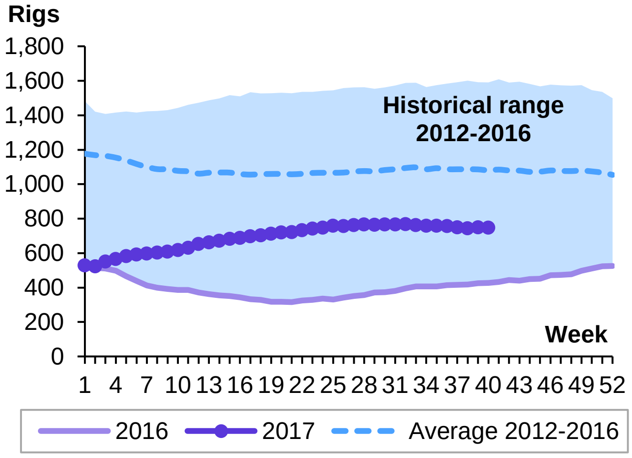
US oil rig count

According to Baker Hughes' report for the week to 29 September 2017, the US drilling rig count has risen by 5 unit to 940 rigs (79.8% oil and 20.1% gas), w-o-w, while the oil rig count is up by 6 units to 750 rigs. The gas rig count decreased by 1 unit to reach 189 rigs.

On a monthly basis, the September rig count fell by 9, after dropping by 7 units in August. The US oil rig count was higher by 325 rigs, y-o-y, an increase of 76.5%.Gas rigs grew by 93 units to reach 189 rigs y-o-y, an increase of about 97%.

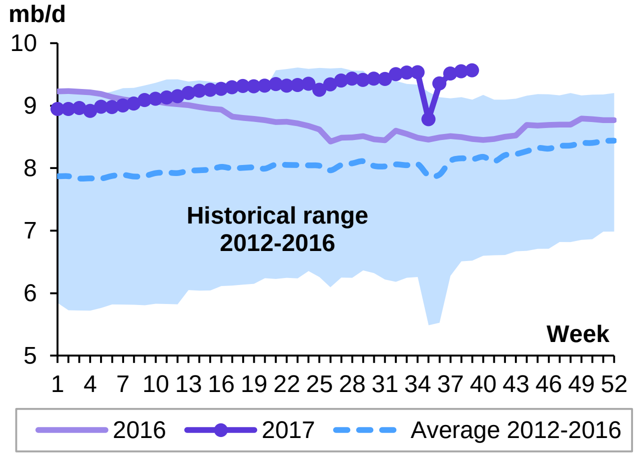
As a result, at the end of September 2017, the US rig count for the last 16 months represents an increase of 533 rigs (+131%) since the rig count bottomed out in May 2016, equating to the addition of at least 1 rig per day. The Permian is now home to nearly 52% of the active oil rigs in the US, its highest contribution since basin-level data became available in early 2011.

Graph 5 - 10: US weekly oil rig count



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

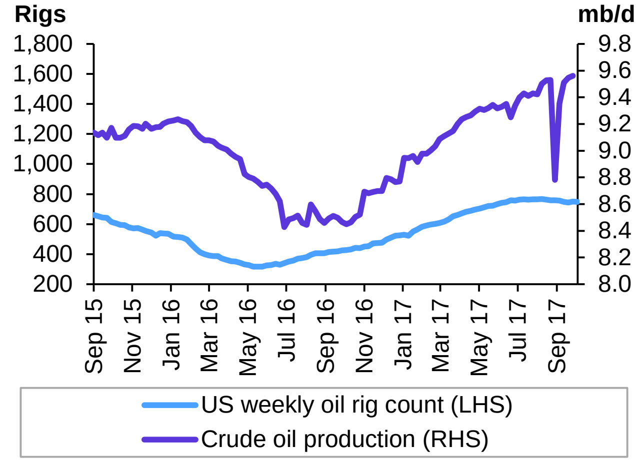
Graph 5 - 11: US weekly crude oil production



Sources: US Energy Information Administration and OPEC Secretariat.

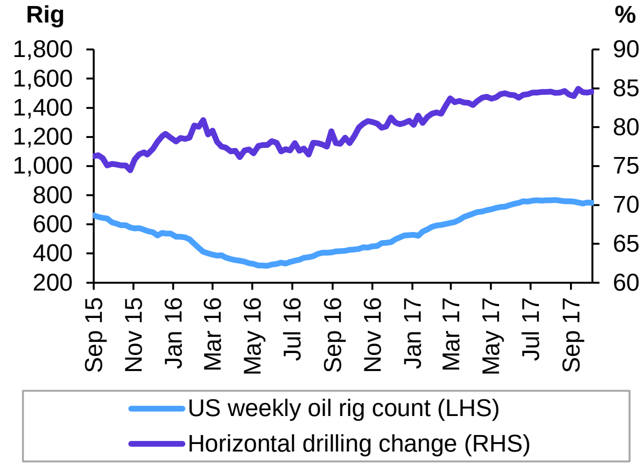
Onshore rigs climbed by 419 units y-o-y to 916 rigs, while the active rigs in offshore areas remained unchanged at 22 rigs compared to a year ago. 84.5% of the land rigs are active in the drilling of horizontal wells at the end of September.

Graph 5 - 12: US weekly oil rig count vs. Crude oil production



Sources: Baker Hughes and US Energy Information Administration.

Graph 5 - 13: US weekly oil rig count vs. Horizontal drilling change



Source: Baker Hughes.

In terms of **the oil rig count** in the most prolific Basins, it increased by 5 units in September m-o-m in the Permian Basin to average 383 rigs, while oil rigs in Eagle Ford dropped by 5 units to 70 rigs, m-o-m. It is also reported that in Niobrara and Williston Basin, the number of oil rigs decreased by 3 units and 1 unit to total 27 and 51 oil rigs, respectively.

At the end of September 2017, 385 rigs in Permian Basin, 68 rigs in Eagle Ford, 62 rigs in Cana Woodford, 50 rigs in Williston and 25 rigs in Niobrara were active.

Table 5 - 6: US rotary rig count on 29 September 2017

		29 Sep 17	Month ago	Year ago	Change M-o-m	Change Y-o-y	Change Y-o-y, %
Oil and gas split	**Oil**	750	759	425	-9	325	76%
	Gas	189	180	96	9	93	97%
Location	**Onshore**	918	923	500	-5	418	84%
	Offshore	22	17	22	5	0	0%
Basin	**Williston**	50	52	30	-2	20	67%
	Eagle Ford	60	66	33	-6	27	82%
	Permian	385	377	204	8	181	89%
Drilling trajectory	**Directional**	82	80	51	2	31	61%
	Horizontal	794	796	407	-2	387	95%
	Vertical	64	64	64	0	0	0%
US total rig count		**940**	**940**	**522**	**0**	**418**	**80%**

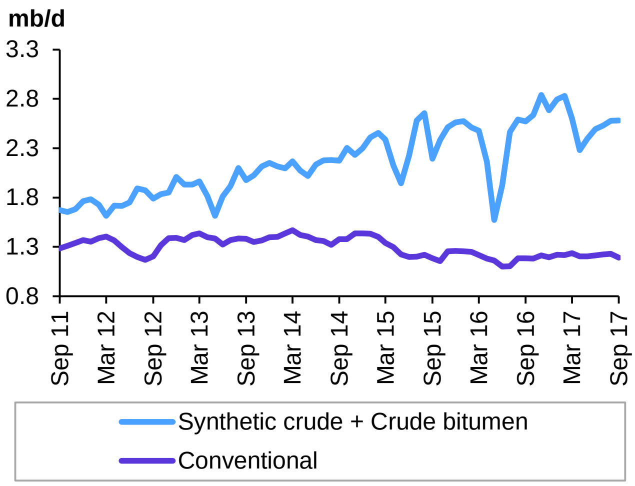
Sources: Baker Hughes and OPEC Secretariat.

Canada

Although **Canadian liquids output** in June increased by 0.09 mb/d m-o-m to average 4.62 mb/d, a gap of 0.42 mb/d remains in order to reach the peak attained in February of 5.04 mb/d. Oil production recovered within four months of the 2016 wildfires, whereas production has not yet recovered from this year's wildfires in Syncrude Mildred Lake plant in mid-March. Non-conventional liquids output including oil sands increased by 0.1 mb/d to average 2.53 mb/d, while the output in March before the wildfire was 2.64 mb/d. Preliminary production data in September shows that the output level has not reached the March level yet.

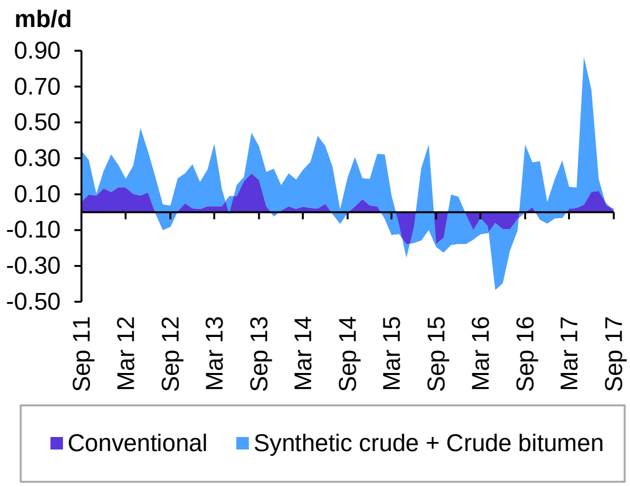
Conventional crude oil was stagnant in June at 1.22 mb/d, which is the same as the average output in 1H17, while NGLs production in June decreased by 22 tb/d to reach 0.87 mb/d. Liquids output for 2Q17 indicated drops of 0.44 mb/d q-o-q owing to the wildfires, while it was higher by 0.62 mb/d y-o-y, mainly as a result of low output following last year's wildfire disaster. The 350 tb/d Mildred Lake plant was expected to return to full production by August, although it is two months behind its original schedule, with maintenance planned for later in the year. Some upgraders underwent maintenance in 3Q17, such as Scotford in July and Horizon starting in September.

Graph 5 - 14: Canada production by crude type



Source: OPEC Secretariat.

Graph 5 - 15: Canada production by crude type, y-o-y change



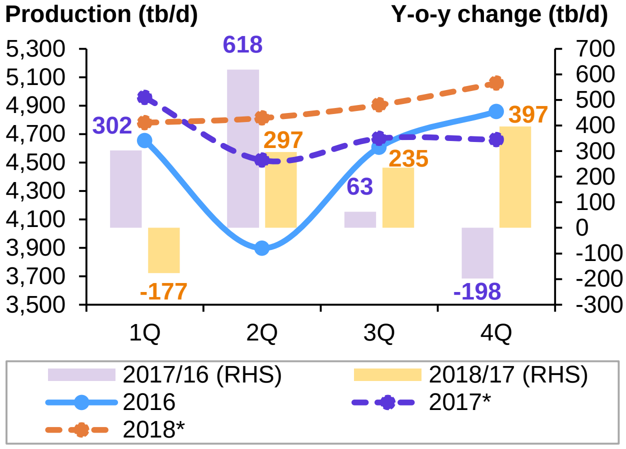
Source: OPEC Secretariat.

On the other hand, the Chinese firm CNOOC announced that the Hangingstone project commenced production in early August. The project, located in Alberta, consists of steam-generating equipment, well pad facilities, 32 well pairs, water treatment services and bitumen flowlines. It is expected to reach a peak production rate of approximately 20 tb/d in 2018.

Canada shows the greatest supply growth potential for 4Q17 start-ups. Resources coming online have doubled this year, compared to last year. The main contributor is Fort Hills Phase 1, which is jointly owned by Suncor, Total E&P Canada and Teck Resources and scheduled to begin producing oil by the end of 2017. Plateau liquids production is estimated at 171 tb/d. CNRL's Horizon phase 3 with 876 mb of recoverable resources will contribute the most to 2017 production and the asset is expected to reach a production plateau of 72 tb/d of liquids by 2020. It is also expected that the Hebron offshore field will start oil production in mid-December by ExxonMobil. The plateau liquids production from Hebron is estimated at 123 tb/d.

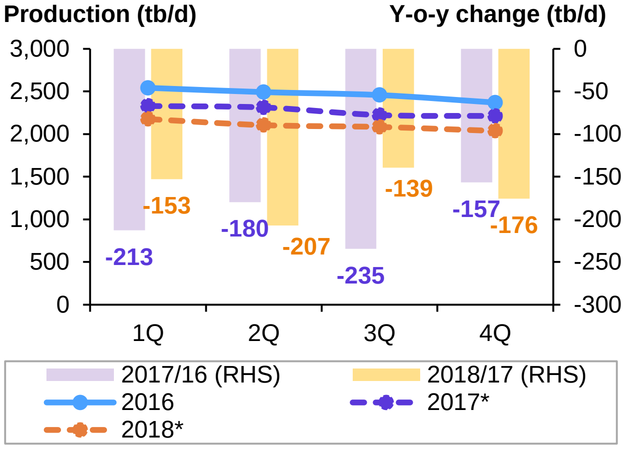
Total Canadian oil supplies are forecast to expand by190 tb/d in both 2017 and 2018 to average 4.70 mb/d and 4.89 mb/d, respectively.

Graph 5 - 16: Canada liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 17: Mexico liquids supply quarterly forecast, 2016-2018



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

Mexico

Mexican oil production fell by 72 tb/d m-o-m in August to average 2.20 mb/d, mainly due to a decline of 56 tb/d in crude oil to average 1.93 mb/d, which resulted in a downward revision by 0.06 mb/d for 3Q17. August's crude output was lower by 0.21 mb/d y-o-y, with the majority of declines coming from small fields, where production fell y-o-y by 0.09 mb/d. Following a m-o-m decline in July, maintenance at the Ku-Maloob-Zaap field which started in the last week of July, continued through the first week of August, leading to lower production from this field. Preliminary liquids output in September indicated a minor decline of 10 tb/d at 2.19 mb/d.

As a result, a y-o-y contraction of 0.19 mb/d is expected for this year, revised down by 0.02 mb/d in this month's analysis. For next year, a minimum decline of 0.15 mb/d is anticipated.

OECD Europe

Actual OECD Europe's oil supply was down by 0.10 mb/d m-o-m in August to reach 3.70 mb/d, while this was higher by 0.05 mb/d y-o-y. Production in Norway and the UK declined m-o-m while oil output grew in other OECD Europe. At 3.83 mb/d, oil supply for 2H17 is expected to be lower by 0.04 mb/d over 1H17 due to lower than expected production in the UK and Norway. Crude and condensate output from the Danish portion of the North Sea is also forecast to fall in 2017 and 2018 by 0.01 mb/d, continuing a long-term trend. Overall growth of 0.04 mb/d is anticipated for the current year; 0.08 mb/d for next year.

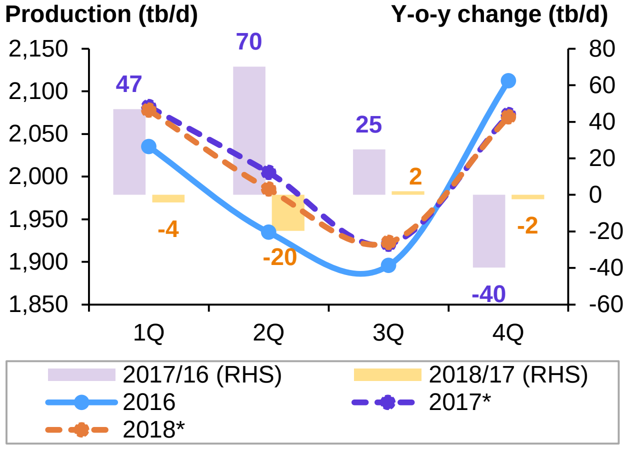
Norway

According to Norwegian Petroleum Directorate (NPD) data, preliminary production figures for August 2017 show an average production of 1.92 mb/d of oil, NGL and condensate, which is a decrease of 41 tb/d compared to July. Average liquids production in August comprised of 1.55 mb/d for oil, 0.34 mb/d for NGLs and 0.03 mb/d for condensate. Oil production in August 2017 was around 1.4 % below the level of August last year, and about 1.6% below the NPD's prognosis for August 2017.

Final production figures for July 2017 show an average production of about 1.6 mb/d of oil and 0.36 mb/d of NGLs and condensate. Oil production is about 1.2% above the prognosis so far this year and is expected to fall back again in September as the amount of field maintenance increases, with work planned at the Gudrun, Skarv, Valhall and Vigdis fields, impacting an average of 0.05 mb/d of output across the month. In September, this will continue at the Goliat field, impacting 0.1 mb/d. NGLs and condensate increased by 0.09 mb/d compared with June.

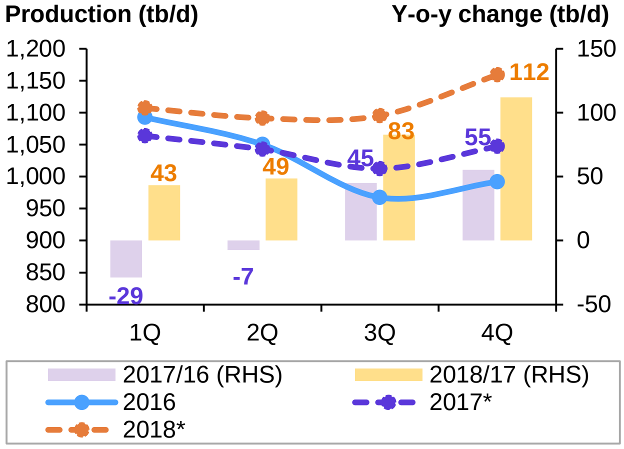
The oil supply forecast for 2017 remained unchanged at 2.02 mb/d, indicating annual growth of 0.03 mb/d, y-o-y. For 2018, a contraction of 0.01 mb/d is expected, to reach an average of 2.01 mb/d.

Graph 5 - 18: Norway liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 19: UK liquids supply quarterly forecast, 2016-2018



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

UK

The UK's oil output over the first seven months increased by 0.03 mb/d to average 1.05 mb/d compared to the average annual supply in 2016. However, August liquids supply was down by 100 tb/d m-o-m, averaging 0.96 mb/d, as maintenance was at the highest level for the year. In the beginning of July, key fields were offline for maintenance work, including Forties and Britania, however production returned in fields such as Alma, Galia, Forties, Beryl and J-Area. Maintenance works continued in August on the Graben Export Line, which connects several platforms with a capacity of around 0.1 mb/d to the Forties Pipeline System.

August also saw peak UK field maintenance, when around 0.1 mb/d of production was taken offline compared to July's crude oil output of 926 tb/d. Maintenance also meant that Forties loadings dropped m-o-m by 135 tb/d to 0.27 mb/d in August, before picking up to 0.36 mb/d in September, and are scheduled to rise to 0.43 mb/d in October. Production is nevertheless expected to increase in the coming months to the end of the year through the ramping up of new fields, such as Quad 204 and Kraken as well as from the Catcher project start-up.

The UK's overall oil production in 2017 is predicted to grow by 20 tb/d y-o-y to average 1.04 mb/d, an upward revision of 0.04 mb/d in terms of annual growth, due to higher-than-expected volumes from new projects and the continued ramp up of previous projects such as Kraken, Monarb, Flyndre, Quad 204 and Greater Stella. For next year, because of a downward revision of 10 tb/d, growth of 0.07 mb/d for average oil supply of 1.11 mb/d is anticipated.

Developing Countries

The total oil supply of developing countries (DCs) is estimated to reach an average of 11.98 mb/d in 2017, revised down by 16 tb/d due to the downward revision in 3Q17, and is expected to grow by 0.08 mb/d y-o-y. This month's assessment is lower compared with the previous one, owing to downward revisions in Other Asia and Latin America by 60 tb/d and 61 tb/d, respectively, which partially offset the upward revision in the Middle East, all in 3Q17. With actual and preliminary supply data of Developing Countries for August and September at 11.93 mb/d and 11.91 mb/d, respectively, the 3Q17 average supply at 11.92 mb/d was higher by 0.01 mb/d compared to the previous quarter, but lower by 0.05 mb/d y-o-y. For 2018, Developing Countries' supply is forecast to grow by 0.10 mb/d y-o-y to average 12.09 mb/d, unchanged from the last *MOMR*.

Oil production is expected to increase in **Latin America** by 0.14 mb/d to average 5.25 mb/d in 2017. This will be mainly in Brazil where it is expected to rise by 0.21 mb/d. Other countries in the region will witness declines, except Trinidad and Tobago, which shows steady production levels compared to last year. Colombian oil production stood at 0.88 mb/d in August, unchanged from July and 0.03 mb/d higher than a year ago. Production in Colombia is expected to fall by 0.04 mb/d and 0.08 mb/d due to spending cuts from the largest upstream players as well as a number of outages in 2017 and 2018.

In **Africa**, a production increase of 0.05 mb/d – primarily from Ghana and Congo – is expected for 2017 and 2018 to lead to averages of 1.85 mb/d and 1.90 mb/d, respectively.

The oil supply from **Other Asia** is expected to decline by 0.07 mb/d and 0.04 mb/d in 2017 and 2018 to average 3.65 mb/d and 3.61 mb/d, respectively.

Non-OPEC oil production in the **Middle East** region is predicted to decline by 0.04 mb/d and 0.05 mb/d in 2017 and 2018, averaging 1.24 mb/d and 1.19 mb/d, respectively.

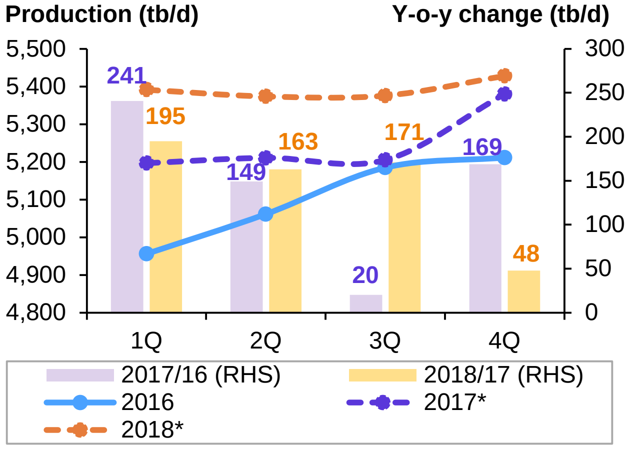
Table 5 - 7: Developing countries liquids supply, mb/d

	1Q	2Q	3Q	4Q	Yearly	*Change Y-o-y*
2016	11.80	11.79	11.97	12.03	11.90	*-0.15*
2017	11.96	11.90	11.92	12.16	11.98	*0.09*
2018	12.11	12.08	12.06	12.08	12.08	*0.10*

Source: OPEC Secretariat.

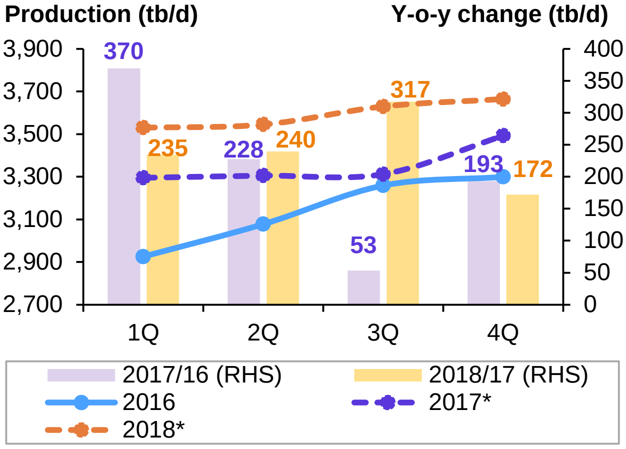
Latin America

Graph 5 - 20: Latin America liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 21: Brazil liquids supply quarterly forecast, 2016-2018



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

Brazil

According to national sources, **Brazilian liquids output** declined by 0.05 mb/d m-o-m in July to 3.31 mb/d, which is higher by 0.09 mb/d, y-o-y. A 52 tb/d m-o-m decline in crude output led to the lowering of crude supply to average 2.62 mb/d. This was, particularly caused as a result of maintenance at the Parque das Baleias complex. According to Petrobras preliminary data in August, liquids supply is estimated to decrease by 0.02 mb/d to average 3.29 mb/d, including 2.61 mb/d of crude. Crude oil output fell for the second consecutive month amid ongoing maintenance shutdowns at offshore platforms in the pre-salt region. Brazil's eight month average crude oil output was higher by 0.2 mb/d at 2.63 mb/d compared to the same period a year ago, while this average indicates only 0.12 mb/d of growth compared to the 2016 annual average crude output. The reasons for this mild growth was mainly due to the lasting maintenance at platforms in both drilling regions of post-salt and pre-salt, as well as the heavy decline reported from post-salt reservoirs in the Campos Basin. Although oil output from Campos increased m-o-m by 53 tb/d, it remained lower y-o-y by 0.17 mb/d. Oil production in Lula, the largest offshore field in Brazil, reached an average of 0.7 mb/d y-t-d (August), showing growth of 0.17 mb/d from 2016. In the country's largest-ever Bid Round, according to oil and gas regulator ANP, Exxon Mobil took six blocks in consortia with state-controlled oil giant Petroleo Brasileiro in the promising offshore Campos basin, after bidding 2.24 billion reals for one area alone. A 50-50 partnership between Brazil's state-controlled Petrobras and Exxon Mobil won all six blocks, paying totalling 3.59 billion BRL. Total supply output in 2H17 is expected to be higher by 0.10 mb/d compared with 1H17.

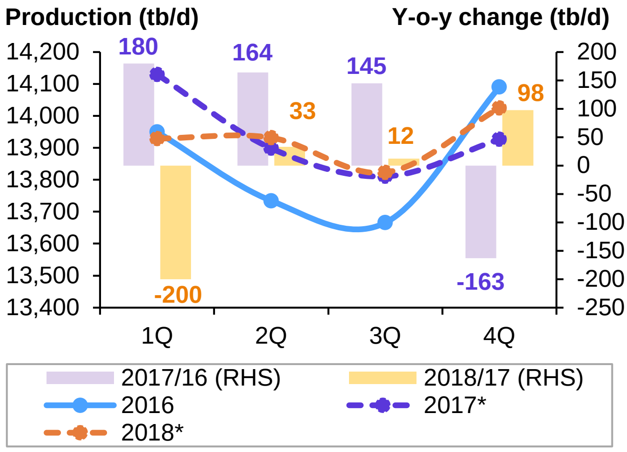
Brazil's annual oil supply forecast in 2017 was revised down by 27 tb/d, due to the lower than expected output in 3Q17 to average 3.35 mb/d, and is expected to grow by 0.21 mb/d y-o-y. The total supply forecast for 2018 was revised up owing to the base change in 2017, though growth of 0.24 mb/d with an average supply of 3.59 mb/d is predicted.

FSU

The FSU's oil supply is estimated to grow by 0.08 mb/d in 2017 to average 13.94 mb/d, revised down by 71 tb/d from the September *MOMR*. A downward revision of 75 tb/d was seen in Russia's production growth in 2017 according to actual data in 2Q17 and 3Q17. Hence, a contraction of 0.04 mb/d is anticipated for the Russian Federation this year. Oil production in Azerbaijan is predicted to contract by 0.06 mb/d to average 0.79 mb/d in 2017, while oil supply from Kazakhstan will grow by 0.18 mb/d to average 1.74 mb/d.

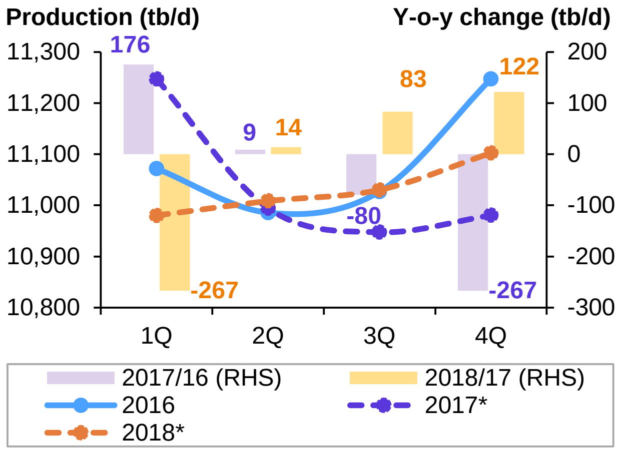
For 2018, the FSU's oil supply in absolute terms was revised down by 0.15 mb/d due to a base change in 2017; therefore, the expected growth revised down by 0.05 mb/d which led to a contraction of 0.01 mb/d for the next year. Other countries in the region will also decline except Kazakhstan.

Graph 5 - 22: FSU liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 23: Russia liquids supply quarterly forecast, 2016-2018

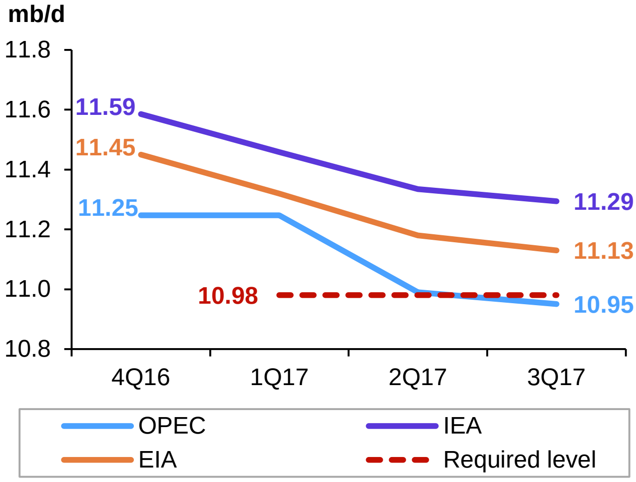


*Note: * 2017 and 2018 = Forecast.*
Source: OPEC Secretariat.

Russia

Preliminary Russian liquids output in September remained unchanged m-o-m at 10.935 mb/d according to the Ministry of Energy, due to peak maintenance. Total liquids output including NGLs in 3Q17 was reported lower than 2Q17 at 10.95 mb/d. Moreover, Russia's liquids output in 2Q17 indicates an average of 10.99 mb/d which represents a drop of 0.26 mb/d over 1Q17, owing to some major Russian oil companies having adjusted output by roughly 3% in line with the Declaration of Cooperation with OPEC and other key producing countries. As a result, Russian oil output data indicates that conformity of more than 300 tb/d has already been achieved by the Russian Federation. The comparison between OPEC, IEA and EIA is shown in ***Graph 5 - 24.***

Graph 5 - 24: Comparison of Russia's quarterly liquids output by different sources



Sources: EIA, IEA and OPEC Secretariat.

According to the latest assessment, Russian oil production in 2017 is expected to decline by 0.04 mb/d for this year to average 11.04 mb/d, revised down by 75 tb/d from the previous month's forecast. At the same time, the oil supply forecast for 2018 was revised down by 73 tb/d, representing a decline of 0.01 mb/d y-o-y to average 11.03 mb/d.

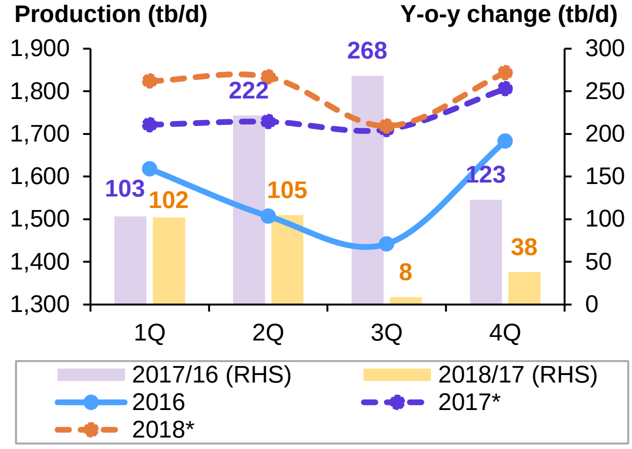
Regarding to Russian upstream project start-ups, three new upstream projects are expected to start-up in 4Q17, most probably in October. These are Kondinskoye, which has a peak capacity of 55 tb/d, and Kosukhinskoye, where peak production will be 33 tb/d. Both will be implemented by Rosneft along with a third, Odoptu stage 2 (phase 1) by ExxonMobil, with peak production at 29 tb/d. Total production capacity of 179 tb/d is also planned to be added in 1Q18 from Russian companies. This will come from Tambeyskoye Yuzhnoye by Novatek and two others, namely, the Yaregskoye expansion and phase 2 of Vladimir Filanovsky by Lukoil by the end of February 2018. All these six projects will peak beyond 2020.

Caspian

In **Azerbaijan**, according to data provided by the Ministry of Energy, oil production declined by 0.07 mb/d m-o-m, averaging 0.75 mb/d in August, lower by 0.10 mb/d, y-o-y. Of this, 0.68 mb/d was crude and 0.07 mb/d NGLs. The decline was likely caused by the ACG complex, which accounts for three quarters of Azerbaijan's output. ACG output averaged 0.59 mb/d during 1H17, compared with 0.66 mb/d a year earlier. Output from Azerbaijan averaged 797 tb/d in the last eight months of 2017, 40 tb/d lower than last October. It is expected that supply for 2017 and 2018 will decline by 0.06 mb/d and 0.05 mb/d y-o-y to average 0.79 mb/d and 0.74 mb/d, respectively.

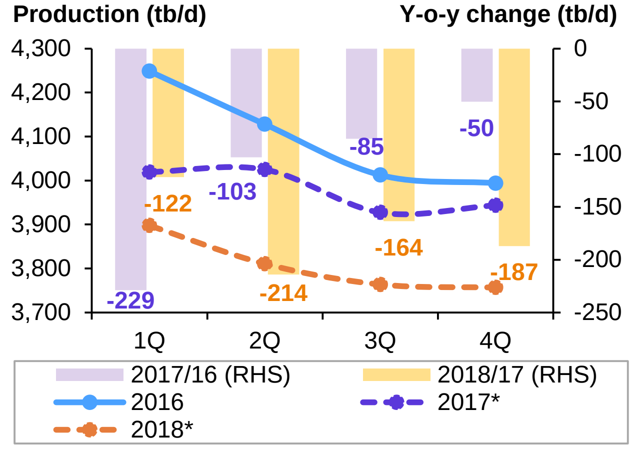
Kazakhstan's crude production declined by 78 tb/d m-o-m to average 1.4 mb/d in August. NGLs output remained steady at 0.27 mb/d in August, indicating a total liquids supply of around 1.67 mb/d. This represents a decline by 0.07 mb/d m-o-m. Continuous gains from the Kashagan field, which reached 0.2 mb/d in July according to statements from the operator Eni, and a rebound in volumes from the Karachaganak condensate field offset the production decline at Tengiz, Kazakhstan's largest oil field, which was reported to see lower output in August, and declines from other fields because of maintenance over the month. Oil production forecasts in 2017 and 2018 indicate growth of 0.18 mb/d for this year, all coming from Kashagan phase one development, and 0.06 mb/d for the next year. However, production next year is likely to be more uncertain, as peak output in Kashagan might come sooner than expected in 2019.

Graph 5 - 25: Kazakhstan liquids supply quarterly forecast, 2016-2018



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

Graph 5 - 26: China liquids supply quarterly forecast, 2016-2018



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

China

China's oil supply declined by 0.06 mb/d in August to 3.91 mb/d, including 3.76 mb/d of crude oil, according to data released by the Chinese National Bureau of Statistics. Average crude oil production for the first 8 months of 2017 declined by 166 tb/d compared to the same period in 2016. China's leading state companies PetroChina and Sinopec continued to restrain investment at the expense of crude production. For instance, PetroChina's upstream spending in 2Q17 was down by 72% to $5 billion compared with the same quarter one year earlier. Hence, crude oil production for the company declined by 33% to 1.7 mb/d in the same period. In general, upstream investments in oil and gas projects have not seen sustained improvements so far this year, according to the latest report issued in July by the Ministry of Land and Resources. In 2016, approximately $30 billion was spent for exploration and development of oil and gas in China. Chinese oil output is forecast to decline by roughly 0.12 mb/d in 2017 and 0.17 mb/d in 2018.

OPEC NGLs and non-conventional oils

The forecast for **OPEC NGLs and non-conventional liquids** in 2017 was unchanged, averaging 6.31 mb/d and representing growth of 0.17 mb/d. In 2018, due to a number of planned projects, growth of 0.18 mb/d y-o-y is anticipated, with average output at 6.49 mb/d. These projects are expected to be mainly in IR Iran and Saudi Arabia.

Table 5 - 8: OPEC NGLs + non-conventional oils, 2015-2018*, mb/d

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

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

OPEC crude oil production

According to secondary sources, total **OPEC-14 crude oil production** averaged 32.75 mb/d in September, an increase of 88 tb/d over the previous month. Crude oil output increased in Libya, Nigeria, Iraq and Gabon, while production showed declines mainly in Venezuela.

Table 5 - 9: OPEC crude oil production based on *secondary sources*, tb/d

	2015	2016	1Q17	2Q17	3Q17	Jul 17	Aug 17	Sep 17	*Sep/Aug*
Algeria	1,107	1,090	1,052	1,054	1,052	1,054	1,055	1,046	*-8.5*
Angola	1,755	1,725	1,632	1,648	1,642	1,641	1,644	1,641	*-2.9*
Ecuador	543	546	530	528	536	537	536	536	*-0.5*
Equatorial Guinea	185	164	148	138	139	144	133	141	*7.5*
Gabon	225	220	200	203	198	207	186	201	*14.4*
Iran, I.R.	2,836	3,518	3,796	3,793	3,828	3,830	3,826	3,827	*0.9*
Iraq	3,961	4,390	4,449	4,454	4,476	4,471	4,462	4,494	*31.6*
Kuwait	2,764	2,853	2,712	2,709	2,701	2,702	2,702	2,700	*-1.7*
Libya	404	390	656	709	932	1,003	869	923	*53.9*
Nigeria	1,839	1,557	1,511	1,606	1,789	1,711	1,804	1,855	*50.8*
Qatar	663	656	608	613	614	614	612	616	*3.9*
Saudi Arabia	10,142	10,406	9,884	9,954	9,992	10,025	9,975	9,975	*-0.7*
UAE	2,908	2,979	2,937	2,911	2,913	2,921	2,913	2,905	*-8.4*
Venezuela	2,375	2,159	2,002	1,964	1,927	1,949	1,942	1,890	*-51.9*
Total OPEC	**31,707**	**32,654**	**32,117**	**32,285**	**32,738**	**32,808**	**32,659**	**32,748**	***88.5***

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

Table 5 - 10: OPEC crude oil production based on *direct communication*, tb/d

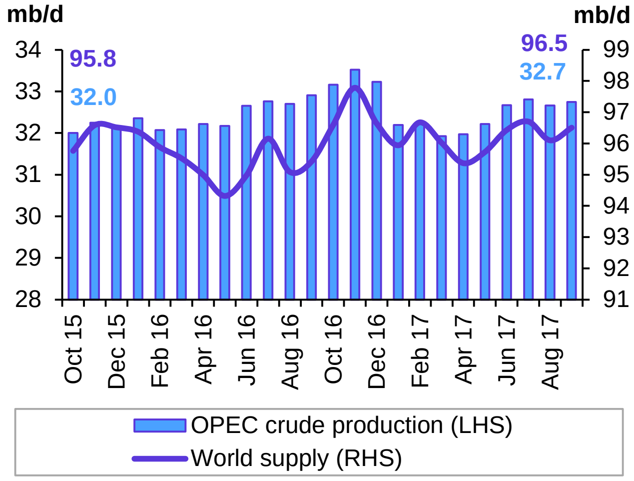
	2015	2016	1Q17	2Q17	3Q17	Jul 17	Aug 17	Sep 17	*Sep/Aug*
Algeria	1,157	1,146	1,087	1,072	1,065	1,065	1,067	1,063	*-4.0*
Angola	1,767	1,722	1,638	1,635	1,668	1,668	1,680	1,657	*-23.0*
Ecuador	543	549	533	..	..	..	..	..	..
Equatorial Guinea	..	..	138	126	124	124	123	126	*3.0*
Gabon	..	..	..	..	..	..	..	..	..
Iran, I.R.	3,152	3,651	3,894	3,878	3,865	3,900	3,845	3,848	*3.0*
Iraq	3,504	4,648	4,589	4,549	4,380	4,400	4,380	4,360	*-20.0*
Kuwait	2,859	2,954	2,705	2,710	..	2,700	2,700	..	..
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,748	1,427	1,388	1,485	..	1,562	1,742	..	..
Qatar	656	652	595	608	589	611	585	571	*-13.6*
Saudi Arabia	10,193	10,460	9,882	9,965	9,978	10,010	9,951	9,973	*21.7*
UAE	2,989	3,088	3,010	2,984	2,969	2,977	2,969	2,961	*-8.0*
Venezuela	2,654	2,373	2,261	2,127	2,102	2,121	2,100	2,085	*-15.0*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

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

World oil supply

Preliminary data indicates that **global oil supply** increased by 0.41 mb/d to average 96.50 mb/d in September 2017 compared with the previous month. Preliminary September supply data shows an increase in non-OPEC supply (including OPEC NGLs) by 0.32 mb/d to average 63.76 mb/d. This was mainly driven by the US, the UK, Brazil, Kazakhstan and Azerbaijan, which partially offset m-o-m declines in Colombia, Canada, Mexico and Norway. OPEC crude oil production also rose by 0.09 mb/d in September, leading to an increase in global oil output. The share of OPEC crude oil in total global production fell slightly by 0.1 pp to total 33.9% in September, compared with 34.0% in the previous month. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

Graph 5 - 27: OPEC and world oil supply



Source: OPEC Secretariat.

Product Markets and Refinery Operations

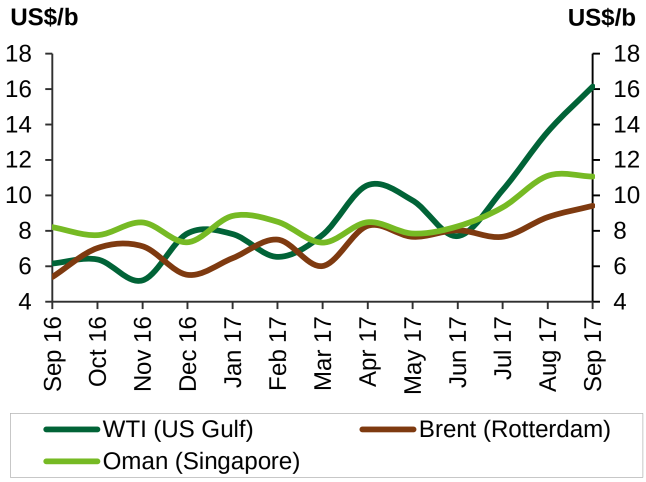
Product markets in the Atlantic Basin improved further in September at the top of the barrel on the back of higher gasoline demand. The middle distillate market continued to improve globally on the back of healthy demand and depleted stocks amid regional maintenance. However, the bottom of the barrel saw some pressure due to low demand and high inventory levels in Asia and Europe. In sum, the global refining market showed strength as economies improved.

Refinery margins

In the **US**, market strength due to reduced product availability contributed to significantly higher refining margins, with support coming mainly from the top of the barrel and middle distillates. Refining profitability increased by around $10/b in September 2017 compared to the same month a year earlier, mainly supported by the impact of the Hurricane. Furthermore, refinery margins were boosted by high demand for middle distillates amid low inventory levels.

European refining margins showed some improvement in September, increasing from $8.78/b to $9.42/b compared with last month, supported by higher arbitrage to the US despite high regional fuel oil supply, higher ARA inventories and planned maintenance.

Graph 6 - 1:Refining margins



Sources: Argus Media and OPEC Secretariat.

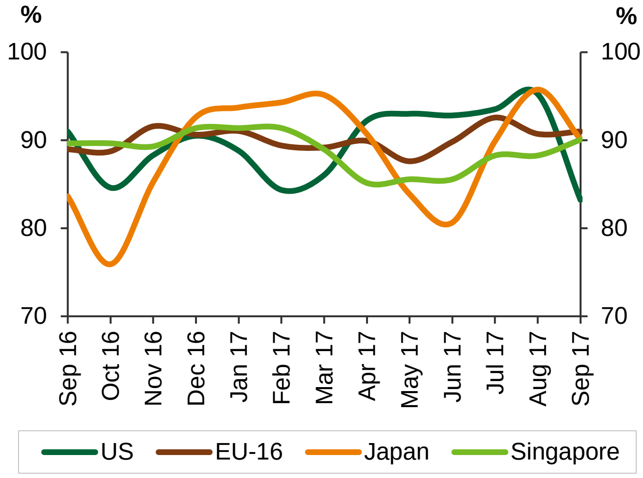
Asian refining margins remained almost flat, showing a slight 4¢/b improvement compared with last month's figures, as strengthening middle distillate regional demand was offset by lower utility demand for bunker fuel and weak gasoline demand.

Refinery operations

In the **US,** refinery throughput took a plunge, as US Gulf Coast (USGC) refinery utilization rates decreased due to shut downs caused by Hurricane Harvey, as well as planned maintenance, which led to reduced crude input levels. Average US refinery utilisation dropped by 12 pp to 83.2% in September.

With the landfall of Hurricane Harvey, refinery runs plunged to 14.4 mb/d in the week of 8 September, which was further exacerbated by the onset of the refinery maintenance season. By the week ending 22 September, refinery runs had recovered to 16.4 mb/d and continued broadly unchanged into the week ending 29 September. Compared with previous hurricanes, this shows a much faster rebound in refinery inputs, as out of 20 affected refineries, 15 had already returned to operation.

Graph 6 - 2:Refinery utilisation rates



Sources: EIA, Euroilstock, PAJ, Argus Media

European refinery utilization rates increased from 90.72% in August to 91.00% in September, corresponding to throughput of 10.5 mb/d.

In **Asia,** Japan refinery utilization dropped by 5.6 pp from 95.75% to 90.13%, corresponding to refinery runs of 3.17 mb/d. Singapore refinery runs increased by 2 pp to 90.1%. Overall, the Asian market remained almost flat, despite product export opportunities to Europe being offset by refinery maintenance.

Product markets

US market

Although **crack spreads** at the beginning of the month reached their highest value since 4Q16, they immediately fell as USGC refineries resumed operations.

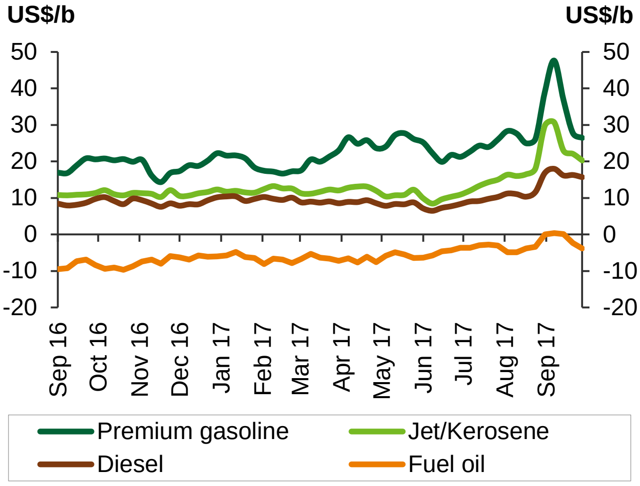
Product markets over the month showed healthy levels, which started to retreat to pre-Hurricane levels towards the end of the month. The impact of the Hurricane was minimal due to the availability of product supplied on open arbitrage mainly from Europe. Furthermore, crude oil refinery input was able to recover quickly as crude stock levels were about 60% higher than available when hurricanes Katrina and Gustav hit the USGC back in 2005 and 2008, respectively; a safety cushion had been provided for additional response time. With Hurricane Harvey, USGC refineries were able to restarted much sooner.

Gasoline crack spreads reached their highest value since 4Q16 at the beginning of the month, with daily cracks soaring to almost $50/b on 1 September. However, cracks quickly fell when USGC refinery intake resumed, to average around $34/b for the month. September premium gasoline prices in the US increased by 7% from $76.43/b to $84.54/b.

From a wider perspective, gasoline cracks showed gradual improvement during the most recent driving season and continuing into in September.

The **middle distillate** crack spread gained strength in September as jet fuel and diesel demand were strong, and higher exports and inventory drawdowns were seen during the last weeks of the month. Since June 2017, the gap between diesel and jet/kerosene crack spreads has been gradually widening.

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



Sources: Argus Media and OPEC Secretariat.

Fuel oil cracks also positively contributed to overall product cracks, compared with last month, as the market tightened on overall low stocks.

European market

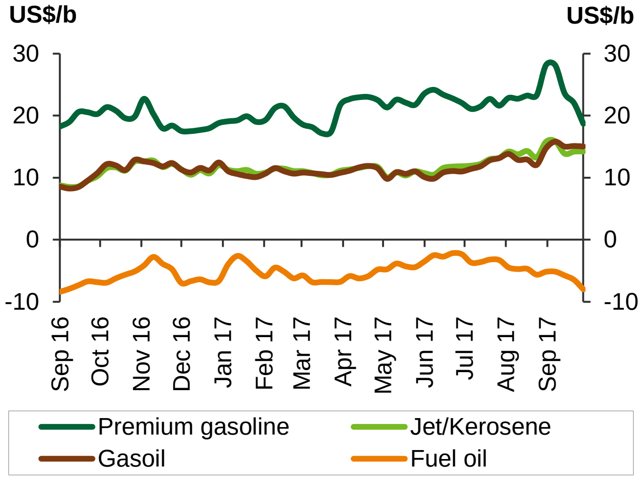
Product markets in **Europe** performed slightly better compared with last year, supported by higher demand for gasoline and middle distillates as well as arbitrage opportunities to the US in the aftermath of the Hurricane.

Premium gasoline crack spreads were broadly flat in September over the previous month, however the spreads started the month at a two-year high level before dropping to $18.69/b in the week ending 29 September. The development towards the end of the month was driven by high regional supply further exacerbated by reduced US arbitrary opportunities.

The European **middle distillate** crack spread showed moderate improvement, which was attributed to demand amid planned seasonal refinery maintenance. This was also supported by product export opportunities to the US.

Crack spreads for **fuel oil** weakened, on the other hand, due to strong regional supply, lower demand and higher ARA inventories.

Graph 6 - 4:Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

Asian market

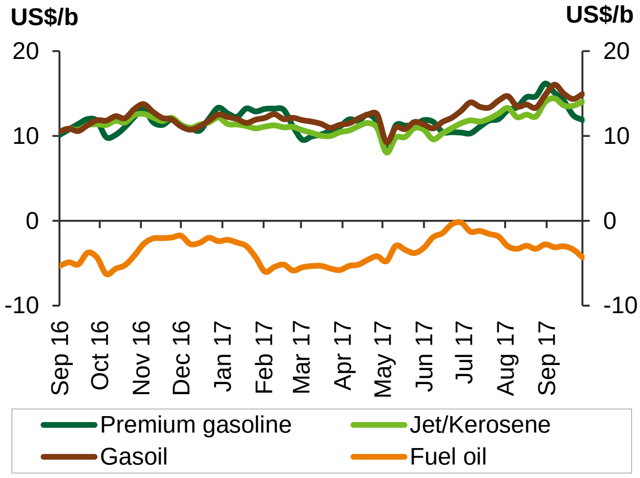
The **Asian** product crack spread remained healthy and continued to show a gradual improving trend since May 2017 amid higher regional product demand and the onset of maintenance season.

Weekly **gasoline** crack spreads initially strengthened as export opportunities emerged. However, as USGC refining operations were being restored, weekly gasoline cracks exhibited a downward trend, supported by low demand. For September, gasoline crack spreads dropped by 73¢/b from a month earlier to average $13.60/b.

The **gasoil** crack spread averaged 15.30$/b in September, improving over the previous month amid higher arbitrage diesel supplies to Europe, strong regional demand, and support from regional refinery maintenance.

During the month, **fuel oil** crack spreads weakened as utility and bunker fuel demand dropped, despite declining inventories in the Singapore hub. Additionally, fuel oil cracks received some pressure from higher western arbitrage volumes.

Graph 6 - 5:Singapore crack spreads vs. Oman



Sources: Argus Media and OPEC Secretariat.

Table 6 - 1: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Jul 17	Aug 17	Sep 17	Change Sep/Aug	Jul 17	Aug 17	Sep 17	Change Sep/Aug
US	**17.26**	**17.58**	**15.36**	**-2.22**	**93.53**	**95.24**	**83.23**	**-12.01**
Euro-16	**10.73**	**10.51**	**10.55***	**0.04**	**92.57**	**90.72**	**91.00***	**0.28**
France	1.15	1.17	1.20*	0.03	92.47	93.43	96.40*	2.97
Germany	1.91	1.94	1.89*	-0.05	87.16	88.80	86.41*	-2.39
Italy	1.34	1.35	1.39*	0.04	65.59	66.18	68.42*	2.24
UK	1.02	1.00	1.09*	0.09	78.65	76.88	83.36*	6.48
Japan	**3.16**	**3.37**	**3.17**	**-0.20**	**89.90**	**95.75**	**90.13**	**-5.63**

*Note: * OPEC Secretariat's estimate.*

Sources: EIA, Euroilstock, Petroleum Association of Japan and OPEC Secretariat.

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

	2014	2015	2016	3Q16	4Q16	1Q17	2Q17	3Q17* *
Total OECD	**36.95**	**38.00**	**38.01**	**38.77**	**38.04**	**38.27**	**38.40**	**37.59**
OECD America	**19.00**	**19.19**	**19.21**	**19.65**	**18.82**	**19.05**	**19.43**	**18.75**
of which US	15.82	16.11	16.24	16.68	16.07	15.95	17.11	16.74
OECD Europe	**11.43**	**12.11**	**11.91**	**12.20**	**12.23**	**11.88**	**11.75**	**12.07**
of which:								
France	1.12	1.17	1.14	1.19	1.24	1.05	1.11	1.17
Germany	1.86	1.91	1.90	1.94	1.91	1.82	1.77	1.91
Italy	1.20	1.35	1.30	1.36	1.32	1.34	1.28	1.37
UK	1.14	1.14	1.09	1.12	1.09	1.04	1.06	1.04
OECD Asia Pacific	**6.51**	**6.70**	**6.88**	**6.93**	**6.99**	**7.33**	**7.22**	**6.77**
of which Japan	3.13	3.14	3.15	3.24	3.23	3.49	2.99	3.25
Total Non-OECD	**41.68**	**42.70**	**43.93**	**42.16**	**41.74**	**41.82**	**42.32**	**43.28**
of which:								
China	10.16	11.00	11.55	10.59	11.16	11.22	11.00	10.95
Middle East	6.90	7.27	7.92	7.43	7.20	7.40	7.47	7.56
Russia	5.92	5.79	5.72	5.67	5.78	5.64	5.46	5.67
Latin America	5.07	5.00	4.67	4.54	4.63	4.60	4.61	3.99
India	4.48	4.56	4.93	4.88	4.97	5.01	4.89	4.82
Africa	2.30	2.16	2.14	2.06	2.16	2.25	2.28	2.04
Total world	**78.62**	**80.70**	**81.94**	**80.93**	**79.78**	**80.08**	**80.71**	**80.87**

*Note: * Includes OPEC Secretariat's estimates.*

Totals may not add up due to independent rounding.

Sources: EIA, Euroilstock, IEA, Ministry of Energy of Russian Federation, Petroleum Association of Japan, Ministry of Petroleum and Natural Gas of India and OPEC Secretariat.

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

		Aug 17	*** Sep 17	Change Sep/Aug	Year-to-date 2016	Year-to-date 2017
US Gulf (Cargoes FOB):						
Naphtha*		52.38	57.28	4.90	43.29	52.62
Premium gasoline	*(unleaded 93)*	76.43	84.54	8.11	61.41	73.75
Regular gasoline	*(unleaded 87)*	71.29	73.04	1.75	55.72	67.43
Jet/Kerosene		66.96	73.86	6.90	50.28	63.48
Gasoil	*(0.2% S)*	60.04	66.35	6.31	47.45	59.58
Fuel oil	*(3.0% S)*	45.75	48.57	2.82	29.08	45.10
Rotterdam (Barges FoB):						
Naphtha		51.00	55.76	4.76	40.41	51.03
Premium gasoline	*(unleaded 98)*	75.17	79.57	4.40	61.88	73.58
Jet/Kerosene		65.71	70.72	5.01	50.96	63.89
Gasoil/Diesel	*(10 ppm)*	64.70	71.33	6.63	50.59	63.62
Fuel oil	*(1.0% S)*	46.64	49.82	3.18	30.91	47.09
Fuel oil	*(3.5% S)*	44.06	47.00	2.94	26.62	42.38
Mediterranean (Cargoes FOB):						
Naphtha		50.46	54.97	4.51	39.49	50.17
Premium gasoline**		66.85	70.50	3.64	54.47	65.32
Jet/Kerosene		64.36	68.99	4.64	49.36	62.44
Diesel		65.54	72.43	6.90	51.79	64.75
Fuel oil	*(1.0% S)*	46.70	49.97	3.27	31.26	47.95
Fuel oil	*(3.5% S)*	44.94	48.10	3.16	29.26	44.38
Singapore (Cargoes FOB):						
Naphtha		50.58	55.20	4.62	40.72	51.20
Premium gasoline	*(unleaded 95)*	67.51	70.43	2.92	53.79	66.13
Regular gasoline	*(unleaded 92)*	64.70	67.55	2.85	50.91	63.49
Jet/Kerosene		63.11	68.08	4.97	50.25	62.89
Gasoil/Diesel	*(50 ppm)*	64.24	69.25	5.01	50.21	64.03
Fuel oil	*(180 cst 2.0% S)*	47.21	50.72	3.51	32.10	47.90
Fuel oil	*(380 cst 3.5% S)*	47.08	50.55	3.47	31.64	47.37

*Note: * Barges.*
*** Cost, insurance and freight (CIF).*
**** Based on the first three weeks of September.*
Sources: Argus Media and OPEC Secretariat.

Tanker Market

In September, tanker spot freight rates for dirty and clean vessels generally saw improved sentiment across all classes trading on various routes.

The upward momentum varied, with VLCC rates remaining on average unchanged, while Suezmax and Aframax freight rates rose, supported by increased tonnage demand, tighter vessel availability and greater activity in the Mediterranean, as well as to some extent disruption in the vessel programme caused hurricanes in the US. In the dirty segment, VLCC rates were broadly unchanged, while Suezmax and Aframax spot freight rates increased by 6%, and 38%, respectively, over the previous month.

Clean tanker freight rates showed positive developments in September, with those West of Suez increasing by 38%, while East of Suez rates rose by 16% from one month ago. Steady tonnage requirements, combined with occasional tightening vessel supply, supported product tanker freight rates on several trading routes.

Spot fixtures

In September, **OPEC spot fixtures** rose by 0.8% from the previous month to average 11.94 mb/d, according to preliminary data. The increase came on the back of higher spot fixtures on the Middle East-to-East and Outside Middle East route which averaged 5.85 mb/d and 3.94 mb/d, respectively, in September. On the other hand, fixtures on the Middle East-to-West route were down by 0.27 mb/d in September to average 2.15 mb/d.

Table 7 - 1: Spot fixtures, mb/d

	Jul 17	Aug 17	Sep 17	Change Sep 17/Aug 17
All areas	**17.07**	**17.19**	**17.09**	**-0.10**
OPEC	12.23	11.85	11.94	0.10
Middle East/East	6.23	5.59	5.85	0.26
Middle East/West	1.94	2.42	2.15	-0.27
Outside Middle East	4.06	3.84	3.94	0.10

Sources: Oil Movements and OPEC Secretariat.

Sailings and arrivals

OPEC sailings inched down by 0.04 mb/d, or 0.2%, in September to stand at 23.96 mb/d. Middle East sailings increased marginally, rising by 0.04 mb/d over the previous month, to average 17.26 mb/d.

Crude oil arrivals dropped in September at all ports. European, West Asian, North American and Far Eastern ports showed a drop of 0.4%, 0.8%, 0.9% and 2.5%, respectively, from the previous month.

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

	Jul 17	Aug 17	Sep 17	*Change* Sep 17/Aug 17
Sailings				
OPEC	24.12	24.00	23.96	-0.04
Middle East	17.66	17.23	17.26	0.04
Arrivals				
North America	10.20	9.78	9.69	-0.09
Europe	12.04	12.52	12.46	-0.06
Far East	8.83	8.81	8.59	-0.22
West Asia	4.67	4.64	4.60	-0.04

Sources: Oil Movements and OPEC Secretariat.

Dirty tanker freight rates

VLCC

Among dirty tankers, the **VLCC** chartering market saw higher activity in September, mainly in the Middle East, where tonnage demand increased sharply at the beginning of the month from recent levels. Nevertheless, freight rate improvements were minor as tonnage availability remains, allowing charterers to maintain an upper hand in the market, despite owners' constant resistance to low rates. These remained generally depressed in the absence of major delays or weather disruptions.

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

	Size *1,000 DWT*	Jul 17	Aug 17	Sep 17	*Change* Sep 17/Aug 17
Middle East/East	230-280	52	42	44	2
Middle East/West	270-285	26	24	23	-1
West Africa/East	260	54	49	51	2

Sources: Argus Media and OPEC Secretariat.

On average, VLCC spot freight rates rose only by WS1 point in September compared with a month before to stand at WS39 points. VLCC Middle East-to-East spot freight rates rose by 4% in September to stand at WS44 points. Similarly, spot freight rates registered for tankers trading on the West Africa-to-East route rose by 4% to average WS51 points, as the tanker market in West Africa followed the movement of the Middle East market. However, VLCC spot freight rates on the Middle East-to-West route showed a drop from one month before, primarily due to insufficient tonnage demand, falling by WS1 point to stand at WS23 points.

Suezmax

Suezmax spot freight rates showed slightly larger gains than in the VLCC sector, with a rise of 6% on average in September compared with the previous month, to stand at WS62 points. Suezmax freight rates increased on the back of sudden replacement, as the class was taken as an alternative to Aframax at the beginning of the month after Hurricane Harvey disrupted the vessel programme. Rates in the Atlantic increased further as Hurricane Irma approached, causing freight rates registered for tankers operating on the West Africa-to-US Gulf route to increase by 11% from the month before to WS68 points.

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

	Size *1,000 DWT*	Jul 17	Aug 17	Sep 17	*Change* Sep 17/Aug 17
West Africa/US Gulf Coast	130-135	61	61	68	7
Northwest Europe/US Gulf Coast	130-135	55	55	56	1

Sources: Argus Media and OPEC Secretariat.

The Mediterranean market saw a relative increase in chartering activities, which limited growth in freight rates. Suezmax availability in several regions remained more than sufficient to keep rates depressed, consequentially spot freight rates on the Northwest Europe-to-US Gulf route ended the month almost flat to stand at WS56 points.

Aframax

Aframax spot freight rates showed the highest gains among vessel sizes in the dirty tanker sector, climbing on all reported routes and showing notable average gains from the previous month. Aframax spot rates in the Mediterranean rose as a result of higher activity. Spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-Northwest Europe routes were the main contributors to average rate increases, as both routes reflected higher rates by 38% and 46%, respectively, from the previous month to stand at WS107 points and WS105 points. Aframax rates in the North Sea and the Baltic also increased, supported by delays caused by severe weather conditions.

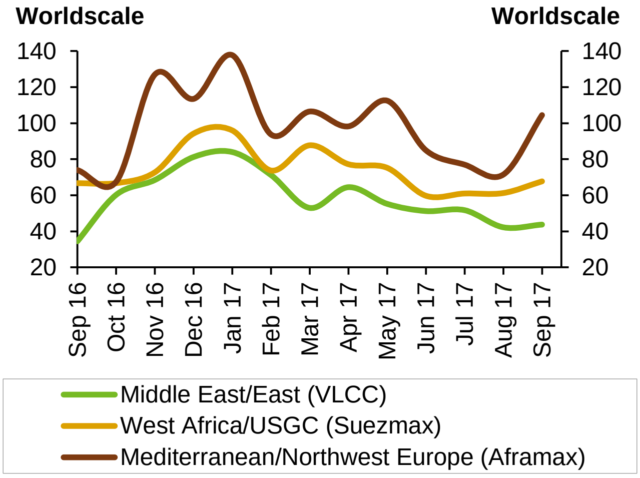
Table 7 - 5: Dirty Aframax spot tanker freight rates, Worldscale

	Size *1,000 DWT*	Jul 17	Aug 17	Sep 17	*Change* Sep 17/Aug 17
Indonesia/East	80-85	87	84	105	21
Caribbean/US East Coast	80-85	92	100	144	44
Mediterranean/Mediterranean	80-85	84	78	107	30
Mediterranean/Northwest Europe	80-85	77	72	105	33

Sources: Argus Media and OPEC Secretariat.

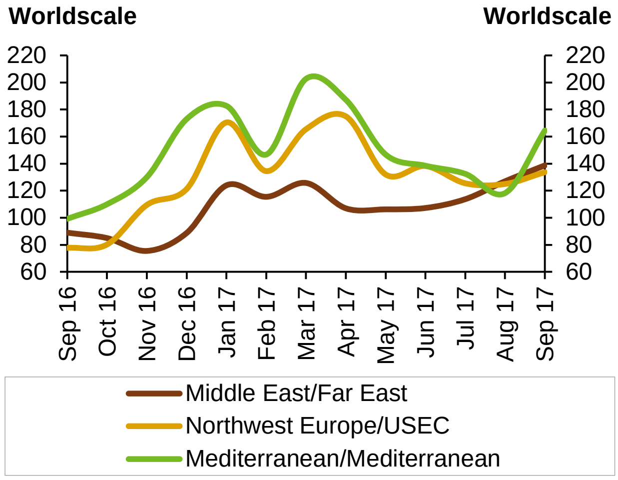
In the Caribbean, rates rose as uncertainty concerning vessel schedules provided support to freight rates at certain points, however, rates later retreated while the market stabilised. On average, Caribbean-to-US East Coast (USEC) spot freight rates showed growth of 44%, standing at WS144 points compared with a month earlier. Aframax freight rates on the Indonesia-to-East route rose by 25% from the previous month, averaging WS105 points.

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



Sources: Argus Media and Platts.

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



Sources: Argus Media and OPEC Secretariat.

Clean tanker freight rates

Clean tanker market sentiment developed positively in September. On average, spot freight rates for vessels trading on East of Suez routes rose by 17% from the previous month and by 28% in the West of Suez.

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

	Size *1,000 DWT*	Jul 17	Aug 17	Sep 17	Change Sep 17/Aug 17
East of Suez					
Middle East/East	30-35	114	127	139	12
Singapore/East	30-35	147	155	191	36
West of Suez					
Northwest Europe/US East Coast	33-37	126	125	134	9
Mediterranean/Mediterranean	30-35	133	118	165	46
Mediterranean/Northwest Europe	30-35	143	127	174	47

Sources: Argus Media and OPEC Secretariat.

September was an eventful month for clean tankers. Rates were stimulated by higher tonnage demand for medium-range (MR) tankers in **East of Suez**, which increased steadily on all major trading routes. Average spot freight rates for tankers operating on the Middle East-to-East and Singapore-to-East routes rose by WS12 point and WS36 points, respectively, from the previous month. A firmer tanker market was also seen in the market **West of Suez**. MR tankers trading on the West of Suez route achieved higher freight rates along several major routes.

In the **Mediterranean**, freight rates increased remarkably as the market balanced and tonnage demand was steady. Moreover, occasional tight vessel availability – driven by an active Black Sea market – provided further support to rates. Thus, spot freight rates for tankers operating on the Mediterranean-to-Mediterranean and Mediterranean-to-Northwest Europe routes increased by 39% and 37%, respectively, in September to stand at WS165 points and WS174 points, respectively.

Clean spot freight rates on the Northwest Europe-to-US East Coast (USEC) route increased by WS9 points to stand at WS134 points. Rates in the Caribbean fluctuated as they started higher at the beginning of the month before the hurricane effect subsided. Open supply for vessels grew and all prompt requirements were met easily, thus pushing rates down closer to pre-hurricane levels.

Oil Trade

Preliminary data for September shows that US crude oil imports decreased to average 7.1 mb/d, down by 856 tb/d from last month. They also saw a drop from last year of 919 tb/d, or 11%. On a y-t-d basis, US crude imports were 116 tb/d higher. US monthly product imports rose from one month earlier by 170 tb/d to stand at 2.4 mb/d, while in an annual comparison they were up by 193 tb/d, or 9%.

Japan's crude oil imports dropped in August by 145 tb/d, or 4%, to average 3.2 mb/d. In a y-o-y comparison, crude import levels saw no change. Regarding products, Japanese imports were up in August by 55 tb/d to average 588 tb/d, an increase of 10% m-o-m and 2% from last year.

China's crude imports went down in August to the lowest level seen this year so far, though remaining above 8 mb/d. China's crude oil imports dropped by 179 tb/d, or 2%, in August to average 8 mb/d. In an annual comparison, China's crude imports were higher than last year by 266 tb/d, or 3%. China's product imports increased by 122 tb/d from a month ago, up by 179 tb/d from last year.

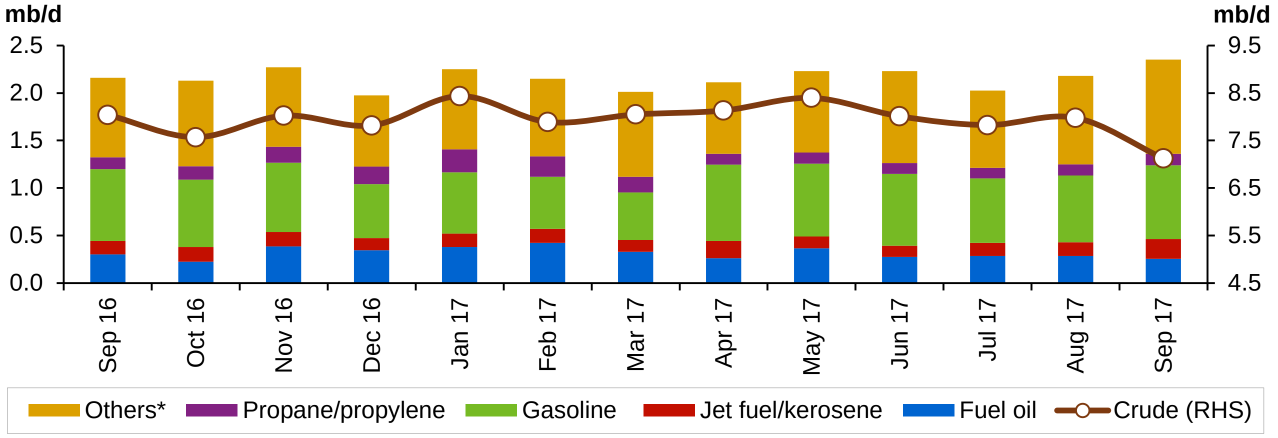
India's crude imports for August rose by 188 tb/d, or 5%, from the previous month to average 4.3 mb/d, while dropping by 164 tb/d, or 4% y-o-y. August product imports declined by 56 tb/d from the previous month to average 810 tb/d, lower y-o-y by 109 tb/d.

US

In September, lower crude imports were seen following Hurricane Harvey's touchdown in the US. Preliminary data shows that **US crude oil imports** decreased to average 7.1 mb/d, down by 856 tb/d from last month, and a drop over last year of 919 tb/d, or 11%. On a y-t-d basis US crude imports were 116 tb/d higher.

Preliminary data shows that following the impact of Hurricane Harvey, **US crude exports** reached a record high of 1.3 mb/d in September, showing a hike of 521 tb/d over the previous month.

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

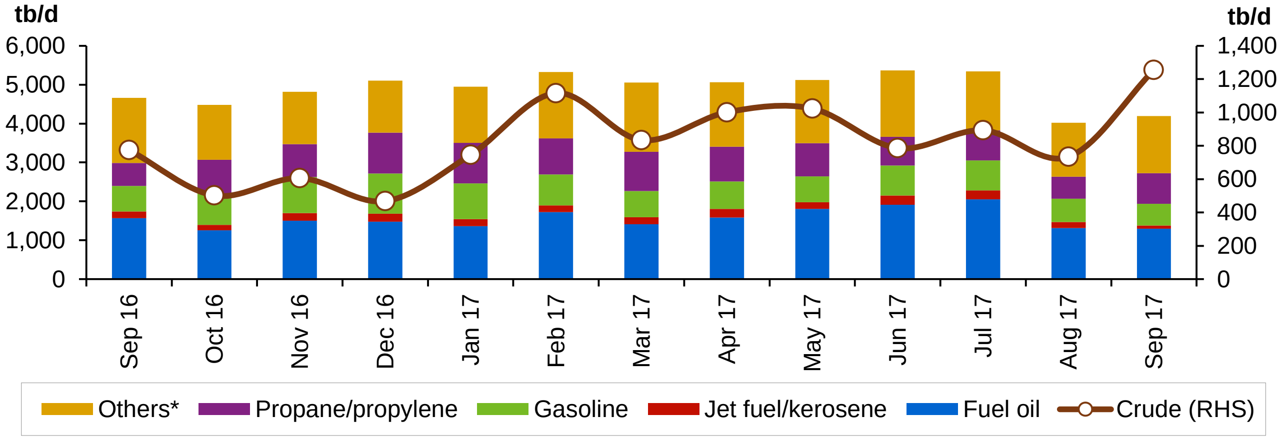


*Note: *Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.*
Sources: US Energy Information Administration and OPEC Secretatiat.

US monthly product imports saw a different trend, up from one month earlier by 170 tb/d to stand at 2.4 mb/d, the highest level since July 2016 and higher by 193 tb/d, or 9%, annually. In a y-t-d comparison, product imports were lower by 61 tb/d.

US product exports in September were 175 tb/d higher than a month ago to average 4.2 mb/d. In an annual comparison, product exports were lower than a year earlier by 471 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.

As a result, **total US net imports declined by 1.4 mb/d to average 4 mb/d,** down from last year by 736 tb/d.

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

	Jul 17	Aug 17	Sep 17	Change Sep 17/Aug 17
Crude oil	6,932	7,243	5,866	-1,377
Total products	-3,314	-1,837	-1,842	-5
Total crude and products	**3,618**	**5,406**	**4,024**	**-1,382**

Sources: US Energy Information Administration and OPEC Secretariat.

In July, the top first and second suppliers to the US maintained their positions from last month. Canada remained the **premier crude supplier** to the US, accounting for 41% of total US crude imports despite a drop in monthly volumes of 129 tb/d. Saudi Arabia was again the second-largest supplier to the US in July, though its exports also dropped by 220 tb/d. Iraq came as third-top supplier, accounting for 10% of total US crude imports, after increasing its volumes by 186 tb/d, or 10%, from a month before.

Total crude imports from **OPEC Member Countries** dropped in July from the previous month by 129 tb/d, or 4%, accounting for 41% of total US crude imports. US **product imports** from OPEC Member Countries went down by a slight 8 tb/d, or 1%, from one month ago. Canada and Russia maintained their positions as first- and second-top product suppliers to the US, accounting for 26% and 14%, respectively. Canada product exports to the US were lower in July by just 6 tb/d, while Russian volumes were down by 133 tb/d from a month ago. Algeria came as the third-largest supplier to the US, increasing its volumes from one month earlier by 38 tb/d.

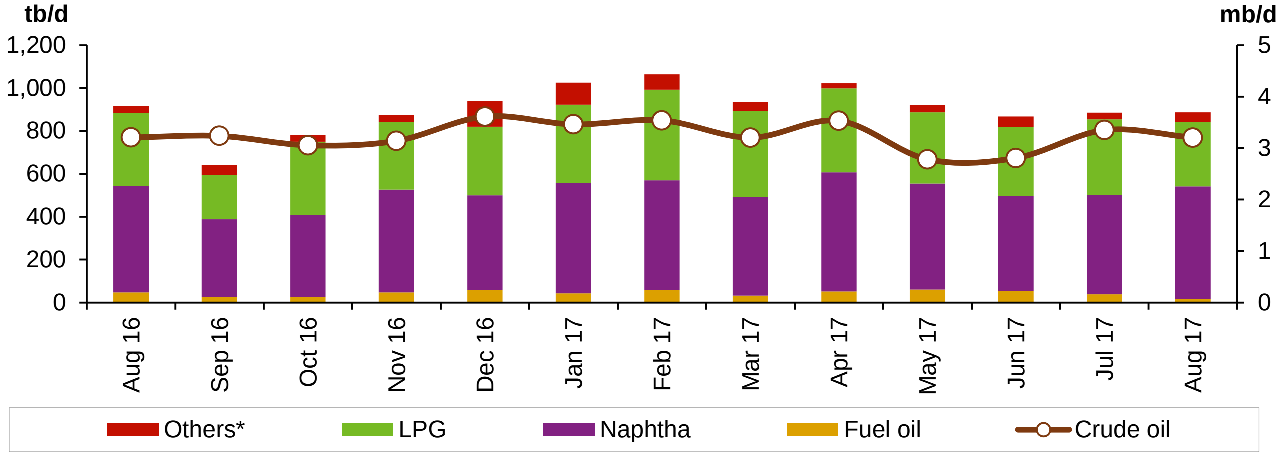
Regarding **US crude imports by region**, North America averaged 3.2 mb/d in July, making it the top region followed by Latin America, which stood at 2.1 mb/d in July. The Middle East came in third with an average of 1.8 mb/d. Imports from Africa declined from one month earlier to stand at 622 tb/d, while no imports from Asia were registered in July.

Japan

The declining trend seen earlier in Japan continued, with **crude oil imports** dropping in August by 145 tb/d, or 4%, to average 3.2 mb/d. Y-o-y, crude imports saw no changes.

As seen the previous month, Saudi Arabia, the UAE and Kuwait were the **top crude suppliers** to Japan in August. Saudi Arabia came in again as largest crude supplier to Japan, with a share of 42% of total crude imports, though the volume was up by 16 tb/d from a month before. The UAE was the second-largest supplier to Japan with a share of 27% of total crude imports, while Kuwait held the third position in August with a share of 6%. Volumes imported from the UAE were up by 180 tb/d from the previous month, while Kuwait exported 29 tb/d less crude to Japan.

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

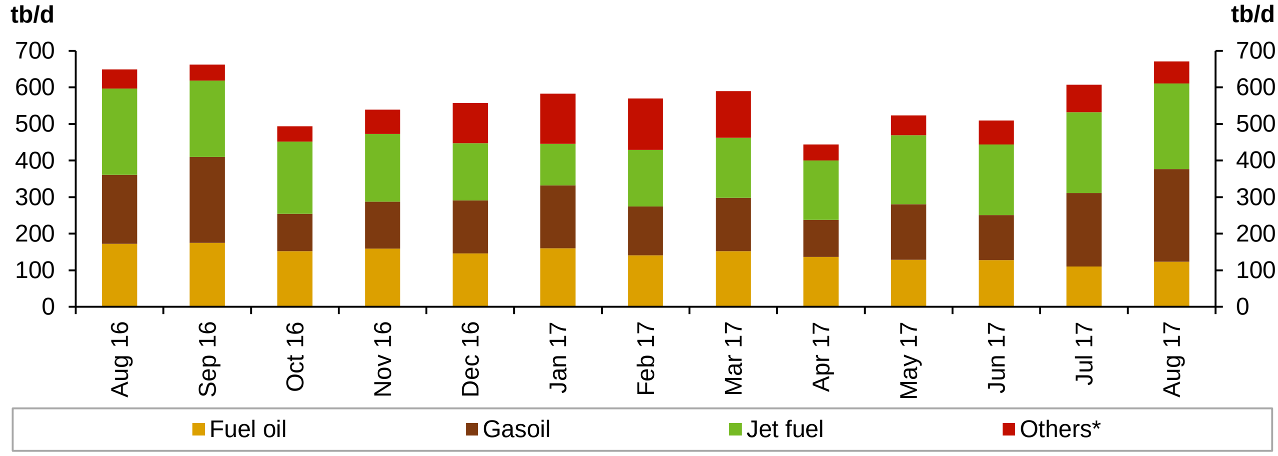


*Note: *Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.*
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

Japan's **product imports** were up in August by 55 tb/d to average 588 tb/d, an increase of 10% m-o-m and 2% from last year. As seen earlier, Japan's oil product sales fell by 0.8% in August from a year earlier, mainly on lower gasoline sales.

Japan's **product exports** rose in August by 63 tb/d to average 671 tb/d. In a y-o-y comparison, the figure remained higher than last year by 22 tb/d.

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



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

Accordingly, Japan's **net oil imports** declined in August by 152 tb/d to average 3.1 mb/d, marginally below the previous year by just 12 tb/d.

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

	Jun 17	Jul 17	Aug 17	*Change* Aug 17/Jul 17
Crude oil	2,807	3,349	3,204	-145
Total products	36	-75	-83	-8
Total crude and products	**2,843**	**3,274**	**3,121**	**-152**

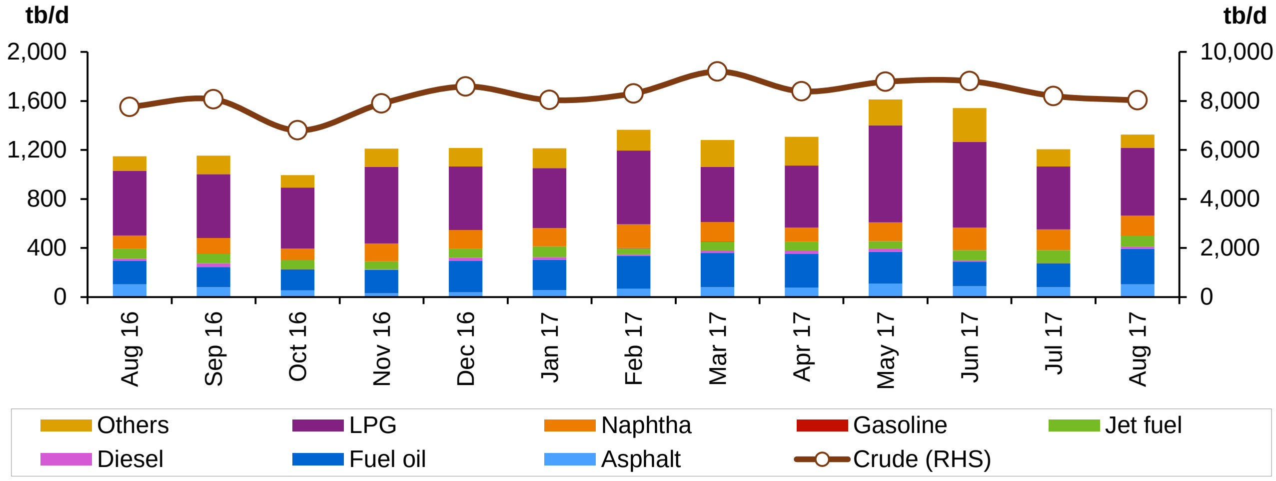
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

China

China's crude oil imports dropped in August to the lowest level seen this year so far, down by 179 tb/d, or 2%, though remaining above 8 mb/d. Nevertheless, China's refinery throughput was higher in August. In an annual comparison, China's crude imports were higher than last year by 266 tb/d, or 3%. On a y-t-d basis the figures reflect an increase of 950 tb/d, or 13%.

Crude oil imports in August were lower from Russia, though the country remained the **top supplier** to China in August, despite a drop of 129 tb/d. Similarly, imports from Saudi Arabia were down by 79 tb/d from the previous month. The top crude oil suppliers to the country were Russia, Angola and Saudi Arabia, accounting for 13%, 12% and 11%, respectively.

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

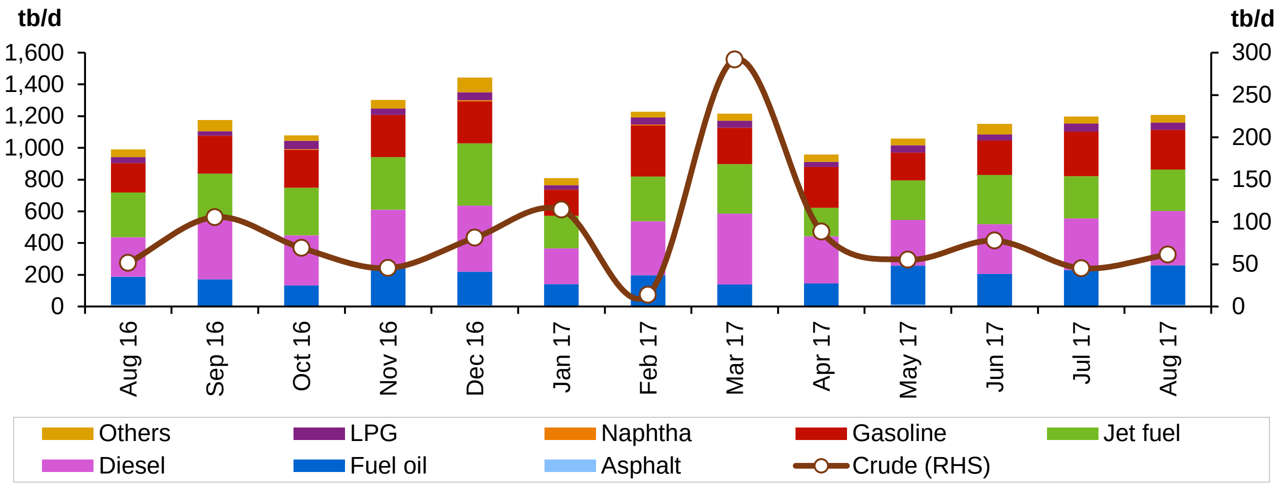


Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

Chinese **product imports** increased by 110 tb/d from a month ago, up by 179 tb/d from last year as a result of higher fuel oil and LPG imports.

China **exported** 61 tb/d of **crude** oil in August. The country's **product exports** averaged 1.2 mb/d, up by a slight 11 tb/d in August over the previous month, reflecting an increase of 219 tb/d, or 22%, 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 fell by 85 tb/d from the previous month to average 8 mb/d in August**, though remaining higher by 216 tb/d from a year earlier.

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

	Jun 17	Jul 17	Aug 17	Change Aug 17/Jul 17
Crude oil	8,733	8,157	7,962	-195
Total products	391	8	118	110
Total crude and products	**9,123**	**8,165**	**8,080**	**-85**

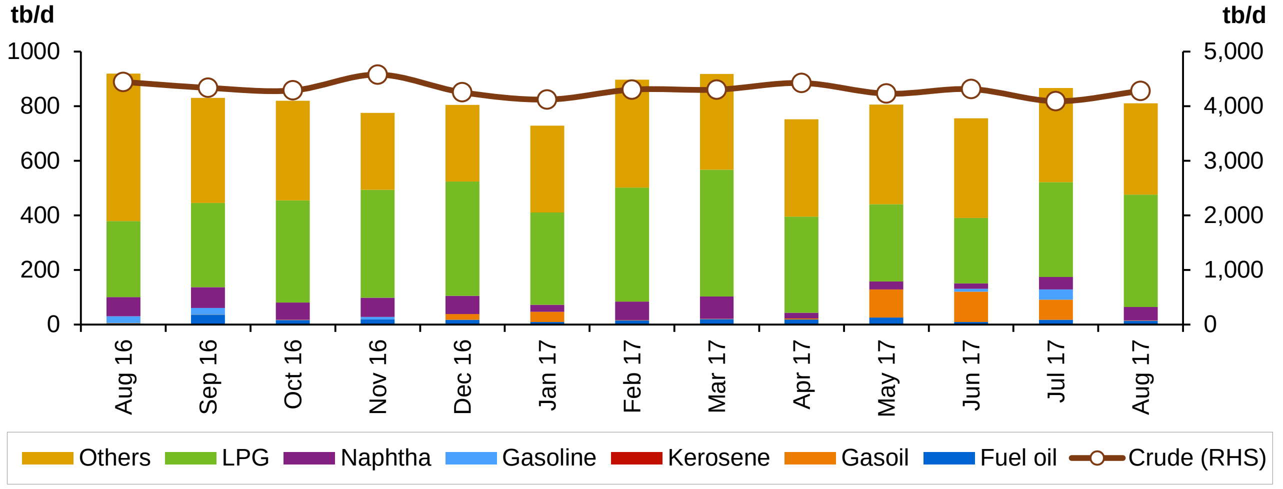
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

India

India's crude oil imports rose in August by 188 tb/d, or 5%, from the previous month to average 4.3 mb/d, while falling 164 tb/d, or 4% from a year earlier. Monthly imports rose along with higher throughputs reported in August.

Product imports in August declined by 56 tb/d from the previous month to average 810 tb/d, down by 109 tb/d y-o-y. The drop in monthly product imports came on the back of lower imports of diesel and gasoline, which fell by 73 tb/d and 38 tb/d, respectively.

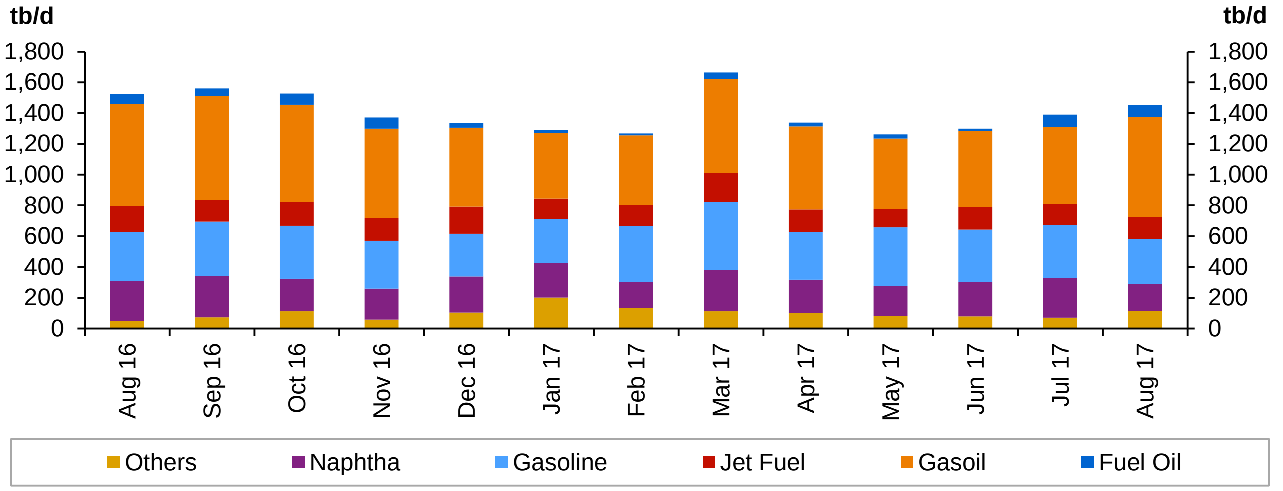
Graph 8 - 7: India's imports of crude and petroleum products



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

India's product exports were higher in August by 63 tb/d, or 5%, to average 1.5 mb/d. On a y-o-y basis, they were lower than last year by 71 tb/d, or 5%. India's monthly product exports reached their highest level since March 2017. Higher volumes of diesel oil are the main reason behind the rise; figures were up by 151 tb/d from a month before.

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



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

Consequently, **India's net imports** increased by 69 tb/d to average 3.6 mb/d, reflecting an increase of 2% m-o-m and a drop of 5% y-o-y.

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

	Jun 17	Jul 17	Aug 17	*Change* Aug 17/Jul 17
Crude oil	4,311	4,090	4,278	188
Total products	-543	-525	-644	-119
Total crude and products	**3,767**	**3,565**	**3,634**	**69**

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 (FSU) rose by 243 tb/d, or 4%, to average 6.8 mb/d. Crude exports through the Russian pipeline rose by 248 tb/d, or 7%, to average 4 mb/d.

Total shipments from the **Black Sea** rose by 56 tb/d, or 10%, to average 631 tb/d. This drop came as shipments from Novorossiysk were lower than a month before.

Total **Baltic Sea** exports increased by 68 tb/d in August, as shipments from both Primorsk and Ust Luga port terminals increased, by 22 tb/d and 46 tb/d, respectively.

Druzhba pipeline total shipments increased from the previous month's levels to average 1.1 m/d, up by 123 tb/d, while **Kozmino** shipments stayed flat, averaging 671 tb/d.

Exports through the **Lukoil System** rose from the previous month in the Barents Sea, where Varandey offshore platform exports increased by 22 tb/d. Baltic Sea exports through Kalinigrad port terminal showed a slight increase over July volumes.

In other routes, **Russia Far East total exports** were down by 51 tb/d from the previous month, as volumes from De Kastri and Aniva bay port terminals both dropped.

Central Asian total exports stood at 243 tb/d with a 11 tb/d decline from the previous month.

Black Sea total exports went down by 78 tb/d, mainly because exports through Supsa port terminal dropped by 64 tb/d.

In the **Mediterranean Sea**, BTC supplies rose by 110 tb/d, or 16%, from the previous month to average 801 tb/d.

FSU total product exports dropped by 287 tb/d, or 10%, from last month to average 2.6 mb/d. The decline in product exports came mainly as a result of lower exports of gasoil, fuel oil and VGO, which all dropped in August from the previous month by 108 tb/d, 92 tb/d and 89 tb/d, respectively.

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

			2016	1Q17	2Q17	Jul 17	Aug 17
Transneft system							
	Europe	**Black sea total**	**600**	**558**	**673**	**575**	**631**
		Novorossiysk port terminal - total	600	558	673	575	631
		of which: Russian oil	443	387	499	417	432
		Others	157	172	174	158	200
		Baltic sea total	**1,593**	**1,650**	**1,576**	**1,303**	**1,371**
		Primorsk port terminal - total	1,000	1,011	895	745	768
		of which: Russian oil	1,000	1,011	895	745	768
		Others	0	0	0	0	0
		Ust-Luga port terminal - total	593	639	681	557	603
		of which: Russian oil	388	464	514	395	418
		Others	205	175	166	163	186
		Druzhba pipeline total	**1,072**	**987**	**988**	**942**	**1,065**
		of which: Russian oil	1,040	954	956	909	1,033
		Others	32	32	32	32	32
	Asia	**Pacific ocean total**	**646**	**617**	**662**	**671**	**671**
		Kozmino port terminal - total	646	617	662	671	671
		China (via ESPO pipeline) total	**335**	**342**	**318**	**349**	**349**
		China Amur	335	342	318	349	349
	Total Russian crude exports		**4,246**	**4,153**	**4,217**	**3,839**	**4,087**
Lukoil system							
	Europe &	**Barents sea total**	**159**	**183**	**192**	**159**	**182**
	North America	Varandey offshore platform	159	183	192	159	182
	Europe	**Baltic sea total**	**15**	**14**	**13**	**13**	**16**
		Kalinigrad port terminal	15	14	13	13	16
Other routes							
	Asia	**Russian Far East total**	**360**	**381**	**369**	**374**	**324**
		Aniva bay port terminal	119	138	112	121	94
		De Kastri port terminal	241	243	257	253	229
		Central Asia total	**194**	**230**	**282**	**254**	**243**
		Kenkiyak-Alashankou	194	230	282	254	243
	Europe	**Black sea total**	**1,078**	**1,239**	**1,330**	**1,213**	**1,135**
		Novorossiysk port terminal (CPC)	957	1,144	1,241	1,141	1,126
		Supsa port terminal	79	74	81	64	0
		Batumi port terminal	42	21	8	9	10
		Kulevi port terminal	0	0	0	0	0
		Mediterranean sea total	**668**	**674**	**702**	**691**	**801**
		BTC	668	674	702	691	801
Russian rail							
		Russian rail	**34**	**44**	**35**	**39**	**38**
		of which: Russian oil	30	44	35	39	38
		Others	4	0	0	0	0
	Total FSU crude exports		**6,754**	**6,919**	**7,142**	**6,582**	**6,825**
Products							
		Gasoline	189	188	226	210	186
		Naphtha	509	594	533	469	492
		Jet	40	32	42	34	37
		Gasoil	971	1,188	1,018	905	797
		Fuel oil	1,044	1,162	1,057	981	889
		VGO	305	346	285	304	215
	Total FSU product exports		**3,058**	**3,510**	**3,161**	**2,903**	**2,616**
Total FSU oil exports			**9,812**	**10,429**	**10,302**	**9,485**	**9,441**

Sources: Argus Nefte Transport and Argus Global Markets.

Stock Movements

OECD commercial oil stocks fell by 24.7 mb in August to stand at 2,996 mb, which is around 171 mb above the latest five-year average. Crude and products indicated surpluses of 146 mb and 25 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.2 days in August, which is 2.6 days higher than the latest five-year average.

Preliminary data for September shows that US total commercial oil stocks fell by 16 mb to stand at 1,294.4 mb. At this level, they are 62 mb lower than the same period a year ago, but 104 mb higher than the latest five-year average. Within the components, crude went up by 2.6 mb, while product stocks fell by 18.6 mb, m-o-m.

The latest information for China showed that total commercial oil inventories fell by 9.3 mb in August for the second consecutive month to settle at 371.2 mb, which is 4.7 mb lower than the previous year. Within the components, crude and product stocks fell by 8.0 mb and 1.3 mb, m-o-m, respectively.

OECD

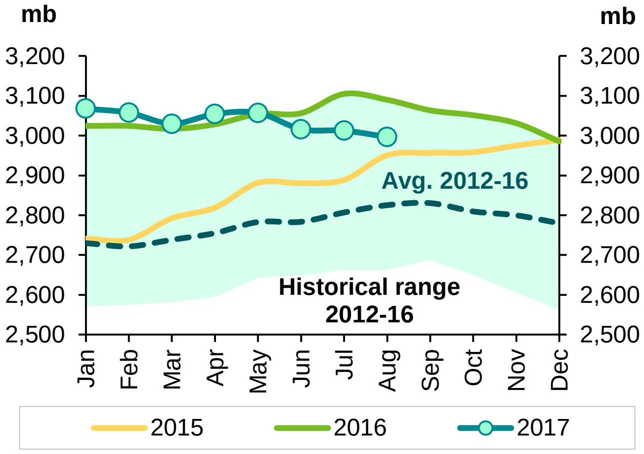
Preliminary data for August shows that total **OECD commercial oil stocks** fell by 16.1 mb for the third consecutive month to stand at 2,996 mb, which is around 94 mb lower than the same time one year ago, but 171 mb above the latest five-year average. Within the components, crude fell by 24.7 mb, while product stocks rose by 8.7 mb, m-o-m. OECD Americas and OECD Asia Pacific witnessed stock draws, while OECD Europe saw builds. It should be noted that the overhang has been reduced by 34 mb from a month earlier and by 167 mb from January 2017.

OECD commercial **crude stocks** fell by 24.7 mb m-o-m in August for the fifth consecutive month to stand at 1,506 mb, which is almost in line with the same time a year ago, but around 146 mb higher than the latest five-year average. Inventories in all OECD regions experienced draws.

In contrast, OECD **product inventories** rose by 8.7 mb m-o-m in August to stand at 1,490 mb, which is 93 mb below the same time a year ago, but 25 mb above the seasonal norm. All OECD regions saw stock builds.

In terms of **days of forward cover**, OECD commercial stocks remained unchanged at 63.2 days in August, which is 2.1 days below the same period in 2016, but 2.6 days higher than the latest five-year average. Within the regions, OECD Americas had 3.3 more days of forward cover than the historical average to stand at 62.5 days in August. OECD Europe stood at 2.1 days higher than the seasonal average to finish the month at 69.1 days, while OECD Asia Pacific indicated a small surplus of 0.6 days higher than the seasonal norm, averaging 54.5 days in August.

Graph 9 - 1: OECD commercial oil stocks



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

OECD Americas

Total commercial stocks in OECD Americas fell by 19.5 mb in August for the third consecutive month to stand at 1,561 mb, which is 74 mb below a year ago, but 112 mb higher than the seasonal norm. Within the components, crude fell by 20.0 mb, while products stocks rose slightly by 0.5 mb, m-o-m.

At the end of August, commercial **crude oil stocks** in OECD Americas fell, ending the month at 816 mb, which is 17.8 mb below the same time one year ago, but 104 mb above the latest five-year average. Higher refinery runs combined with lower crude imports were behind the drop in OECD crude oil stocks.

Commercial **product stocks** in OECD Americas rose slightly by 0.5 mb in August, reversing the stock draw of last two months. At 745 mb, they were 56 mb less than the same time one year ago, but 8.2 mb higher than the seasonal norm. This build was likely driven by generally lower consumption in OECD Americas.

OECD Europe

OECD Europe's total commercial stocks rose by 4.0 mb in August, ending the month at 1,002 mb, which is 11 mb lower than the same time a year ago, but 60 mb above the latest five-year average. Crude stocks fell by 2.2 mb, while product stocks rose by 6.2 mb, m-o-m.

OECD Europe's commercial **crude stocks** fell in August by 2.2 mb to stand at 437 mb, which is 13 mb higher than a year earlier and 39 mb higher than the latest five-year average. This drop could be attributed to higher refinery throughput combined with lower North Sea production.

In contrast, OECD Europe's commercial **product stocks** rose by 6.2 mb to end August at 566 mb, which is 24 mb lower than the same time a year ago, but 21 mb higher than the seasonal norm. The build in product stocks could be attributed to lower demand in the European countries.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks fell slightly by 0.6 mb in August to stand at 433 mb, which is 9.1 mb lower than a year ago and 0.5 mb lower than the five-year average. Within the components, crude fell by 2.5 mb, while product stocks rose by 1.9 mb, m-o-m.

Crude inventories ended the month of August at 254 mb, which is 4.5 mb above a year ago and 3.3 mb above the seasonal norm.

OECD Asia Pacific's **total product inventories** ended August at 179 mb, standing 13.7 mb lower than the same time a year ago and 3.8 mb lower than the seasonal norm.

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

	Jun 17	Jul 17	Aug 17	*Change* Aug 17/Jul 17	Aug 16
Crude oil	1,534	1,531	1,506	-24.7	1,507
Products	1,482	1,481	1,490	8.7	1,583
Total	**3,016**	**3,012**	**2,996**	**-16.1**	**3,090**
Days of forward cover	**63.0**	**63.2**	**63.2**	**0.0**	**65.3**

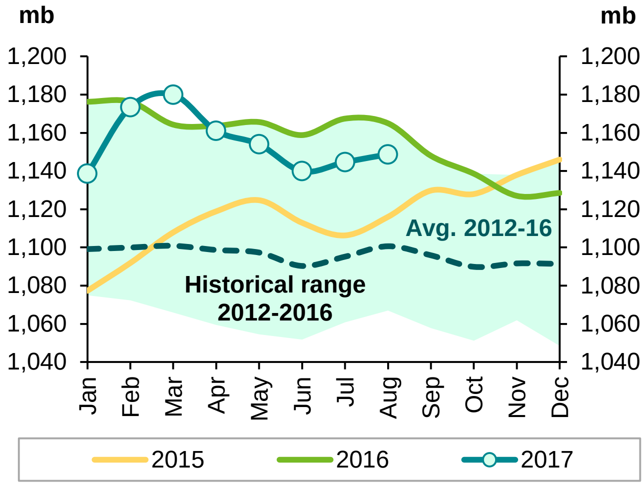
Note: Totals may not add up due to independent rounding.
Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.

EU plus Norway

Preliminary data for August shows that **total European stocks** rose by 4.0 mb, following a build of 4.8 mb in July. At 1,149 mb, European stocks were 16.3 mb, or 1.4%, lower than the same time a year ago, but 48.1 mb, or 4.4%, higher than the latest five-year average. Within the components, crude stocks fell by 2.2 mb, while product inventories rose by 6.2 mb, m-o-m.

European **crude inventories** fell in August to stand at 496 mb, which is 5.3 mb, or 1.1%, higher than the same period a year ago. Compared to the seasonal average, they were 19.5 mb, or 4.1%, higher. The drop came on the back of higher refinery throughput, which increased to around 10.6 mb/d in August compared to July's level.

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



Source: Euroilstock.

European **product stocks** rose by 6.2 mb, ending August at 653 mb, which is 21.6 mb, or 3.2%, lower than the same time a year ago, but 28.6 mb, or 4.6%, above the seasonal norm. Within products, gasoline and distillate stocks saw builds, while residual fuel oil and naphtha inventories witnessed draws.

Gasoline stocks rose by 2.9 mb in August, ending the month at 114.2 mb, which is 0.5 mb, or 0.4%, lower than the same time one year ago, and 5.8 mb, or 5.4%, higher than the seasonal norm.

Distillate stocks rose by 4.8 mb in August to end the month at 445.7 mb, indicating a draw of 13.7 mb, or 3.0%, compared to the same time a year ago, but they were 30.8 mb, or 7.4%, higher than the latest five-year average. Higher output, combined with lower domestic consumption, was behind the gain in both products.

In contrast, **residual fuel oil stocks** fell slightly by 0.1 mb in August to stand at 69.0 mb, which is 7.8 mb, or 10.2%, less than the same month a year ago, but 10.3 mb, or 12.9%, lower than the latest five-year average.

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

	Jun 17	Jul 17	Aug 17	Change Aug 17/Jul 17	Aug 16
Crude oil	**499.8**	**497.8**	**495.6**	**-2.2**	**490.3**
Gasoline	114.1	111.3	114.2	2.9	114.6
Naphtha	23.8	25.5	24.2	-1.3	23.8
Middle distillates	434.0	440.9	445.7	4.8	459.4
Fuel oils	68.2	69.2	69.0	-0.1	76.9
Total products	**640.1**	**646.9**	**653.1**	**6.2**	**674.7**
Total	**1,139.9**	**1,144.7**	**1,148.7**	**4.0**	**1,165.0**

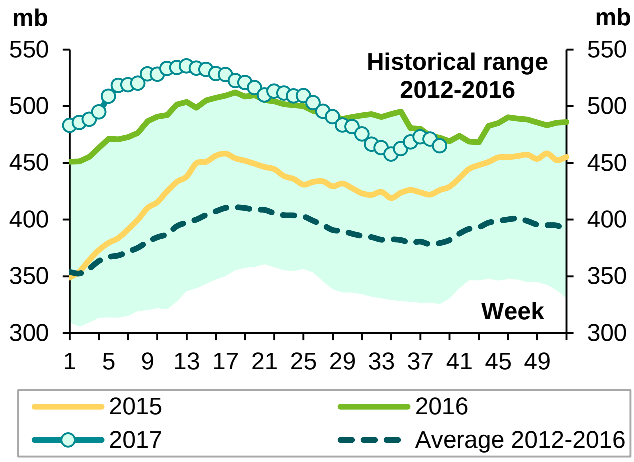
Sources: Argus and Euroilstock.

US

Preliminary data for September shows that **US total commercial oil stocks** fell by 16 mb, for the fourth consecutive month to stand at 1,294.4 mb, which is 62 mb, or 4.6%, lower than the same period a year ago, but still 105 mb, or 8.8%, higher than the latest five-year average. Within the components, crude went up by 2.6 mb, while product stocks fell by 18.6 mb, m-o-m.

US **commercial crude stocks** rose in September to end the month at 465 mb, which is 6.6 mb below last year at the same time but 81 mb above the latest five-year average. After witnessing three consecutive weeks of commercial crude oil stock builds following Hurricane Harvey, US commercial crude stocks were followed by another two weeks of draws with a substantial drop of 6 mb in the week ending 29 September. This was mainly driven by the record-high weekly crude oil exports, reaching 2.0 mb/d and a drop in crude imports by 0.2 mb/d to average 7.2 mb/d. PADD3 crude oil stocks plunged by 4.4 mb from a week earlier. Crude inventories in Cushing, Oklahoma rose by 4.5 mb during the end of September to stand at 62.5 mb.

Graph 9 - 3: US weekly commercial crude oil inventories

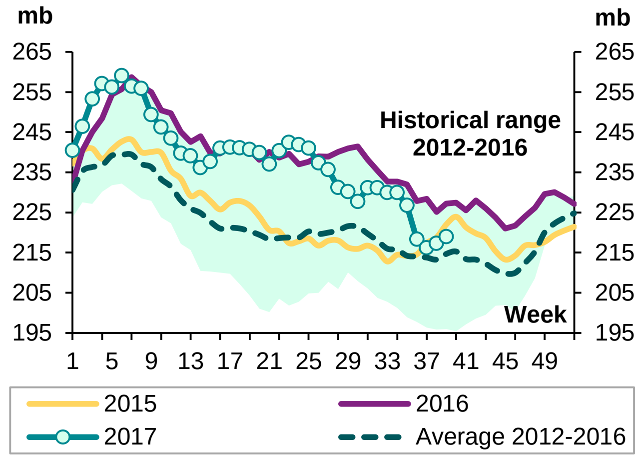


Sources: US Energy Information Administration and OPEC Secretariat.

By contrast, **total product stocks** fell substantially by 18.6 mb to stand at 829.5 mb in September, which is 55 mb, or 6.2%, down from the level seen at the same time in 2016, but 24 mb, or 2.9%, above the seasonal average. Within products, residual fuel oil and jet fuel rose, while major products experienced stock draws.

Gasoline stocks fell by 7.8 mb in September to stand at 218.9 mb, which is 8.8 mb, or 3.8%, below a year ago at the same time, while they remained 1.7 mb, or 0.8%, above the seasonal norm. Following three consecutive weeks of declines totalling 13.7 mb, gasoline stocks in the US reversed the trend to build by 2.7 mb over the last two weeks, driven mainly by a drop in demand, which declined by almost 0.3 mb/d to average 9.2 mb/d, in line with the seasonal decline at the end of the driving season. Gasoline production remained strong at almost 10 mb/d. The gasoline stock build came despite a fall in gasoline imports by around 180 tb/d to average 0.8 mb/d in the same week.

Graph 9 - 4: US weekly gasoline inventories



Sources: US Energy Information Administration and OPEC Secretariat.

Distillate stocks also fell by 12.3 mb in September to stand at 135.4 mb, indicating a deficit of 25.6 mb, or 15.9%, compared to the same period a year ago, and 4.3 mb, or 3.1%, below the latest five-year average. Since Hurricane Harvey, US distillate stocks have continued to drop for five weeks in a row, bringing the total US distillate stock draw to around 11 mb. This drop has switched the difference to the five-year average from a surplus of 13 mb in the week before the hurricane to now stand at 4.3 mb below this average in the week ending 29 September. The drop in distillate stocks came on the back on higher demand and exports more than offsetting the increase in output. This tightness in the distillates market ahead of the winter season should support domestic refinery margins, as demand for gasoline wanes on the expected seasonal low.

In contrast, **residual fuel and jet fuel stocks** rose by 2.0 mb and 4.3 mb to end September at 36.6 mb and 43.4 mb, respectively. Both product stocks stood below last year at the same time. Compared to the five-year average, residual fuel was higher at 1.3 mb and jet fuel was up at 2.8 mb.

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

	Jul 17	Aug 17	Sep 17	Change Sep 17/Aug 17	Sep 16
Crude oil	**482.4**	**462.4**	**465.0**	**2.6**	**471.5**
Gasoline	233.1	226.7	218.9	-7.8	227.7
Distillate fuel	151.1	147.8	135.4	-12.3	161.1
Residual fuel oil	33.6	34.6	36.6	2.0	38.9
Jet fuel	41.0	39.1	43.4	4.3	44.9
Total	**1,319.0**	**1,310.4**	**1,294.4**	**-16.0**	**1,356.1**
SPR	**678.9**	**678.6**	**673.6**	**-5.0**	**695.1**

Sources: US Energy Information Administration and OPEC Secretariat.

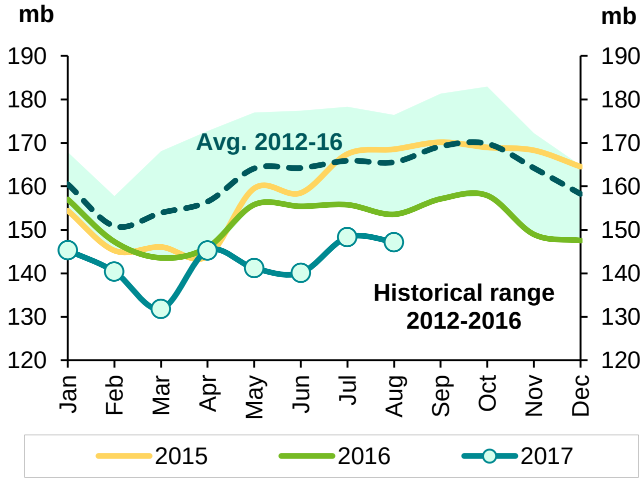
Japan

In Japan, **total commercial oil stocks** fell by 1.2 mb in August, reversing the stock build of last month to stand at 147.1 mb, which is 6.4 mb, or 4.2%, less than the same time a year ago and 18.4 mb, or 11.1%, below the five-year average. Within the components, crude stocks went down by 5.0 mb, while product stocks rose by 3.8 mb, m-o-m.

Japanese commercial **crude oil stocks** fell in August to stand at 81.5 mb, which is 4.5 mb, or 5.3%, below the same period a year ago, and 12.4 mb, or 13.2%, below the seasonal norm. The drop was driven by lower crude imports, which declined by 145 tb/d, or 4.3%, to average 3.2 mb/d. Higher crude throughput also contributed to the drop in crude oil stocks. Indeed, crude runs rose by more than 206 tb/d, or 6.5%, to stand at 3.4 mb/d.

By contrast, Japan's **total product inventories** rose by 3.8 mb in August to stand at 65.6 mb, which is 1.9 mb, or 2.8%, lower than the same month the previous year, and 6.0 mb, or 8.4%, lower than the seasonal norm. All main product categories witnessed stock builds.

Graph 9 - 5: Japan's commercial oil stocks



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

Distillate stocks rose by 2.9 mb in August to stand at 30.1 mb, which is 3.0 mb, or 9.2%, below one year ago at the same time, and 3.9 mb, or 11.5%, below the seasonal average. Within the distillate components, gasoil and kerosene stocks rose by 5% and 27%, respectively, while jet fuel fell by around 10%, m-o-m. The build in gasoil and kerosene was driven mainly by the increase in output. In contrast, lower jet fuel production led to the drop in jet fuel inventories.

Gasoline stocks also rose by 0.2 mb in August to stand at 10.6 mb, which is 0.3 mb, or 3.4%, higher than the same time a year ago, but 1.0 mb, or 8.4%, below the latest five-year average. The fall was driven by higher domestic sales, which rose by 13.0% from the previous month. Higher imports combined with an increase in production were behind the build in gasoline inventories.

Total residual fuel oil stocks rose by 0.2 mb in August to stand at 14.1 mb, which is 0.4 mb, or 2.8%, higher than the same period a year ago, but 1.6 mb, or 10.0%, below the latest five-year average. Within the fuel oil components, fuel oil A fell by 0.7% on the back of higher exports combined with lower output, while fuel B.C rose by 2.5 mb, mainly due to higher output as well as lower domestic sales.

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

	Jun 17	Jul 17	Aug 17	*Change* Aug 17/Jul 17	Aug 16
Crude oil	**81.1**	**86.5**	**81.5**	**-5.0**	**86.1**
Gasoline	11.3	10.4	10.6	0.2	10.2
Naphtha	8.7	10.3	10.9	0.6	10.4
Middle distillates	25.6	27.2	30.1	2.9	33.1
Residual fuel oil	13.5	13.9	14.1	0.2	13.7
Total products	**59.0**	**61.8**	**65.6**	**3.8**	**67.5**
Total**	**140.1**	**148.3**	**147.1**	**-1.2**	**153.6**

*Note: * At the end of the month.*

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

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

China

The latest information for China showed that **total commercial oil inventories** fell by 9.3 mb in August for the second consecutive month to settle at 371.2 mb, which is 4.7 mb lower than the previous year. Within the components, crude and product stocks fell by 8.0 mb and 1.3 mb, m-o-m, respectively.

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

	Jun 17	Jul 17	Aug 17	*Change* Aug 17/Jul 17	Aug 16
Crude oil	**231.7**	**233.8**	**225.8**	**-8.0**	**228.9**
Gasoline	69.7	64.8	64.7	0.0	67.5
Diesel	66.4	62.5	61.4	-1.0	61.2
Jet/Kerosene	18.6	19.5	19.2	-0.3	18.3
Total products	**154.6**	**146.7**	**145.4**	**-1.3**	**147.0**
Total	**386.3**	**380.6**	**371.2**	**-9.3**	**375.9**

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

In August, commercial **crude stocks** fell by 8.0 mb, reversing the builds of the last four consecutive months. At 225.8 mb, crude oil stocks were 3.1 mb below last year at the same time due to a combination of three factors, namely higher crude throughput, which rose by 3.6%, lower crude imports, by nearly 2.4%, as well as lower domestic crude production, which fell by 1.8%.

Total product stocks in China also fell in August by 1.3 mb to end the month at 145.4 mb, which is 1.6 mb below the same time a year ago. Within products, kerosene and diesel witnessed stock draws, while gasoline remained unchanged from the previous month.

Diesel inventories fell by 1.0 mb in August to stand at 61.4 mb, which is 0.2 mb above a year ago at the same time. **Kerosene stocks** also fell in August, dropping by 0.3 mb to stand at 19.2 mb, which is 0.9 mb higher than the same time last year. The drop in both products was driven by lower gasoline output due to the decline in crude oil throughput combined with higher domestic demand from industrial, mining and infrastructure in the case of diesel products.

Gasoline stocks remained unchanged in August to stand at 64.7 mb, which is 2.8 mb lower than the same period a year ago.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

Singapore

At the end of August, **product stocks** in Singapore rose by 1.6 mb to stand at 51.5 mb, which is 3.2 mb, or 6.7%, above the same period a year ago. Within products, fuel oil went up, while light and middle distillates witnessed stock draws.

Middle and light distillate stocks fell in August by 0.3 mb and 0.9 mb to stand at 12.9 mb and 12.3 mb, respectively. The stock draws in both products were driven by higher exports from the region. Both product stocks remained below the same time one year ago.

In contrast, **residual fuel oil stocks** rose by 2.9 mb in August for the third consecutive month. At 26.4 mb, fuel oil stocks stood at 5.8 mb, or 28.4%, higher than the same period a year ago.

Amsterdam-Rotterdam-Antwerp (ARA)

Product stocks in ARA rose by 2.3 mb in August to end the month at 44.0 mb, which is almost in line with the same time a year ago. All product categories saw increases, with the exception of fuel oil.

Gasoline and jet fuel oil stocks rose by 0.5 mb and 2.0 mb in August to stand at 2.6 mb and 8.9 mb, respectively. Fuel oil stocks remained 1.5 mb, or 28%, above the same time a year ago, while gasoil stood at 2.9 mb, or 27%, below last year at the same time.

In contrast, **fuel oil stocks** fell by 0.2 mb in August to stand at 20.4 mb, which is 20 mb above last year during the same month.

Balance of Supply and Demand

OPEC crude in 2017 is estimated to be 32.8 mb/d, or 0.6 mb/d higher than in 2016. In 2018, OPEC crude is projected to reach 33.1 mb/d, about 0.3 mb/d higher than in 2017.

Balance of supply and demand in 2017

OPEC crude in 2017 was revised up 0.1 mb/d from the previous month to 32.8 mb/d, representing an increase of 0.6 mb/d over 2016.

Within the quarters, the first and second quarters were revised up by 0.1 mb/d and 0.4 mb/d respectively. While the third quarter was revised up by 0.1 mb/d, the fourth quarter remained unchanged compared to the previous month. The first and the second quarter increased by 1.0 mb/d and 0.8 mb/d respectively, while the third and fourth quarters are expected to grew by 0.4 mb/d each, when comparted to the same quarter last year.

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

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16
(a) World oil demand	**95.35**	**95.59**	**96.21**	**97.49**	**97.91**	**96.80**	**1.45**
Non-OPEC supply	57.02	57.87	57.29	57.34	58.28	57.69	0.68
OPEC NGLs and non-conventionals	6.14	6.20	6.26	6.35	6.42	6.31	0.17
(b) Total non-OPEC supply and OPEC NGLs	**63.16**	**64.07**	**63.55**	**63.69**	**64.69**	**64.00**	**0.84**
Difference (a-b)	**32.19**	**31.52**	**32.66**	**33.80**	**33.22**	**32.80**	**0.61**
OPEC crude oil production	**32.65**	**32.12**	**32.28**	**32.74**			
Balance	**0.46**	**0.60**	**-0.38**	**-1.07**			

*Note: * 2017 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

Balance of supply and demand in 2018

OPEC crude for 2018 was revived up by more than 0.2 mb/d from the previous month to 33.1 mb/d representing an increase of 0.3 mb/d over 2017.

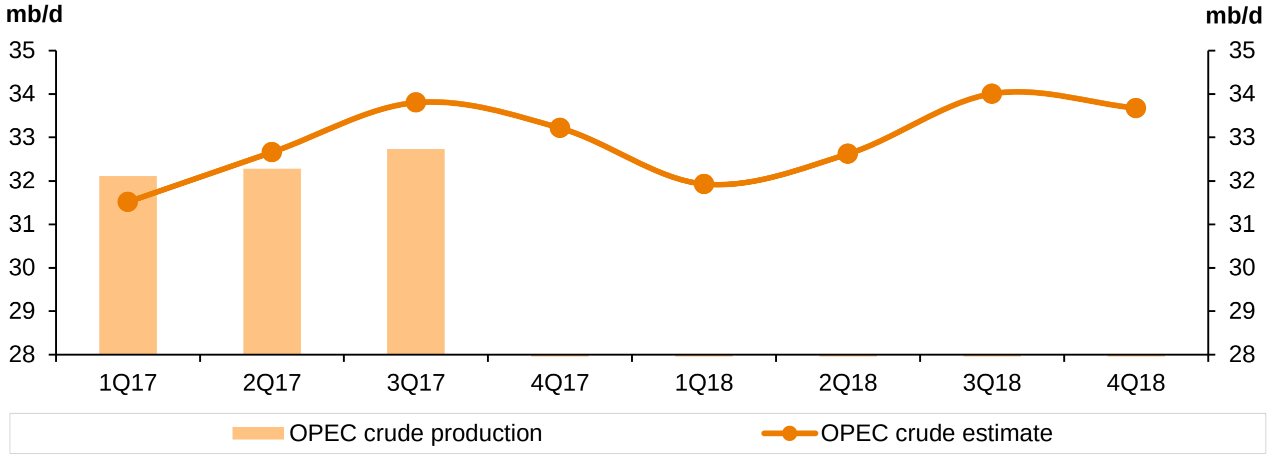
Within the quarters, both the first and third quarter were revised up by 0.1 mb/d each. The second quarter was revised up by 0.2 mb/d, while the fourth quarter was revised up by 0.4 mb/d compared to the previous month. The first quarter rose by 0.4 mb/d versus the same quarter this year, while, the third and the fourth quarters are expected to increase by 0.2 mb/d and 0.5 mb/d respectively. The second quarter is projected to remain unchanged, when compared to the same quarter in 2017.

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

	2017	1Q18	2Q18	3Q18	4Q18	2018	*Change* 2018/17
(a) World oil demand	**96.80**	**96.93**	**97.57**	**98.88**	**99.34**	**98.19**	**1.38**
Non-OPEC supply	57.69	58.56	58.48	58.38	59.13	58.64	0.94
OPEC NGLs and non-conventionals	6.31	6.44	6.47	6.50	6.53	6.49	0.18
(b) Total non-OPEC supply and OPEC NGLs	**64.00**	**65.01**	**64.95**	**64.88**	**65.66**	**65.12**	**1.12**
Difference (a-b)	**32.80**	**31.93**	**32.62**	**34.01**	**33.68**	**33.06**	**0.26**

*Note: * 2018 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

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



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

Appendix

Table 11 - 1: World oil demand and supply balance, mb/d

	2014	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
World demand													
OECD	45.8	46.4	46.8	47.0	46.8	47.7	47.6	47.3	47.2	47.1	47.9	47.9	47.5
Americas	24.2	24.6	24.7	24.5	25.0	25.3	25.0	24.9	24.7	25.1	25.5	25.2	25.1
Europe	13.5	13.8	14.0	13.9	14.2	14.5	14.3	14.2	13.9	14.2	14.6	14.3	14.3
Asia Pacific	8.1	8.1	8.1	8.6	7.7	7.8	8.3	8.1	8.6	7.7	7.8	8.3	8.1
DCs	30.1	30.8	31.4	31.5	31.9	32.2	32.0	31.9	32.1	32.5	32.9	32.7	32.5
FSU	4.7	4.6	4.6	4.5	4.4	4.8	5.1	4.7	4.6	4.5	4.9	5.2	4.8
Other Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7
China	10.8	11.5	11.8	11.9	12.4	12.1	12.4	12.2	12.2	12.8	12.5	12.8	12.6
(a) Total world demand	**92.0**	**94.0**	**95.4**	**95.6**	**96.2**	**97.5**	**97.9**	**96.8**	**96.9**	**97.6**	**98.9**	**99.3**	**98.2**
Non-OPEC supply													
OECD	24.3	25.3	24.8	25.4	25.1	25.4	25.9	25.5	26.3	26.3	26.4	26.9	26.5
Americas	20.1	21.1	20.6	21.1	20.9	21.2	21.6	21.2	21.8	22.0	22.1	22.4	22.1
Europe	3.6	3.8	3.8	3.9	3.8	3.7	3.9	3.8	4.0	3.9	3.8	4.0	3.9
Asia Pacific	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4
DCs	11.8	12.1	11.9	12.0	11.9	11.9	12.2	12.0	12.1	12.1	12.1	12.1	12.1
FSU	13.5	13.7	13.9	14.1	13.9	13.8	13.9	13.9	13.9	13.9	13.8	14.0	13.9
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.4	4.1	4.0	4.0	3.9	3.9	4.0	3.9	3.8	3.8	3.8	3.8
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Total non-OPEC supply	**56.2**	**57.7**	**57.0**	**57.9**	**57.3**	**57.3**	**58.3**	**57.7**	**58.6**	**58.5**	**58.4**	**59.1**	**58.6**
OPEC NGLs + non-conventional oils	5.9	6.0	6.1	6.2	6.3	6.3	6.4	6.3	6.4	6.5	6.5	6.5	6.5
(b) Total non-OPEC supply and OPEC NGLs	**62.1**	**63.8**	**63.2**	**64.1**	**63.5**	**63.7**	**64.7**	**64.0**	**65.0**	**64.9**	**64.9**	**65.7**	**65.1**
OPEC crude oil production (secondary sources)	30.5	31.7	32.7	32.1	32.3	32.7							
Total supply	92.6	95.5	95.8	96.2	95.8	96.4							
Balance (stock change and miscellaneous)	0.6	1.5	0.5	0.6	-0.4	-1.1							
OECD closing stock levels, *mb*													
Commercial	2,706	2,989	2,985	3,030	3,021								
SPR	1,582	1,588	1,600	1,600	1,587								
Total	**4,288**	**4,577**	**4,585**	**4,629**	**4,608**								
Oil-on-water	924	1,017	1,102	1,043	1,057								
Days of forward consumption in OECD, *days*													
Commercial onland stocks	58.3	63.8	63.2	64.7	63.4								
SPR	34.1	33.9	33.8	34.1	33.3								
Total	**92.3**	**97.7**	**97.0**	**98.8**	**96.7**								
Memo items													
(a) - (b)	**29.9**	**30.2**	**32.2**	**31.5**	**32.7**	**33.8**	**33.2**	**32.8**	**31.9**	**32.6**	**34.0**	**33.7**	**33.1**

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

Table 11 - 2: World oil demand and supply balance, changes from last month's table*, mb/d

	2014	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
World demand													
OECD	-	-	-	-	0.2	-	-	0.1	-	0.2	0.1	-	0.1
Americas	-	-	-	-	0.1	-	-	-	-	0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-0.2	-	-	-	-	-0.1	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) Total world demand	**-**	**-**	**-**	**0.1**	**0.2**	**-0.1**	**-**	**-**	**0.1**	**0.2**	**-**	**-**	**0.1**
World demand growth	***-***	***-***	***-***	***0.1***	***0.2***	***-0.1***	***-***	***-***	***-***	***-***	***0.1***	***-***	***-***
Non-OPEC supply													
OECD	-	-	-	-	-	-0.1	-	-	-	0.1	-	-0.1	-
Americas	-	-	-	-	-	-0.1	-	-	-0.1	-	-	-	-
Europe	-	-	-	-	-	0.1	-	-	0.1	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
FSU	-	-	-	-	-0.3	-	-	-0.1	-	-0.1	-0.2	-0.3	-0.1
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	-0.3	-0.2	-	-0.1	-	-0.1	-0.2	-0.4	-0.2
Total non-OPEC supply growth	-	-	-	-	-0.3	-0.2	0.1	-0.1	-	0.2	-	-0.4	-0.1
OPEC NGLs + non-conventionals	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	**-**	**-**	**-**	**-**	**-0.3**	**-0.2**	**-**	**-0.1**	**-**	**-0.1**	**-0.2**	**-0.4**	**-0.2**
OPEC crude oil production (secondary sources)	**-**	**-**	**-**	**-**	**-**	**-**							
Total supply	-	-	-	-	-0.3	-							
Balance (stock change and miscellaneous)	-	-	-	-0.1	-0.4	-							
OECD closing stock levels (mb)													
Commercial	-	-	-	-	-								
SPR	-	-	-	-	-								
Total	-	-	-	-	-								
Oil-on-water	-	-	-	-	-								
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-								
SPR	-	-	-	-	-								
Total	**-**	**-**	**-**	**-**	**-**								
Memo items													
(a) - (b)	**-**	**-**	**-**	**0.1**	**0.4**	**0.1**	**-**	**0.1**	**0.1**	**0.2**	**0.1**	**0.4**	**0.2**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the September 2017 issue.*

This table shows only where changes have occurred.

Source: OPEC Secretariat.

Table 11 - 3: OECD oil stocks and oil on water at the end of period

	2014	2015	2016	2Q15	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17
Closing stock levels, mb												
OECD onland commercial	**2,706**	**2,989**	**2,985**	**2,880**	**2,957**	**2,989**	**3,017**	**3,056**	**3,063**	**2,985**	**3,030**	**3,021**
Americas	1,414	1,561	1,600	1,508	1,542	1,561	1,589	1,609	1,617	1,600	1,608	1,606
Europe	887	993	971	943	970	993	1,007	1,010	996	971	1,019	998
Asia Pacific	405	435	415	430	445	435	421	438	450	415	404	417
OECD SPR	**1,582**	**1,588**	**1,600**	**1,587**	**1,581**	**1,588**	**1,595**	**1,592**	**1,596**	**1,600**	**1,600**	**1,587**
Americas	693	697	697	696	697	697	697	697	697	697	694	681
Europe	472	475	481	473	469	475	478	474	477	481	484	484
Asia Pacific	417	416	421	418	415	416	419	421	421	421	422	423
OECD total	**4,288**	**4,577**	**4,585**	**4,467**	**4,538**	**4,577**	**4,612**	**4,649**	**4,659**	**4,585**	**4,629**	**4,608**
Oil-on-water	**924**	**1,017**	**1,102**	**916**	**924**	**1,017**	**1,055**	**1,094**	**1,068**	**1,102**	**1,043**	**1,057**
Days of forward consumption in OECD, days												
OECD onland commercial	**58**	**64**	**63**	**61**	**63**	**64**	**65**	**64**	**64**	**63**	**65**	**63**
Americas	58	64	65	60	62	64	63	64	65	65	64	63
Europe	65	72	70	65	68	72	72	70	70	70	73	69
Asia Pacific	47	51	48	55	53	51	55	56	54	48	53	54
OECD SPR	**34**	**34**	**34**	**34**	**33**	**34**	**34**	**33**	**34**	**34**	**34**	**33**
Americas	28	28	28	28	28	28	28	28	28	28	27	27
Europe	35	34	35	33	33	34	34	33	34	35	34	33
Asia Pacific	49	48	49	53	50	48	55	54	51	49	55	55
OECD total	**92**	**98**	**97**	**95**	**96**	**98**	**99**	**98**	**98**	**97**	**99**	**96**

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

Table 11 - 4: Non-OPEC supply and OPEC natural gas liquids, mb/d

	2014	2015	2016	3Q17	4Q17	2017	Change 17/16	1Q18	2Q18	3Q18	4Q18	2018	Change 18/17
US	13.0	14.0	13.6	14.3	14.7	14.2	0.6	14.9	15.0	15.1	15.3	15.1	0.9
Canada	4.3	4.4	4.5	4.7	4.7	4.7	0.2	4.8	4.8	4.9	5.1	4.9	0.2
Mexico	2.8	2.6	2.5	2.2	2.2	2.3	-0.2	2.2	2.1	2.1	2.0	2.1	-0.2
OECD Americas	**20.1**	**21.1**	**20.6**	**21.2**	**21.6**	**21.2**	**0.6**	**21.8**	**22.0**	**22.1**	**22.4**	**22.1**	**0.9**
Norway	1.9	1.9	2.0	1.9	2.1	2.0	0.0	2.1	2.0	1.9	2.1	2.0	0.0
UK	0.9	1.0	1.0	1.0	1.0	1.0	0.0	1.1	1.1	1.1	1.2	1.1	0.1
Denmark	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Other OECD Europe	0.7	0.7	0.6	0.7	0.7	0.6	0.0	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	**3.6**	**3.8**	**3.8**	**3.7**	**3.9**	**3.8**	**0.0**	**4.0**	**3.9**	**3.8**	**4.0**	**3.9**	**0.1**
Australia	0.4	0.4	0.3	0.3	0.3	0.3	0.0	0.4	0.4	0.4	0.4	0.4	0.1
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
OECD Asia Pacific	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.0**	**0.4**	**0.5**	**0.5**	**0.5**	**0.4**	**0.0**
Total OECD	**24.3**	**25.3**	**24.8**	**25.4**	**25.9**	**25.5**	**0.6**	**26.3**	**26.3**	**26.4**	**26.9**	**26.5**	**1.0**
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Indonesia	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Thailand	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Vietnam	0.3	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.2	0.3	0.0
Asia others	0.2	0.3	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Other Asia	**3.6**	**3.7**	**3.7**	**3.6**	**3.6**	**3.6**	**-0.1**	**3.6**	**3.6**	**3.6**	**3.6**	**3.6**	**0.0**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.9	3.1	3.1	3.3	3.5	3.4	0.2	3.5	3.5	3.6	3.7	3.6	0.2
Colombia	1.0	1.0	0.9	0.9	0.9	0.9	0.0	0.8	0.8	0.7	0.8	0.8	-0.1
Trinidad & Tobago	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
L. America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.2	0.2	0.2	0.2	0.0
Latin America	**5.0**	**5.2**	**5.1**	**5.2**	**5.4**	**5.2**	**0.1**	**5.4**	**5.4**	**5.4**	**5.4**	**5.4**	**0.1**
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	0.9	1.0	1.0	1.0	1.0	1.0	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Syria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	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
Middle East	**1.3**	**1.3**	**1.3**	**1.2**	**1.2**	**1.2**	**0.0**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**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	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.6	0.6	0.6	0.6	0.6	0.0
Ghana	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1
South Africa	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
Sudans*	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Africa other	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
Africa	**1.8**	**1.8**	**1.8**	**1.9**	**1.9**	**1.9**	**0.1**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**	**0.0**
Total DCs	**11.8**	**12.1**	**11.9**	**11.9**	**12.2**	**12.0**	**0.1**	**12.1**	**12.1**	**12.1**	**12.1**	**12.1**	**0.1**
FSU	**13.5**	**13.7**	**13.9**	**13.8**	**13.9**	**13.9**	**0.1**	**13.9**	**13.9**	**13.8**	**14.0**	**13.9**	**0.0**
Russia	10.7	10.8	11.1	10.9	11.0	11.0	0.0	11.0	11.0	11.0	11.1	11.0	0.0
Kazakhstan	1.6	1.6	1.6	1.7	1.8	1.7	0.2	1.8	1.8	1.7	1.8	1.8	0.1
Azerbaijan	0.9	0.9	0.8	0.8	0.8	0.8	-0.1	0.8	0.7	0.7	0.7	0.7	-0.1
FSU others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.3	0.3	0.4	0.0
Other Europe	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0**
China	**4.3**	**4.4**	**4.1**	**3.9**	**3.9**	**4.0**	**-0.1**	**3.9**	**3.8**	**3.8**	**3.8**	**3.8**	**-0.2**
Non-OPEC production	**54.0**	**55.6**	**54.8**	**55.1**	**56.1**	**55.5**	**0.7**	**56.3**	**56.2**	**56.1**	**56.9**	**56.4**	**0.9**
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	0.0	2.2	2.2	2.2	2.2	2.2	0.0
Non-OPEC supply	**56.2**	**57.7**	**57.0**	**57.3**	**58.3**	**57.7**	**0.7**	**58.6**	**58.5**	**58.4**	**59.1**	**58.6**	**0.9**
OPEC NGL	5.7	5.8	5.9	6.1	6.1	6.1	0.2	6.2	6.2	6.2	6.3	6.2	0.2
OPEC Non-conventional	0.3	0.3	0.2	0.3	0.3	0.2	0.0	0.3	0.3	0.3	0.3	0.3	0.0
OPEC (NGL+NCF)	**5.9**	**6.0**	**6.1**	**6.3**	**6.4**	**6.3**	**0.2**	**6.4**	**6.5**	**6.5**	**6.5**	**6.5**	**0.2**
Non-OPEC & OPEC (NGL+NCF)	**62.1**	**63.8**	**63.2**	**63.7**	**64.7**	**64.0**	**0.8**	**65.0**	**64.9**	**64.9**	**65.7**	**65.1**	**1.1**

*Note: * OECD Americas includes Chile.*

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 11 - 5: World rig count, units

	2014	2015	2016	*Change 2016/15*	4Q16	1Q17	2Q17	3Q17	Aug 17	Sep 17	*Change Sep/Aug*
US	1,862	977	509	*-468*	586	739	892	947	948	940	*-8*
Canada	380	192	131	*-61*	180	299	115	208	217	209	*-8*
Mexico	86	52	26	*-26*	19	17	23	18	18	15	*-3*
OECD Americas	2,327	1,221	665	*-556*	785	1,054	1,030	1,174	1,183	1,164	*-19*
Norway	17	17	17	*-1*	13	14	17	13	15	11	*-4*
UK	16	14	9	*-5*	9	9	9	11	12	11	*-1*
OECD Europe	145	117	96	*-21*	94	100	92	88	91	91	*0*
OECD Asia Pacific	26	17	7	*-11*	6	14	17	15	15	16	*1*
Total OECD	**2,499**	**1,355**	**768**	***-587***	**885**	**1,168**	**1,139**	**1,277**	**1,289**	**1,271**	***-18***
Other Asia*	228	202	180	*-22*	181	184	182	178	180	173	*-7*
Latin America	172	145	68	*-77*	64	61	62	75	78	71	*-7*
Middle East	108	102	88	*-14*	75	74	76	75	75	76	*1*
Africa	45	29	17	*-12*	16	15	17	17	17	16	*-1*
Total DCs	**553**	**478**	**353**	***-125***	**336**	**334**	**337**	**346**	**350**	**336**	***-14***
Non-OPEC rig count	**3,052**	**1,833**	**1,121**	***-712***	**1,222**	**1,502**	**1,477**	**1,622**	**1,639**	**1,607**	***-32***
Algeria	48	51	54	*3*	53	51	56	54	55	50	*-5*
Angola	15	11	6	*-5*	3	3	3	2	2	3	*1*
Ecuador	24	12	4	*-8*	6	7	8	5	5	5	*0*
Eqatorial Guinea**	1	1	1	*0*	1	1	1	1	1	1	*0*
Gabon	7	4	1	*-3*	0	0	1	1	1	1	*0*
Iran**	54	54	59	*5*	61	61	61	61	61	61	*0*
Iraq**	79	52	43	*-9*	41	41	49	54	53	55	*2*
Kuwait**	38	47	44	*-2*	46	55	55	53	52	53	*1*
Libya**	10	3	1	*-2*	1	1	1	1	1	1	*0*
Nigeria	34	30	25	*-5*	23	27	28	27	27	27	*0*
Qatar	10	8	8	*0*	10	11	11	10	10	10	*0*
Saudi Arabia	134	155	156	*1*	157	152	150	148	146	148	*2*
UAE	34	42	51	*8*	52	50	51	53	54	52	*-2*
Venezuela	116	110	100	*-10*	92	95	95	89	90	86	*-4*
OPEC rig count	**604**	**579**	**552**	***-27***	**547**	**554**	**568**	**561**	**558**	**553**	***-5***
World rig count* **	**3,656**	**2,412**	**1,673**	***-740***	**1,769**	**2,056**	**2,045**	**2,183**	**2,197**	**2,160**	***-37***
of which:											
Oil	2,818	1,750	1,189	*-560*	1,253	1,464	1,503	1,608	1,620	1,581	*-39*
Gas	743	563	370	*-193*	400	477	441	478	478	481	*3*
Others	95	100	113	*14*	116	115	101	98	99	98	*-1*

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

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

Glossary of Terms

Abbreviations

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

Acronyms

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

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

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Disclaimer

OPEC Basket average price *US$/b*

up 3.84 in September

September 2017	53.44
August 2017	49.60
Year-to-date	**50.13**

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

up 0.09 in September

September 2017	32.75
August 2017	32.66

Economic growth rate *per cent*

	World	OECD	US	Japan	Euro-zone	China	India
2017	3.6	2.2	2.1	1.6	2.2	6.7	6.9
2018	3.5	2.1	2.3	1.2	1.9	6.3	7.5

Supply and demand *mb/d*

2017		17/16	2018		18/17
World demand	96.8	1.5	World demand	98.2	1.4
Non-OPEC supply	57.7	0.7	Non-OPEC supply	58.6	0.9
OPEC NGLs	6.3	0.2	OPEC NGLs	6.5	0.2
Difference	**32.8**	**0.6**	**Difference**	**33.1**	**0.3**

OECD commercial stocks *mb*

	Jun 17	Jul 17	Aug 17	Aug 17/ Jul 17	Aug 16
Crude oil	1,534	1,531	1,506	–24.7	1,507
Products	1,482	1,481	1,490	8.7	1,583
Total	**3,016**	**3,012**	**2,996**	**–16.1**	**3,090**
Days of forward cover	63.0	63.2	63.2	0.0	65.3

Next report to be issued on 13 November 2017.