OPEC

Monthly Oil Market Report

10 December 2015

Feature article:
Review of 2015, outlook for 2016

OPEC Monthly Oil Market Report 2016

Publishing schedule for 2016

Monday, 18 January

Wednesday, 10 February

Monday, 14 March

Wednesday, 13 April

Friday, 13 May

Monday, 13 June

Tuesday, 12 July

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Monday, 12 September

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Friday, 11 November

Wednesday, 14 December

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Oil market highlights

Crude Oil Price Movements

The OPEC Reference Basket declined by around 10% in November as lower refinery crude intake added to the oversupply in the market. The Basket lost $4.52 to stand at $40.50/b. Crude oil futures also fell, with ICE Brent averaging $45.93/b and Nymex WTI $42.92/b. The Brent-WTI spread widened marginally to $3.01/b.

World Economy

World economic growth figures remain unchanged at 3.1% for the current year and 3.4% in 2016. With slightly stronger growth in the US and lower-than-expected growth in Japan in 3Q15, the OECD growth forecast remains at 2.0% for 2015 and 2.1% for 2016. The 2016 growth forecast for China remains unchanged at 6.4%, following estimated growth of 6.8% this year. India is expected to grow by 7.6% in 2016, unchanged from the previous report, while the growth estimate for the current year has been revised down to 7.3%.

World Oil Demand

World oil demand is anticipated to increase by 1.53 mb/d this year, averaging around 92.88 mb/d. These projections are 30 tb/d higher than last month's estimate, mainly as a result of better-than-expected consumption in OECD Europe and Other Asia. For 2016, global oil demand growth is expected to increase by around 1.25 mb/d, unchanged from the previous report, averaging 94.13 mb/d.

World Oil Supply

Non-OPEC oil supply is estimated to grow by 1.00 mb/d in 2015 to average 57.51 mb/d. This represents an upward revision of 0.28 mb/d from the previous report, driven mainly by actual production data from the US, UK, Brazil, Russia and China. For 2016, non-OPEC oil supply is now expected to contract by 0.38 mb/d to average 57.14 mb/d, following a downward revision of 0.25 mb/d. OPEC NGLs are expected to grow by 0.17 mb/d in 2016, compared to an increase of 0.16 mb/d this year. In November, OPEC production according to secondary sources rose by 230 tb/d from the previous month to average 31.70 mb/d.

Product Markets and Refining Operations

Product markets in the Atlantic Basin strengthened during November on the back of positive performance of the top of the barrel. Gasoline and naphtha were supported by strong regional demand amid export opportunities, which improved margins and offset the lack of winter support. Meanwhile, Asian margins remained healthy on the back of higher seasonal demand in the region and a stronger petrochemical sector.

Tanker Market

Lower tonnage demand drove down average VLCC spot freights rates in November, while both Suezmax and Aframax freight rates increased, mainly on the back of delays in several ports. West of Suez activities provided some support to clean spot freight rates, while East of Suez rates slightly dropped. OPEC sailings increased in November by 0.26 mb/d to average 24.21 mb/d. Tanker arrivals in most regions were lower in November, except arrivals at North American ports.

Stock Movements

OECD commercial oil stocks fell in October to stand at 2,955 mb, but inventories were around 244 mb higher than the five-year average, with crude and products indicating a surplus of around 180 mb and 64 mb, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.5 days in October, 4.4 days higher than the five-year average.

Balance of Supply and Demand

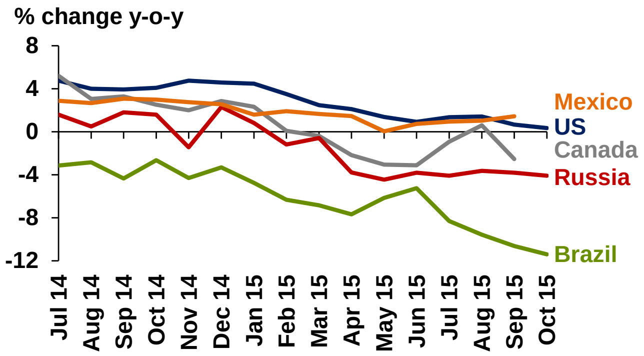
Demand for OPEC crude in 2015 is estimated to stand at 29.4 mb/d, an increase of 0.4 mb/d over last year and representing a downward revision of 0.2 mb/d compared to the previous report. In 2016, demand for OPEC crude is forecast at 30.8 mb/d, an increase of 1.5 mb/d over the current year and unchanged from the previous assessment.

Review of 2015, outlook for 2016

The global economy continued its moderate growth in 2015 and is now expected to expand at 3.1%. Some important economic developments marked this year's growth. The OECD managed to accelerate its growth level again slightly. In the emerging economies, India saw stronger-than-expected growth and China's momentum moderated, while Russia and Brazil experienced contractions. Lower oil prices provided support for consumers in the US, Euro-zone, China and India, but the shortfall in investments and the lower income from the oil sector in major oil producer countries has offset some of these positive effects (***Graph 1***).

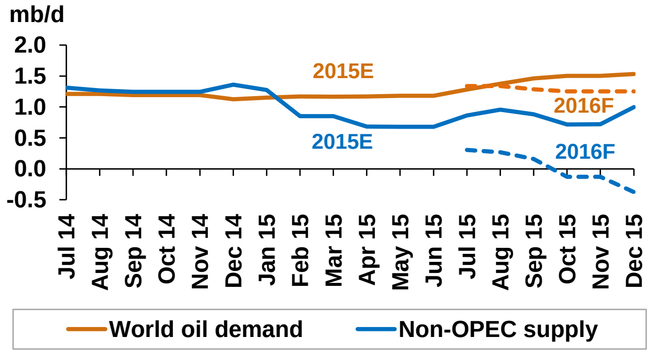
Monetary decisions have continued to play a key role in the global economy, not just in the OECD economies but also in China and India. An expected interest rate hike by the US Federal Reserve has affected capital flows and currencies, but the full impact will only be seen once the decision is taken. In the meantime, the increase in monetary stimulus in the Euro-zone and Japan has not been as effective in supporting these economies as planned. In contrast, China's stimulus plans have achieved some success in supporting the country's economy. The development of monetary policies will remain an influential factor in the coming year, including for the oil market. In 2016, the global economy is forecast to grow by 3.4%, with the growth risk slightly skewed to the downside.

Graph 1: Industrial production, seasonally adjusted



Sources: FRB,StaCan, RSSRAR, ANFAVEA, INEGI and Haver Analytics.

Graph 2: Revision to world oil demand and non-OPEC supply growth, y-o-y



Note: E = estimate and F = forecast.
Source: OPEC.

World oil demand in 2015 is estimated to grow by 1.53 mb/d, around 300 tb/d higher than the initial forecast in July 2014 (***Graph 2***). The upward revision has been supported by lower oil prices in the main demand centers, particularly OECD Americas and Europe. Motor fuel consumption in the US and Europe was encouraged by cheaper product prices, along with improving car sales data. Petrochemical consumption also contributed to the higher growth. In the non-OECD, oil demand growth came mainly from China, India and the Middle East. In contrast, Brazilian oil requirements slipped back into a contraction as economic momentum slowed. In 2016, world oil demand is expected to grow by 1.25 mb/d, partly supported by the improvement in global economic activities. The OECD region is anticipated to rise by 150 tb/d, led solely by the US, while Europe and Asia Pacific are seen declining. In the non-OECD region, growth is expected to be around 1.1 mb/d, with China showing slightly lower growth. Steady oil requirements are expected in Other Asia, the Middle East and Latin America. Nevertheless, the oil demand forecast for 2016 is subject to considerable uncertainties, depending on the pace of economic growth, development of oil prices, and weather conditions, as well as the impact of substitution and energy policy changes.

Non-OPEC supply growth in 2015 has been revised down by 310 tb/d since the initial forecast to now stand at 1.00 mb/d. This has been mainly due to the impact of low oil prices and declining investments in the oil industry. The adjustment is also attributable to downward revisions in both the OECD and Developing Countries of 420 tb/d and 40 tb/d, respectively. Higher-than-expected growth in the UK, Malaysia, Russia, China and Colombia has been more than offset by lower-than-expected growth in Canada due to the wildfire in Alberta in 2Q15, the unexpectedly sharp decline in Mexico, and higher declines in Australia and from Caspian producers. US oil output increased by a lower-than-anticipated 810 tb/d. In 2016, non-OPEC oil supply is forecast to decline by 380 tb/d. Growth is seen coming mainly from Canada and Brazil, with declines also expected in the US, Mexico, Russia, Kazakhstan, the UK and Azerbaijan. OPEC NGLs are seen increasing by 170 tb/d in 2016, following growth of 160 tb/d in 2015.

As a result of the current forecasts, the demand for OPEC crude in 2016 is expected at 30.8 mb/d, which represents an increase of 1.5 mb/d over the estimated level for 2015.

Crude Oil Price Movements

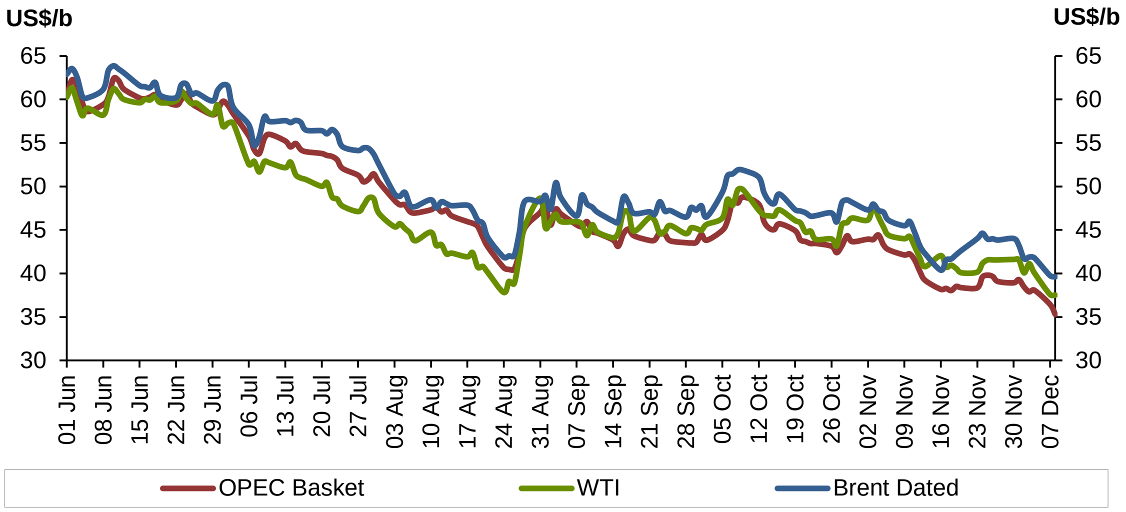
The OPEC Reference Basket (ORB) declined by almost 10% in November to its lowest level in almost seven years. The ORB departed from three-month long levels of $45/b, as lower refinery crude intake amid planned and unplanned outages in October and November added to the persistent oversupply in the market. Month-on-month (m-o-m), the ORB dropped $4.52 to $40.50/b and remained lower y-o-y at $50.97/b. Crude oil futures weakened further. The decline was not only due to a supply concerns, but also to physical demand and storage glitches as well. ICE Brent ended the month down $3.36, or 6.8%, to stand at $45.93/b. Nymex WTI fell $3.37, or 7.3%, to stand at $42.92/b. Y-t-d, both contracts were lower at $49.86/b and $54.97/b, respectively. Hedge funds' bullish bets on Nymex WTI fell to a more than five-year low, while speculators bet for higher oil prices in ICE Brent, increasing net length positions. Brent's premium over WTI rose slightly over the month amid higher inventories in Cushing, Oklahoma. The Brent-WTI spread widened to $3.01/b in November.

OPEC Reference Basket

The ORB plunged by almost 10% in November to its lowest monthly average in almost seven years, breaking away from the $45/b levels maintained for more than three months. A year-and-a-half long supply overhang in the market was exacerbated by lower refinery crude intake, as many refinery crude oil distillation units (CDUs) were down in October and November, either on maintenance, or suffering prolonged or unplanned outages. Total refinery outages in October and November were at 7.5 mb/d and 4.5 mb/d, respectively.

On a monthly basis, the OPEC Reference Basket dropped by $4.52 to stand at $40.50/b, a m-o-m decrease on average of 10%. Compared with a year ago, the ORB value is lagging at $50.97/b versus its $99.57/b y-t-d value this time in 2014, its lowest y-t-d value since 2005.

Graph 1.1: Crude oil price movement, 2015



Global oil benchmark values deteriorated by about 8% over the month, with Dated Brent, WTI and Dubai prices falling by $4.26/b, $3.59/b and $4.05/b, respectively.

West African (WAF) crude oil price differentials remained under pressure as weaker refining margins in Europe weighed on demand for the substantial November-loading surplus. With more than 40 mb of Mediterranean and North Sea crudes seeking buyers, the prospects were not good for differentials. December official selling prices for Nigeria's crudes hit their lowest level in more than 10 years. Towards the end of the month, a larger-than-usual purchase from India's IOC supported West African crude oil, but a nagging backlog of cargoes kept a lid on any movement in differentials.

Meanwhile, Middle East price differentials were underpinned by strong demand as refiners benefited from low oil prices and high naphtha cracks to secure cargoes. Medium grades tracked lighter grades as refiners rushed to secure cargoes amid tighter supply — as more Middle East crude flows to Europe — and low prices. Robust diesel and fuel oil cracks supported medium grades.

Brent-related West and Northern African light sweet Basket components Saharan Blend, Es Sider, Girassol and Bonny Light saw their values decrease by $4.13 or 8.5% to $44.54/b in November. Middle Eastern spot component grades slipped by $3.86 to rest at $43.83/b, while multi-destination grades Arab Light, Basrah Light, Iran Heavy and Kuwait Export plunged $5.10 to stand at $39.16/b. Latin American ORB component Merey was down by $3.11 or 10.2% to stand at $30.17/b while Oriente declined by about $3.51 or 8.8% to reach $36.40/b.

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

	Oct 15	Nov 15	Change Nov/Oct	Year-to-date 2014	Year-to-date 2015
OPEC Reference Basket	**45.02**	**40.50**	**-4.52**	**99.57**	**50.97**
Arab Light	45.37	40.64	-4.73	100.47	51.36
Basrah Light	43.50	38.70	-4.80	97.70	49.34
Bonny Light	49.16	44.81	-4.35	104.15	54.33
Es Sider	47.56	43.30	-4.26	101.80	52.70
Girassol	48.45	44.74	-3.71	102.52	54.37
Iran Heavy	44.55	38.92	-5.63	99.49	50.39
Kuwait Export	43.61	38.39	-5.22	98.62	49.69
Marine	45.89	41.66	-4.23	99.67	52.23
Merey	35.48	31.87	-3.61	90.06	42.67
Murban	49.48	45.99	-3.49	102.76	55.24
Oriente	39.91	36.40	-3.51	90.29	46.13
Sahara Blend	49.51	45.30	-4.21	102.95	54.12
Other Crudes					
Brent	48.56	44.30	-4.26	102.33	53.74
Dubai	45.84	41.79	-4.05	99.96	52.46
Isthmus	46.90	43.29	-3.61	96.67	52.40
LLS	47.38	44.45	-2.93	100.13	53.66
Mars	41.91	39.90	-2.01	96.11	49.49
Minas	42.13	40.79	-1.34	102.13	50.63
Urals	47.49	43.05	-4.44	101.34	53.29
WTI	46.26	42.67	-3.59	96.26	49.80
Differentials					
Brent/WTI	2.30	1.63	-0.67	6.07	3.94
Brent/LLS	1.18	-0.15	-1.33	2.20	0.08
Brent/Dubai	2.72	2.51	-0.21	2.38	1.28

Note: Arab Light and other Saudi Arabian crudes as well as Basrah Light preliminarily based on American Crude Market (ACM) and subject to revision.

Sources: Platt's, Direct Communication and Secretariat's assessments.

On 9 December, the OPEC Reference Basket stood at $34.80/b.

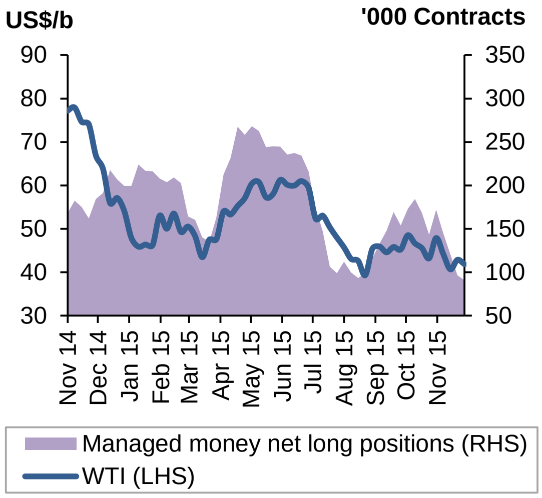
The oil futures market

Crude oil futures weakened significantly in November; this was not only due to oversupply, it was linked to physical demand and storage issues as well. Crude oil storage swelled on land to record levels. Refinery demand was low on prolonged outages. Oil markets have been dogged by oversupply, with an estimated 1.8 mb/d above demand being produced. Crude futures prices were also pressured as the dollar rallied to record highs and concerns faded that escalating tension in the Middle East could disrupt supply. A tumble in Chinese equities added pressure to an oversupplied market. The oil complex as a whole has been weakened by concerns that stockpiles of refined US oil products, such as heating oil, were also growing, with refineries ramping up output as they emerge from maintenance season amid milder-than-usual weather. The oil complex was also caught in a broader commodities sell-off.

ICE Brent ended the month down $3.36 or 6.8% to stand at $45.93/b. Nymex WTI fell m-o-m by $3.37 or 7.3% to stand at $42.92/b. Compared with 2014, Nymex WTI and ICE Brent were $46.26 and $47.85 lower, reaching $49.86/b and $54.97/b, respectively.

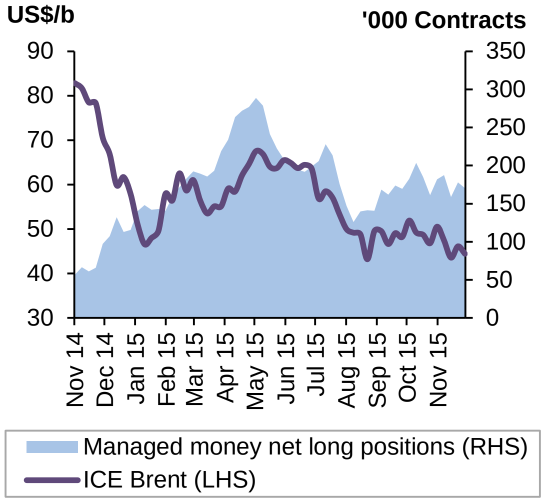
On 9 December, ICE Brent stood at $40.11/b and Nymex WTI at $37.16/b.

Graph 1.2: Nymex WTI price vs. speculative activity, 2014-2015



Source: CFTC.

Graph 1.3: ICE Brent price vs. speculative activity, 2014-2015



Source: IntercontinentalExchange, Inc.

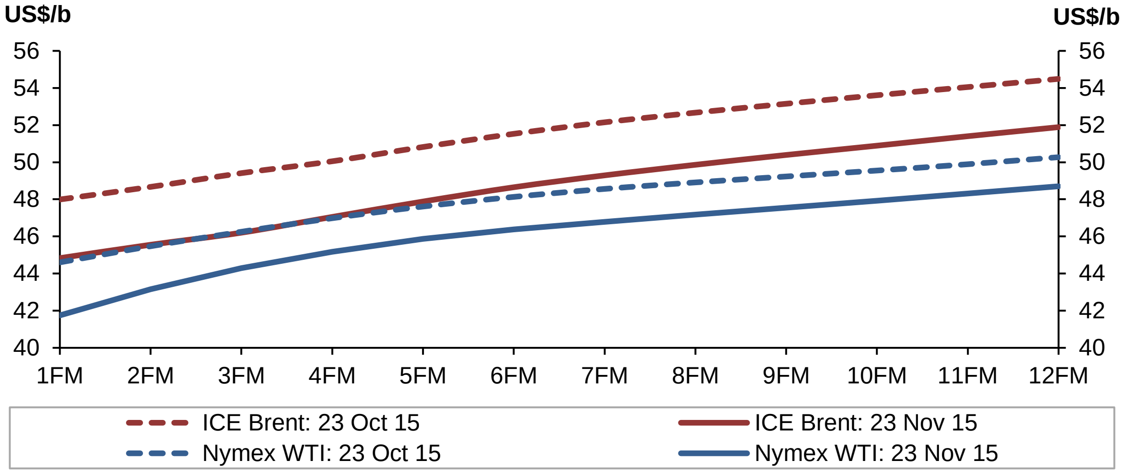
Hedge funds' bullish wagers on US crude oil have fallen to a more than five-year low. US Commodity Futures Trading Commission (CFTC) data at the end of November reflected concerns about a global supply glut. Money managers, including hedge funds and other big speculators, cut their net longs in Nymex WTI futures by 46,770 contracts compared with the end of October. That left the managed net long positions in Nymex WTI crude at 96,521 contracts, the lowest figure since September 2010. On the other hand, net length positions increased by 16,749 lots to 177,945 contracts in ICE Brent, InterContinental Exchange data showed. Meanwhile, total futures and options open interest volume in the two markets declined by 482,426 contracts to 4.80 million lots.

The daily average traded volume during October for Nymex WTI contracts increased by 12,420 lots to average 807,128 contracts, while the ICE Brent daily traded volume decreased by 4,905 contracts to reach 672,935 lots. The daily aggregate traded volume in both crude oil futures markets increased by 7,515 lots to around 1.48 million futures contracts, equivalent to around 1.5 billion barrels per day. The total traded volume in Nymex WTI was down to stand at 16.1 million contracts. Similarly, ICE Brent was lower, standing at 14.1 million lots.

The futures market structure

All three markets deepened their contango as crude oil oversupply continued in all regions, with the **WTI** market reaching super-contango amid concerns about available spare storage capacity. The build in US inventories, which has gone on for several consecutive weeks, continued in November, causing inventories to grow to record highs as refineries are still not fully back from maintenance and due to a rise in imports. The ninth-consecutive weekly build pushed crude stockpiles higher to 488.3 mb, within a hair of the modern-day record of 490.9 mb in April. Crude stocks at Cushing, Oklahoma, the delivery hub for US crude futures, rose by 1.8 mb to 58.7 mb. Total storage capacity for the site was at 71.4 mb as of 31 March, according to the US Energy Information Administration (EIA). The WTI further sharply widened its contango in November by almost a $1, when the M1–M3 spread increased to $2.30/b. This growing discount between front-month to forward contracts is encouraging traders to store crude in the hope of delivering at higher prices later.

Graph 1.4: Nymex WTI and ICE Brent forward curves, 2015



FM = future month.

Amid overwhelming regional supplies, the **Brent** market contango widened by 25¢, with M1–M3 at $1.83/b. The North Sea front month was pressured by expectations of strong supply and the prospect of reduced flows to Asia amid closed arbitrage and new developments that could limit the flow of Forties to Asia. North Sea supply is expected to rise to a nearly two-year high in December amid a delay in maintenance at the Buzzard oilfield. South Korea will provide freight rebates for crude imports from regions other than the Middle East starting in 2016 only for shipments made under a term deal. North Sea oil was also competing with light sweet Nigerian crude, which has a big overhang of cargoes available for export.

Likewise, the Middle East crude contango structure steepened further, despite healthy demand and reduced supplies of grades due to planned field maintenance and lower arbitrage flows to Asia; Brent's premium to Dubai swaps rose to over $3.10/b. The **Dubai** contango widened by about 35¢ for the month, when the M1 $1.90/b discount to M3 increased to around $2.25/b.

Brent's premium over WTI increased slightly over the month amid increasing inventories in Cushing, Oklahoma. Nevertheless, ample light sweet crude supplies in the Atlantic Basin continue to affect the Brent market, keeping the spread at its lowest level for the year. The Brent-WTI (transatlantic) spread inched up by about 1¢ from $3/b in October to reach $3.01/b.

Table 1.2: Nymex WTI and ICE Brent forward curves, US$/b

		1st FM	2nd FM	3rd FM	6th FM	12th FM
Nymex WTI						
	23 Oct 15	44.60	45.47	46.25	48.13	50.27
	23 Nov 15	41.75	43.15	44.29	46.37	48.70
ICE Brent						
	23 Oct 15	47.99	48.67	49.41	51.53	54.49
	23 Nov 15	44.83	45.55	46.20	48.65	51.89

FM = future month.

The light sweet/medium sour crude spread

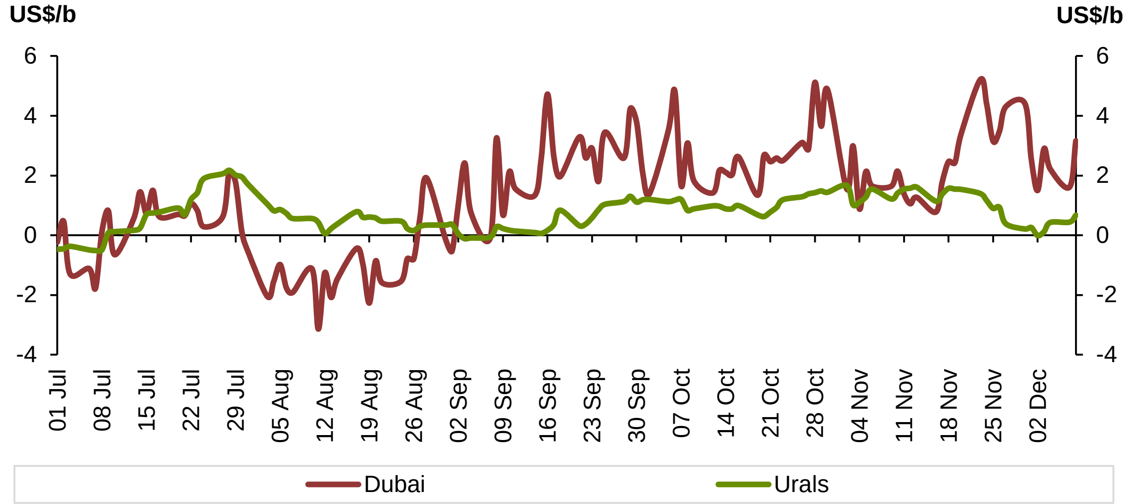
Sweet/sour differentials widened in Europe and Asia, but narrowed on the US Gulf Coast (USGC).

In **Asia**, the Tapis/Dubai spread widened further as the Brent/Dubai spread continued to make local sweet crude, such as Tapis, more attractive compared with arbitrage volumes from outside the region. This has helped limit arbitrage movements of light sweet crudes from the Atlantic Basin, mainly West African crude, to the Asia Pacific region, supporting shorter-haul cargoes. In addition to a wider Brent/Dubai spread, robust refinery demand and high freight rates continued to support the Asia Pacific light sweet crude market. Meanwhile, medium sour Middle East crudes were under pressure amid ample supplies, despite healthy refining margins. The light sweet Tapis premium over medium sour Dubai increased by a hefty $1.80 to $6.75/b, levels seen at the beginning of the year.

In **Europe**, Urals medium sour crude's discount to Brent rose in November to its highest point since June 2014 on expectations of heavy Russian supplies that would worsen the crude glut in the region. A wide availability of alternative grades from the Middle East also helped pressure medium sour Urals values. On the other hand, limited arbitrage opportunities to Asia for light sweet oil from the North Sea supported the Brent market despite the oversupply in the region. The Med Urals discount of $1.10/b to Dated Brent in October inched up to $1.25/b in November, widening by about 15¢.

On the **USGC**, the premium of Light Louisiana Sweet (LLS) over medium sour Mars fell heavily to $4.55/b, shrinking by 95¢. The relative strength of the sour Mars grade could have been the result of some refineries restarting units. Meanwhile, cracking margins for sour crudes have been better than for light sweet crudes over the month. On the other hand, bearish, light sweet sentiment at Cushing was also reflected in USGC light sweet grades.

Graph 1.5: Brent Dated vs. Sour grades (Urals and Dubai) spread, 2015



Commodity Markets

Average commodity prices declined in November, with a retreat seen in all major commodity groups. In the group of energy commodities, prices were down due to the drops in crude oil and natural gas prices. In the group of non-energy commodities, metals experienced a broad-based drop on the weakness of manufacturing activity in China while agriculture prices were also generally down. Precious metals showed their largest drop since 2013 on firmer expectations of interest rate hikes in the US.

Trends in selected commodity markets

Commodities were under pressure from the advancing US dollar on the increased market expectation for an interest rate hike in the US after continuing improvement in the labour market and ongoing economic expansion. This, in fact, increased medium and long-term real interest rate expectations, which triggered the largest monthly decline in precious metals since April 2013.

Table 2.1: Commodity price data, 2015

Commodity	Unit	*Monthly averages*			*% Change*		
		Sep 15	Oct 15	Nov 15	Sep/Aug	Oct/Sep	Nov/Oct
World Bank commodity price indices (2010 = 100)							
Energy		59.6	59.7	55.2	0.3	0.0	-7.50
Coal, Australia	$/mt	54.7	52.3	52.5	-6.5	-4.5	0.4
Crude oil, average	$/bbl	46.3	47.0	43.1	1.3	1.5	-8.2
Natural gas, US	$/mmbtu	2.6	2.3	2.1	-4.2	-12.5	-9.3
Non-energy		79.0	79.3	77.2	-1.1	0.3	-2.7
Agriculture		85.9	86.9	85.8	-1.8	1.2	-1.3
Food		86.2	87.7	86.1	-1.9	1.7	-1.8
Soybean meal	$/mt	386.0	380.0	346.0	-2.0	-1.6	-8.9
Soybean oil	$/mt	727.0	742.0	738.0	-0.4	2.1	-0.5
Soybeans	$/mt	368.0	376.0	369.0	-3.4	2.2	-1.9
Grains		82.3	84.6	83.6	-1.9	2.8	-1.2
Maize	$/mt	165.6	171.4	166.2	1.9	3.5	-3.0
Wheat, US, HRW	$/mt	172.7	172.7	176.9	-4.0	0.0	2.4
Sugar, world	$/kg	0.3	0.3	0.3	3.1	17.3	4.3
Base Metal		69.1	68.2	63.8	1.2	-1.2	-6.5
Aluminum	$/mt	1,589.6	1,516.5	1,468.0	2.7	-4.6	-3.2
Copper	$/mt	5,217.3	5,216.1	4,800.0	1.8	0.0	-8.0
Iron ore, cfr spot	$/dmtu	57.0	53.0	47.0	1.8	-7.0	-11.3
Lead	$/mt	1,684.3	1,720.1	1,618.0	-1.1	2.1	-5.9
Nickel	$/mt	9,937.6	10,316.8	9,244.0	-4.3	3.8	-10.4
Tin	$/mt	15,453.3	15,794.6	14,745.0	1.9	2.2	-6.6
Zinc	$/mt	1,720.2	1,724.3	1,583.0	-4.8	0.2	-8.2
Precious Metals							
Gold	$/toz	1,124.8	1,159.3	1,086.0	0.6	3.1	-6.3
Silver	$/toz	14.8	15.8	14.5	-1.3	7.2	-8.3

Source: World Bank, Commodity price data.

Meanwhile, **industrial metals** experienced large declines under the pressure of weakening manufacturing prospects in China, the largest metal consumer and producer, albeit at a lower rate than the previous month, with manufacturing PMI at 48.6 versus 48.3 in that country. Readings of US manufacturing activity also pointed to contraction for the first time since November 2012, with the Institute of Supply Management Manufacturing PMI at 48.6, versus 50.1 the previous month. Aluminum showed the smallest price declines among base metals, gaining some support from the announcement of output cuts by Alcoa, which could withdraw 500,000 metric tonnes from the market. Iron ore suffered steep losses on continuing weakness in steel output, which was down by 3.1% y-o-y in China and at a world level in October, according to the World Steel Association and the capacity expansions of major producing companies announced the previous month.

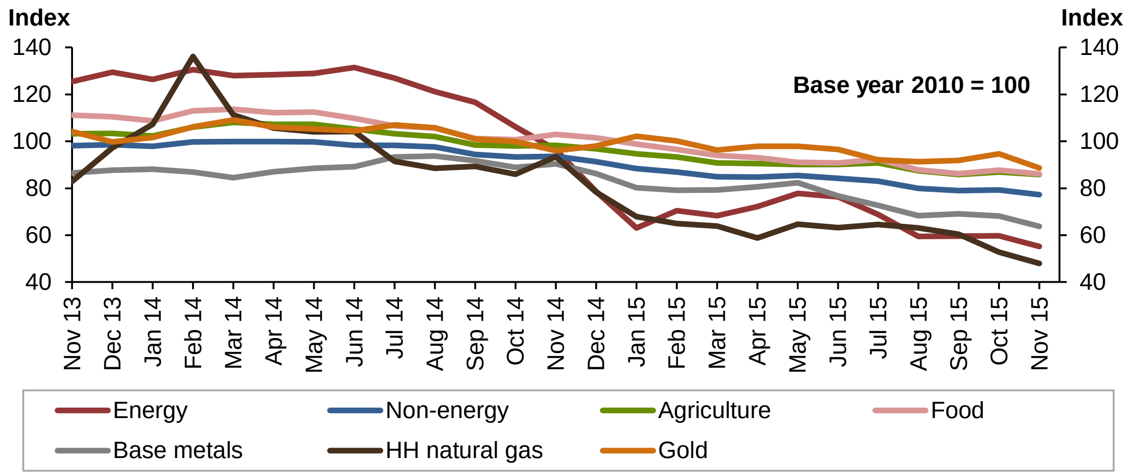
Agricultural prices were down, mainly due to decreases in the prices of food and raw materials, while the US dollar appreciation added pressure to prices. During the month, the US Department of Agriculture increased its estimations of global ending stocks for corn – largely on higher estimations for China and the US, which, in conjunction with lower fuel cost, impacted prices. Meanwhile, it increased its forecast of soybean ending stocks in the US on record production, which weakened prices of soybeans, soy oil and soymeal. Sugar prices increased on data from the Brazil sugar industry association UNICA, showing lower output than the previous year, due to larger attractiveness of ethanol production.

Energy prices retreated with drops in crude oil on persistent oversupply, while natural gas prices dropped both in Europe and the US. In the US, natural gas inventories reached record levels of 4.009 tcf during week ending 20 November, while at the same time, temperatures continue to be warmer than average due to the effect of El Niño. In Europe, spot prices were negatively affected by warmer-than-average weather, while natural gas EU-28 inventories were at 77% of capacity at the end of November versus 83% of capacity at the end of October, according to Gas Infrastructure Europe.

Average energy prices declined by 7.5% on top of a 8.2% decline in crude oil. Natural gas prices declined in the US by 9.3% m-o-m, while average import prices in Europe were down by 3.6%.

Agricultural prices declined by 1.3%, with drops of 1.8% and 0.8%, respectively, in the groups of food and raw materials (timber, cotton, rubber and tobacco), while prices advanced by 0.8% in beverages (cocoa, coffee and tea). Maize and soymeal decreased by 3.0% and 8.9%, respectively. Meanwhile, sugar prices continued their ascending trend, up by 4.3% on lower output in Brazil. In the group of raw materials, natural rubber declined by 6.6%.

Graph 2.1: Major commodity price indices, 2013-2015

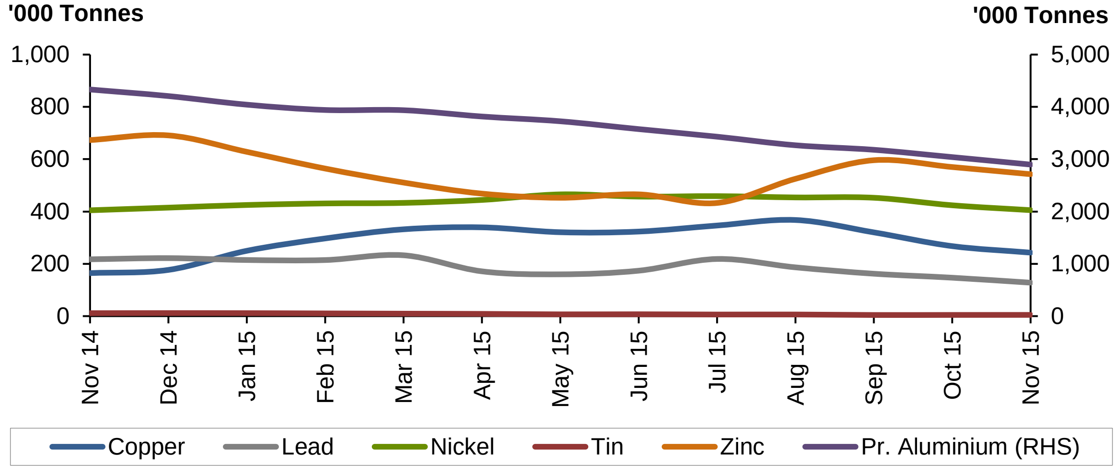


Source: World Bank, Commodity price data.

Average **base metal prices** declined by 6.5%, with declines among all group components. Copper and nickel prices retreated by 8.0 and 10.5%, respectively, on lower-than-expected demand from China. Meanwhile, average iron ore prices declined by 11.3% m-o-m on continued oversupply.

Precious metals had their largest monthly drop since 2013, with gold prices declining by 6.3% on average, pressured by the expectation of higher real interest rates in the US. Meanwhile, silver and platinum prices declined sharply by 8.3% and 9.4% m-o-m, respectively.

Graph 2.2: Inventories at the LME



Sources: London Metal Exchange and Thomson Reuters.

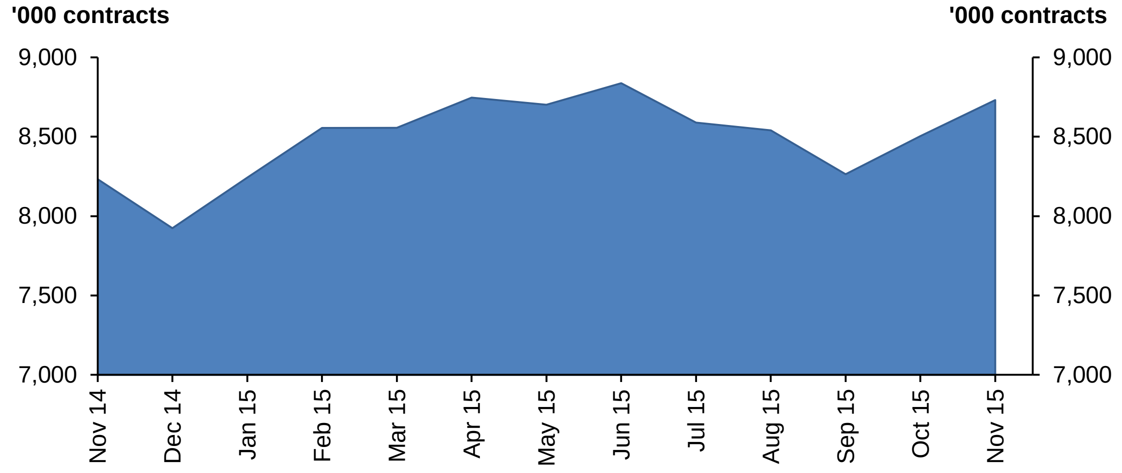
In November, the **Henry Hub natural gas index** decreased. The average price was down 24¢, or 10.3%, to $2.08 per million British thermal units (mmbtu) after trading at an average of $2.32/mmbtu the previous month.

The US Energy Information Administration (EIA) said utilities withdrew 53 billion cubic feet (Bcf) of **gas from storage** during the week ending 27 November. This was slightly higher than market expectations of an 49 Bcf decrease. Total working gas in storage stood at 3,956 Bcf, which was 16% higher than at the same time in the previous year and 7% higher than the previous five-year average. The EIA noted that temperatures during the reported week were “close to normal”.

Investment flows into commodities

Open interest volume (OIV) increased in November for select US commodity markets such as agriculture, crude oil, copper, natural gas and livestock, while it decreased for precious metals. Meanwhile, speculative net length positions decreased for agriculture, crude oil, copper, livestock and precious metals, while net short positions decreased for natural gas.

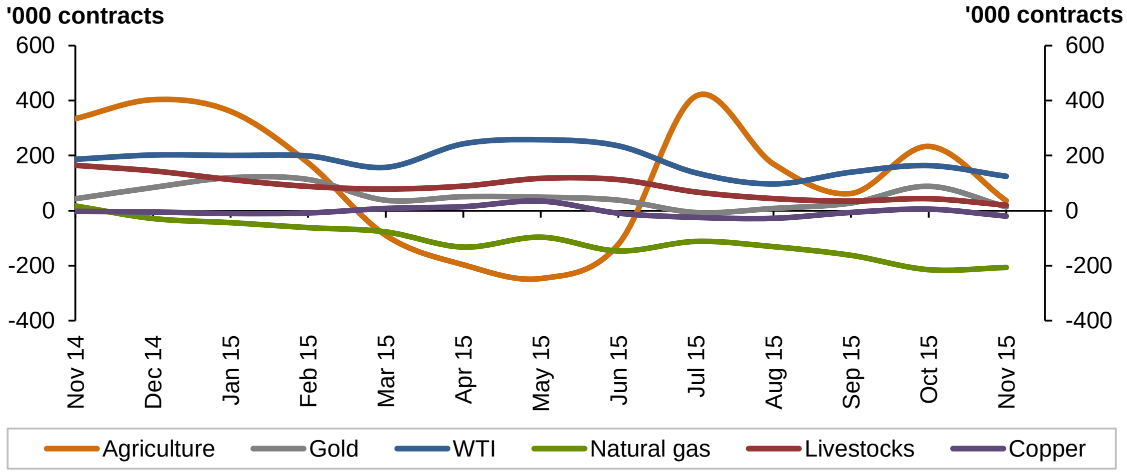
Graph 2.3: Total open interest volume



Source: US Commodity Futures Trading Commission.

Agriculture's OIV increased by 3.5% m-o-m to 4,938,091 contracts in November. Meanwhile, money managers increased their net long positions by 84.6% to 35,878 lots, largely because of decreases in net length positions of corn and the soy complex.

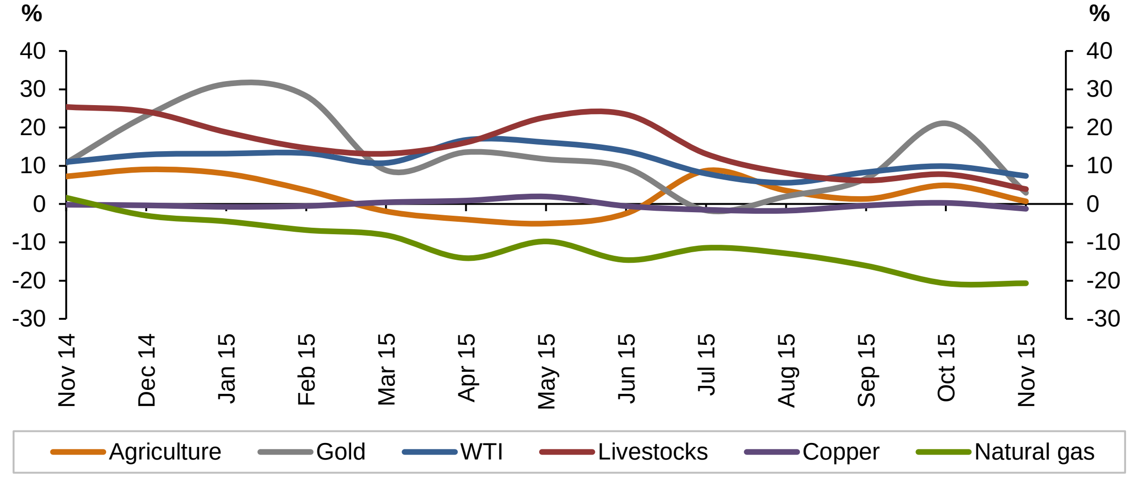
Graph 2.4: Speculative activity in key commodities, net length



Source: US Commodity Futures Trading Commission.

Henry Hub's natural gas OIV increased by 3.8% m-o-m to 1,009,800 contracts in November. Money managers decreased their net short positions slightly, by 3.8%, to reach 206,589 lots, but remained largely bearish on continuing expectations of warmer-than-normal winter weather.

Graph 2.5: Speculative activity in key commodities, as% of open interest



Source: US Commodity Futures Trading Commission.

Copper's OIV increased by 12.5% m-o-m to 179,696 contracts in November. Money managers switched to a net short position of 20,092 lots from a net long position of 5,402 lots the previous month.

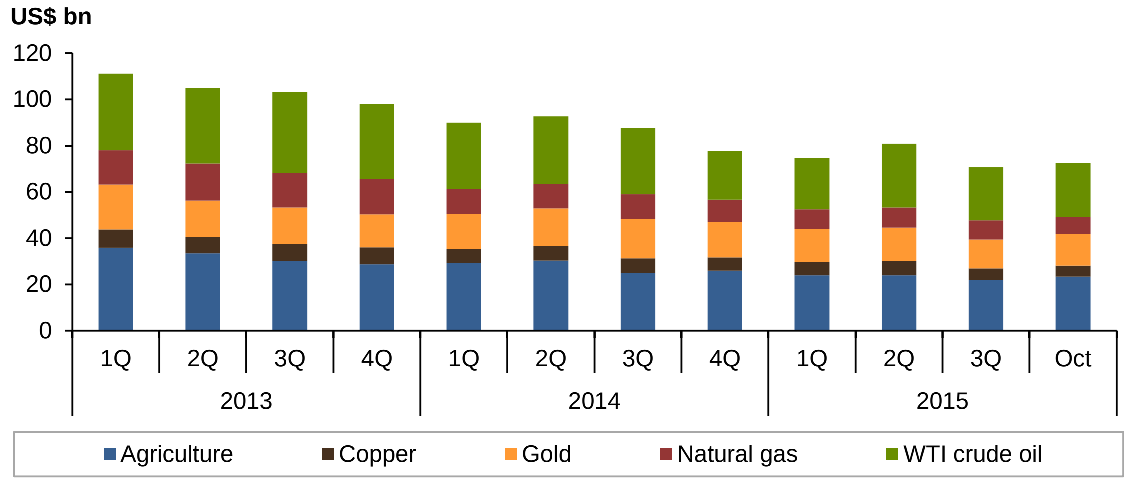
Table 2.2: CFTC data on non-commercial positions, '000 contracts

	Open interest		*Net length*			
	Oct 15	Nov 15	Oct 15	% OIV	Nov 15	% OIV
Crude oil	1,653	1,661	164	10	125	8
Natural gas	973	1,010	-215	-22	-207	-20
Agriculture	4,770	4,938	234	5	36	1
Precious metals	614	596	131	21	38	6
Copper	160	180	5	3	-20	-11
Livestock	499	514	43	9	20	4
Total	**8,668**	**8,898**	**362**	**26**	**-9**	**-13**

Source: US Commodity Futures Trading Commission.

The **precious metals' OIV** decreased by 2.9% m-o-m to 595,900 contracts in November. Money managers' net long positions decreased by 71% to 37,543 lots, with a large decrease of net length in gold on the expectation of higher interest rates in the US.

Graph 2.6: Inflow of investment into commodities, 2013-2015



Source: US Commodity Futures Trading Commission.

World Economy

Global growth remains unchanged at 3.1% for the current year and at 3.4% for 2016. The dynamic of lower-than-anticipated growth in the 3Q in some major emerging economies, as well as Japan, point to the downside risk to the forecast. The OECD forecast remains at 2.0% for 2015 and 2.1% for the coming year. The 2015 growth forecast for both India and Brazil has been revised down by 0.1 and 0.5 percentage points (pp), respectively. While the growth forecasts for China and Russia remain unchanged, the near-term developments in both economies will need close monitoring. Beside the many ongoing country-specific economic challenges, geopolitical issues and their potential spill-over into the real economy remain a concern. Also, central bank policies will continue to constitute an influential factor, amid lower global inflation. Most importantly, a decision by the Fed to hike interest rates has also become more likely recently.

Table 3.1: Economic growth rate and revision, 2015-2016, %

	World	OECD	US	Japan	Euro-zone	China	India	Brazil	Russia
2015*	**3.1**	**2.0**	**2.5**	**0.6**	**1.5**	**6.8**	**7.3**	**-2.7**	**-3.2**
Change from previous month	0.0	0.0	0.1	0.2	0.0	0.0	-0.1	-0.5	0.0
2016*	**3.4**	**2.1**	**2.5**	**1.2**	**1.5**	**6.4**	**7.6**	**-0.5**	**0.3**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast.*

OECD

OECD Americas

US

The latest upward revision in 3Q GDP growth has highlighted that the US economy continues to witness solid growth, while some forward-looking indicators point at challenges ahead, particularly in the industrial sector. In general, private household consumption is holding up well, also supported by low oil-product prices. The generally positive dynamic in the economy has again led to substantial improvements in November's labour market numbers, which are now an important factor for the Fed to consider when it decides on key interest rates at its upcoming meeting in December. Supported by healthy domestic demand, 3Q15 GDP numbers have been revised up from a seasonally adjusted annualised rate (SAAR) of 1.5% q-o-q to a SAAR of 2.1% q-o-q. While it is substantially higher than in the first release, the magnitude of the revision and the relative big swings in quarterly growth since last year highlight that the extent of the current economic improvements remains uncertain to some degree. It is clear that improvements are underway, but it seems that structural issues are still important aspects to consider. One important issue is that the industrial sector is continuing to decelerate considerably, while the current underlying growth momentum is largely supported by the services sector.

With labour market improvements now in place and expectations of a further recovery in the domestic market, it is increasingly likely that the Federal Open Market Committee (FOMC) will raise interest rates already in December – even more so as the international dimension may be less sensitive now, given that China's stock market turbulence and the surprise devaluation of the yuan may both have been overcome. India, which in 2013 had been widely affected by the taper-talks, is also doing much better.

The second release of the **3Q US GDP** figures provided a stronger-than-initially-estimated growth level of 2.1% q-o-q at a SAAR. While private household consumption was strong, it was mainly a decline in inventories and falling private investments, which were keeping GDP down. So, generally speaking, with solid momentum in the economy, it is expected that investments will rebound in the coming quarter and consumption will remain strong. Hence, growth in the coming quarter should again be higher and on a rebound. Personal consumption expenditures grew by 3.0% q-o-q, only slightly below the 2Q15 level of 3.6% q-o-q. Investments fell by only 0.3% q-o-q, much less than the -5.6% that were initially estimated. Also, the draw from inventories was much lower than initially estimated. While it was estimated in the advanced release to have negatively impacted GDP by 1.44 pp, it has been revised up to only 0.59 pp. However, it is important to note that in reference to the decline in investments in the energy sector, the negative dynamic has continued. Investments in mining, shafts and wells fell by 47.1% q-o-q at a SAAR in the 3Q15, after a decline of -68.0% q-o-q in the 2Q15.

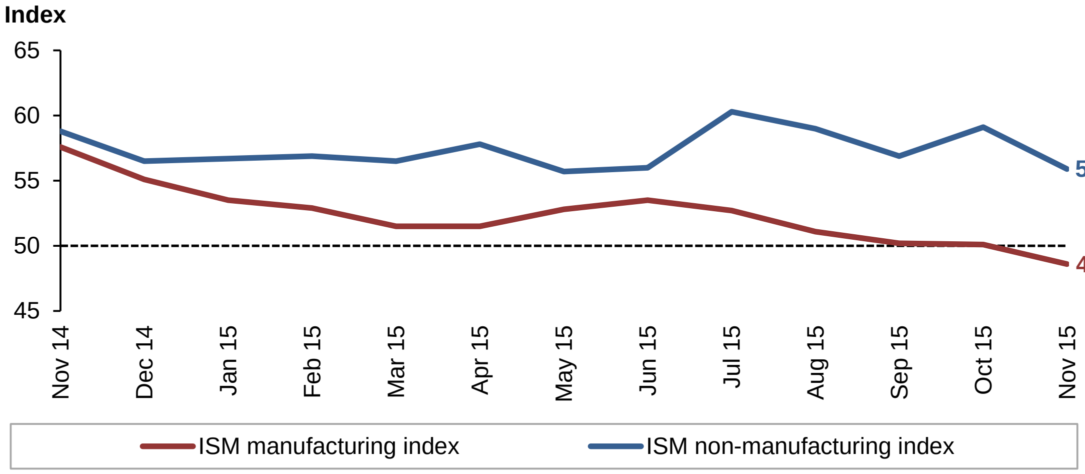
A major driver for the US economy is the continuously improving situation in the **labour market**. The unemployment rate remained at 5.0% in November for a second consecutive month, the lowest level since 2008. Non-farm payroll additions grew by a solid 211,000 in November, after increasing 298,000 in October. The share of long-term unemployed has declined again and reached the lowest level since March 2009 at 25.7%. The participation rate, however, remained at only 62.5% but 0.1 pp higher than in October.

While GDP seems to be well supported by the services sector, **industrial production** remains weak. It rose only by 0.3% y-o-y in October, lower again than the already weak September growth level of 0.7% y-o-y. The important forward-looking lead indicator of manufacturing orders declined again by 4.7% y-o-y. However, this is a slight improvement from the weak September and October numbers, which were both declining by about 6.8% y-o-y.

While the improvements in the labour market continue, **consumer confidence** fell again in November. The Conference Board's Consumer Confidence Index declined to 90.4 from 99.1 in October and 102.6 in September. On the consumption side, retail trade was also slightly weaker in October, when it grew by only 1.7% y-o-y, after 2.2% y-o-y in September.

Some weakening signs are also coming from the **Purchasing Manager's Index** (PMI) for the manufacturing sector, as provided by the Institute of Supply Management (ISM). The ISM declined below the growth-indicating level of 50 for the first time since November 2012 and stands now at only 48.6, after reaching 50.1 in October. This is indeed an area that will need close monitoring in the near term. The services sector index performed better, but then fell back to 55.9 in November from 59.1 in October.

Graph 3.1: Manufacturing and non-manufacturing ISM indices



Sources: Institute for Supply Management and Haver Analytics.

The US economy seems to have expanded at a healthy level. Supported by higher-than-expected 3Q15 growth, the 2015 **GDP growth level** has been lifted to 2.5% from 2.4%. Risks remain and the weakening signals from the industrial sector point at some fragility in the economy, which is becoming more dependent on the improvements of the services sector. With this in mind, the growth forecast for 2016 remains at 2.6%, the same level as in the previous month.

Canada

After considerable issues in the first half of the year, the Canadian economy seems to have improved again. 3Q15 GDP growth stood at 0.6% q-o-q at a SAAR. This comes after two consecutive quarters of declining GDP of -0.2% q-o-q in the 1Q15 and a decline of 0.1% q-o-q SAAR in the 2Q15. Industrial production has turned negative again, after growth of 0.6% y-o-y in August. It fell again by 2.5% y-o-y in September. This weak trend is also reflected in the latest PMI for manufacturing, which in November stood at 48.6, after 48.0 in October, again clearly below the growth-indicating level of 50. In anticipation of some continued improvement in the industrial sector, however, and particularly given the positive number in the 3Q, the 2015 GDP growth level has been lifted slightly to 1.1%, compared to 0.8% in the previous month. The 2016 forecast remains unchanged at 1.9%.

OECD Asia-Pacific

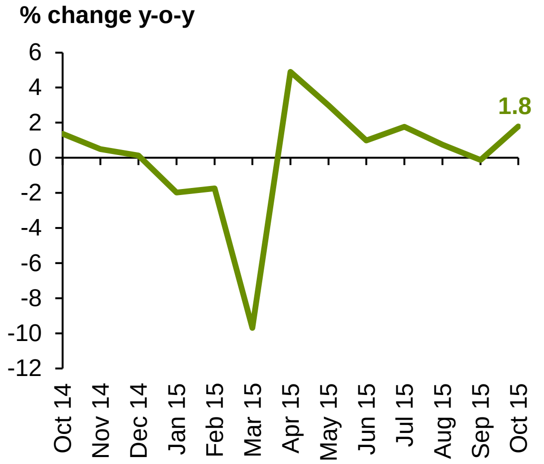
Japan

While continuing with its government-led support for the economy, the latest slowing developments highlight the ongoing fragility of the Japanese economy. Domestic demand is again weakening amid low inflation and declining real income. Exports are declining again and while the government has announced further stimulus measures, it remains to be seen how they will implemented, given the very high debt level the central government is dealing with. Mainly the domestic services sector is in an upswing and is supporting the economy. Given the extremely low unemployment rate, it may be expected that wage increases could soon be necessary, which again could filter through via rising consumption. Also, growth in China is expected to remain low and this may impact Japan's exports in the near future.

GDP growth in the 3Q has been announced to have declined by 0.8% q-o-q at a SAAR. This comes now after a decline of 0.7% q-o-q in the second quarter. While the first quarter rose by an impressive 4.6% q-o-q, the recent decline highlights the ongoing fragility in the economy. Importantly, **low inflation**, still constitutes a drag on domestic consumption. Inflation stood at 0.3% y-o-y in October, after 0% y-o-y in September. While the deflationary pressures from energy, food and also from the situation in China are obvious challenges, the figures (without energy and food prices) remain low – at only 0.8% y-o-y in October, lower than the September level of 0.9% y-o-y. Amid low inflation, real income is declining further. Average monthly earnings fell by 0.5% y-o-y in October, compared to September's level of -1.2%. This is the tenth consecutive month of decline. However, given the very tight labour market with an unemployment rate of only 3.1% in October, the lowest in 20 years, the expectation remains that this may soon turn positive.

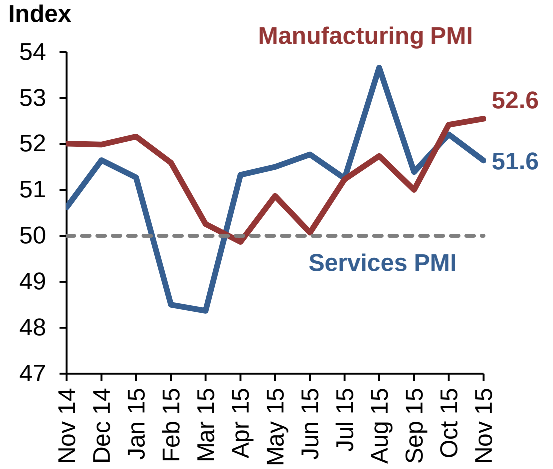
Japanese exports slowed down again significantly. They now even declined in October by 2.2% y-o-y on a non-seasonally adjusted base. This comes after an already low growth level in September of 0.6% y-o-y. **Industrial production** remained negative for the third consecutive month in October. It fell by -1.4% y-o-y on a non-seasonally adjusted base. **Domestic demand** has been weak in the past months but turned positive to a considerable level of 1.8% y-o-y in October, after a decline of 0.1% y-o-y in September.

Graph 3.2: Japanese retail trade



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

Graph 3.3: Japanese PMI indices



Sources: Markit, Japan Materials Management Association and Haver Analytics.

Positively, amid clear signals in the past months of some slow-down in the Japanese economy, the **latest PMI numbers**, as provided by Markit, point at a continued recovery in manufacturing activity. October's manufacturing PMI rose to 52.6, compared to 52.4 in November. However, the important services sector momentum is slightly decelerating, according to the PMI. It retraced to 51.6 in November from 52.2 in October.

Given the latest decline in the 2Q and the 3Q, the 2015 GDP growth forecast has been revised down to 0.6% from 0.8% in the previous month. While some upside from rising wages may support the economy, this remains to be seen. By anticipating some modest improvements in the coming year, the **GDP growth estimate** for 2016 remains unchanged at 1.2%.

South Korea

The economic performance in South Korea seems to have again gained traction. The GDP for the 3Q15 stood at 2.7% y-o-y, better than in the first half, when it grew by 2.3% on average, according to the latest revision by the statistical office. Industrial production rose by 2.4% y-o-y in October, compared to 4.5% y-o-y in September. Exports turned slightly positive in November at 0.2% y-o-y, after a decline of 9.3% y-o-y in October. The latest PMI numbers for manufacturing are still mirroring a weak situation. The November PMI stood at the same level as in October at 49.1. All indicators of the past months were clearly below the growth-indicating level of 50. As some signs of improving domestic demand become apparent, the GDP growth forecast has been lifted for the current year to 2.5%, from 2.3% in the previous month. The GDP growth for 2016 remains unchanged at 2.7%.

OECD Europe

Euro-zone

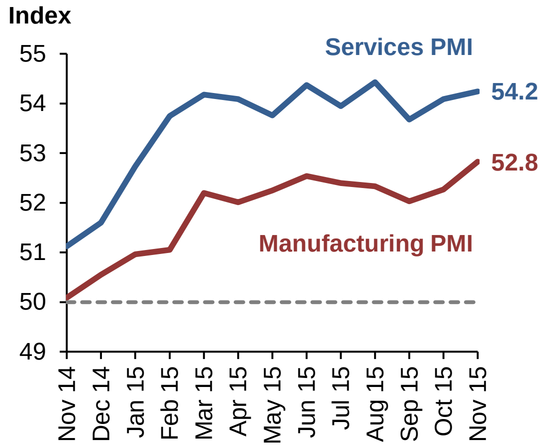
The situation in the Euro-zone continues improving and with the latest round of additional monetary stimulus by the European Central Bank (ECB), the development seems to be well supported. Positively, this improving economic dynamic is not only being seen in the major economies but also in the smaller peripheral countries, as well as in the recovering Italy and Spain, the third and fourth largest economies of the Euro-zone. As they are relatively broad-based, improvements have become visible domestically. Exports are also recovering, amid some weakness of the euro, particularly compared to the US dollar. Most indicators are pointing at a continuation of the current positive trend; but numerous challenges remain. These include the situation in Greece, which may remain challenging, and the soft balance sheet situation of many large banks, which will continue to keep debt-financed growth from rising quickly. Also, high unemployment, while improving, is still adding some fragility to the economic development of the Euro-zone.

The positive underlying momentum so far has been reflected in the latest **industrial production** numbers. While they were slightly lower in October at a growth level of 1.2% y-o-y, they continued the positive trend. Moreover, **retail sales** performed very well, with a yearly growth rate of 2.4% in October, after 2.9% y-o-y in September. Challenges in the labour market, however, remain. The unemployment rate retraced to 10.7% in October, from 10.8% in September and August, but is still at a high level.

The **ECB** announced an increase of its monetary stimulus. It will now extend the current programme of quantitative easing to March 2017 and, if necessary, beyond. Moreover, it has lowered the rate on deposits of banks at the ECB from -0.2% to -0.3%. A key concern of the central bank is the ongoing low **inflation**, which remained at 0.1% y-o-y in November, the same level as in October. Core inflation – excluding energy and food – remained relatively healthier at 0.9% y-o-y in November, slightly lower than in October, when it reached 1.0% y-o-y. Moreover, the stimulus of the ECB has been positive for credit supply. After a temporary slowdown in September, loan growth in October increased again considerably by 1.6% y-o-y, reaching the highest level since November 2011.

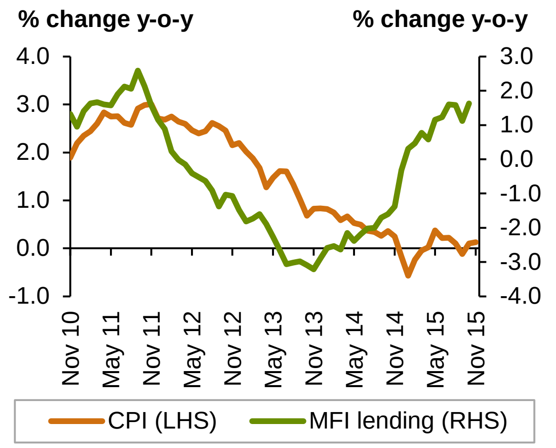
The improvements are also reflected in the latest **PMI indicators**. The manufacturing PMI for November rose to a healthy 52.8 from 52.3 in October and 52.0 in September. The services PMI rose to 54.2 in November, after 54.1 in October.

Graph 3.4: Euro-zone PMI indices



Sources: Markit and Haver Analytics.

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



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

While the recovery in the Euro-zone continues slowly, uncertainties remain. There might be some upside to the current forecast. However, it remains to be seen whether the ongoing positive developments will continue and the mentioned risks will not materialise. Taking all this into consideration, the forecast remains at 1.5% for both 2015 and 2016.

UK

Output data in the UK remains healthy. Industrial production increased by 1.1% y-o-y in September, after 1.8% y-o-y in August. Also, the headline series of retail sales increased by a strong 3.9% y-o-y in October, after an exceptional 6.1% y-o-y in September. The latest PMI numbers for the manufacturing sector remain at a high level but fell to 52.7 in November, after 55.2 in October. The services sector index increased to 55.9 in November, after an already high level of 54.9 in October. In general, GDP growth this year seems to be well supported. It is forecast – unchanged from last month – at 2.5% for both 2015 and 2016.

Emerging and Developing Economies

In Brazil, GDP contracted for the sixth consecutive quarter, shrinking by 4.5% in 3Q15 y-o-y. This signalled the sharpest drop ever in the economy. Increasing unemployment, coupled with rising inflation and soaring borrowing costs, and an accompanying drop in real income, together with public governance issues, have all hit the economy badly this year, particularly via the channels of lower household consumption and declining investment. GDP is forecast to contract by 2.7% in 2015 and by 0.5% in 2016.

In **Russia**, the GDP flash estimate for 3Q15 pointed to a contraction of 4.1% y-o-y, following a decline of 4.6% and 1.9% in the previous two quarters, respectively. Inflation held somewhat steady, dropping to 15.6% y-o-y in October from 15.7% in the previous month, while the unemployment rate increased to 5.5% in October, up from 5.2% a month earlier. Russia's GDP is expected to contract 3.2% in 2015, before posting subdued growth of 0.3% in 2016.

India's GDP growth accelerated to 7.4% y-o-y in 3Q15 from 7.0% in 2Q15 and compared to 8.4% in the same quarter last year. Improving investment demand and manufacturing activity boosted India's real GDP growth y-o-y during the July–

September quarter, the second quarter of the fiscal year 2015. This was up from 7.0% y-o-y in the first fiscal quarter. November's PMI data pointed to tepid manufacturing growth across India, with gloomy domestic demand resulting in the weakest expansion in production in 25 months. Signs of the sector slowing have been prevalent, as the growth of both new orders and output eased in each of the past four months.

In **China**, industrial profits dropped 2.0% y-o-y in the first 10 months of the year, compared to the 1.7% y-o-y decline in the first nine months of the year. In terms of monthly figures, total industrial profits fell 4.6% y-o-y in October, compared to a 0.1% y-o-y decline in September. The National Bureau of Statistics (NBS) highlighted that compared to the past few months, fluctuations in corporate profits have arisen due to a number of special factors, including the volatility of investment returns, foreign exchange losses and changes in corporate tax calculation due to accounting changes at some oil companies. Manufacturing output grew at a slower pace, new orders slipped into contraction and new export orders contracted at a faster pace. Input prices contracted at their fastest pace since April 2013.

Table 3.2: Summary of macroeconomic performance of BRIC countries

	GDP growth rate		Consumer price index, % change y-o-y		Current account balance, US$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2015*	2016*	2015	2016	2015	2016	2015	2016	2015	2016
Brazil	-2.7	-0.5	8.9	6.7	-70.1	-49.2	-9.5	-7.5	70.6	75.2
Russia	-3.2	0.3	15.4	8.2	65.1	71.6	-3.5	-3	13.7	16.1
India	7.3	7.6	5.6	5.9	-30.5	-38.5	-4.0	-3.7	49.0	48.1
China	6.8	6.4	1.6	2.3	410.9	361.0	-2.5	-2.8	16.7	18.5

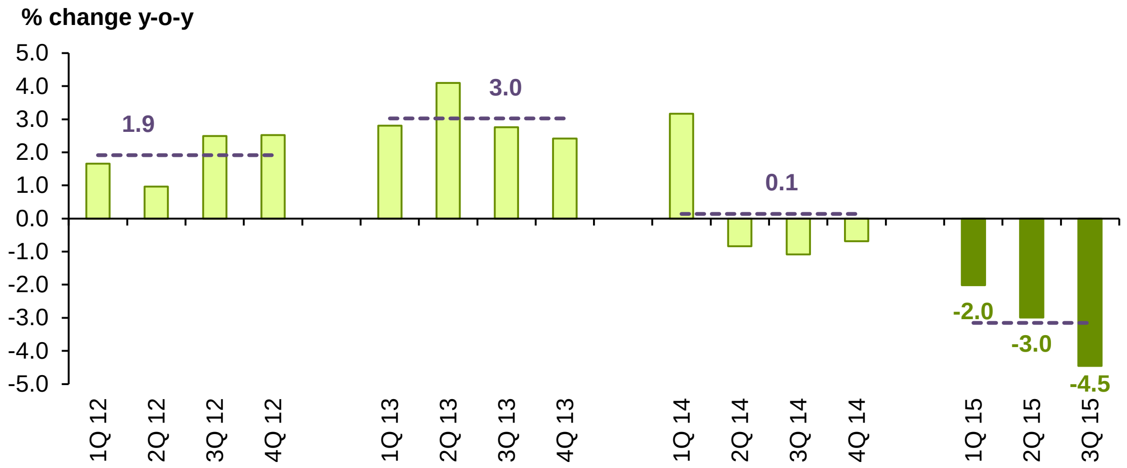
Sources: OPEC Secretariat, Consensus Economics, Economic Intelligence Unit, Financial Times and Oxford.

**Forecast.*

Brazil

GDP contracted for the sixth consecutive quarter in 3Q15, falling by 4.5% y-o-y, signalling the sharpest shrinkage ever in the economy. **Private consumption**, **government expenditure** and **Gross Fixed Capital Formation** (**GFCF)** all shrunk at a sharper pace, registering drops of 4.5%, 0.43% and 15.0%, respectively. Exports grew by their slowest rate this year in 3Q15 at 1.1% y-o-y. Imports on the other hand, declined 20% y-o-y in the same period.

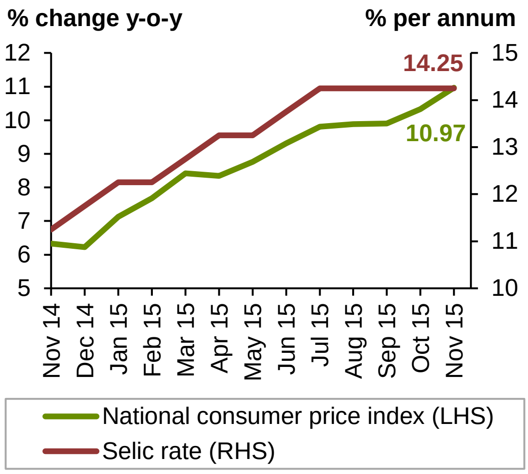
Graph 3.6: Brazilian quarterly GDP growth



Sources: Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

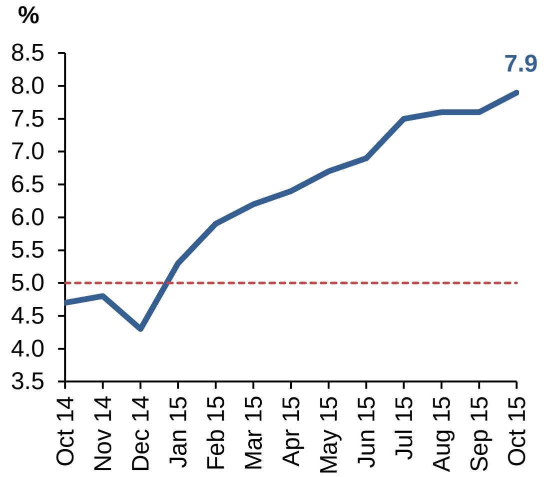
The central bank of Brazil kept its benchmark **interest rate** unchanged in November at 14.25%, the highest level in nine years. With **inflation** reaching its highest level since December 2003, registering 10.3% y-o-y in October, the monetary tightening cycle that started in October 2014 has met with little success in preventing fast growth in consumer prices amid ongoing economic shrinkage. The inflation rate of 10.3% is far above the upper limit of 6.5% set by the central bank. The real **exchange rate** versus the dollar improved in November, appreciating by 2.7% m-o-m. The **unemployment rate** in October increased to 7.9% from 7.6% in the previous month. The latest reading is the highest since August 2009.

Graph 3.7: Brazilian inflation vs. Interest rate



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

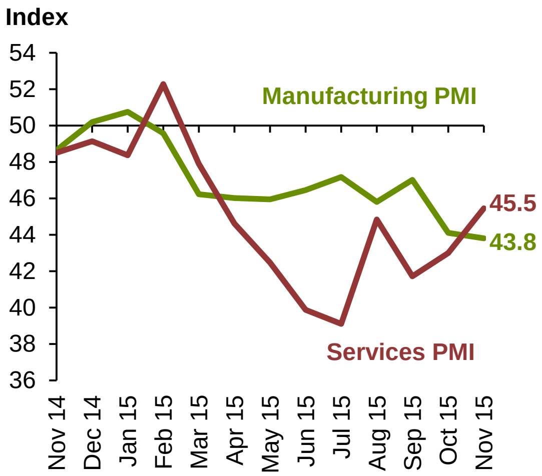
Graph 3.8: Brazilian unemployment rate



Sources: Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

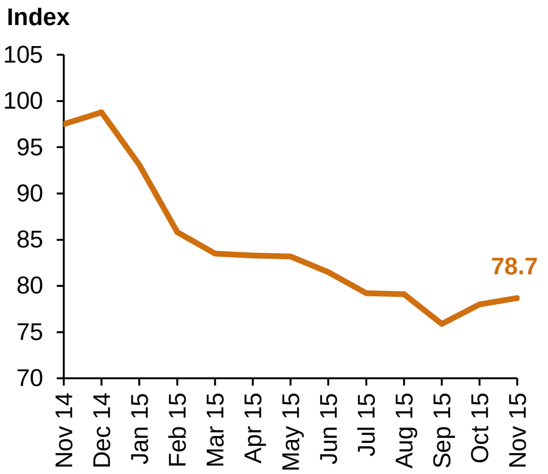
The **manufacturing sector** remained in recession last month with its respective PMI reaching an 80-month low of 43.8 in November compared to October's 44.1. The survey showed production contracting at a steep rate amid a sharp drop in new business. Workforce numbers also fell at their sharpest rate since April 2009. The **consumer confidence index** posted its second consecutive increase in November, though still around a record-low reading. The index registered 78.7 last month, up from 78.0 in October.

Graph 3.9: Brazilian manufacturing PMI



Sources: HSBC, Markit and Haver Analytics.

Graph 3.10: Brazilian consumer confidence index, NSA



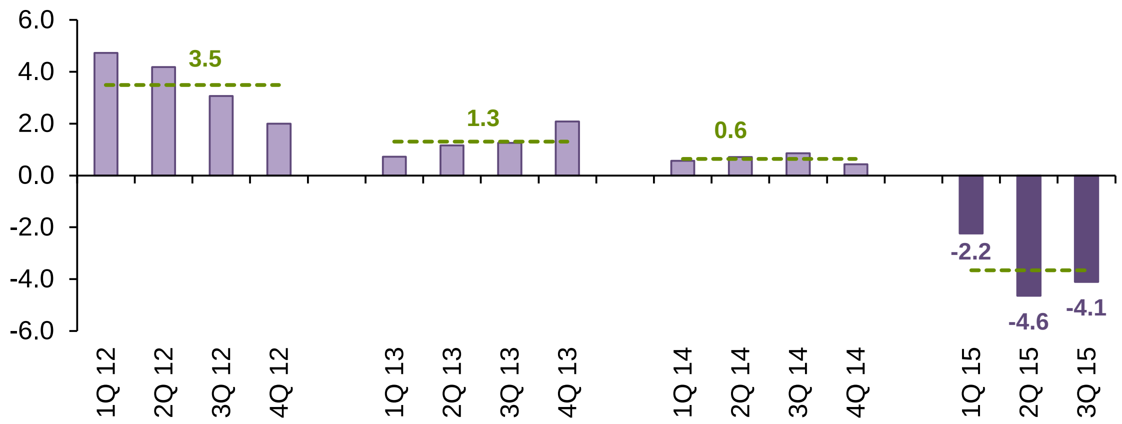
Sources: Fundação Getúlio Vargas and Haver Analytics.

Increasing unemployment with rising inflation and soaring borrowing costs, and an accompanying drop in real income together with public governance issues, have all hit the economy badly this year, primarily via the channels of lower household consumption and declining investment. GDP is thus forecast to contract by 2.7% in 2015 and by 0.5% in 2016.

Russia

The **GDP** flash estimate for 3Q15 pointed to a contraction of 4.1% y-o-y, following the decline of 4.6% and 1.9% in the previous two quarters, respectively. No disaggregate numbers are available yet.

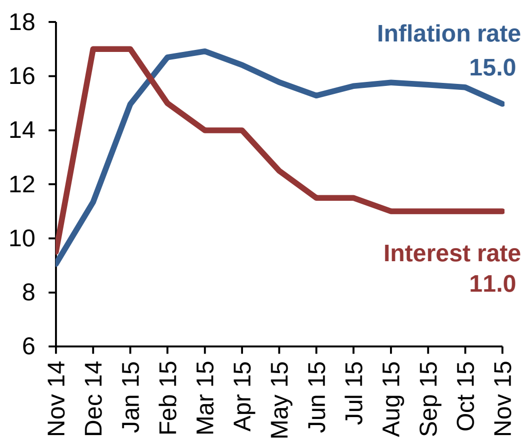
Graph 3.11: Russian quarterly GDP growth



Sources: State Committee of the Russian Federation and Haver Analytics.

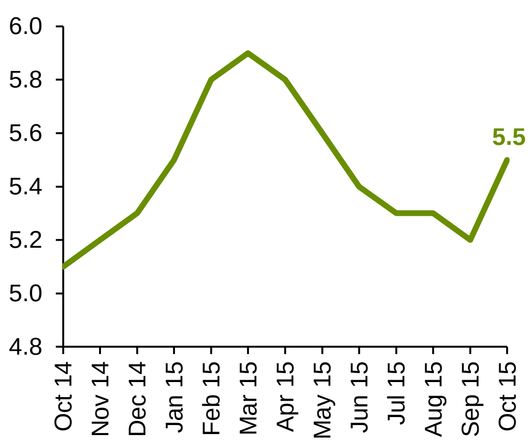
The central bank kept its benchmark interest rate unchanged in November at 11.0%. The interest rate stood at 17.0% at the beginning of the year. The ruble depreciated 3.1% m-o-m in November, following a 5.5% appreciation in October. Inflation was somewhat stable, dropping to 15.6% y-o-y in October from 15.7% in the previous month, while the unemployment rate increased to 5.5% in October, up from 5.2% a month earlier.

Graph 3.12: Russian inflation vs. Interest rate



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

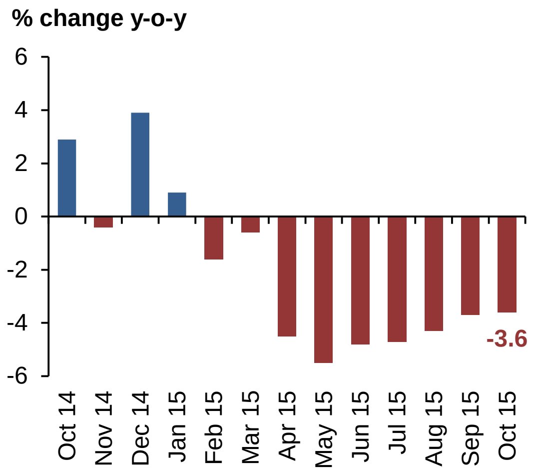
Graph 3.13: Russian unemployment rate



Sources: Central Bank od the Russian Federation and Haver Analytics.

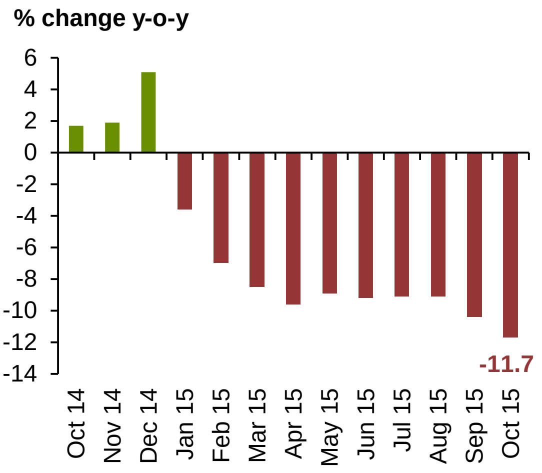
Operating conditions in the **manufacturing sector** were little changed in November with the manufacturing PMI posting 50.1, marginally down from October's 50.2. The survey revealed that incoming new business rose in November by the highest rate in a year. This improvement was due to the increase in orders from the domestic market, while new export orders declined by their sharpest pace in seven months. Production also increased at its fastest pace in one year with some firms linking this increase to higher activity in the agricultural sector. Employment, however, increased in November for the 29th month in a row on the back of falling backlogs. In line with the manufacturing PMI readings, **industrial production** in October 2015 was 3.6% lower compared with 2014, while **retail sales** also declined for the tenth month in a row, dropping 11.7% y-o-y in October from 10.4% a month earlier.

Graph 3.14: Russian industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3.15: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

Russia's GDP is expected to contract 3.2% in 2015 before posting a subdued rate of growth of 0.3% in 2016.

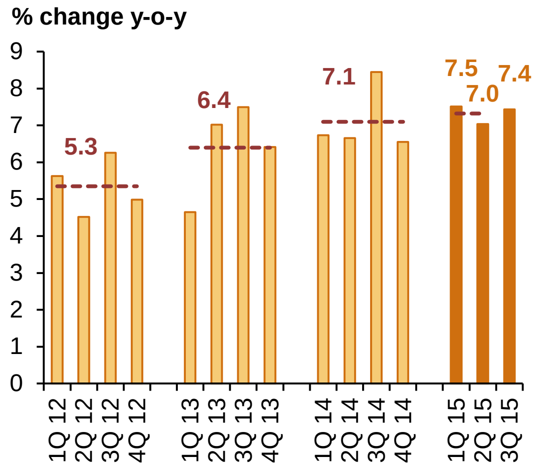
India

India's **GDP growth** accelerated to 7.4% y-o-y in 3Q15 from 7.0% in 2Q15 and compared to 8.4% in the same quarter last year. Improving investment demand and manufacturing activity boosted India's real GDP growth y-o-y during the second quarter of fiscal year 2015, July–September, up from 7.0% y-o-y in the first fiscal quarter. The new GDP figures accordingly prompted the Reserve Bank of India (RBI) to keep its monetary policy unchanged. On the negative side, weakness in external demand and weak rural growth will likely further limit the recovery this year. Fixed investment, albeit set to benefit from public spending, may also face a crunch given that private investment continues to struggle.

On the **demand side**, both exports and imports showed yet another quarter of contraction, in both nominal and real terms. Real exports have remained negative for five consecutive quarters, suggesting that the current episode of weakness in exports is more severe than during the global financial crisis of 2008–09. Its geographic spread is also much wider, with weak demand registered across nearly all of India's export markets, including Northeast and Southeast Asia, South Asia and the Middle East, in addition to the US and EU markets. India's monthly trade deficit narrowed further in October to $9.8 billion from $10.5 billion in September, which was below expectations.

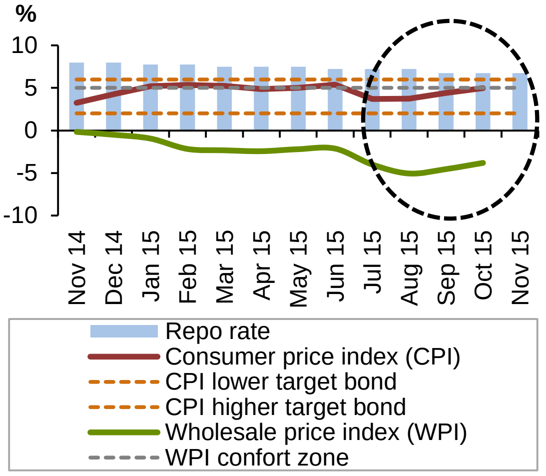
On the **supply side**, performance has improved, compared with the previous quarter. The most positive development was the strong performance of the manufacturing sector, which showed the highest quarterly growth in three years. This is consistent with the monthly manufacturing output data for the July–September quarter but does not represent the most recent trends, which seem to point to another loss of momentum. Recent GDP figures are unlikely to change the central bank's strategy. With growth remaining in line with the RBI's forecast, and with inflation also following the RBI's projected path, the central bank left its monetary policy unchanged during its most recent meeting. Notably, in its policy statement, the RBI mentioned that less than half of the cumulative policy repo rate reduction of 125 basis points in 2015 has been transmitted by banks and that even though space for further policy easing remains, it would instead work on addressing the transmission mechanisms for banks before further cutting rates.

Graph 3.16: Indian GDP growth, SAAR



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

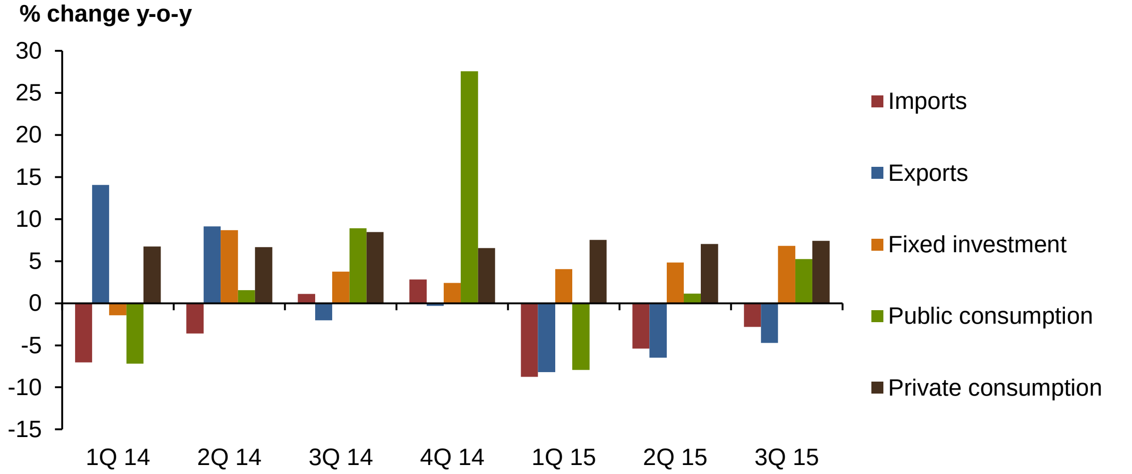
Graph 3.17: Indian inflation vs. Repo rate



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

The **wholesale price index** (WPI) in India registered its first sequential increase in five months in October, rising 0.6% m-o-m on a seasonally adjusted basis. This was underpinned by firmer food and oil prices. As anticipated, unfavourable base effects drove India's retail inflation further towards the central bank's January 2016 target of 6%. The largest increase was observed in food prices, with food inflation accelerating by a full percentage point in y-o-y to 5.3%. Fuel and transportation components, all strongly driven by oil prices, also proved more resilient in October, with transport deflation narrowing to 0.4% y-o-y, and with fuel and light inflation remaining unchanged at 5.3% y-o-y. On a m-o-m basis, CPI remained stable, particularly given typically stronger pressures on retail prices during the Indian autumnal holiday season. Even at a four-month high, India's CPI inflation is nearly half the average rate observed in the past five years. Also, it seems the October increase in inflation and the November excise-duty increase have both reaffirmed expectations that the RBI may now refrain from further actions for some time.

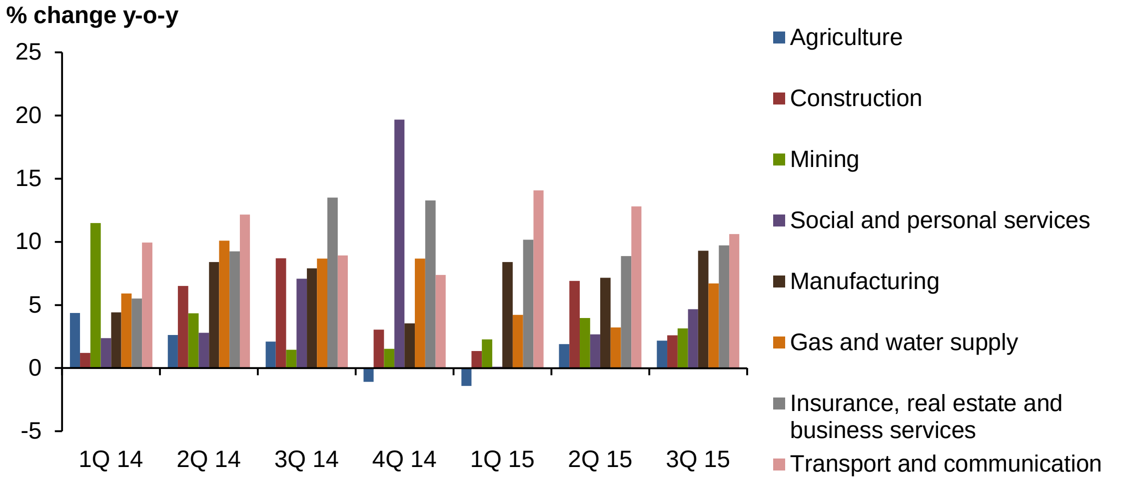
Graph 3.18: Indian GDP growth by demand side



Sources: Central Statistics Office and Haver Analytics.

Import weakness (excluding gold) rather than a pick-up in exports led the narrowing trade balance. However, **exports** were not as weak as the 17.5% y-o-y contraction in October would suggest. As indicated before, much of the drop in export values is a result of lower oil and commodity prices. Gold imports were valued at $2 billion in October, even lower than what the market expected. Imports (excluding oil and gold) declined 0.9% m-o-m on a seasonally adjusted basis, after a steep 4.4% increase in September. More generally, however, imports (excluding oil and gold) have been firming over the last few months, consistent with a cyclical recovery in consumption on the back of India's sharp oil price driven terms-of-trade increase.

Graph 3.19: Indian GDP growth by supply side



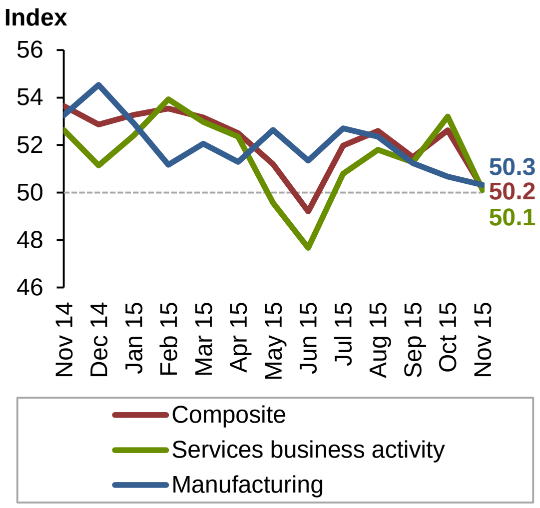
Sources: Central Statistics Office and Haver Analytics.

Industrial production growth averaged 4.7% y-o-y in 3Q15 compared with 3.1% y-o-y in 2Q15. Within this, manufacturing output growth accelerated to 4.5% y-o-y from 3.6% in 2Q15, while mining sector growth picked up to 2.9% from 0.2%. It seems service sector output reflects the strength in both financial and trade-related services. Aggregate real deposits and credit growth registered 14.8% y-o-y in 3Q15 accelerating from 12% in 2Q15. These should support a pick-up in financial services activity. A key positive message from the GDP data is that it indicates improving momentum in fixed investment, accompanied by sustained manufacturing growth. However, muted private consumption growth and persistent weakness in exports have kept overall aggregate demand below its potential, while risks to any further recovery remain.

November's **PMI data** points to tepid manufacturing growth across India, with gloomy domestic demand resulting in the weakest expansion in production in 25 months. Signs of the sector slowing have been building up, as growth in both new orders and output have eased in each of the past four months. This disappointing news was accompanied by a stagnant labour market in the sector. More precisely, the intermediate goods sub-sector has driven the deceleration in growth. In addition, new business inflows and output in this category fell for the first time since December 2013. While investment in producer goods saw a rebound in November, the consumer goods sector continued to be a bright spot.

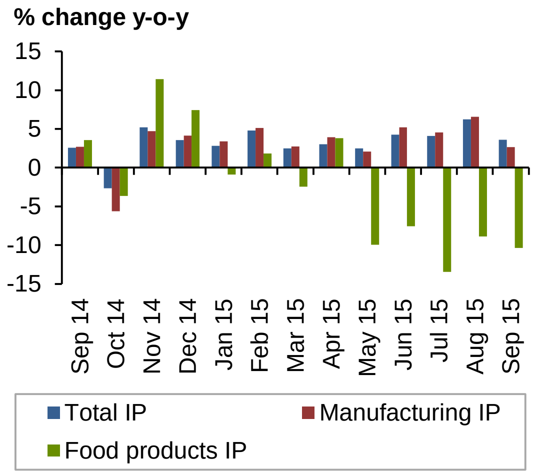
Weak inflationary pressures together with a slowdown in growth support further **repo rate cuts**. Falling for the fourth consecutive survey period to a 25-month low of 50.3 in November, compared with an October reading of 50.7, the seasonally adjusted PMI highlighted a marginal improvement in business conditions across the sector. Sub-sector data highlighted consumer goods as the best performing category, while operating conditions at intermediate goods companies deteriorated for the first time since December 2013.

Graph 3.20: Indian PMIs



Sources: HSBC, Markit and Haver Analytics.

Graph 3.21: Indian industrial production breakdown



Sources: Central Statistical Organisation of India and Haver Analytics.

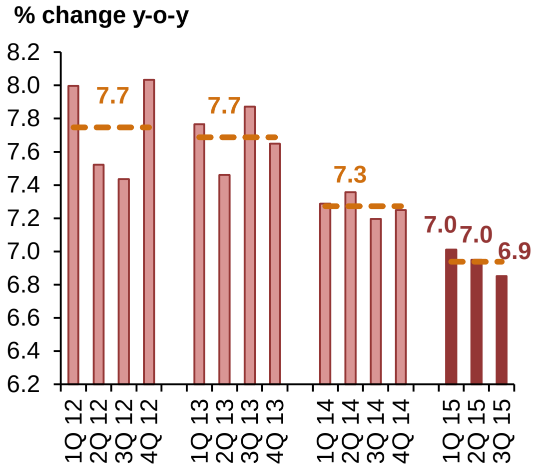
The **GDP growth expectation** for 2015 was adjusted from 7.4% to 7.3% and kept unchanged at 7.6% for 2016.

China

In China, **industrial profits** dropped 2.0% y-o-y in the first 10 months of the year, compared to the 1.7% y-o-y decline in the first nine months of the year. For the monthly figures, total industrial profits fell 4.6% y-o-y in October compared to the 0.1% y-o-y decline in September. The NBS highlighted that compared to the past few months, fluctuations in corporate profits have arisen from a number of special factors. These include the volatility of investment returns (related to equity market turbulence), foreign exchange losses (related to currency fluctuations) and changes in corporate tax calculations (due to accounting changes at some oil companies). There is no indication of a reversal in changes within the industry during October or November, and thus an outsized share of growth coming from services is likely to continue through year-end. One risk factor not covered in the sequential sentiments survey is that brokerages' y-o-y comparisons will worsen considerably for the next six months.

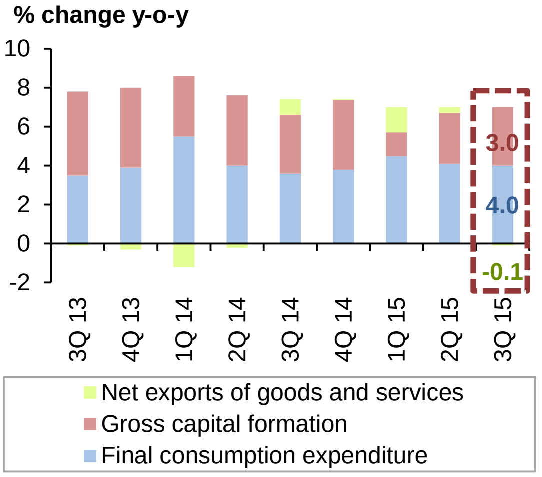
According to NBS data, **housing market activity** remained on the strong side in October. Home sales increased 5.9% y-o-y, slipping from 8.8% growth in September. In terms of value, home sales rose 16.1% y-o-y, after reaching 15.7% in September. Moreover, land sale revenue came in at 260.6 billion yuan, declining 3.1% y-o-y, down from 283.8 billion yuan and 3.5% y-o-y growth in September. In spite of the strong housing market, real estate investments fell for the third consecutive month in October, declining 2.8% y-o-y. New home starts fell 24.4% y-o-y, after 16.7% growth in September, although the drop was largely due to the base effect from 38.6% y-o-y starts growth in October 2014.

Graph 3.22: Chinese GDP growth rate, SAAR



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

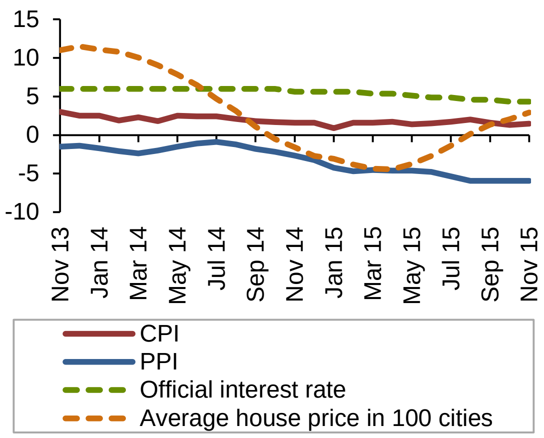
Graph 3.23: Contributions to Chinese GDP growth



Sources: China National Bureau of Statistics and Haver Analytics.

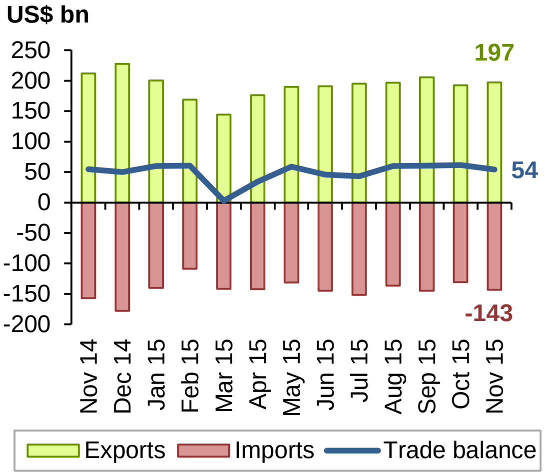
Lingering weakness in **industrial corporate performance** reflects the current difficulties facing the overall Chinese economy. Slowing corporate sales revenue, slowing nominal GDP and manufacturing growth, elevated corporate debt – and, hence, financing costs – ongoing restructuring pressure in manufacturing sectors showing overcapacity and related PPI deflation pressure continue to restrain corporate profits – and, hence, the ability and willingness of corporations to invest. While manufacturing investment growth picked up somewhat to 8.3% y-o-y in October from 4.6% in September, manufacturing investment growth very likely will remain sluggish and in the single digits in 2016.

Graph 3.24: Chinese consumer price index (CPI) vs. producer price index (PPI)



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

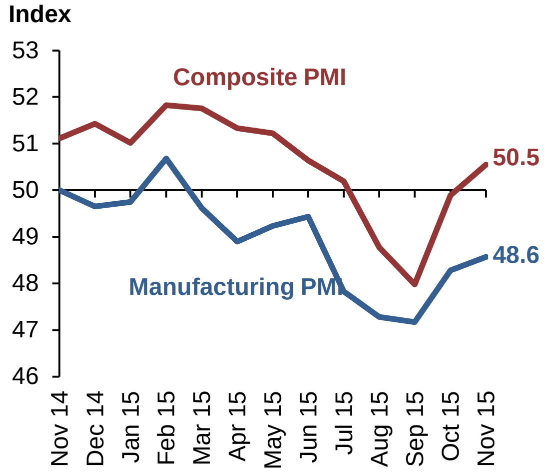
Graph 3.25: Chinese trade balance



Sources: China Customs and Haver Analytics.

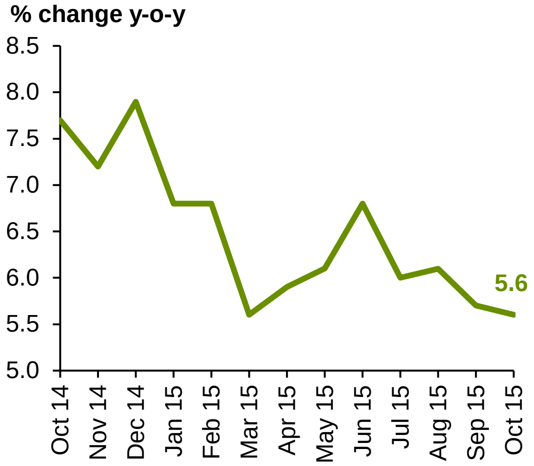
The IMF published a press release confirming that the **Chinese yuan** will be included in the **special drawing rights** (SDR) basket starting on 1 October 2016. The weighting of the Chinese yuan in the basket will be 10.92%, higher than the weights for the Japanese yen or the British pound, according to an initial fact sheet published by the IMF. Currently, there are about $282.5 billion SDR-allocated, indicating that the Chinese yuan's 10.92% weight amounts to the equivalent of about $30.8 billion in additional demand for the Chinese yuan as a direct outcome. This is a rather trivial figure compared with annual trade and investment flows for China. Nevertheless, inclusion in the SDR should be viewed as an important milestone in China's financial sector reform and Chinese yuan internationalisation, rather than a predictor of its imminent rise.

Graph 3.26: Chinese PMIs



Sources: HSBC, Markit and Haver Analytics.

Graph 3.27: Chinese industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

China's official **PMI** contracted at a faster pace in November. Manufacturing output grew at a slower pace, new orders slipped into contraction and new export orders contracted at a faster pace. Input prices contracted at their fastest pace since April 2013. Official non-manufacturing PMI expanded at a faster rate, although orders expanded at a slower rate and new export orders continued to contract. Chinese manufacturing firms signalled that output stabilised in November, thereby ending a six-month sequence of reduction. Meanwhile, total new work continued to decline and at a similarly modest rate to that seen in October, despite a pick-up in new export business growth. Relatively soft overall client demand led firms to scale back their purchasing activity again in November, while inventories also declined. Deflationary pressures intensified over the month, as highlighted by sharper decreases in both input costs and output prices. The PMI for November continued to show signs of recovery, reaching 48.6, compared to October's 48.3. This indicates that pressure on economic growth has eased and fiscal policy has had a strong effect. Overall, the economy is still on track to become more stable.

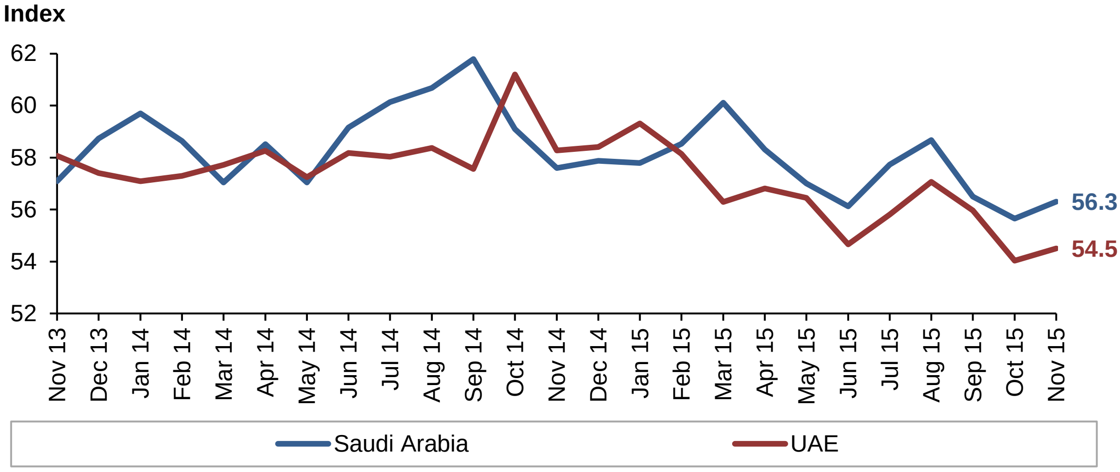
The **Chinese GDP growth** expectation remains unchanged at 6.8% this year and 6.4% for 2016.

OPEC Member Countries

The non-oil producing private sector in **Saudi Arabia** witnessed an improvement in growth last month with the PMI increasing to 56.3 in November, up from 55.7 in October. This was largely supported by a sharp rise in new business, which reached a three-month high due to a notable increase in export orders. This, in turn, contributed to a quick increase in output. As a reflection of robust overall business conditions, employment increased in November for the 20th month in a row.

In the **United Arab Emirates**, growth in the non-oil private sector gained more strength last month. The PMI increased from 54.0 in October to 54.5 in November on quicker growth in economic activities and given the solid rate of expansion in new business.

Graph 3.28: Saudi Arabia and UAE: PMIs

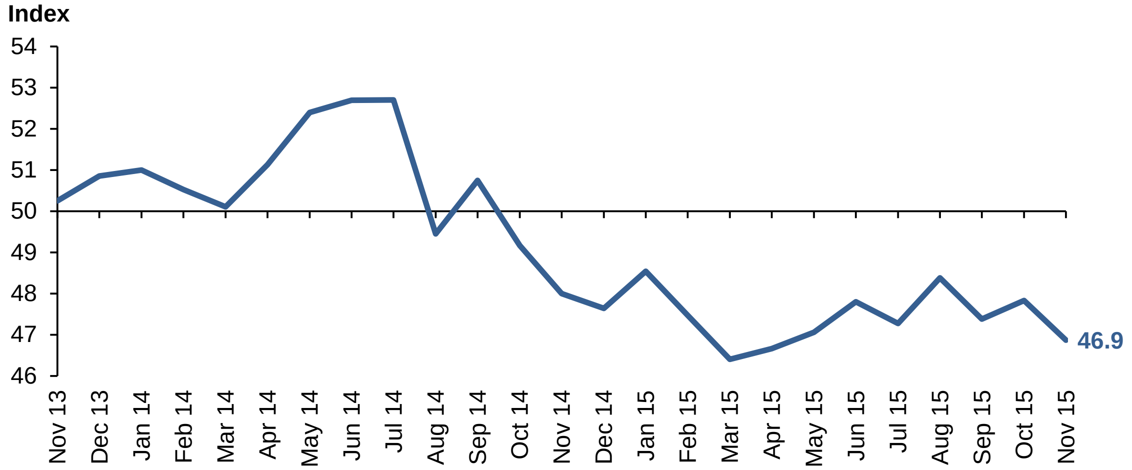


Sources: SAAB, HSBC, Markit and Haver Analytics.

Other Asia

In **Indonesia**, the central bank kept its benchmark interest rate on hold at 7.5% in November and decreased the reserve requirement by 50 bp to 7.5% effective from the beginning of December. The manufacturing sector decelerated further in November, with its respective PMI falling to a seven-month low reading of 46.9 from October's 47.8.

Graph 3.29: Indonesian manufacturing PMI



Sources: HSBC, Markit and Haver Analytics.

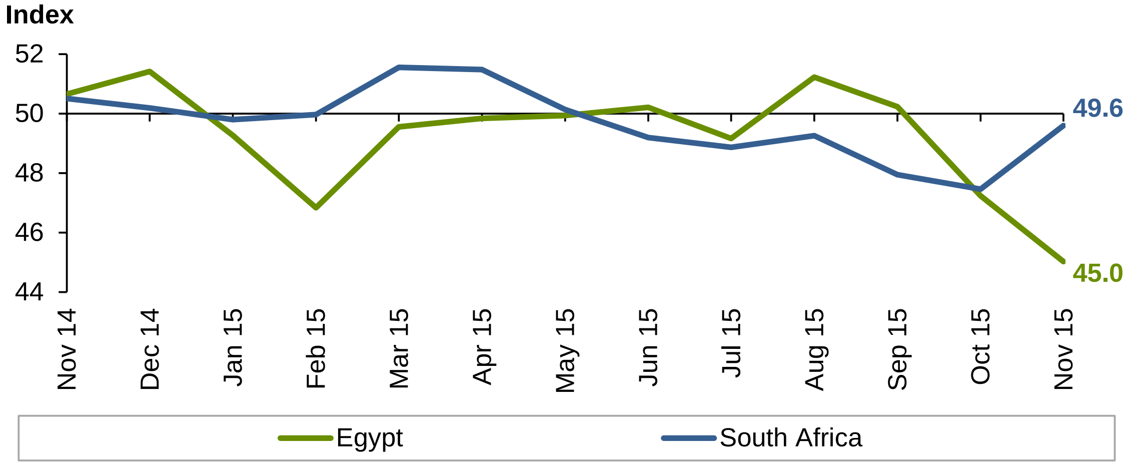
The economy of **Malaysia** grew 4.7% y-o-y in 3Q15, its slowest pace of growth since 2Q13. Private consumption grew by its slowest rate since 4Q09 at 4.1% y-o-y. While GFCF markedly accelerated from a 0.5% y-o-y increase in 2Q15 to 4.3% in 3Q15. Net exports were also supportive, growing 3.3% from a decline of 10.4% and 10.2% in the previous two quarters, respectively.

In the **Philippines**, GDP posted growth of 6.0% y-o-y in 3Q15, signalling the highest growth this year after expanding 5.0% and 5.8% in the first two quarters, respectively. Private consumption expenditure expanded by the fastest pace in three years at 6.3%. Government expenditures also sharply increased by 17.4% y-o-y, a rate of growth not seen since 1Q12.

Africa

Growth in the economy of **South Africa** slowed to 1.0% y-o-y in 3Q15 from 1.4% in 2Q15 and 2.2% in 1Q15. This marks the slowest rate of growth rate since the 2009 recession. Data showed continued deceleration in utilities and agriculture. Business services and manufacturing were also weak. The country's private sector showed signs of improvement when the PMI of November increased to a six-month-high reading of 49.6. Despite remaining in the contraction territory, this indicates a slower pace of deterioration in the business conditions of the private sector.

Graph 3.30: GDP growth rates in Egypt and South Africa



Sources: Emirates NBD, Standard Bank, Markit and Haver Analytics.

In **Egypt**, the contraction in the country's non-oil private sector deepened in November as suggested by the PMI, which fell to 45.0, its lowest reading in 26 months, from 47.2 in October. It has been reported that output and new orders sharply declined, which were accompanied with a record fall in employment.

Latin America

The economy of **Argentina** posted markedly higher growth in the first half of this year, with GDP growing 2.1% and 2.3% in the first two quarters, respectively, whereas growth stood at only 0.5% y-o-y for the whole of 2014. This improvement was on the back of a return to growth in private consumption expenditure after a year of contraction in 2014. Private consumption grew 0.8% y-o-y in the first half 2015. Government expenditures jumped by 10.3% y-o-y in 2Q15, while GFCF was also back to growth this year.

Transition region

In November, the manufacturing sector in the **Czech Republic** reversed its recent deceleration, with the manufacturing PMI posting its first increase since July. The index registered 54.2 last month, slightly up from 54.0 in October, indicating strong overall growth. The survey showed a solid rise in production and employment, while new orders grew by a slower pace. It also revealed a decrease in the sector's input prices for the third month in a row.

In **Poland**, the manufacturing PMI continued posting a robust reading in November at 51.1, from 52.2 in October. This signalled an ongoing improvement in the sector's business conditions. The survey showed that production and new orders had increased last month by the fastest rate in four months. Another boost to the index came from the job creation segment where employment increased a record 28 months in a row.

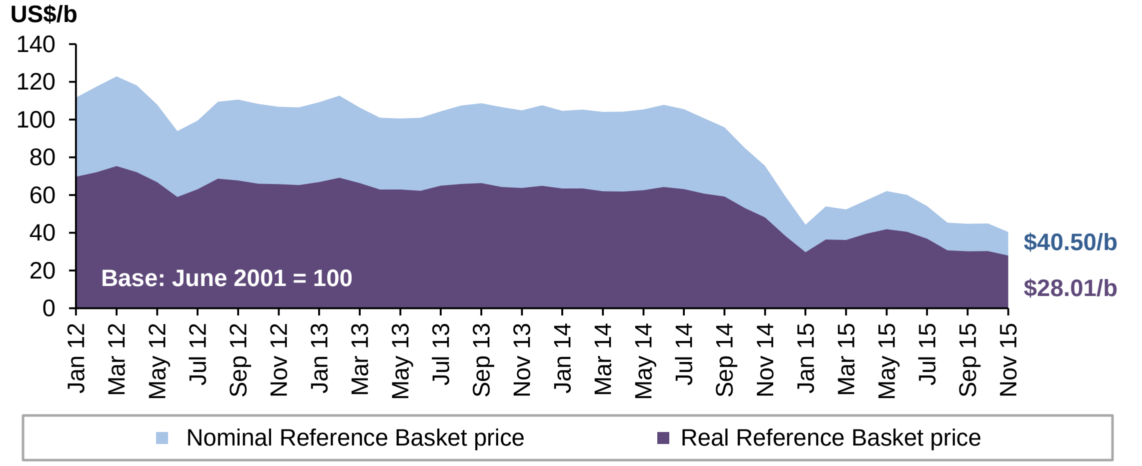
Oil prices, US dollar and inflation

The **US dollar** continued rising against all major currency counterparts on average, in November. It was particularly strong against the euro, which fell by 4.3% m-o-m versus the US dollar. The Swiss franc also declined considerably in November. It declined by 3.9% m-o-m versus the US dollar. Compared to the Japanese yen, the US dollar gained 2.1% m-o-m and rose by 0.8% m-o-m versus the pound sterling. Compared to the euro it reached €1.0749/$ on average in November. Principal support for the US dollar came from expectations of near-term monetary tightening in the US. In addition, there was a low inflation/deflation scenario in both the Euro-zone and Japan, with ongoing and unprecedented monetary stimulus programmes in both, as well as in China. Overall, the US dollar was well supported and is forecast to remain strong, at least in the short-term.

After its notable decline in August and September, the **Chinese yuan** in October rose by 0.3% compared to the US dollar on a monthly average, while its latest development in November again showed some weakening. It declined by 0.2% m-o-m on average in November. After a multi-month decline, the **Brazilian real** continued its slight appreciation for the second consecutive month in November. It rose by 2.3% m-o-m versus the US dollar. After some recovery in October, the **Russian ruble** continued to decline in November, when it again fell by 3.1% against the US dollar.

In nominal terms, the price of the **OPEC Reference Basket (ORB)** fell by a monthly average of $4.52, or 10%, from $45.02/b in September to $40.50/b in November. In real terms, after accounting for inflation and currency fluctuations, the ORB declined by 7.7%, or $2.35, to $28.01/b from $30.36/b (base June 2001=100). Over the same period, the US dollar gained 2.6% against the import-weighted modified Geneva I + US dollar basket*, while inflation remained flat.

Graph 3.31: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price*



Source: OPEC Secretariat.

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

World Oil Demand

Global oil demand growth has been revised up 30 tb/d since the previous report, largely to reflect better-than-expected oil consumption in OECD Europe and Other Asia. World oil demand growth currently stands at 1.53 mb/d to average 92.88 mb/d. For 2016, projected oil demand growth has been kept unchanged at 1.25 mb/d, averaging 94.13 mb/d.

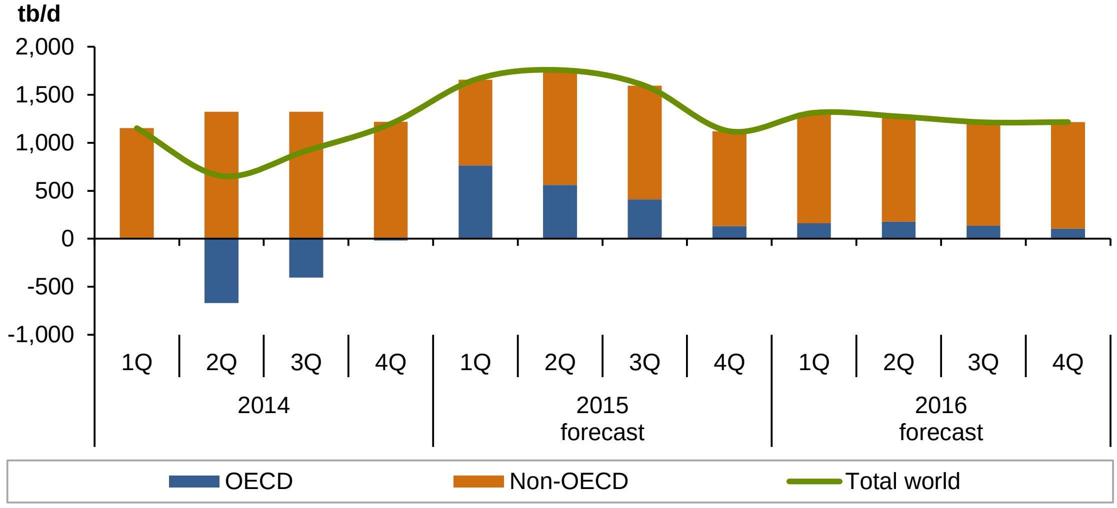
World oil demand in 2015 and 2016

Table 4.1: World oil demand in 2015, mb/d

	2014	1Q15	2Q15	3Q15	4Q15	2015	*Change 2015/14* Growth	%
Americas	24.18	24.25	24.12	24.81	24.99	24.54	0.36	1.49
of which US	*19.43*	*19.60*	*19.47*	*19.99*	*20.15*	*19.81*	*0.38*	*1.93*
Europe	13.40	13.48	13.60	13.87	13.46	13.60	0.20	1.52
Asia Pacific	8.16	8.77	7.72	7.61	8.16	8.06	-0.10	-1.21
Total OECD	**45.74**	**46.49**	**45.44**	**46.29**	**46.61**	**46.21**	**0.46**	**1.02**
Other Asia	11.42	11.46	11.95	11.86	11.75	11.76	0.34	2.94
of which India	*3.79*	*4.01*	*3.98*	*3.88*	*4.04*	*3.98*	*0.19*	*5.03*
Latin America	6.60	6.40	6.66	6.90	6.64	6.65	0.05	0.72
Middle East	8.14	8.24	8.21	8.74	8.15	8.34	0.19	2.37
Africa	3.78	3.88	3.87	3.79	3.94	3.87	0.09	2.38
Total DCs	**29.95**	**29.99**	**30.68**	**31.29**	**30.48**	**30.61**	**0.67**	**2.22**
FSU	4.54	4.39	4.23	4.63	4.94	4.55	0.01	0.20
Other Europe	0.65	0.66	0.62	0.66	0.75	0.67	0.02	2.79
China	10.46	10.44	11.06	10.69	11.16	10.84	0.37	3.58
Total "Other regions"	**15.66**	**15.49**	**15.91**	**15.98**	**16.84**	**16.06**	**0.40**	**2.57**
Total world	**91.35**	**91.97**	**92.03**	**93.56**	**93.94**	**92.88**	**1.53**	**1.68**
Previous estimate	91.35	91.97	92.04	93.44	93.96	92.86	1.50	1.65
Revision	0.00	0.00	-0.01	0.12	-0.02	0.02	0.03	0.03

Totals may not add up due to independent rounding.

Graph 4.1: Quarterly world oil demand growth



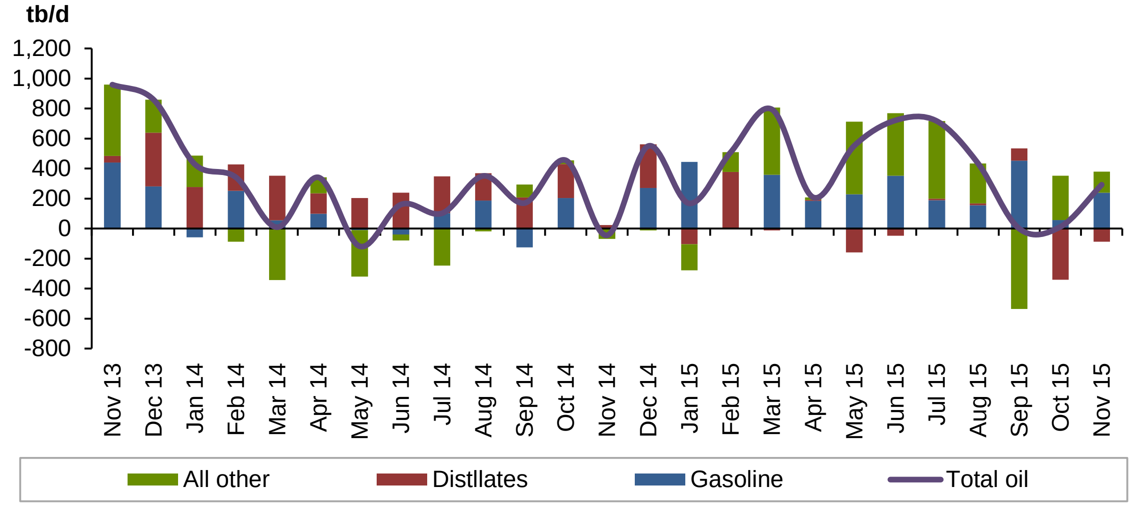
OECD Americas

Monthly **US** data for September 2015 shows stagnant oil demand as compared to the same month in 2014. Gasoline demand showed a huge gain of 0.45 mb/d, or more than 5% y-o-y, the strongest monthly increase in volume since 1983 and the second in all-time history. Gasoline demand was especially supported by a healthy growing economy, a lower fuel price environment and the solid increase in auto sales which gained by approximately 18% y-o-y. Distillate demand also rose in September 2015, increasing by 0.08 mb/d, or 2% y-o-y, marking the strongest monthly growth in 2015. Jet fuel requirements also gained in line with the overall positive development of the economy. In contrast, strong declines have been observed in propane/propylene and other products requirements and have offset gains.

Preliminary weekly data for November 2015 imply an overall positive trend in demand with improvements of 0.2 mb/d, y-o-y, following a minor increase in October. An important element, which is worth highlighting, despite the preliminary nature of the data, is continuing strong gasoline demand. Available data for eleven months in 2015 – monthly data through September, and preliminary weekly data for October and November – show US oil demand growing solidly by around 0.4 mb/d. Gasoline and jet fuel take the largest share in gains in this, compared with the same period in 2014, and are partly offset by declines in the demand for distillates, residual fuel oil and propane/propylene.

The overall risk for the development of 2016 US oil demand remains balanced since last month. The upside risks relate to the development of the overall economy and the price environment, while some downside risks – such as fuel substitution and vehicle efficiencies – continue to exist.

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



Following some recovery in the 3Q15 and after several continuously declining monthly figures in the first two quarters of 2015, **Mexico's oil demand** remained stagnant in October 2015 y-o-y, with a diverse picture as far as the main product categories are concerned. Gasoline and residual fuel oil demand in the road and industrial sectors grew and have been offset by declines in the demand for distillates and LPG.

The risk for 2016, Mexican oil demand is slightly skewed to the upside and depends mainly on the development of the overall economy.

In **Canada**, September 2015 came up declining y-o-y. Losses in gasoline, distillates and residual fuel oil demand have been only partly offset by increasing LPG and jet fuel requirements. Canadian oil demand in 2016 is projected to grow marginally compared with 2015, with the risks being balanced both to the upside and the downside.

In 2015, **OECD Americas oil demand** is expected to grow 0.36 mb/d compared with 2014. OECD Americas oil demand in 2016 is projected to increase by 0.29 mb/d compared with 2015.

OECD Europe

European oil demand remained strong for another month in September 2015, increasing by 0.45 mb/d, which corresponds to an increase of more than 3% y-o-y and is in line with the economic developments in Europe. Moreover, oil demand in the transportation sector has been supported by the lower oil price environment, despite the high taxation across different European countries.

Early indications for October 2015 showed gains of approximately 0.05 mb/d in the European 'Big 4' oil consumers Germany, France, Italy and the UK. All countries grew, with Italy and the UK leading in volume. Solid oil demand growth was also registered in Turkey, Belgium and Poland during September 2015.

European auto sales continued their positive momentum in October 2015, with an increase of around 3% y-o-y for the 26th consecutive month. Positive momentum in all major markets, and its combination with lower fuel prices, is in line with stronger oil demand in road transportation. Colder-than-normal weather in the region for September and October 2015 and also compared to the same period last year, has also put some upward pressure on oil demand in the residential sector.

The outlook for the region's oil demand in 2016 has not changed since last month's projections and is capped with the downside risks that relate mainly to factors affecting the region's oil demand – such as uncertainty about the development of the economy in some countries of the region and ongoing high taxation polices on oil use, particularly by private consumers, as well as fuel substitution. Therefore, 2016 oil demand growth expectations are substantially lower than those observed in 2015, as some of the positive effects during the current year will most likely be weaker.

OECD Europe oil demand is projected to grow by 0.20 mb/d in 2015, while 2016 oil demand will decline slightly as compared to 2015.

Table 4.2: Europe Big 4* oil demand, tb/d

	Oct 15	Oct 14	Change from Oct 14	Change from Oct 14, %
LPG	388	348	40	11.6
Gasoline	1,097	1,120	-23	-2.0
Jet/Kerosene	812	783	29	3.7
Gas/Diesel oil	3,412	3,422	-10	-0.3
Fuel oil	297	288	9	3.1
Other products	958	957	2	0.2
Total	**6,964**	**6,917**	**47**	**0.7**

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

OECD Asia Pacific

Preliminary October 2015 data recorded a contraction in **Japanese oil demand** following increases in August, September and the overall third quarter of 2015. Oil demand growth declined by around 63 tb/d, or around 2% y-o-y, and total consumption for the month October hovered around 3.46 mb/d. Gasoline, LPG and distillate usage were increasing, while naphtha and fuel oil requirements declined, the latter a result of less fuel burning implied by warmer than normal weather during October 2015.

The outlook risks for 2016 Japanese oil demand remain skewed towards the downside, largely depending on the development of the economy and the number of nuclear power plants that would re-start operations during 2016. Currently two reactors are operating, while another few could most likely start operating in the first half of 2016. The outlook for 2016 Japanese oil demand remains unchanged from last month's forecasts with the risks continuing to be skewed towards the downside.

Table 4.3: Japanese domestic sales, tb/d

	Oct 15	Change from Oct 14	Change from Oct 14, %
LPG	355	10	2.8
Gasoline	895	6	0.7
Naphtha	764	-39	-4.8
Jet fuel	82	0	-0.2
Kerosene	206	6	3.0
Gasoil	606	17	2.8
Fuel oil	397	-64	-14.0
Other products	59	-6	-8.9
Direct crude burning	95	7	8.5
Total	**3,459**	**-63**	**-1.8**

In **South Korea**, September 2015 came up with a strong increase in oil demand requirements. Almost all main product categories increased, particularly distillates, jet fuel and gasoline, with the exception of LPG. The outlook for South Korean oil consumption during 2016 remained unchanged in positive territory as compared to last month's projections.

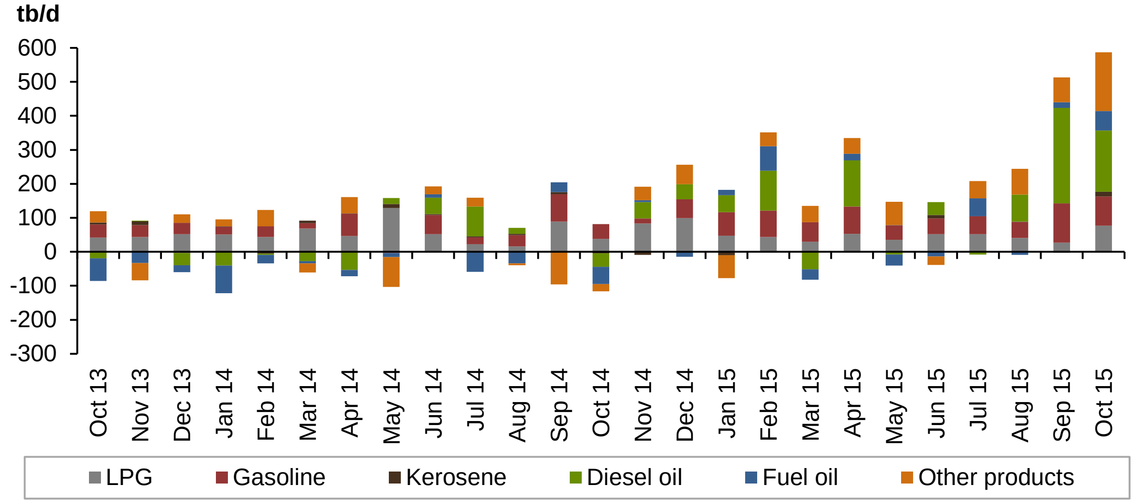
OECD Asia Pacific oil demand is expected to fall by 0.10 mb/d in 2015, while the decline will continue also in 2016 by 0.14 mb/d, y-o-y.

Other Asia

In October 2015, **Indian oil demand** remained elevated, rising by a record of 0.59 mb/d, or around 17%, y-o-y. All products picked up momentum, without exception, with large gains across the barrel.

LPG demand rose more than 13% y-o-y growing by more than 77 tb/d, the largest level of gains in 2015. The government's push on households to use LPG in lieu of kerosene has resulted in an expansion in LPG supply infrastructure projects making more LPG available to end users at subsidised prices. Additionally, for the transportation sector, gasoline usage grew above last year's level by close to 19% y-o-y, supported by increases in both vehicle sales data and higher vehicle miles travelled. The overall passenger vehicles sales recorded a growth of more than 21% in October with the two-wheeler segment registering a solid 13% rise y-o-y.

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



Jet/kerosene and gasoil demand also remained elevated rising by more than 4% and 14% y-o-y, respectively. Jet/kerosene received its usual support from the aviation sector while diesel oil gained momentum as usage in the irrigation systems was upbeat due to lower rainfall levels during the monsoon season this year. Additional support also stemmed from the construction sector and industrial activities. Indian oil demand growth in 2015 year-to-date is solidly above the five-year average by more than 0.1 mb/d with LPG and gasoline demand supporting growth.

Table 4.4: Indian oil demand by main products, tb/d

	Oct 15	Oct 14	Change	Change, %
LPG	657	580	77	13.3
Gasoline	542	457	86	18.8
Kerosene	323	309	14	4.5
Diesel oil	1,404	1,224	180	14.7
Fuel oil	290	232	58	25.0
Other products	839	666	172	25.9
Total oil demand	**4,054**	**3,468**	**587**	**16.9**

For the majority of the remaining oil consuming countries in the region, oil demand was also bullish, based on up-to-date data in 2015 y-o-y, with the only exception being Thailand and Taiwan, both of which showed stagnant oil requirements as compared to the same period in 2014.

In **Indonesia**, demand in all main petroleum categories grew, with the exception of residual fuel oil, which declined slightly. Strength was evident in the road transportation, residential and industrial sectors – notably, in electricity generation – implying solid gains in requirements for LPG, gasoline, and kerosene and gas diesel oil. Indonesian oil demand grew by around 1.4% y-t-d in 2015, in line with rising industrial and manufacturing activities, and the overall health of the country's growing economy.

In **Taiwan**, rising gasoline and jet/fuel requirements during the first nine months of 2015 have been offset by strongly declining LPG demand, mainly as a result of fuel substitution.

Oil demand in **Thailand** also remained stagnant during the first nine months of 2015 y-o-y, with losses, particularly for naphtha and fuel oil. Losses have been offset, however, by gains especially in gasoline, gas diesel oil and jet/fuel kerosene.

The risks for **Other Asia oil demand** growth in 2016 are hinting towards the upside. In India, oil demand is expected to be once more dominated by transportation fuels, particularly gasoline, while the falling trend in fuel oil requirements in the agricultural sector, as a result of fuel substitution to natural gas, is projected to continue during the year.

Oil demand in the region is projected to rise by 0.34 mb/d during 2015, while in 2016 it is foreseen to rise by around 0.29 mb/d.

Latin America

In **Brazil**, oil demand declined in October 2015 y-o-y, dipping by around 0.16 mb/d or around 6% y-o-y. This decline seemed to be a reflection of the creeping pace of the economic momentum. Total oil demand stood at 2.54 mb/d in October. All products performed far lower than expected, with exception of ethanol. Ethanol consumption continued to increase in October, rising by more than 0.11 mb/d which equates to a strong 44% rise y-o-y. Gasoline, on the other hand, fell sharply by around 0.11 mb/d, or more than 13% decrease y-o-y, as more drivers switched ethanol for gasoline in October mainly to take advantage of the price differential between the two products. Diesel oil also lost momentum during the month of October, dropping by more than 0.11 mb/d, which equates to around 10% y-o-y. This sharp decline is in line with slower economic activities in the country, marking the fourth consecutive monthly drop in oil demand growth. Similar to the previous month's report, 2015 oil demand in Brazil is skewed to the negative as slower economic momentum in the country is anticipated to adversely impact oil requirements.

Table 4.5: Brazilian inland deliveries, tb/d

	Oct 15	Oct 14	Change	Change, %
LPG	222	235	-13	-5.6
Gasoline	706	813	-107	-13.2
Jet/Kerosene	124	128	-4	-3.0
Diesel	1,051	1,163	-112	-9.6
Fuel oil	81	112	-31	-27.5
Alcohol	354	245	109	44.6
Total	**2,539**	**2,696**	**-158**	**-5.8**

Oil demand was also on the decline during the first nine months of 2015 in **Ecuador** – by as much as 7% y-o-y. Gasoline, gasoil and fuel oil demand all fell as a result of the low international oil price environment. Oil demand was similarly sluggish in **Venezuela** during the first nine months of 2015.

In **Argentina**, 2015 oil demand growth levels were high, strongly increasing by 40 tb/d, or 5.6%, y-o-y. Almost all product categories showed strong demand, with gasoline, gas diesel oil and residual fuel oil requirements on the rise, while demand for the remaining product categories remained flat.

In 2016, expectations for oil demand growth in Latin America are similar to last month projection with a somewhat better outlook for the economy as compared to 2015. Moreover, some support should emerge from transportation fuels as Olympic Games are planned to take place in Brazil during the summer of 2016.

Oil demand growth in the region is projected to be around 50 tb/d during 2015, while the current outlook foresees oil demand growing by 0.13 mb/d in 2016.

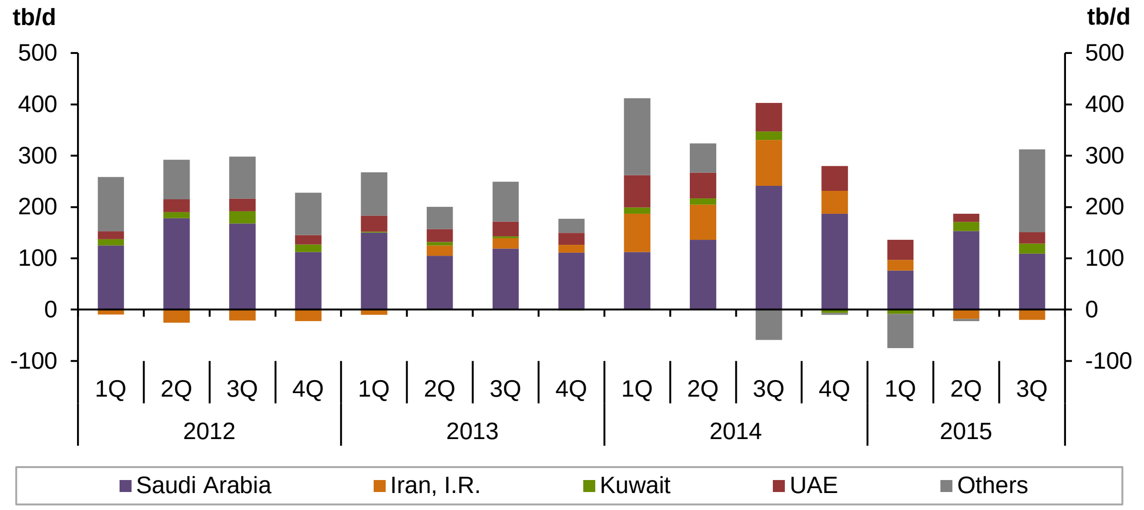
Middle East

In the Middle East, solid oil demand requirements have been registered during the month of October with oil demand growth in **Saudi Arabia** hitting the highest level in 2015. Oil demand in Saudi Arabia continues its positive momentum, growing by around than 0.34 mb/d or around 15% y-o-y. All products recorded positive gains during the month, without exception. Direct crude burning recording highest gains in both percentage and volumetric basis. Transportation, industrial fuels and direct crude burning were the contributing elements in rising Saudi Arabian oil demand in 2015, which continues to be the pattern of consumption during the month of October.

Oil demand grew solidly also in **Kuwait**, particularly lifting road transportation and industrial fuels, gasoline and gas diesel oil. Iraqi oil demand continued its positive growth trend which started in June 2015, with most gains being observed in fuel oil and gasoline.

Oil demand grew strongly in **Qatar** and the **UAE**. In both countries, transportation fuels – notably gasoline – dominated the increases.

Graph 4.4: Oil demand growth in the Middle East, y-o-y



In 2016, Middle East oil demand growth may be challenged by some downside risks, which relate to the continuing geopolitical turbulence in some countries. Oil demand is nevertheless expected to grow firmly in Saudi Arabia, IR Iran, UAE, Kuwait, Qatar, and Jordan and Iraq, with transportation fuels – especially gasoline and industrial fuels (i.e. diesel and residual fuel oil) – playing a significant part in the overall oil demand growth for another year.

Oil demand growth in the region is projected to reach 0.19 mb/d in 2015, while in 2016 it is anticipated to record around 0.21 mb/d of growth.

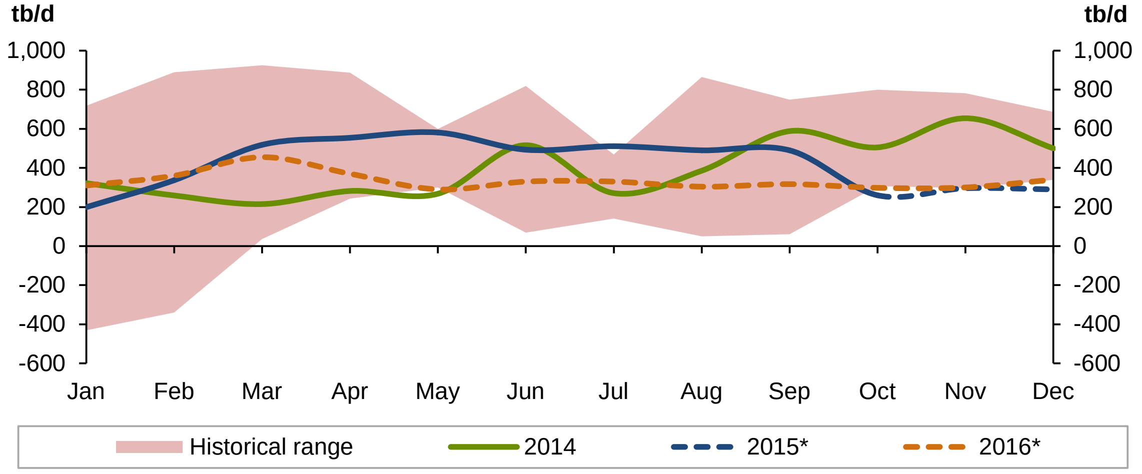
China

Chinese oil demand was at projected level of growth of around 0.30 mb/d, or 3.0%, during the month of October 2015, softer than the robust growth experienced in previous months. Oil demand growth was determined by rising gasoline and jet fuel, while diesel oil and the “other products” categories were slowing down.

In addition to the week-long national holidays, which contributed to additional gasoline demand, passenger car sales rose steadily in October. According to an analysis from the China Association of Automobile Manufacturers (CAAM), automobile sales were at 1.94 million units, reflecting a more than 13% increase y-o-y. Year-to-date figures, in turn, with data for the past ten months, also highlight a significant increase in car sales with total units sold reaching 16.48 million units. This reflects an increase of 4% compared to the same period in 2014. In October, gasoline consumption grew by around 0.28 mb/d – more than 11% as compared to October 2014.

The moderate increase in LPG requirements can be attributed to maintenance activities in some LPG cracking units as LPG grew only by 50 tb/d, which translates into more than 4% y-o-y. Jet fuel rose by 0.15 tb/d, or by more than 37% y-o-y, driven by growth in air traffic activities and lower fares, which led to growth of more than 12% in domestic revenue passenger kilometer. On the other hand, diesel oil dipped by around 0.15 mb/d, or around 4% y-o-y, continuing its slower momentum from the previous month. Fuel oil also edged higher during the month of October gaining 2 tb/d, or around 0.4%, from the level recorded in October 2015.

Graph 4.5: Changes in Chinese apparent oil demand, y-o-y changes



** Forecast.*

The overall 2016 outlook remains fairly unchanged since last month with similar dynamics pointing to the downside mainly focused on a possible economic slowdown and implementation of measures in order to limit transportation fuels consumption. The healthy petrochemical segment and expansions in refining capacity could both, on the other hand, be considered factors that could push 2016 oil demand estimates higher.

For 2015, **Chinese oil demand** is anticipated to grow by 0.37 mb/d. In 2016, it is projected to increase again by 0.30 mb/d.

Table 4.6: World oil demand in 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016	*Change 2016/15* Growth	%
Americas	24.54	24.54	24.44	25.09	25.25	24.84	0.29	1.19
of which US	*19.81*	*19.86*	*19.75*	*20.24*	*20.38*	*20.06*	*0.25*	*1.26*
Europe	13.60	13.49	13.59	13.85	13.43	13.59	-0.01	-0.08
Asia Pacific	8.06	8.62	7.58	7.48	8.03	7.93	-0.14	-1.69
Total OECD	**46.21**	**46.65**	**45.61**	**46.42**	**46.72**	**46.35**	**0.15**	**0.31**
Other Asia	11.76	11.76	12.24	12.15	12.04	12.05	0.29	2.48
of which India	*3.98*	*4.16*	*4.12*	*4.02*	*4.19*	*4.12*	*0.15*	*3.65*
Latin America	6.65	6.55	6.79	7.02	6.78	6.79	0.13	2.01
Middle East	8.34	8.45	8.42	8.96	8.36	8.55	0.21	2.55
Africa	3.87	3.97	3.96	3.88	4.04	3.96	0.10	2.49
Total DCs	**30.61**	**30.73**	**31.42**	**32.00**	**31.22**	**31.35**	**0.73**	**2.40**
FSU	4.55	4.45	4.29	4.68	4.99	4.60	0.05	1.14
Other Europe	0.67	0.68	0.64	0.68	0.77	0.69	0.02	2.98
China	10.84	10.77	11.35	10.99	11.45	11.14	0.30	2.80
Total "Other regions"	**16.06**	**15.89**	**16.28**	**16.34**	**17.21**	**16.44**	**0.38**	**2.34**
Total world	**92.88**	**93.28**	**93.31**	**94.77**	**95.15**	**94.13**	**1.25**	**1.35**
Previous estimate	92.86	93.28	93.31	94.65	95.17	94.11	1.25	1.35
Revision	0.02	0.00	-0.01	0.12	-0.02	0.02	0.00	0.00

Totals may not add up due to independent rounding.

World Oil Supply

Preliminary data indicates that global oil supply increased by 0.37 mb/d to average 95.58 mb/d in November compared with the previous month. Non-OPEC oil supply is expected to grow by 1.0 mb/d to average 57.51 mb/d in 2015, revised up by 0.28 mb/d over the previous month's estimation. The main reasons for this growth were the upward revisions in the US, the UK, Brazil, Russia and China, mostly in 3Q15 as well as revision in 4Q15 forecast . It is expected that growth from OECD Americas, OECD Europe, Other Asia, Latin America, FSU and China will be partially offset by declines in OECD Asia Pacific, the Middle East and Africa. Growth in 2015 is expected at potentially higher output levels in 4Q15 from the US, Canada and Russia. Non-OPEC oil supply in 2016 has been revised down by 0.25 mb/d to an average of 57.14 mb/d, a contraction of 0.38 mb/d from 2015 levels. Contributing factors include expected steeper production declines in US shale plays, legacy wells outnumbering newly drilled wells as well as the negative effects of capex cuts in different regions of the world.

Production of OPEC NGLs was revised down by 30 tb/d to grow by 0.16 mb/d and 0.17 mb/d to average 5.99 mb/d and 6.16 mb/d in 2015 and 2016, respectively. In November, OPEC production increased by 230 tb/d compared to the previous month to average 31.70 mb/d, according to secondary sources.

Forecast for 2015

Non-OPEC supply

Non-OPEC oil supply growth is expected to be much lower in 2015 than the tremendous growth of 2.23 mb/d achieved in 2014. Annual growth in 2015 y-o-y − based on the latest actual data of historical production and the producing fields' performances as well as the expected new volumes coming from implemented projects (either new startups or ramp-ups of old projects) − was revised up by 0.28 mb/d to 1.0 mb/d for an average of 57.51 mb/d. This upward revision includes 0.18 mb/d in OECD Americas, 0.04 mb/d in OECD Europe, 0.01 mb/d in OECD Asia Pacific, 0.03 mb/d in Latin America, 0.01 mb/d in FSU and 0.02 mb/d in China. A minor downward revision by 0.01 mb/d in Other Asia was also applied in the new estimation. The contributors for this month's revisions are mentioned in ***Table 5.1***.

Graph 5.1: Regional non-OPEC supply growth, y-o-y

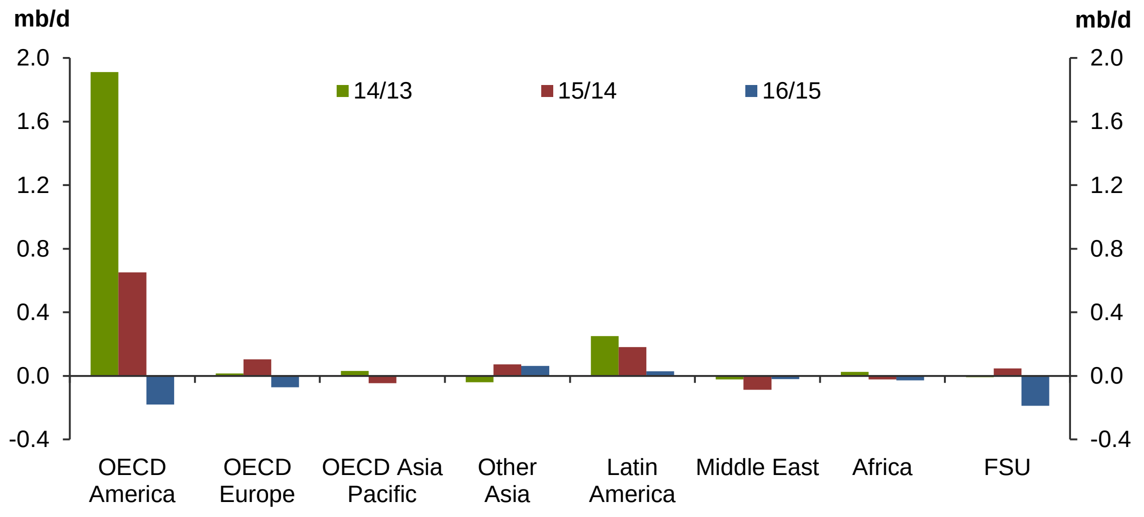


Table 5.1: Regional non-OPEC supply growth, y-o-y

	MOMR Nov 15	MOMR Dec 15	Revision
US	0.63	0.81	0.18
UK	0.05	0.09	0.04
Brazil	0.18	0.20	0.02
Russia	0.07	0.09	0.02
China	0.06	0.08	0.02
Total non-OPEC supply	**0.72**	**1.00**	**0.28**

Source: OPEC Secretariat.

However, persistently low oil price levels in 2015 have caused the US shale oil sector to shrink. Shale drillers in the US have slashed spending and cut the number of workers this year as prices have fallen. US tight oil production – the main driver of non-OPEC supply growth – has been declining since April 2015. This downward trend should accelerate in coming months, given various factors, mainly low oil prices and lower drilling activities.

Table 5.2: Non-OPEC oil supply in 2015, mb/d

	2014	1Q15	2Q15	3Q15	4Q15	2015	*Change* 15/14
Americas	20.09	20.94	20.66	20.77	20.58	20.74	0.65
of which US	*12.96*	*13.69*	*13.97*	*13.87*	*13.57*	*13.77*	*0.81*
Europe	3.60	3.69	3.77	3.68	3.68	3.70	0.10
Asia Pacific	0.51	0.43	0.45	0.50	0.47	0.46	-0.05
Total OECD	**24.20**	**25.07**	**24.87**	**24.95**	**24.73**	**24.90**	**0.71**
Other Asia	3.48	3.60	3.61	3.51	3.50	3.55	0.07
Latin America	5.01	5.23	5.16	5.18	5.18	5.19	0.18
Middle East	1.34	1.30	1.25	1.24	1.23	1.25	-0.09
Africa	2.36	2.38	2.37	2.31	2.31	2.34	-0.02
Total DCs	**12.19**	**12.51**	**12.38**	**12.24**	**12.21**	**12.33**	**0.14**
FSU	13.55	13.68	13.61	13.55	13.55	13.60	0.05
of which Russia	*10.68*	*10.74*	*10.76*	*10.79*	*10.77*	*10.77*	*0.09*
Other Europe	0.13	0.13	0.13	0.13	0.13	0.13	0.00
China	4.29	4.33	4.39	4.38	4.36	4.36	0.08
Total "Other regions"	**17.97**	**18.14**	**18.13**	**18.06**	**18.04**	**18.09**	**0.12**
Total Non-OPEC production	**54.35**	**55.72**	**55.38**	**55.24**	**54.98**	**55.33**	**0.97**
Processing gains	2.16	2.19	2.19	2.19	2.19	2.19	0.02
Total non-OPEC supply	**56.52**	**57.90**	**57.57**	**57.43**	**57.17**	**57.51**	**1.00**
Previous estimate	56.52	57.91	57.47	56.82	56.77	57.24	0.72
Revision	0.00	-0.01	0.10	0.61	0.40	0.28	0.28

Total OECD oil supply in 2015 is expected to grow by 0.71 mb/d to average 24.90 mb/d. Y-o-y growth in 2015 is expected to come from OECD Americas and OECD Europe with 0.65 mb/d and 0.10 mb/d, respectively, while OECD Asia Pacific is forecast to decline by 0.05 mb/d compared to the previous year.

Total oil output from Developing Countries (DCs) will reach an average of 12.33 mb/d in 2015, an increase of 0.14 mb/d compared to growth of 0.21 mb/d in 2014. This growth is expected to come from Other Asia with 0.07 mb/d and Latin America with 0.18 mb/d, while oil supply from the Middle East and Africa is estimated to decrease by 0.09 mb/d and 0.02 mb/d y-o-y, respectively.

Total FSU oil supply in 2015 is expected to increase by 0.05 mb/d, while Other Europe's supply will remain steady at 0.13 mb/d and China's supply is expected to grow by 0.08 mb/d over the previous year, to stand at 4.36 mb/d.

OECD

Total OECD oil supply in 2015 is expected to grow by 0.71 mb/d to average 24.90 mb/d, revised up by 0.23 mb/d from the previous MOMR. Y-o-y growth in 2015 is expected to come from OECD Americas and OECD Europe with 0.65 mb/d and 0.10 mb/d, respectively, while OECD Asia Pacific is forecast to decline by 0.05 mb/d compared to last year.

On a quarterly basis, total OECD supply in 2015 is estimated to average 25.07 mb/d, 24.87 mb/d, 24.95 mb/d and 24.73 mb/d, respectively.

OECD Americas

OECD Americas' oil supply in 2015 is estimated to average 20.74 mb/d, showing growth of 0.65 mb/d y-o-y. Supply in the US and Canada is expected to grow in 2015, while in Mexico, it is slated to decline.

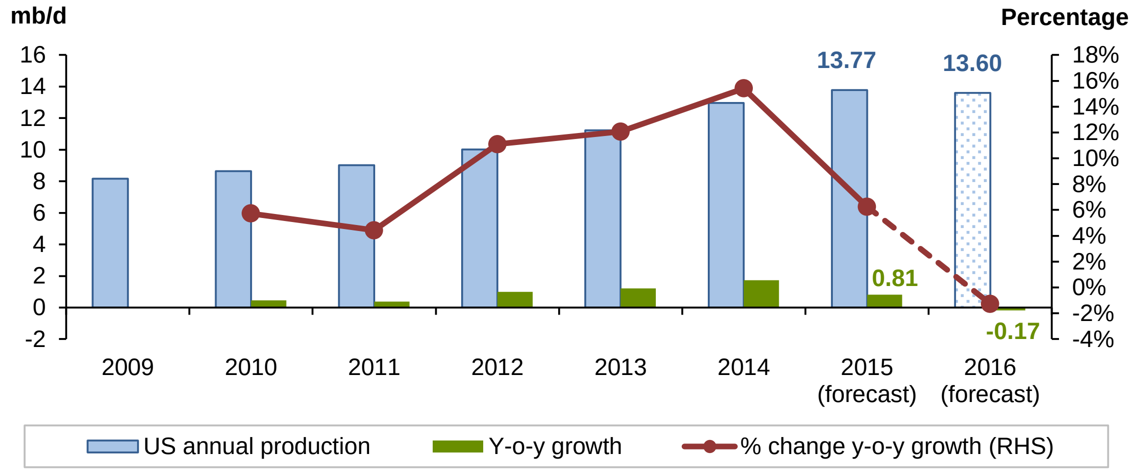
On a quarterly basis, OECD Americas' oil supply in 2015 is expected to average 20.94 mb/d, 20.66 mb/d, 20.77 mb/d and 20.58 mb/d, respectively.

US

US oil output was growing at its fastest rate on record, adding around 1 mb/d of new supply each year, thanks to the introduction of new drilling techniques that have released oil and gas from shale formations. However, recent data shows that US output has already begun to decline after reaching a peak of 9.6 mb/d in April 2015. Nevertheless, US total oil supply is anticipated to grow by 0.81 mb/d to average 13.77 mb/d in 2015, representing an upward revision of 0.18 mb/d from the previous *MOMR*. The average of US crude oil production at 9.35 mb/d in August, based on the EIA monthly report, indicates a decline of 29 tb/d compared to the average output of July, and volumes continued to decline in September. Therefore, it is estimated that US liquids production in 3Q15 declined by 0.09 mb/d over 2Q15 to average 13.87 mb/d. Shale drillers in the US have slashed spending and cut the number of workers this year as prices have fallen. For instance, the Chesapeake Energy Corporation, the second-largest producer of natural gas and the eleventh largest producer of combined oil and natural gas liquids in the US, has cut 15% of its workforce.

According to EIA definition; "tight oil" refers to oil found within reservoirs with very low permeability, including, but not limited to, shale. Permeability is the ability for fluid, such as oil and gas, to move through a rock formation. In 2014, around 80% of US tight oil production came from three basins: the Eagle Ford in South Texas (1.37 mb/d or 33.6% of total US tight oil production), the Bakken Shale in North Dakota and Montana (1.07 mb/d or 26.1% of total US tight oil production) and finally, the Permian in North Texas (including Delaware, Midland and NW Shelf), which produced 0.83 mb/d in 2014 or 20.2% of total US tight oil production. Tight oil production in the US represents 89% of all North American tight oil production, with the remaining 11% (0.36 mb/d) coming from Canada. 2015 tight crude production is estimated to grow by 0.44 mb/d to average 4.40 mb/d, while 2016 growth is expected to decline by 170 tb/d, to average 4.23 mb/d. This forecast is based on the current oil price environment, meaning producers have shifted focus to their cash flows. Total US tight liquids (tight crude and unconventional NGLs) production from US shale in 2014 was 5.6 mb/d and is estimated at 6.2 mb/d in 2015, declining to 6.0 mb/d in 2016.

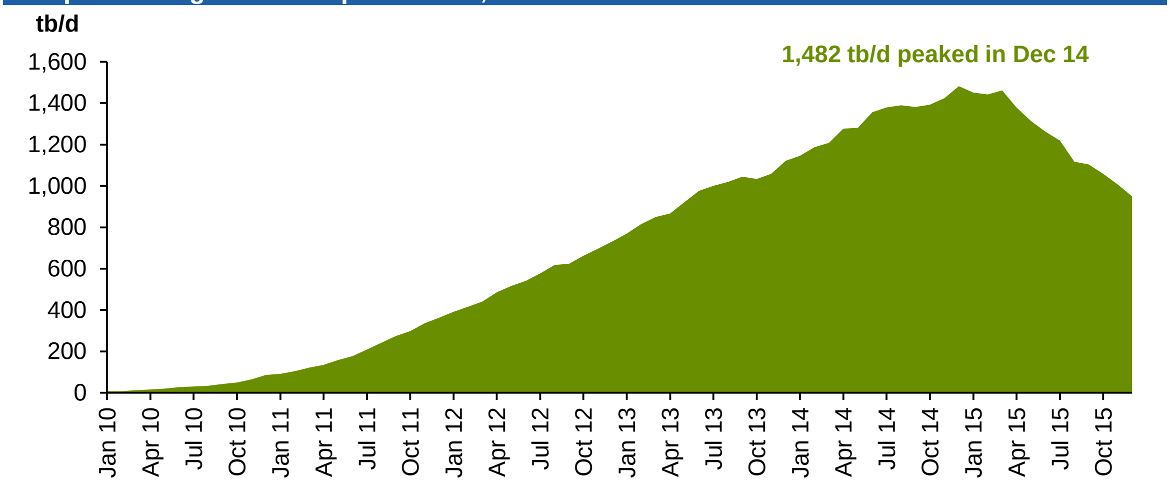
Graph 5.2: US annual liquids production and annual growth



Source: OPEC Secretariat.

Oil production from the **Eagle Ford** shale, based on Texas Railroad Commission (RRC) data, declined by 66 tb/d m-o-m to 1.2 mb/d in August. The total tight crude production from this shale play in 2014 was 1.37 mb/d, and it is expected to reach 1.49 mb/d in the current year, but will decline to 1.45 mb/d in 2016. Tight crude output in December 2014 peaked at 1.48 mb/d, while the number of oil rigs declined by 4 rigs to 62 in November m-o-m, dropping y-o-y by 134 rigs. $18.3 bn is expected to be spent for drilling and completion at Eagle Ford in 2015. According to the latest drilling productivity report (DPR) of EIA, new well productivity in this play reached the highest level, at 795 b/d, in November 2015. The number of drilled but uncompleted (DUC) wells dropped to 747 in October 2015.

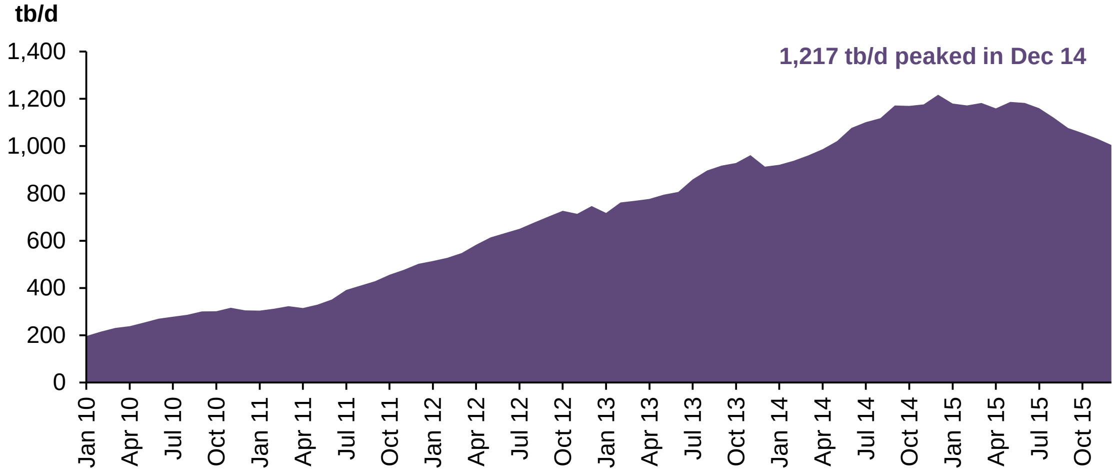
Graph 5.3: Eagle Ford oil production, 2010-to-date



Source: OPEC Secretariat.

Tight crude production from the **Bakken/Three Forks** shale formation in **North Dakota** decreased by 25 tb/d to average 1.16 mb/d in September. The decline comes as the number of producing wells fell by 21, although the number of completions rose m-o-m by eight to 123. The backlog of DUC wells rose by 98 units m-o-m to 1,091, but declined again in October to 946 uncompleted wells. Crude production in the Bakken/Three Forks shale peaked at 1.22 mb/d in December 2014, and the number of oil rigs in Williston basin in November decreased by 1 rig to average 63 rigs m-o-m, while it dropped by 127 rigs a year ago. According to the latest DPR published by EIA, new well productivity in December 2015 in this shale play was 717 b/d. The total tight crude production in 2014 was 1.07 mb/d and is expected to reach 1.14 mb/d in the current year, while in 2016, it will decline to 1.1 mb/d.

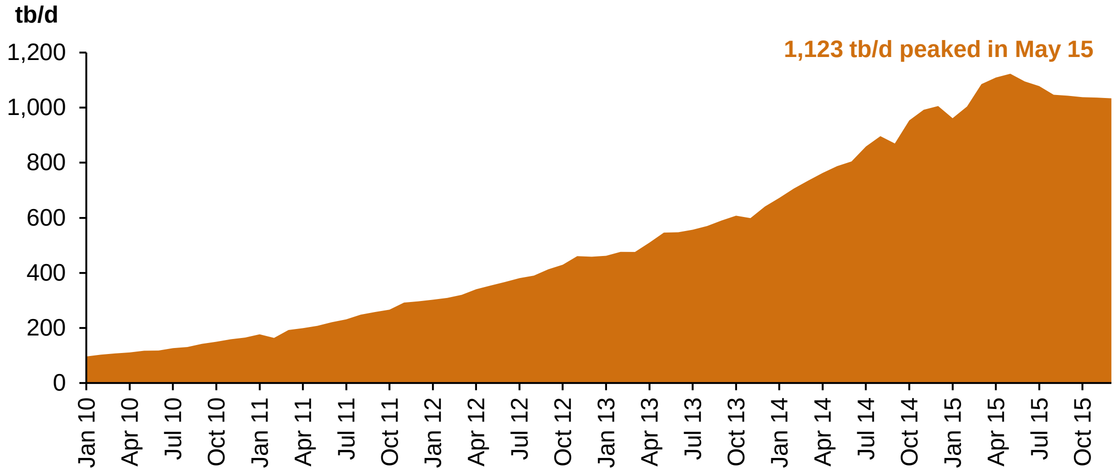
Graph 5.4: Bakken oil production, 2010-to-date



Source: OPEC Secretariat.

Oil production from the **Permian** shale plays in **Delaware, Midland and North West Shelf** declined by 31 tb/d m-o-m to 1.05 mb/d in August. The total tight crude production in 2014 was 0.84 mb/d and is expected to reach 0.98 mb/d in 2015. Tight crude output in May 2015 peaked at 1.12 mb/d, while the number of rigs declined by 8 rigs to 221 rigs in November, m-o-m while the yearly decline registered at 339 rigs. An estimated $18.7 bn will be spent for drilling and completion at the Permian in 2015. According to the latest EIA DPR, new well productivity at this play reached the highest level at 412 b/d in December 2015. The number of DUC wells dropped to 747 in October 2015. One of the biggest drivers of growth in the Permian has been Pioneer Natural Resources, which has benefitted from one of the largest hedge books in the industry, valued at $850 million as of September. After the price rally in 2Q15, the company announced plans to add two rigs per month until the end of the year, but the price fall since then has meant even the bigger players, which are less constrained financially, have scaled back their ambitions and drilling plans.

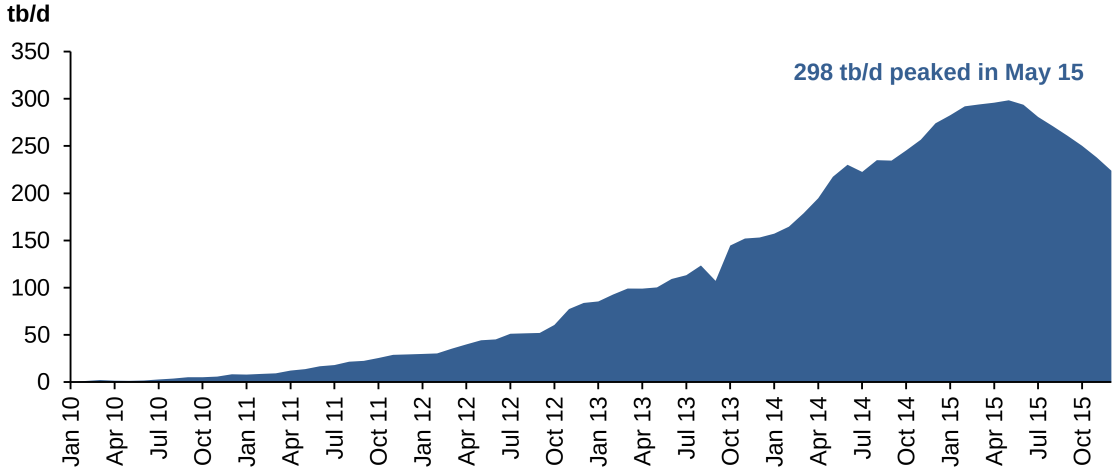
Graph 5.5: Permian (Delaware & Midland) oil production, 2010-to-date



Source: OPEC Secretariat.

Tight crude production from the **Niobrara** play, located in Colorado, averaged 0.22 mb/d in 2014. Average output in 2015 is likely to increase to 0.26 mb/d, then decline to 0.24 mb/d in 2016. The EIA DPR forecasts new well productivity in December at 667 b/d and declines in production were due to legacy declines stepping up, with the agency expecting a 20 tb/d decline in November. A relatively high proportion of condensate has been found in liquids output, and this has forced some companies to move into more oil-rich acreage such as in the eastern liquid-rich Denver-Julesburg (DJ) basin, where the Niobrara and Codell formations are generating greater revenue. Oil production from the Niobrara shale declined by 10 tb/d m-o-m to 0.27 mb/d in August. Tight crude output in May 2015 peaked at 0.30 mb/d, while the number of rigs declined to 23 in November, dropping y-o-y by 22 rigs. An estimated $5.4 bn will be spent on drilling and completion at the Niobrara shale formation in 2015.

Graph 5.6: Niobrara oil production, 2010-to-date



Source: OPEC Secretariat.

Moreover, tight crude production in other regions, including Haynesville, Marcellus and Utica will increase by around 70 tb/d to average 0.66 mb/d in 2015 and then decrease to 0.64 mb/d in 2016.

Gulf of Mexico (GOM) production is running higher y-o-y by 0.12 mb/d in the year-to-August, benefitting from several 2H14 and early 2015 startups. In August, GOM output was pegged at 1.65 mb/d, higher m-o-m by 63 tb/d. In 3Q15, strong operational performance registered at the **Mars platform** (Mars, Ursa and West Delta 143 fields). August was, however, impacted by the **Mad Dog** field going offline due to planned works for 10 days, although the field ramped up to pre-shutdown levels of 37 tb/d within a day. In September, output was supported by a ramp-up of **Delta House FPSO**, which came on stream in April. The field had ramped up to 62 tb/d from seven wells, and the eighth well was due to come on at the end of October, which would help take output close to nameplate capacity of 80 tb/d. Peak output is expected a year later after three additional wells come online, taking output to 0.1 mb/d. October saw maintenance at the **Atlantis** field for three days which reduced output by around 50 tb/d for the three/four days. The Marco Polo platform was also shut for a week in early October but returned to normal operations as of mid-month. Finally, the end of October saw the early startup of the **Big Bend** development with the single well in operation expected to ramp-up to just under 20 tb/d by mid-November. The operator company has also accelerated the **Dantzler** development and now expects first production in early November. Both will be tie-backs to the Thunder Hawk production facility. Growth of 0.17 mb/d and 0.10 mb/d in 2015 and 2016, respectively, is expected.

US oil rig count

According to Baker Hughes' latest weekly report on 4 December 2015, the total drilling rig count in the US dropped by 1,183 rigs (-61.6%) y-o-y, to 737 rigs. More than 96% of this decline was in onshore fields. With regard to the split, rigs working in oil fields dropped by 65.4% from the same period a year earlier, while the number of active rigs working in US gas fields declined by 44.2%. In total, there was a 61.4% decline on average in the rig count in the tight oil regions. This was more or less in line with the decline in horizontal drilling at -58.4% y-o-y.

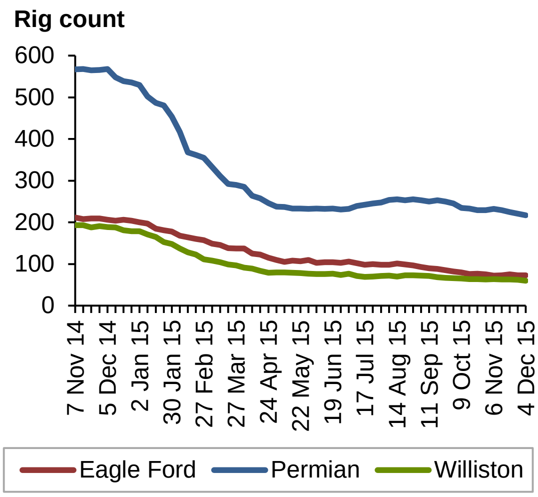
Table 5.3: US rotary rig count

			Change		
Oil and gas split	4 Dec 15	W-o-w	M-o-m	Y-o-y	Y-o-y, %
Oil	545	-10	-27	-1,030	-65
Gas	192	3	-7	-152	-44
Location					
Land	712	-2	-27	-1,150	-62
Offshore	25	-5	-7	-33	-57
Drilling type					
Directional	64	-2	-17	-134	-68
Horizontal	569	0	-16	-799	-58
Vertical	104	-5	-1	-250	-71
US drilling total	**737**	**-7**	**-34**	**-1,183**	**-62**

Source: Baker Hughes.

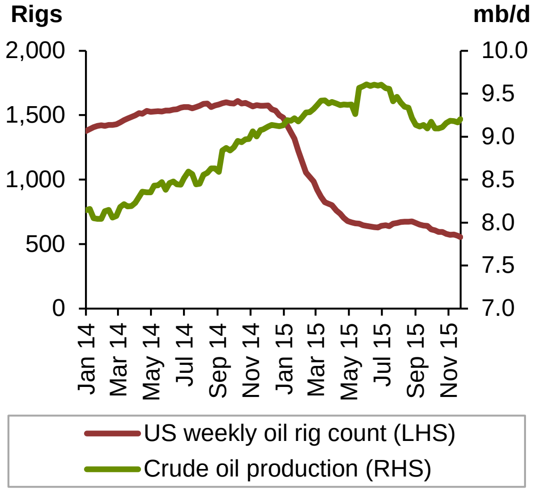
Comparison details of US rig activities from different aspects registered on 2 December 2015 can be seen in ***Table 5.3***, followed by the charts below. Moreover, ***Graph 5.8*** also shows US weekly oil rig count activity compared to crude oil production up to 4 December 2015.

Graph 5.7: US total rig count by selected basin



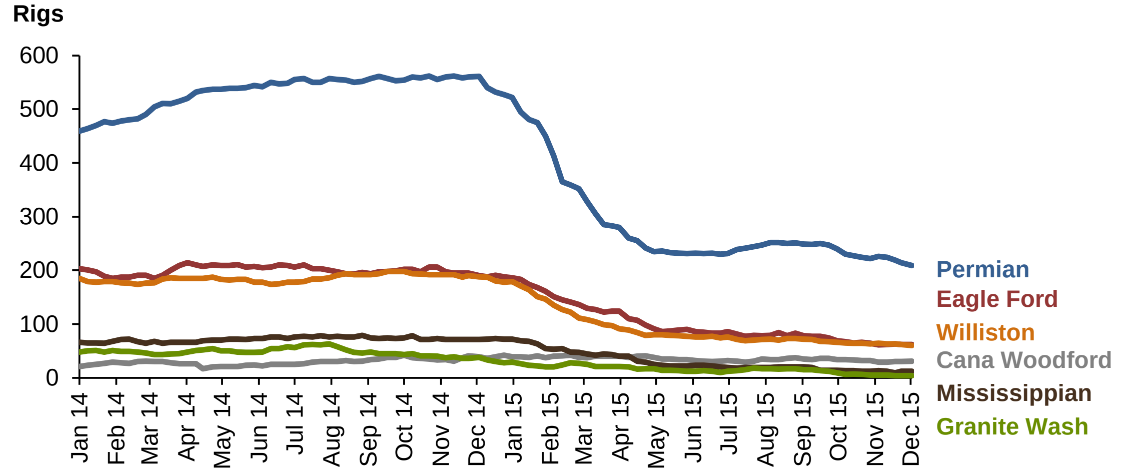
Source: Baker Hughes.

Graph 5.8: US weekly oil rig count vs. Crude oil production



Sources: Baker Hughes and EIA.

Graph 5.9: US oil rig count for selected basins

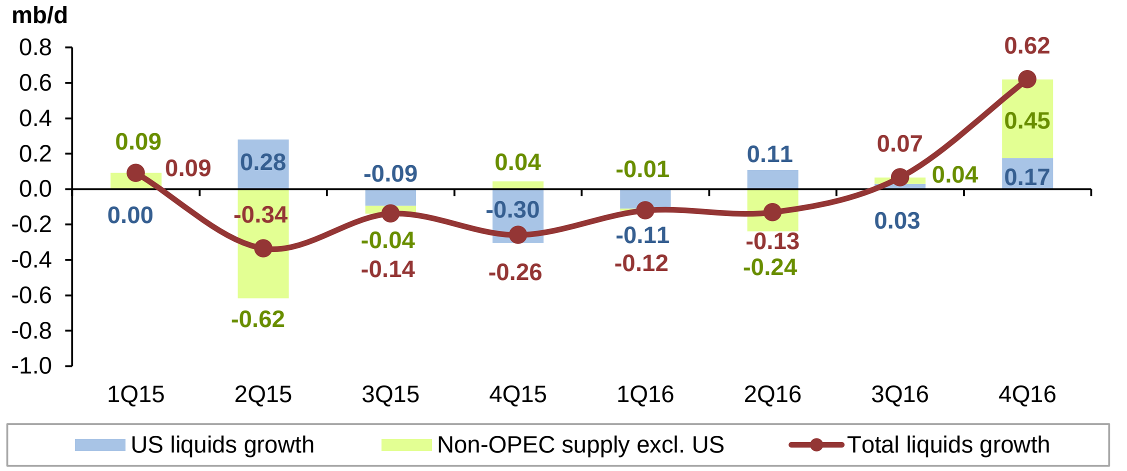


Source: Baker Hughes.

On a quarterly basis, US oil supply in 2015 is expected to average 13.69 mb/d, 13.97 mb/d, 13.87 mb/d and 13.57 mb/d, respectively.

US liquids q-o-q changes compared to other non-OPEC supply can be seen in ***Graph 5.10.***

Graph 5.10: US liquids vs. non-OPEC supply, q-o-q growth



Source: OPEC Secretariat.

Canada and Mexico

Oil supply in **Canada** is expected to grow by 0.05 mb/d in 2015 to average 4.36 mb/d y-o-y, unchanged from the last *MOMR*. Final June data shows conventional output fell by 0.17 mb/d y-o-y to 1.19 mb/d, the lowest level since August 2012, suggesting conventional declines have continued. Moreover, output of NGLs declined to 0.69 mb/d. The number of active rigs in Canada in November 2015 fell to just 178 units, lower y-o-y by 243 rigs, with 74 units (41%) working in oil fields and 104 rigs active in gas fields. Out of the total rig count in November, 115 rigs are active in Alberta State, mostly for oil sands production.

In June, output from Canada's oil sands increased by 0.43 mb/d to settle at 2.41 mb/d, driven by a 90 tb/d y-o-y increase in Syncrude joint venture upgrader production. Estimates place July Canadian output higher m-o-m by 0.22 mb/d to average

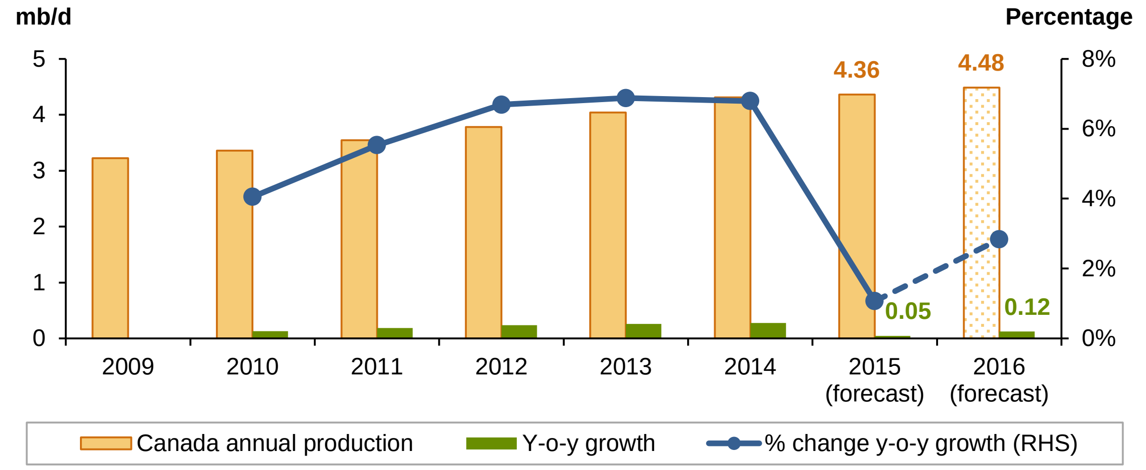
4.29 mb/d. Oil sands output reached successive record highs also in July and August, as ExxonMobil's Nabiye and Kearl expansion projects ramped up. The two projects have already added a combined 0.12 mb/d of extra heavy crude supply, and are expected to add a further 30 tb/d by year-end, weighing sharply on Canadian heavy crude prices. While August saw Canadian bitumen output remain flat m-o-m, production from the Syncrude 0.33 mb/d upgrader likely declined by 0.2 mb/d due to an unplanned outage. Preliminary September data indicates Canadian oil production fell by 0.14 mb/d y-o-y to just over 4.0 mb/d. Preliminary September Syncrude output also fell to just 63 tb/d, lower by 0.21 mb/d y-o-y due to a fire at the facility. This took total Canadian oil sands production to 2.2 mb/d, higher y-o-y by just 17 tb/d, the slowest pace of growth since May 2013.

Conventional oil output offshore and onshore, including tight oil, continued falling, down by over 0.15 mb/d y-o-y across 3Q15, as the onshore rig count fell to just 70 rigs by the end of September, lower y-o-y by 152. Indeed, September Canadian oil production fell by 0.14 mb/d y-o-y to just over 0.4 mb/d. The y-o-y declines were driven by falling conventional production, which dropped by 0.17 mb/d to 1.2 mb/d.

Canadian output in 2Q15 was 4.13 mb/d, which was lower y-o-y by 60 tb/d while representing a huge decline of 0.47 mb/d compared to 1Q15. This decline was due not only to the seasonal pattern, but also to a wildfire in Alberta.

On a quarterly basis, Canada's oil supply in 2015 is expected to average 4.60 mb/d, 4.13 mb/d, 4.29 mb/d and 4.42 mb/d, respectively.

Graph 5.11: Canada's annual liquids production and annual growth



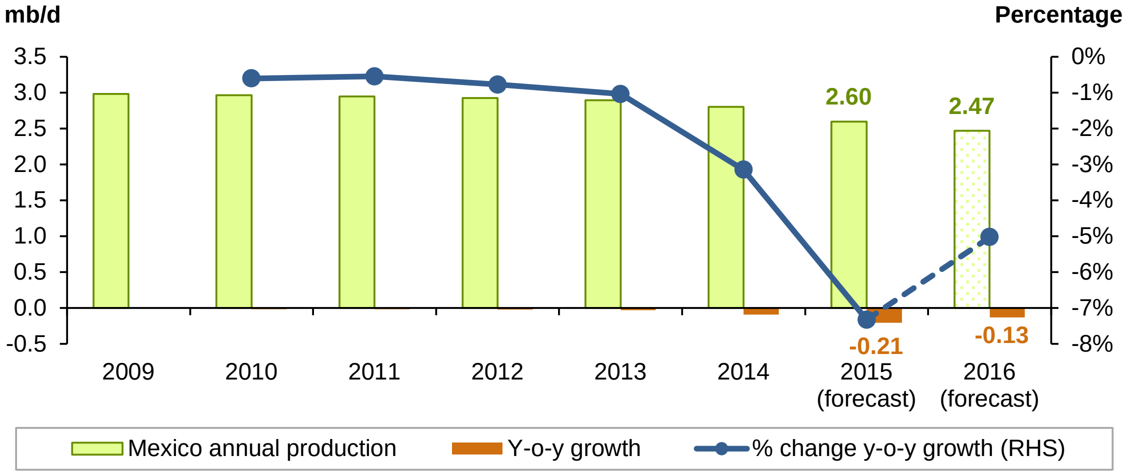
Source: OPEC Secretariat.

Mexico's liquids production in 2015 is expected to decline significantly by 0.21 mb/d to average 2.60 mb/d. Liquids output in 3Q15 increased by 10 tb/d to average 2.60 mb/d, where preliminary data shows that crude output increased by 40 tb/d to average 2.26 mb/d in the same quarter, although output in August and September declined slightly compared to July. September has seen crude output remain broadly flat m-o-m, with the y-o-y decline easing to 0.12 mb/d. Mexico's oil supply in 3Q15 declined by more than 6%, or 170 tb/d, over the same quarter a year earlier. Mexican liquids output was also more or less steady m-o-m at 2.61 mb/d in October, with y-o-y declines easing to 0.12 mb/d, as renewed weakness in production from September 2014 onwards provided a low base. Mexico also produced 0.33 mb/d of NGLs in 3Q15. Output from the Ku-Maloob-Zaap cluster (KMZ) fell below 0.77 mb/d y-o-y, down by 85 tb/d, the steepest decline in over 10 years. The same condition was seen in

Cantarell and Ligero Marino. With rigs falling to their lowest levels since June 2003, at just 35 rigs by November, declines are likely to step up next year.

On a quarterly basis, Mexico's oil supply in 2015 is seen to average 2.65 mb/d, 2.55 mb/d, 2.60 mb/d and 2.58 mb/d, respectively.

Graph 5.12: Mexico's annual liquids production and annual growth



Source: OPEC Secretariat.

OECD Europe

Total **OECD Europe oil supply,** which grew by 20 tb/d to average 3.60 mb/d in 2014, is expected to grow again this year – by 100 tb/d – to average 3.70 mb/d. This is due to the exploitation of new projects that have started up as well as from several field ramp-ups in Norway and the UK.

OECD Europe in 2015 is estimated to see quarterly supply of 3.69 mb/d, 3.77 mb/d, 3.68 mb/d and 3.68 mb/d, respectively.

Norway's oil supply is expected to increase by 30 tb/d from the previous year to average 1.92 mb/d in 2015. Norwegian October liquids output picked up m-o-m to 1.95 mb/d, led by a 53 tb/d m-o-m increase in NGLs. According to data from the Norwegian Petroleum Directorate (NPD), preliminary production figures for October 2015 show an average daily production of about 1.95 mb/d of oil, NGLs and condensate, which is 85 tb/d (about 4.5%) more than in September 2015. The average daily liquids production in September was: 1.57 mb/d of oil, 0.33 mb/d of NGLs and 0.04 mb/d of condensate. The NPD also mentioned that oil production was about 0.5% below the figure seen in October of last year.

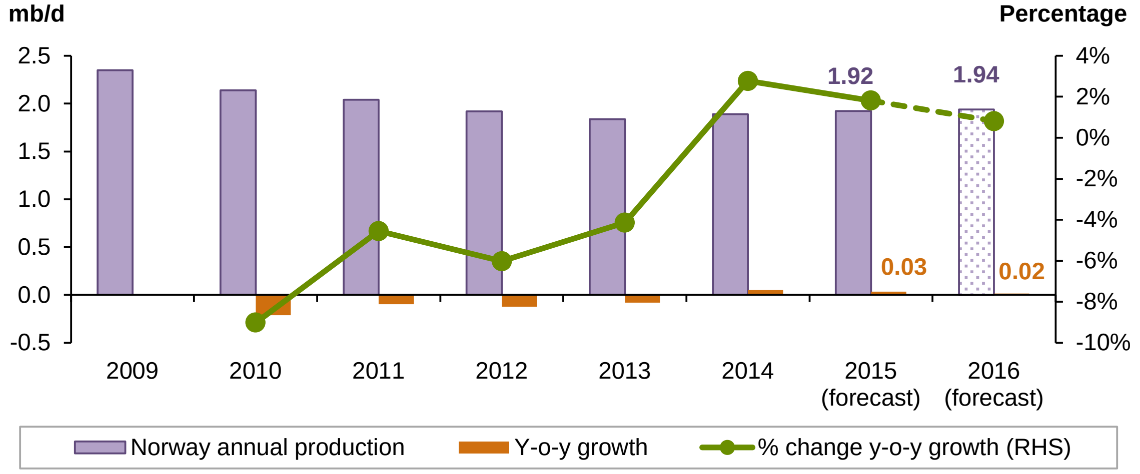
October saw the return of the 70 tb/d Skarv field, which had been offline for the last 10 days of September. The start of Eni's 0.1 mb/d Goliat field has been delayed as the regulator found the FPSO to have eight nonconformities relating to electrical safety. Overall, 0.28 mb/d of new fields (if Goliat starts by year-end) and less maintenance should keep y-o-y output growth positive for the second straight year in 2015, although a high base will keep growth flat in 4Q15 at 1.92 mb/d.

A new field, Edvard Grieg, started producing in the North Sea on Saturday, 28 November. This field is the Lundin operating company's first major development project on the Norwegian shelf. Expected recoverable resources from the field total 182 mboe, mainly oil. The field's startup is in accordance with the Plan for

Development and Operation (PDO). Development costs have increased somewhat, but the increase is within the uncertainty range of plus/minus 20% in the PDO's investment estimate. The field is developed with a fixed platform, resting on the seabed. The oil is transported by pipeline (EGOP) to the Grane oil pipeline and on to the Sture terminal north of Bergen. The gas is transported in a separate pipeline (UHGP), which is tied in to the pipeline network on the UK side (SAGE).

On a quarterly basis, Norway's oil production in 2015 is seen to average 1.93 mb/d, 1.93 mb/d, 1.91 mb/d and 1.92 mb/d, respectively.

Graph 5.13: Norway's annual liquids production and annual growth



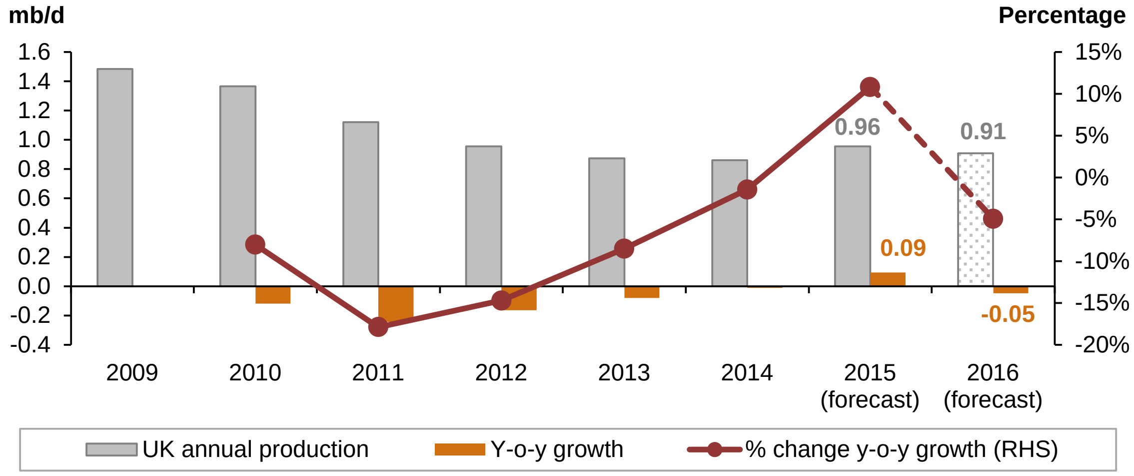
Source: OPEC Secretariat.

The **UK**'s oil supply is estimated to grow by 90 tb/d to an average of 0.94 mb/d in 2015 y-o-y. Preliminary estimates for 3Q15 show a drop of 0.10 mb/d compared with 2Q15, but nevertheless higher by 0.20 mb/d than in the same quarter last year. With lower maintenance at Buzzard than during last year, output remained higher y-o-y (+0.35 mb/d) for the fifth consecutive month. September output rebounded to 1.0 mb/d, with the Forties loading programme rising by 91 tb/d m-o-m to 0.44 mb/d. Meanwhile, planned works at Buzzard have been postponed from October to November, pushing October output to a two-year high. The Cladhan field, expected to produce around 17 tboe/d, was slated to achieve first oil in October.

UK liquids production was pegged at 0.95 mb/d in October, lower m-o-m by 50 tb/d. This decline was due to an outage at Buzzard on 15 October with production at the field taking several days to ramp back up after a four-day closure. In November, the field operated at reduced rates for a number of days due to technical issues, which would have weighed on output. Buzzard's recent problems are reflected in the number of cargo deferrals, with one cargo scheduled for December dropped, while six more December cargoes have seen postponements. Recent outages have occurred in the wake of several delays to planned maintenance at the field (originally due in June), with works now postponed until 2016. The timing and duration of Buzzard's maintenance is unconfirmed, but given the significant cutbacks in maintenance capex by major oil companies, it is likely to occur when there is a large unplanned outage.

On a quarterly basis, UK oil output in 2015 is estimated to average 0.93 mb/d, 1.00 mb/d, 0.95 mb/d and 0.95 mb/d, respectively.

Graph 5.14: UK annual liquids production and annual growth



Source: OPEC Secretariat.

OECD Asia Pacific

OECD Asia Pacific's oil supply is expected to decline by 50 tb/d in 2015, averaging 0.46 mb/d. On a quarterly basis, total OECD Asia Pacific oil supply in 2015 is expected to average 0.43 mb/d, 0.45 mb/d, 0.50 mb/d and 0.47 mb/d, respectively.

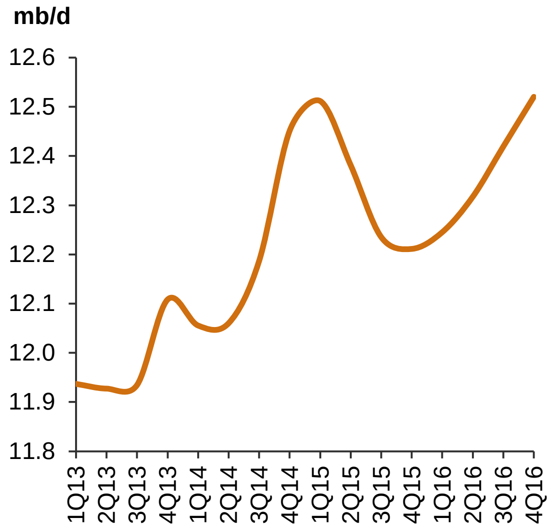
Australia's oil supply is slated to decline this year by 50 tb/d to average 0.38 mb/d. According to the latest information from Australian Petroleum Statistics in July, crude oil and condensate production from six basins is declining. Total annual output of these six basins during 2010-14 declined from 161 mb to 120 mb.

Developing Countries

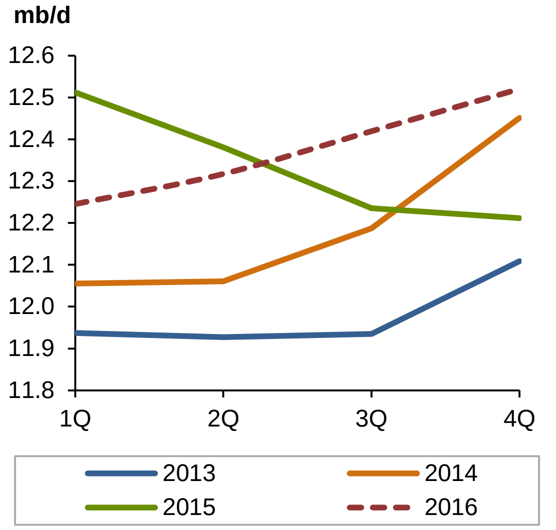
Total oil output from **Developing Countries (DCs)** will reach an average of 12.33 mb/d in 2015, an increase of 0.14 mb/d compared to growth of 0.21 mb/d in 2014.

On a quarterly basis, total oil supply in DCs in 2015 is estimated to average 12.51 mb/d, 12.38 mb/d, 12.24 mb/d and 12.21 mb/d, respectively.

Graph 5.15: Developing Countries' quarterly production



Graph 5.16: Developing Countries' quarterly production, annual comparison



Other Asia

Other Asia's oil production is predicted to increase by 70 tb/d in 2015 to average 3.55 mb/d. Oil output in Malaysia, Thailand, Vietnam and Asia others is expected to grow by 0.11 mb/d, while production in India and Indonesia will likely decrease by 20 tb/d and 10 tb/d, respectively. Brunei's output is expected to remain steady.

India

In India, output over the first three quarters of 2015 has been in line with 2014 levels at 760 tb/d, which is slightly lower compared to 2-3 years ago when production was close to 770-780 tb/d. Recently, declines in onshore production have been countered by increases in production from offshore fields. In particular, Cairn, India, managed to grow output at its two offshore fields, Ravva and Cambay, recently; output at its major Rajasthan block, however, has been declining. The company plans to use enhanced recovery methods to boost production back up to 200 tb/d from the current 170-180 tb/d.

On a quarterly basis, Other Asia's oil supply in 2015 is estimated to stand at 3.60 mb/d, 3.61 mb/d, 3.51 mb/d and 3.50 mb/d, respectively.

Latin America

Latin America's oil supply is estimated to grow by 0.18 mb/d to average 5.19 mb/d in 2015. Latin America was the second-highest driver of growth in 2014 among all non-OPEC regions. Brazil is the main driver of growth in 2015 by 0.20 mb/d, along with a small increase in Colombia, while oil production in other Latin American countries is expected to decline by 30 tb/d.

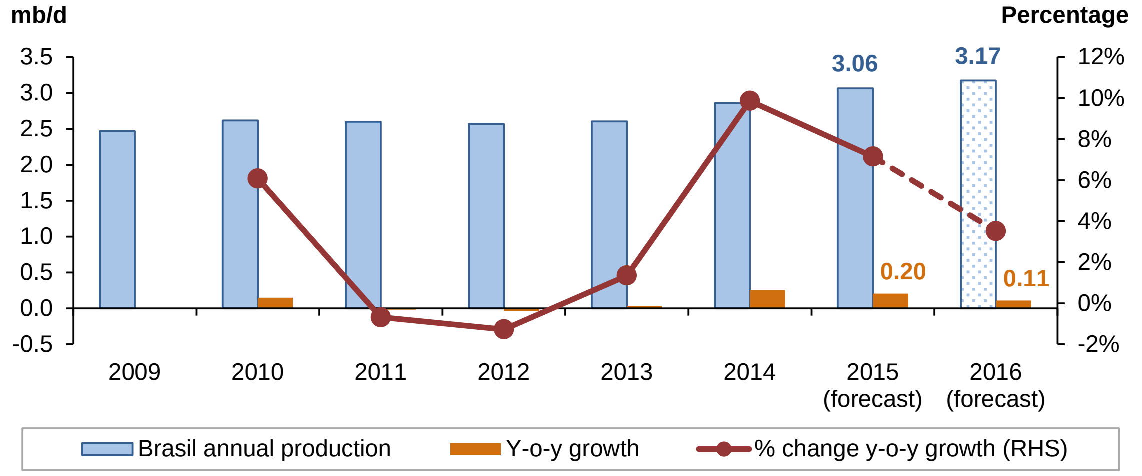
On a quarterly basis, Latin America's oil supply in 2015 is expected to stand at 5.23 mb/d, 5.16 mb/d, 5.18 mb/d and 5.18 mb/d, respectively.

Brazil's liquids supply is expected to average 3.06 mb/d in 2015, an increase of 0.20 mb/d over the previous year. A record level of liquids output was pegged at 3.17 mb/d in August of the current year. The increase came from the ramp-up of the 0.15 mb/d FPSO Cidade de Itaguaí in the Lula field, while the return of platforms from maintenance also helped. In the year-to-August, production growth has averaged 0.27 mb/d, compared to 0.24 mb/d for all of 2014. Brazilian crude oil and NGL production in September fell m-o-m by 0.15 mb/d to 2.40 mb/d due to large platforms shutting down for maintenance, in particular the P-52 platform in the Roncador field.

Pre-salt output reached 0.9 mb/d during the month, although average output across September declined by more than 30 tb/d. Thus, y-o-y growth eased to just 27 tb/d, the lowest since January 2014. While October output was flat m-o-m, November could see production decline by 0.1-0.3 mb/d across the month due to Brazil's largest workers union (FUP) starting a strike to protest against asset sales by Petrobras. Even before the strike, Brazilian output would have struggled to grow strongly as the sharp drop in maintenance capex will likely lead to a decline in Campos basin output. Biofuel output in September was steady at 0.53 mb/d.

On a quarterly basis, Brazil's oil supply in 2015 is estimated to stand at 3.06 mb/d, 3.02 mb/d, 3.09 mb/d and 3.09 mb/d, respectively.

Graph 5.17: Brazil's annual liquids production and annual growth



Source: OPEC Secretariat.

Middle East

Middle East oil supply is estimated to decrease by 0.09 mb/d in 2015 from the previous year to average 1.25 mb/d. Oman's oil production is expected to grow by 30 tb/d to average 0.98 mb/d, while Bahrain and Yemen are expected to see declines of 20 tb/d and 0.10 mb/d to average 0.21 mb/d and 0.04 mb/d, respectively, in 2015.

On a quarterly basis, Middle East oil supply in 2015 is seen to average 1.30 mb/d, 1.25 mb/d, 1.24 mb/d and 1.23 mb/d, respectively.

Africa

Africa's oil supply is projected to average 2.34 mb/d in 2015, a decline of 20 tb/d y-o-y. In 2015, oil production from Equatorial Guinea and the Sudans is expected to grow by 10 tb/d each, to average 0.29 mb/d. While Chad, Congo and Africa Others will see supply declines, other countries, such as Egypt, Gabon and South Africa, will see steady production in 2015.

On a quarterly basis, Africa's oil supply in 2015 is expected to average 2.38 mb/d, 2.37 mb/d, 2.31 mb/d and 2.31 mb/d, respectively.

FSU, other regions

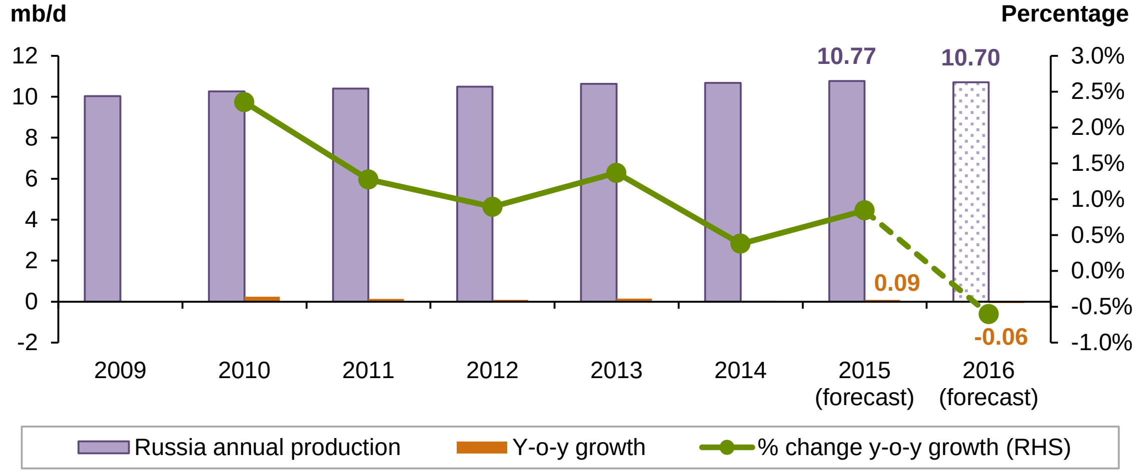
Total FSU oil supply is expected to increase by 50 tb/d in 2015 to an average of 13.60 mb/d. In 2015, oil production in Russia will increase, while output in Kazakhstan, Azerbaijan and FSU others is expected to decrease.

On a quarterly basis, total FSU oil supply in 2015 is seen to average 13.68 mb/d, 13.61 mb/d, 13.55 mb/d and 13.55 mb/d, respectively.

Russia

Russian oil supply in 2015 is expected to grow by 90 tb/d to average 10.77 mb/d. October and November output rose to a post-Soviet record of 10.90 mb/d and 10.88 mb/d, respectively. The increase continues to be led by Gazprom, Bashneft and PSA operators, as their output is biased towards condensate, while Lukoil's and Rosneft's output continued to fall, with Lukoil's output down y-o-y by 2.9% and Rosneft's by 0.9%. In 2015, the regions seeing the biggest supply additions are Northern Russia and East Siberia, while West Siberia recorded the biggest losses overall on a y-o-y basis.

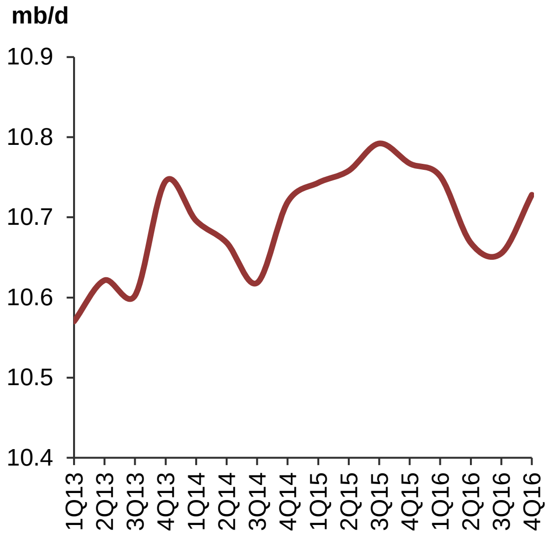
Graph 5.18: Russia's annual liquids production and annual growth



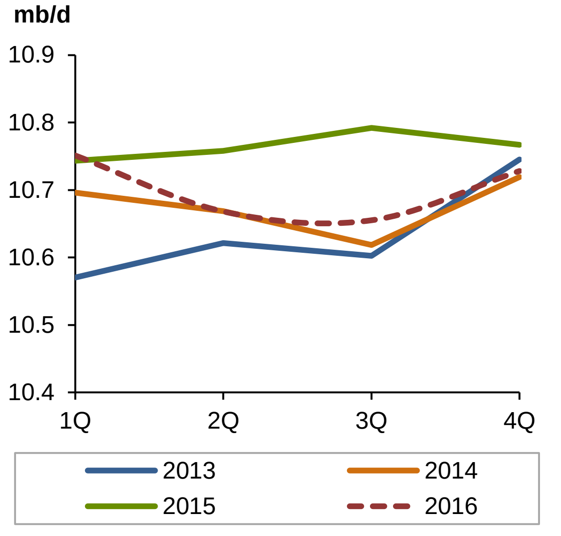
Source: OPEC Secretariat.

On a quarterly basis, Russia's 2015 oil supply is expected to average 10.74 mb/d, 10.76 mb/d, 10.79 mb/d and 10.77, mb/d, respectively.

Graph 5.19: Russia's quarterly production



Graph 5.20: Russia's quarterly production, annual comparison



Caspian

Kazakhstan's oil supply is expected to decrease by 40 tb/d over the previous year to average 1.59 mb/d in 2015. Kazakhstan's August output declined m-o-m by a steep 86 tb/d to 1.51 mb/d, the lowest level since October 2014. This was due to a 0.1 mb/d decline in Tengiz output. Preliminary supply data for 3Q15 indicates a decline by 50 tb/d to 1.55 mb/d. Lower investment in mature onshore fields, such as Uzen and Emba, is weighing on the country's operations. Indeed, evidence suggests some smaller Kazakh producers have already shut in wells due to poor economics. The latest guidance from Eni suggests the Kashagan field is on track for a late 2016 startup, so the contribution to supplies next year is likely to be minimal.

Azeri oil supply is anticipated to decline by 10 tb/d to average 0.86 mb/d in 2015, indicating steady production during the year. Azerbaijan's August output fell by 20 tb/d m-o-m to 0.84 mb/d as the country's largest field, BP's ACG complex, entered into decline. Planned maintenance at the Chirag platform for 20 days starting 20-22 October will also weigh in 4Q15. Year-end sees lower output from Azerbaijan due to maintenance at the ACG complex for 25 days from 10 November.

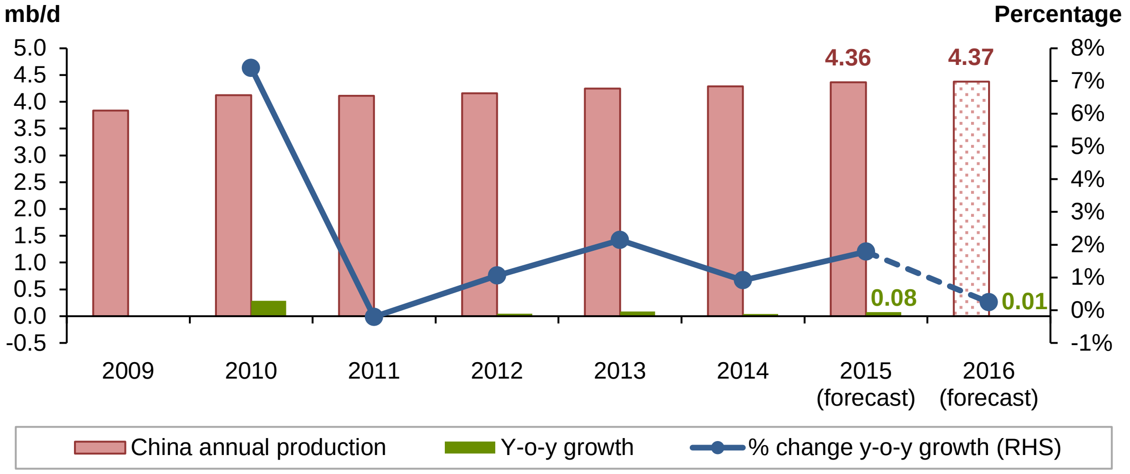
Other Europe's oil supply remained unchanged to average 0.14 mb/d in 2015, indicating steady production during the year.

China

China's oil supply is expected to grow by 80 tb/d over the previous year to average 4.36 mb/d in 2015, due to strong output in 2Q15, continuing into 3Q15. Chinese crude production in October eased m-o-m by 58 tb/d to 4.27 mb/d, the lowest since April. The y-o-y growth eased to just 36 tb/d, the slowest since February.

On a quarterly basis, China's oil supply in 2015 is estimated to average 4.33 mb/d, 4.39 mb/d, 4.38 mb/d and 4.36 mb/d, respectively.

Graph 5.21: China's annual liquids production and annual growth



Source: OPEC Secretariat.

Forecast for 2016

Non-OPEC supply

Non-OPEC oil supply in 2016 is expected to contract by 0.38 mb/d over the current year to average 57.14 mb/d. It has been revised down by 0.25 mb/d from the previous *MOMR*. This revision is due to downward revisions in some countries' production forecasts as mentioned in the table below, mostly due to the expected higher declines. The weak growth trend estimated in some countries for 2015 is expected to persist, leading to a contraction in 2016, which is supported by declines from the OECD at -0.25 mb/d and FSU at -0.19 mb/d.

Table 5.4: 2016 non-OPEC supply growth revision from November MOMR, mb/d

	MOMR Nov 15	MOMR Dec 15	Revision
US	-0.06	-0.17	-0.11
UK	0.00	-0.05	-0.04
Mexico	-0.09	-0.13	-0.04
Kazakhstan	-0.03	-0.06	-0.03
Australia	0.04	0.02	-0.02
Total non-OPEC supply	**-0.13**	**-0.38**	**-0.25**

Source: OPEC Secretariat.

On a regional basis, OECD Americas will decline by 0.18 mb/d, OECD Europe by 0.07 mb/d, the Middle East at 0.02 mb/d, Africa by 0.03 mb/d and FSU by 0.19 mb/d in 2016. The other regions – Other Asia, Latin America and China – are expected to be the main contributors of non-OPEC incremental growth with 0.06 mb/d, 0.03 mb/d and 0.01 mb/d, respectively. Oil production in OECD Asia Pacific is forecast to be stagnant in 2016.

Table 5.5: Non-OPEC oil supply in 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016	*Change 16/15*
Americas	20.74	20.43	20.47	20.53	20.79	20.56	-0.18
of which US	*13.77*	*13.46*	*13.57*	*13.60*	*13.77*	*13.60*	*-0.17*
Europe	3.70	3.71	3.61	3.54	3.68	3.63	-0.07
Asia Pacific	0.46	0.45	0.47	0.47	0.45	0.46	0.00
Total OECD	**24.90**	**24.60**	**24.54**	**24.54**	**24.91**	**24.65**	**-0.25**
Other Asia	3.55	3.56	3.60	3.65	3.66	3.62	0.06
Latin America	5.19	5.13	5.16	5.23	5.35	5.22	0.03
Middle East	1.25	1.24	1.24	1.23	1.22	1.23	-0.02
Africa	2.34	2.32	2.32	2.31	2.29	2.31	-0.03
Total DCs	**12.33**	**12.25**	**12.32**	**12.42**	**12.52**	**12.38**	**0.04**
FSU	13.60	13.53	13.36	13.32	13.42	13.41	-0.19
of which Russia	*10.77*	*10.75*	*10.67*	*10.66*	*10.73*	*10.70*	*-0.06*
Other Europe	0.13	0.13	0.13	0.13	0.13	0.13	0.00
China	4.36	4.35	4.36	4.37	4.42	4.37	0.01
Total "Other regions"	**18.09**	**18.01**	**17.86**	**17.82**	**17.97**	**17.91**	**-0.18**
Total Non-OPEC production	**55.33**	**54.85**	**54.72**	**54.78**	**55.40**	**54.94**	**-0.39**
Processing gains	2.19	2.20	2.20	2.20	2.20	2.20	0.01
Total non-OPEC supply	**57.51**	**57.05**	**56.92**	**56.98**	**57.60**	**57.14**	**-0.38**
Previous estimate	57.24	56.98	56.87	56.94	57.64	57.11	-0.13
Revision	0.28	0.07	0.05	0.04	-0.04	0.03	-0.25

On a quarterly basis, non-OPEC oil supply in 2016 is projected to stand at 57.05 mb/d, 56.92 mb/d, 56.98 mb/d and 57.60 mb/d, respectively.

The forecast for non-OPEC supply in 2016 is associated with a high level of risk.

OECD

Total OECD oil supply in 2016 is expected to decline by 0.25 mb/d to average 24.65 mb/d, an upward revision in absolute supply by 10 tb/d, while the growth was revised down by 0.21 mb/d from the last MOMR. The y-o-y decline in the OECD in 2016 is expected to come from OECD Americas by 180 tb/d and OECD Europe by 70 tb/d, while OECD Asia Pacific is expected to remain unchanged compared to the previous year.

On a quarterly basis, total OECD supply in 2016 is estimated to average 24.60 mb/d, 24.54 mb/d, 24.54mb/d and 24.91 mb/d, respectively.

OECD Americas

OECD Americas' oil supply in 2016 is estimated to average 20.56 mb/d, showing a decline of 180 tb/d y-o-y and representing a decline of 0.83 mb/d from the expected growth in 2015. The US and Mexico are both expected to see declines, while Canada's supply is forecast to grow by 0.12 mb/d.

On a quarterly basis, OECD Americas' oil supply in 2016 is expected to average 20.43 mb/d, 20.47 mb/d, 20.53 mb/d and 20.79 mb/d, respectively.

US

US total oil supply is anticipated to decline by 0.17 mb/d to average 13.60 mb/d in 2016, representing a decline of 0.98 mb/d from the expected growth of 0.81 mb/d in 2015. US liquids production for 2016, based on 2015 output assumptions, is shown in the ***Table 5.6*** and ***Graph 5.22***.

Table 5.6: US liquids production breakdown in 2014-2016

Production type	2014 mb/d	2015* mb/d	Change Y-o-y, tb/d	2016** mb/d	Change Y-o-y, tb/d	2014 share
Unconventional sources						
Tight crude	3.96	4.40	436	4.23	-170	
Unconventional NGL	1.59	1.78	190	1.75	-30	**6.79 mb/d**
Biofuels + Other liquids	1.24	1.26	20	1.26	0	**52%**
Conventional sources						
Conv. NGL	1.42	1.45	30	1.45	0	
Gulf of Mexico crude	1.40	1.57	170	1.67	100	**6.17 mb/d**
Conventional crude	3.36	3.32	-40	3.25	-70	**48%**
US total liquids production	**12.96**	**13.77**	**810**	**13.60**	**-170**	

** 2015 = estimate and 2016 = forecast.*
Sources: EIA and OPEC Secretariat.

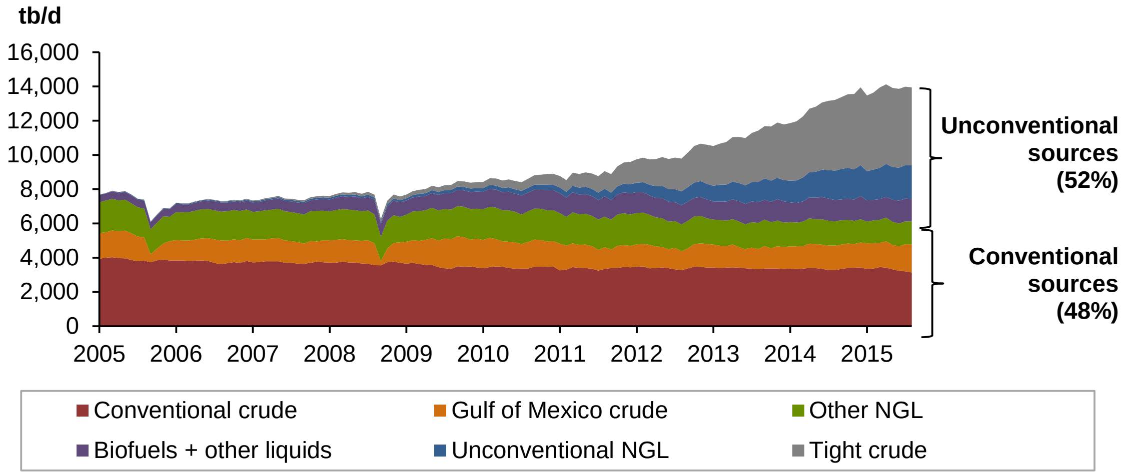
According to US field development in onshore fields both conventional and tight oil as well as new project startups in GOM in 2016, assuming the latest output trend in 3Q15, US total liquids production is expected to decline by 0.17 mb/d in the next year. The breakdown indicates that the main component of US oil output – tight crude – will decline from the last estimated growth of around 0.44 mb/d in 2015 to contract by

0.17 mb/d in 2016, affected by the low oil price environment. Out of total new planned oil production capacity from six new projects expected to come on stream in 2016 in GOM, only 100 tb/d are expected to be added to GOM's output in the next year. Production of NGLs from unconventional sources of tight formations and conventional crude oil particularly in Alaska are also expected to decline by 30 tb/d and 70 tb/d in 2016, respectively.

A total of 19 permits were issued in GOM in October 2015, up from 13 in September, but down from 21 a year ago; eight permits were issued for new wells, including three deepwater, four midwater and one ultra-deepwater. Five permits were issued for side tracks while six were issued for bypasses and eight for new wells. A total of 154 new permits have been issued y-t-d, down 42% versus 2014, driven by sharply lower bypass and new well permits.

Only 58 new well permits have been issued y-t-d, compared with 105 as of this time last year. While the number of ultra-deepwater and midwater new well permits has been largely resilient over the past year, only 18 deepwater and 12 shallow-water new well permits have been issued y-t-d, down 18% and 76%, respectively, from a year ago. Meanwhile, the number of new oil and gas exploration plans filed in GOM was steady month-to-month, with operators filing five plans to drill a total of 22 wells, versus five plans to drill 14 wells in September. No development plans were filed to drill in October, and development of the Lower Tertiary appears to remain a long ways off as the industry has filed few development plans y-t-d.

Graph 5.22: Trend of US oil production components, 2005 - August 2015



Sources: EIA and OPEC Secretariat.

On a quarterly basis, total US supply in 2016 is estimated to average 13.46 mb/d, 13.57 mb/d, 13.60 mb/d and 13.77 mb/d, respectively.

Canada and Mexico

Oil supply in **Canada** is expected to grow by 0.12 mb/d in 2016 to average 4.48 mb/d y-o-y, a decline of 20 tb/d from the initial forecast. This is partially due to higher expected declines in conventional output and uncertainties over the materialization of new projects. Around 0.2 mb/d − mostly from project ramp-ups, new oil sands production from the 28 tb/d Mackay River phase 1 and some other small projects, such as Foster Creek phase G, Edam East and West, Vawm and Jackfish − are expected to come on stream in 2016.

On a quarterly basis, total Canadian oil supply on 2016 is estimated to average 4.45 mb/d, 4.44 mb/d, 4.47 mb/d and 4.57 mb/d, respectively.

Mexican oil production in 2016 is expected to decline at a slower pace of 130 tb/d to average 2.47 mb/d, compared to the expected heavy decline of 0.21 mb/d in 2015.

On a quarterly basis, total Mexican oil supply in 2016 is estimated to average 2.52 mb/d, 2.45 mb/d, 2.46 mb/d and 2.53 mb/d, respectively.

OECD Europe

Total **OECD Europe oil supply** is expected to decline by 70 tb/d to average 3.63 mb/d in 2016, a decrease of 60 tb/d from the initial forecast. This is mainly due to the downward revision in Norway and the UK's future output. OECD Europe is estimated to see quarterly oil supply in 2016 of 3.71 mb/d, 3.61 mb/d, 3.54 mb/d and 3.68 mb/d, respectively.

Norway's oil supply is expected to grow by 20 tb/d from the previous year to average 1.94 mb/d in 2016. Around 0.24 mb/d is expected to be added at the peak to Norway's 2016 production mostly through project ramp-ups, for example from Gudrun, Aasgard LP, Valemo, the infill drilling project of Troll, Goliat, Knarr and other small schemes. There are only two projects scheduled to start in 2016 (totalling 51 tb/d), including the Edward Grieg field, which started production in late November 2015. Field maintenance will likely be heavier than in 2015, when it saw some of the lowest levels on record. Moreover, lower maintenance capex is likely to result in higher base declines. Also, production will be suspended at Njord Future Projects' fields in 2Q16, and are due to resume in 2019, with the Njord A facility to be towed ashore in the summer. Norway sees 2015 oil investment falling y-o-y by 11.3%, 2016 falling by 8.1% and 2017 falling by 5.5% (NOK terms). While output in 1H16 will benefit from late 2015 startups—namely Goliat and Edvard Grieg, negligible new additions along with reduced infill drilling will probably lead to output declines in 2H16, which will likely accelerate in 2017.

On a quarterly basis, total Norwegian oil supply in 2016 is estimated to average 1.96 mb/d, 1.93 mb/d, 1.90 mb/d and 1.96 mb/d, respectively.

The **UK's** oil production in 2016 is expected to decline by 50 tb/d compared to higher-than-expected growth in 2015, averaging 0.91 mb/d, revised down by 50 tb/d due to a base change in 2015. It is expected that around 0.15 mb/d of new volume will be added from oil field ramp-ups as well as from new small production sites, such as Cygnus, Alder, Stella, Cayley, Shaw, Barra, Morrone, Ythan and Aviat as they come on stream, supporting output growth next year. However, a higher base, heavier maintenance next year and accelerating decline rates will keep production declining in 2016.

On a quarterly basis, total UK oil supply in 2016 is estimated to average 0.94 mb/d, 0.88 mb/d, 0.86 mb/d and 0.95 mb/d, respectively.

OECD Asia Pacific

OECD Asia Pacific's oil supply is expected to be stagnant in 2016 with an average of 0.46 mb/d, a downward revision of 20 tb/d from the last *MOMR*. Australia's oil supply will grow by 20 tb/d to average 0.41 mb/d.

On a quarterly basis, total OECD Asia Pacific oil supply in 2016 is estimated to average 0.45 mb/d, 0.47 mb/d, 0.47 mb/d and 0.45 mb/d, respectively.

Developing Countries

Total **DCs'** oil output will grow by 40 tb/d to average 12.38 mb/d in 2016, unchanged from the last *MOMR*.

On a quarterly basis, total DCs' oil supply in 2016 is estimated to average 12.25 mb/d, 12.32 mb/d, 12.42 mb/d and 12.52 mb/d, respectively.

Other Asia's oil production is predicted to increase by 60 tb/d in 2016 to average 3.62 mb/d, with growth revised down by 10 tb/d from the last *MOMR*. Oil output in Malaysia, Indonesia and Asia others is expected to increase, while production in Vietnam and Brunei is forecast to decline. Oil production in India and Thailand is slated to be stagnant during the year.

On a quarterly basis, Other Asia's oil supply in 2016 is expected to stand at 3.56 mb/d, 3.60 mb/d, 3.65 mb/d and 3.66 mb/d, respectively.

Latin America's oil supply is estimated to grow by 30 tb/d to average 5.22 mb/d in 2016, a downward revision of 10 tb/d from the last *MOMR*. Latin America has been the second-highest driver of growth in recent years among all non-OPEC regions, but due to few Brazilian projects coming online in 2016, remarkable growth is not foreseen. Despite this, Brazil is still forecast to be the main driver of growth in this region in 2016, while oil production in other Latin American countries is expected to decline.

On a quarterly basis, Latin America's oil supply in 2016 is expected to stand at 5.13 mb/d, 5.16 mb/d, 5.23 mb/d and 5.35 mb/d, respectively.

The pace of growth in **Brazil** is expected to slow substantially in 2016 by 0.11 mb/d to average 3.17 mb/d as the pullback in investment in the mature Campos Basin by Petrobras weighs, along with an already high base. In fact, some of the largest fields in the Campos region are already registering steep declines. For example, the Marlin field, which produced 0.24 mb/d in 2014, has declined by more than 30% in 2015, which was partly maintenance-related.

Nineteen new production units will be installed in the Santos Basin pre-salt area by the end of 2018. Between January 2013 and March 2014 alone, Petrobras made 49 new discoveries, including 15 in pre-salt. Petrobras' strong results in pre-salt exploration are due to its in-depth knowledge and technological excellence in ultra-deep water exploration. To illustrate the challenges facing Petrobras, in its 3Q15 earnings call earlier today, the company signaled further reductions to upstream activity that are likely to result in delays to projects scheduled to startup next year. The company indicated it is reducing its fleet of drill ships and platforms as contracts expire and is cutting its 2016 well drilling programme. The company indicated it may have to adjust its 2020 production outlook, which is currently set at 2.8 mb/d following a 1.4 mb/d cut already made at the end of June.

At present, three projects are due to startup next year with a combined capacity of 0.38 mb/d — two in 1Q16 and one in 3Q16. The wording of the announcement is vague but suggests more than one project may be delayed. If several startups are delayed into 2017, then it will have significant consequences for Brazilian production next year, particularly as only one project came on stream this year (the 0.15 mb/d

FPSO Cidade de Itaguai in Iracema Norte in August), compared to four in 2014 (total 0.66 mb/d). Any delays to new projects will come at a time when decline rates at existing fields step-up due to sharp reductions in maintenance capex. If some or all of the three planned startups do not come online as planned, then Brazil may struggle to record any growth at all.

Brazil's biofuel production is expected to grow by only 20 tb/d in 2016, although average production in 2015 will reach 0.58 mb/d, indicating 40 tb/d growth.

On a quarterly basis, oil supply in Brazil in 2016 is expected to stand at 3.07 mb/d, 3.11 mb/d, 3.22 mb/d and 3.29 mb/d, respectively.

Middle East oil supply is estimated to decrease by 20 tb/d in 2016 from the previous year to average 1.23 mb/d, revised down by 10 tb/d from the last *MOMR* due to a better production performance and the expected growth of 10 tb/d for the next year in Oman. There is no expectation for growth or decline in oil supply in Bahrain and Syria, while oil output in Yemen is expected to decline by 30 tb/d in 2016. Moreover, the Middle East supply forecast is associated with a very high level of risk, mainly due to political factors, which could dramatically change the outlook in either direction.

On a quarterly basis, Middle East oil supply in 2016 is seen to average 1.24 mb/d, 1.24 mb/d, 1.23 mb/d and 1.22 mb/d, respectively.

Africa's oil supply is projected to decline by 30 tb/d to average 2.31 mb/d in 2016 y-o-y, unchanged from last month's prediction. Oil production in Congo and Africa others is expected to grow, while others are forecast to decline, with the exception of South Africa, which should remain steady.

On a quarterly basis, Africa's oil supply in 2016 is forecast to average 2.32 mb/d, 2.32 mb/d, 2.31 mb/d and 2.29 mb/d, respectively.

FSU and other regions

Total FSU oil supply is expected to decline by 0.19 mb/d in 2016 to average 13.41 mb/d, revised down by 30 tb/d from the last *MOMR*. Oil production in Russia, Kazakhstan, Azerbaijan and FSU others will decrease in 2016.

On a quarterly basis, total FSU oil supply in 2016 is seen to average 13.53 mb/d, 13.36 mb/d, 13.32 mb/d and 13.42 mb/d, respectively.

Russian oil supply is expected to decrease by 0.06 mb/d to average 10.70 mb/d in 2016. On a quarterly basis, total oil supply from Russia in 2016 is seen to average 10.75 mb/d, 10.67 mb/d, 10.66 mb/d and 10.73 mb/d, respectively.

Caspian

Oil production in **Kazakhstan** is forecast to decline by 60 tb/d to average 1.53 mb/d in 2016, a downward revision of 30 tb/d from last month's prediction. Different sources have said that the giant Kashagan project is unlikely to start production before mid-2017.

Azerbaijan's oil production is predicted to decline by 40 tb/d to average 0.82 mb/d in 2016, unchanged since the last *MOMR*. Lower prices are likely to accelerate declines in Azeri production in 2016 compared to 2015.

FSU others' oil production, mainly in Turkmenistan, will decline by 30 tb/d in 2016 to average 0.36 mb/d.

Other Europe's oil supply is estimated to remain flat from 2012 to average 0.14 mb/d and continue at this level in 2016.

China

China's oil supply is expected to grow by 10 tb/d over the previous year to average 4.37 mb/d in 2016. Expected growth was revised down by 10 tb/d from the last *MOMR*. With sharp capex cutbacks, particularly by Sinopec and PetroChina, output is set to decline in these two companies' operations in 2016.

On a quarterly basis, total oil supply from China in 2016 is seen to average 4.35 mb/d, 4.36 mb/d, 4.37 mb/d and 4.42 mb/d, respectively.

OPEC NGLs and non-conventional oils

Output of OPEC natural gas liquids (NGLs) and non-conventional liquids is estimated to average 5.99 mb/d in 2015, representing growth of 0.16 mb/d over the previous year and revised down by 30 tb/d compared to the last estimations. In 2016, production of OPEC NGLs and non-conventional liquids is projected to average 6.16 mb/d, an increase of 0.17 mb/d over 2015, unchanged in growth from the last month's forecast.

Table 5.7: OPEC NGLs + non-conventional oils, 2013-2016

			Change						*Change*		*Change*
	2013	**2014**	14/13	1Q15	2Q15	3Q15	4Q15	**2015**	15/14	**2016**	16/15
Total OPEC	**5.65**	**5.83**	0.18	5.86	5.94	6.01	6.13	**5.99**	0.16	**6.16**	0.17

OPEC crude oil production

According to secondary sources, total OPEC crude oil production in November increased by 0.23 mb/d over the previous month to average 31.70 mb/d. Crude oil output increased mostly in Iraq, by around 248 tb/d, to average 4.3 mb/d. According to secondary sources, November OPEC crude oil production, not including Iraq, stood at 27.39 mb/d, a decrease of 17 tb/d over the previous month.

Table 5.8: OPEC crude oil production based on *secondary sources*, tb/d

	2013	2014	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15	*Nov/Oct*
Algeria	1,159	1,151	1,112	1,107	1,109	1,113	1,113	1,113	*0.0*
Angola	1,738	1,660	1,746	1,716	1,759	1,756	1,736	1,760	*24.4*
Ecuador	516	542	551	546	541	544	545	548	*2.9*
Iran, I.R.	2,673	2,766	2,779	2,828	2,860	2,869	2,876	2,876	*0.0*
Iraq	3,037	3,265	3,454	3,868	4,159	4,208	4,060	4,307	*247.5*
Kuwait	2,822	2,774	2,748	2,726	2,721	2,732	2,696	2,722	*25.9*
Libya	928	473	382	450	381	373	426	405	*-20.9*
Nigeria	1,912	1,911	1,886	1,814	1,860	1,923	1,950	1,925	*-24.7*
Qatar	732	716	679	667	659	665	668	668	*0.0*
Saudi Arabia	9,586	9,683	9,809	10,253	10,266	10,197	10,155	10,130	*-25.2*
UAE	2,741	2,761	2,817	2,838	2,880	2,882	2,872	2,872	*0.0*
Venezuela	2,389	2,373	2,367	2,376	2,368	2,365	2,369	2,369	*0.0*
Total OPEC	**30,231**	**30,075**	**30,330**	**31,190**	**31,562**	**31,627**	**31,465**	**31,695**	***230.1***
OPEC excl. Iraq	**27,194**	**26,809**	**26,877**	**27,322**	**27,403**	**27,420**	**27,406**	**27,388**	***-17.5***

Totals may not add up due to independent rounding.

Table 5.9: OPEC crude oil production based on *direct communication*, tb/d

	2013	2014	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15	*Nov/Oct*
Algeria	1,203	1,193	1,141	1,147	1,159	1,163	1,172	1,181	*9.0*
Angola	1,701	1,654	1,766	1,784	1,777	1,806	1,762	1,722	*-40.0*
Ecuador	526	557	550	544	538	539	538	..	*..*
Iran, I.R.	3,576	3,117	3,017	3,103	3,170	3,200	3,280	3,310	*30.0*
Iraq	2,980	3,110	3,064	3,351	3,744	3,755	3,659	3,747	*88.0*
Kuwait	2,922	2,867	2,850	2,838	2,870	2,900	2,800	2,900	*100.0*
Libya	993	480	411	..	..	..	..	..	*..*
Nigeria	1,754	1,807	1,762	1,622	1,780	1,818	1,812	1,607	*-205.3*
Qatar	724	709	687	647	640	663	660	683	*23.2*
Saudi Arabia	9,637	9,713	9,878	10,401	10,285	10,226	10,276	10,186	*-89.9*
UAE	2,797	2,794	2,948	2,973	3,030	3,002	2,971	3,033	*61.5*
Venezuela	2,786	2,683	2,722	2,683	2,631	2,595	2,601	2,587	*-13.4*
Total OPEC	**31,599**	**30,682**	**30,793**	**..**	**..**	**..**	**..**	**..**	***..***
OPEC excl. Iraq	**28,619**	**27,572**	**27,729**	**..**	**..**	**..**	**..**	**..**	***..***

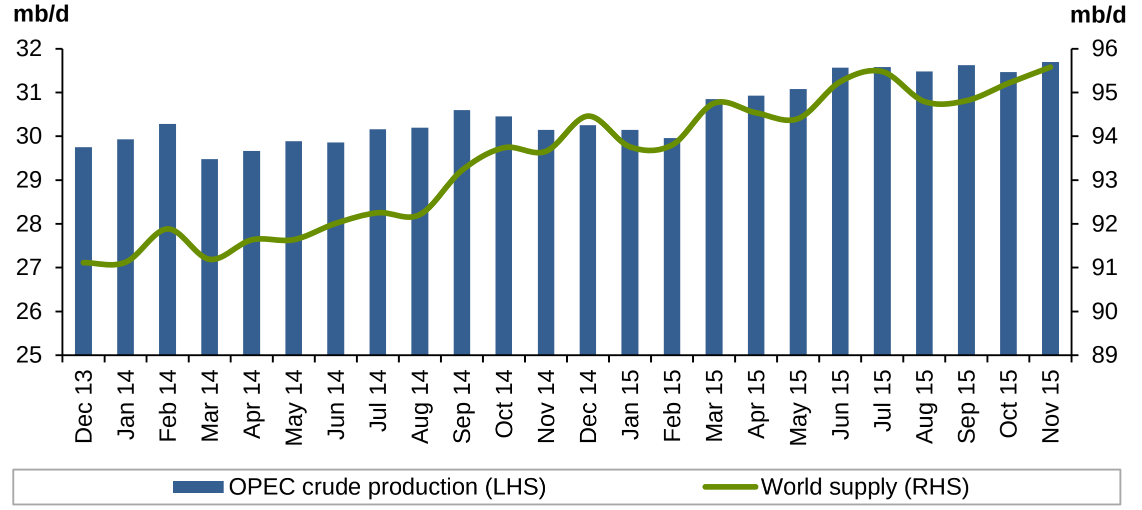
Totals may not add up due to independent rounding.
.. Not available.

World oil supply

Preliminary data indicates that global oil supply increased by 0.37 mb/d to average 95.58 mb/d in November, compared to the previous month. The increase was due to growth of 0.14 mb/d in non-OPEC supply and 0.23 mb/d in OPEC crude production. According to Baker Hughes, the rotary rig count in North America declined by 37 rigs while it increased by 16 rigs in the Middle East in November 2015, m-o-m. The number of world's active rotary drilling rigs decreased by 39 rigs to 2,047 rigs m-o-m, in November 2015, while it dropped by 1,623 rigs from last November.

Since 2008, the share of OPEC crude in global supply has declined. However, the first 11 months of 2015 show an average of 32.9%, higher by 0.4 pp than the previous year. This share reached at 33.2% in November 2015. Estimates are based on preliminary data for non-OPEC supply and OPEC NGLs, while OPEC crude production is reported according to secondary sources.

Graph 5.23: OPEC and world oil supply

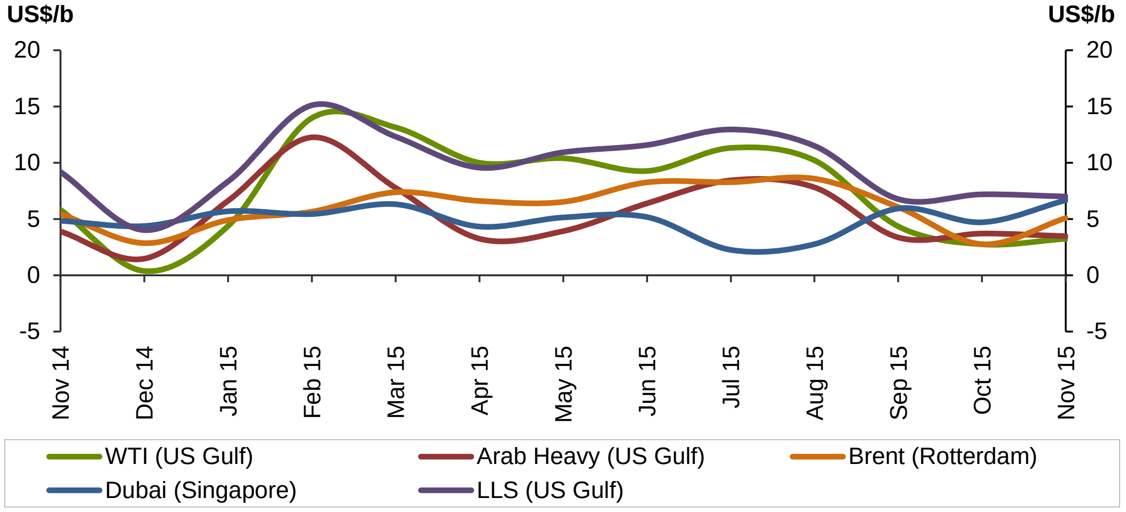


Product Markets and Refinery Operations

Product markets in the Atlantic Basin strengthened in November on the back of positive performance at the top of the barrel. Gasoline and naphtha were supported by strong regional demand amid export opportunities, thus supporting margins and offsetting the lack of winter support.

Meanwhile, Asian margins exhibited a strong recovery on the back of higher winter seasonal demand for heating fuels in the region and stronger petrochemical sector support at the top of the barrel.

Graph 6.1: Refinery margins, 2014-2015



US product markets strengthened slightly during November despite pressure from the supply side with refineries increasing runs and inventories on the high side. Stronger gasoline demand amid some temporary tightening sentiment lent support to the top of the barrel, which offset the weakening seen at the middle of the barrel due to the lack of winter support, allowing the margins to recover.

The positive performance seen at the top of the barrel, along with export opportunities to Latin America allowed the USGC refinery margin for WTI crude to gain 50¢ to average around $3.3/b in November. Meanwhile, the margins for Light Louisiana Sweet (LLS) crude averaged $7/b in November, continuing at a similar level seen in the previous month.

Product markets in **Europe** exhibited a recovery in November on the back of strong gasoline demand and tightening sentiment along with strong export opportunities to the petrochemical sector, giving support to the top of the barrel. In addition, the middle distillates market exhibited a recovery on the back of a balanced market with reduced inflows into the region. The refinery margin for Brent crude in Northwest Europe showed a sharp gain of more than $2 versus the previous month to average $5/b in November.

Asian product markets showed a recovery during November on the back of stronger winter seasonal demand, which lent support to middle distillate crack spreads. This, along with the positive performance seen in naphtha with the healthier petrochemical sector in the region, allowed refinery margins to strengthen.

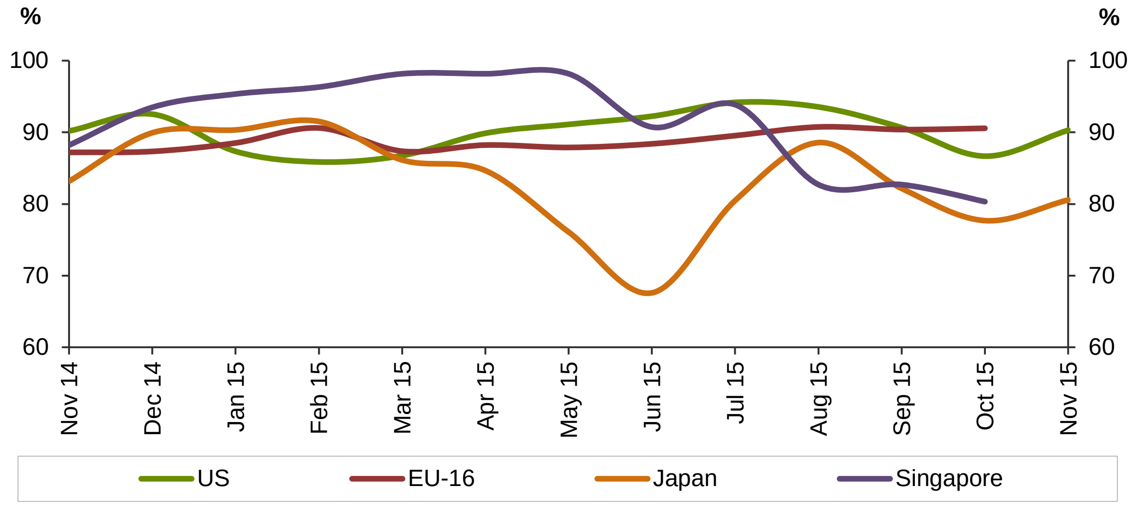
Refinery margins in Singapore increased by $2 to average $6.7/b in November.

Refinery operations

Refinery utilization rates returned to a rising trend worldwide following the peak of the heavy maintenance season in several regions during October, which put more than 8 mb/d of capacity offline during the month.

Refinery utilization in the **US** averaged above 90% in November, corresponding to 16.1 mb/d, a level that is 650 tb/d higher than a month earlier. This recovery in the refinery runs was mainly in the USGC and mid-continent. Higher refinery runs have caused product inventories to be on the rise again, thus keeping the market under pressure.

Graph 6.2: Refinery utilisation rates, 2014-2015



European refinery runs averaged around 90.6% of refining capacity in October, corresponding to a throughput of 10.6 mb/d, up by 20 tb/d from the previous month, and more than 450 tb/d higher than the same month a year ago. European refineries have continued to increase throughputs, taking advantage of healthy margins and export opportunities.

Asian refinery utilization dropped during October with refinery turnarounds in several countries, however, since mid-November, some of them are back online. Chinese independent refineries have reportedly been increasing runs above 80 pct despite only being allowed to serve the domestic market. Refinery runs in Singapore for October averaged around 80%, around 3 pp lower than a month earlier. Meanwhile, Japanese throughputs increased to 81% of capacity in November, which is around 3 pp higher than a month ago. With the end of autumn maintenance approaching in the region, refinery runs should be on the rise to catch up with the seasonal increase in demand in the coming months.

US market

US **gasoline** demand stood at around 9.2 mb/d in November, around 40 tb/d lower than the previous month and 240 tb/d higher than in the same month a year earlier.

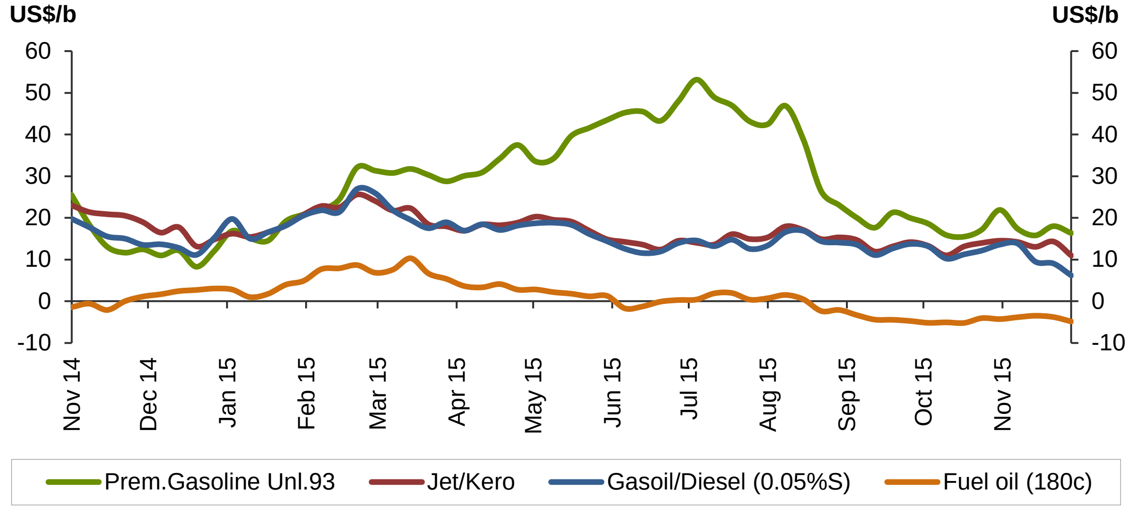
US gasoline demand remained stronger y-o-y, allowing the gasoline crack spread to strengthen despite pressure from the supply side with refineries increasing runs following the maintenance season and inventories on the rise amid several secondary units resuming operations after the resolution of some operational issues both in the Midwest and the US Gulf Coast (USGC).

Some support came from temporary tightening sentiment fueled by the prolonged maintenance activities at Irving Oil's St. John refinery in Eastern Canada.

Additional support came from export opportunities to Latin America, mainly to Mexico, with rising seasonal demand.

The gasoline crack spread gained more than $1 versus the previous month's level to average $18.4/b in November.

Graph 6.3: US Gulf crack spread vs. WTI, 2014-2015



Middle distillate demand stood at around 3.9 mb/d in November, around 100 tb/d lower than in the previous month and around 100 tb/d lower than in the same month a year earlier.

The middle distillate market continued to be pressured from the supply side with increased production amid high inventories.

Middle distillate inventories recovered their upward trend with an increase of around 4 mb during the month of November, thus remaining above the five-year average level and keeping pressure on the market.

The demand side has not supported the market as the end of the harvest season has been pressuring demand in the US midcontinent. Meanwhile, heating fuel demand remained thin in the US East Coast (USEC) where warm weather has dented heating oil demand.

The USGC gasoil crack lost 50¢ versus the previous month to average around $11.6 /b in November.

At the **bottom of the barrel**, the fuel oil market recovered some ground in November on the back of stronger domestic demand, mainly as refinery feedstock for secondary units in the USGC boosted demand for vacuum gasoil (VGO) amid the return of several catalytic cracker units.

The fuel oil crack on the USGC gained more than $1 in November.

Demand of fuel oil from Mexico has been reported on the rise while, in South America, it has been slowing with the Brazilian fuel oil demand weakened due to falling power generation demand and recent port congestion and vessel cancellations at several Brazilian ports resulting as a consequence of the workers' strike during November.

European market

Product markets in Europe exhibited a recovery in November on the back of strong gasoline demand and tightening sentiment along with strong export opportunities to the petrochemical sector, which provided support to the top of the barrel. Meanwhile, the middle distillate market remained relatively balanced with reduced inflows into the region.

The **gasoline** market received support during November through stronger domestic demand amid export opportunities across the Atlantic, as the USEC supplies remained tight, in part due to persistent issues at the St. John refinery, thus making a home for European gasoline.

Northwest Europe (NWE) gasoline cracks strengthened as *stronger* domestic demand was reported along with tight supplies of finished gasoline in the region in recent weeks.

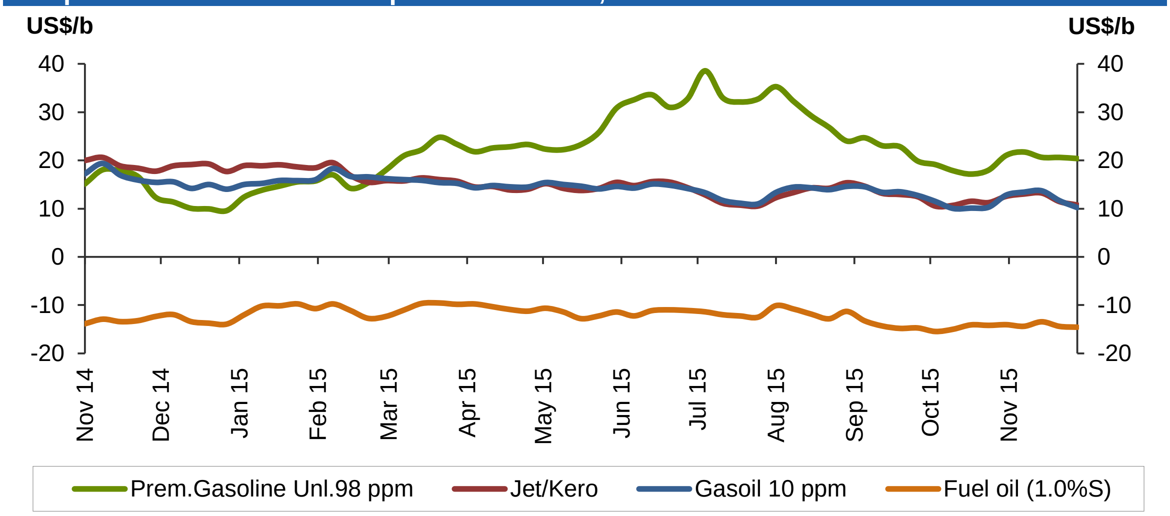
Another bullish factor has been the steady volumes exported to West Africa.

The gasoline crack spread against Brent gained around $2 to average around $21/b in November.

The additional potential upside was limited by expectations of higher inflows with the restart of Middle East refining capacity and expectations of rebounding regional supply.

The light distillate naphtha crack continued to strengthen during November, gaining more than $3, supported by increasing domestic demand for naphtha in the petrochemical sector despite the Moerdijk cracker shutdown. Meanwhile, the stronger Asian market has been drawing western volumes.

Graph 6.4: Rotterdam crack spreads vs. Brent, 2014-2015



The gasoil market exhibited a recovery in Europe during November despite high inventories on the back of expectations of colder weather arriving in Europe in the last weeks along with lower inflows into the region from Asia and the US.

Arrivals from the US have been limited as arbitrage is working better for the Caribbean and South America. Meanwhile, the strengthening seen in Singapore gasoil crack spreads has encouraged more Asian barrels to remain within the East of Suez.

ARA hub gasoil inventories have remained at record-high levels, fuelling bearish sentiment to the market, however rising water levels on the Rhine allowed more products to flow inland, easing the pressure in the last weeks.

The gasoil crack spread against Brent crude at Rotterdam gained around $2 versus the previous month to average around $13/b in November.

At the **bottom of the barrel**, despite lower domestic demand, the fuel oil market showed a slight recovery as VGO requirements for cracking units in the US and Europe along with some arbitrage to Asia lent some support to the fuel oil market.

The NWE fuel oil crack recovered 60¢ versus the previous month's level to average around minus $14/b in November.

The fuel oil market continued to be pressured by bearish fundamentals with ARA inventories on the high side amid increasing Russian exports.

Asian market

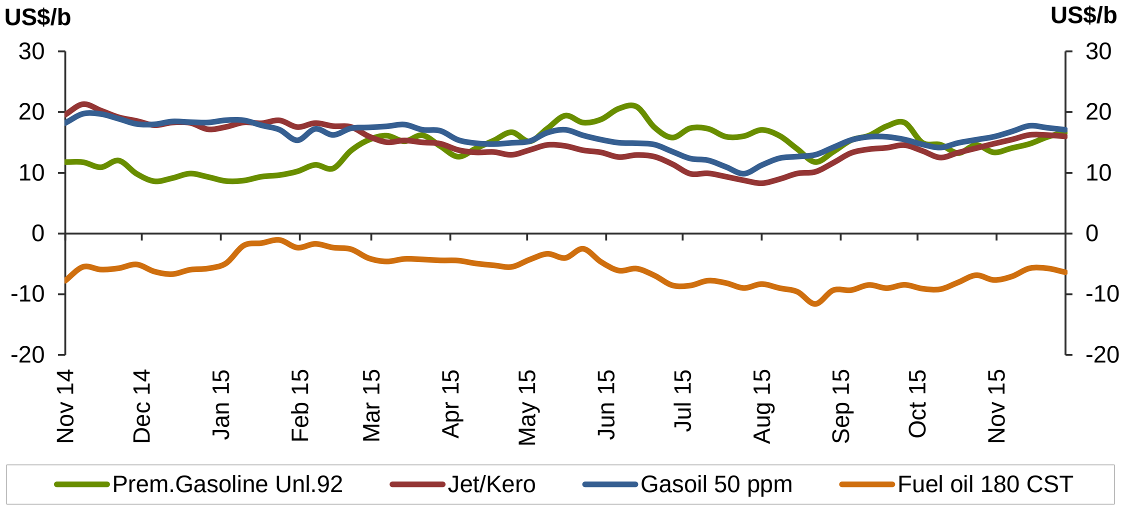
The Asian market showed a positive performance during November supported by strong demand seen at the top of the barrel. In addition, increasing requirements for seasonal heating provided a boost to winter demand. Furthermore, the maintenance season was still impacting some countries in the region, resulting in tightening sentiment in the market.

The gasoline market remained supported on the back of strong demand in several countries, such as in Vietnam and India, thus offsetting the lower buying interest seen in Indonesia, which has seen an increase in domestic gasoline output with the start-up of new refining facilities during the last months.

Singapore's **gasoline** crack remained almost flat during November in a relatively balanced market with the tightening environment being fuelled by the maintenance season, which is still impacting some countries in the region such as Taiwan, where conversion units remained with limited gasoline production, although this situation is expected to ease in the coming weeks with the end of maintenance. The gasoline crack spread against Dubai crude in Singapore averaged around $14.7/b in November, a similar level to the previous month.

The Singapore naphtha crack continued to improve over the month, gaining more than $4/b, supported by stronger demand from the petrochemical sector, with several cracker units returning from maintenance amid naphtha's discount versus LPG, which continued to widen significantly, thus encouraging feedstock switching, which is typical at this time of the year.

Graph 6.5: Singapore crack spread vs. Dubai, 2014-2015



At the **middle of the barrel**, the gasoil market exhibited a vibrant recovery during November as the market was supported by strong regional winter gasoil requirements amid tightening sentiment fuelled by the maintenance season.

Additional support came from strong demand reported from Vietnam and the higher gasoil requirements for post-monsoon industrial activity in India and Pakistan.

The gasoil crack spread in Singapore against Dubai gained more than $2 versus the previous month to average around $17/b in November.

The additional gains were capped by reduced arbitrage to Europe, causing some cargoes to be diverted from South Korea to Singapore.

In the Asian fuel oil market, support came from the continued drop in Singapore's inventories amid expectations of slower inflows into the region, with delays being reported in the arrival of several cargoes and the Middle Eastern fuel oil balance being seasonally tightened.

Additional support came from stronger demand reported from South Korea, which offset falling demand in Japan. The fuel oil crack spread in Singapore against Dubai recovered around $2 to average approximately minus $6.6/b in November.

Table 6.1: Refined product prices, US$/b

		Oct 15	Nov 15	Change Nov/Oct	Year-to-date 2014	Year-to-date 2015
US Gulf (Cargoes FOB):						
Naphtha*		52.62	52.78	0.16	104.92	60.60
Premium gasoline	*(unleaded 93)*	63.27	61.03	-2.25	123.52	79.90
Regular gasoline	*(unleaded 87)*	55.00	52.76	-2.24	112.33	69.37
Jet/Kerosene		59.28	56.67	-2.61	117.41	66.42
Gasoil	*(0.2% S)*	58.24	54.30	-3.95	115.03	65.68
Fuel oil	*(1.0% S)*	35.14	33.51	-1.63	93.81	44.92
Fuel oil	*(3.0% S)*	34.64	31.59	-3.04	85.77	42.37
Rotterdam (Barges FoB):						
Naphtha		47.36	46.13	-1.23	95.91	51.55
Premium gasoline	*(unleaded 98)*	66.73	65.27	-1.46	118.85	77.07
Jet/Kerosene		59.68	56.78	-2.90	118.33	68.06
Gasoil/Diesel	*(10 ppm)*	59.23	57.06	-2.16	116.05	67.76
Fuel oil	*(1.0% S)*	33.89	30.20	-3.69	90.50	41.66
Fuel oil	*(3.5% S)*	34.43	30.68	-3.75	86.76	42.29
Mediterranean (Cargoes FOB):						
Naphtha		45.25	44.06	-1.19	93.49	48.72
Premium gasoline**		58.98	58.77	-0.20	114.42	70.96
Jet/Kerosene		57.65	55.29	-2.35	115.62	65.46
Gasoil/Diesel**		61.26	65.24	3.98	116.51	70.14
Fuel oil	*(1.0% S)*	36.20	32.83	-3.37	91.43	43.42
Fuel oil	*(3.5% S)*	34.97	30.02	-4.96	86.64	42.12
Singapore (Cargoes FOB):						
Naphtha		48.92	48.95	0.02	97.87	53.30
Premium gasoline	*(unleaded 95)*	63.39	59.10	-4.29	114.53	70.48
Regular gasoline	*(unleaded 92)*	60.55	56.42	-4.14	111.69	67.37
Jet/Kerosene		59.28	57.46	-1.82	115.62	66.35
Gasoil/Diesel	*(50 ppm)*	60.65	58.74	-1.91	116.99	67.85
Fuel oil	*(180 cst 2.0% S)*	38.32	36.11	-2.21	91.27	47.51
Fuel oil	*(380 cst 3.5% S)*	36.99	34.98	-2.01	89.55	45.83

** Barges.*
*** Cost, insurance and freight (CIF).*
Sources: Platts and Argus Media.

Table 6.2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Sep 15	Oct 15	Nov 15	Change Nov/Oct	Sep 15	Oct 15	Nov 15	Change Nov/Oct
US	16.20	15.48	16.13	0.65	90.66	86.68	90.30	3.62
France	1.24	1.26	-	-	82.27	83.53	-	-
Germany	1.86	1.90	-	-	82.86	84.37	-	-
Italy	1.34	1.31	-	-	65.40	63.88	-	-
UK	1.17	1.18	-	-	88.59	89.28	-	-
Euro-16	10.58	10.60	-	-	90.39	90.57	-	-
Japan	3.24	3.07	3.18	0.11	82.16	77.68	80.57	2.89

Sources: OPEC statistics, Argus, Euroilstock inventory report, IEA, EIA/DoE, METI and PAJ.

Tanker Market

In November, tanker spot freight rates for both dirty and clean vessels varied. In the dirty tanker market, spot freight rates for the VLCC class were lower than in the previous month across all reported routes. Low activity, combined with ample tonnage availability during the month, drove freight rates down by 13%, on average, despite the fluctuation of rates often seen. The total number of VLCC fixtures in November was lower than the previous month. Suezmax and Aframax freight rates saw growth in November, mainly on the back of high tonnage demand and weather delays witnessed in many ports. In the clean tanker segment, spot freight rates east of Suez dropped by 4%, on average, but went up by 4% in west of Suez. Clean tanker market activity was thin in November, while chartering requirements were limited in general. The only exception was in clean freight rates for tankers operating on the Northwest Europe-to-US route, which rose by 20% as a result of severe weather delays and multiple replacements.

Spot fixtures

In November, OPEC spot fixtures increased by 1.2% from the previous month to average 11.71 mb/d, according to preliminary data. Higher spot fixtures were seen in the Middle East-to-West routes, which rose by 0.25 mb/d, and outside the Middle East region, where fixtures were up by 0.01 mb/d. Middle East-to-East fixtures were down from the previous month by 0.13 mb/d.

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

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15
Spot Chartering				
All areas	15.76	15.99	16.58	0.59
OPEC	10.97	11.57	11.71	0.14
Middle East/East	5.13	5.53	5.41	-0.13
Middle East/West	2.40	2.73	2.98	0.25
Outside Middle East	3.44	3.31	3.33	0.01
Sailings				
OPEC	23.61	23.95	24.21	0.26
Middle East	17.02	17.34	17.60	0.26
Arrivals				
North America	9.93	9.79	10.56	0.77
Europe	12.32	12.68	12.09	-0.59
Far East	8.37	8.29	8.22	-0.07
West Asia	4.85	4.81	4.81	0.00

Sources: Oil Movements and Lloyd's Marine Intelligence Unit.

Sailings and arrivals

OPEC sailings increased by 0.26 mb/d, or 1.1%, in November to stand at 24.21 mb/d, supported by an increase in Middle East sailings, which rose by a similar amount – or 1.5% over the previous month – to average 17.60 mb/d. Crude oil arrivals increased in November only at North American ports, while arrivals at European, Far Eastern and West Asian ports declined by 4.6%, 0.8% and 0.1%, respectively, compared with the previous month.

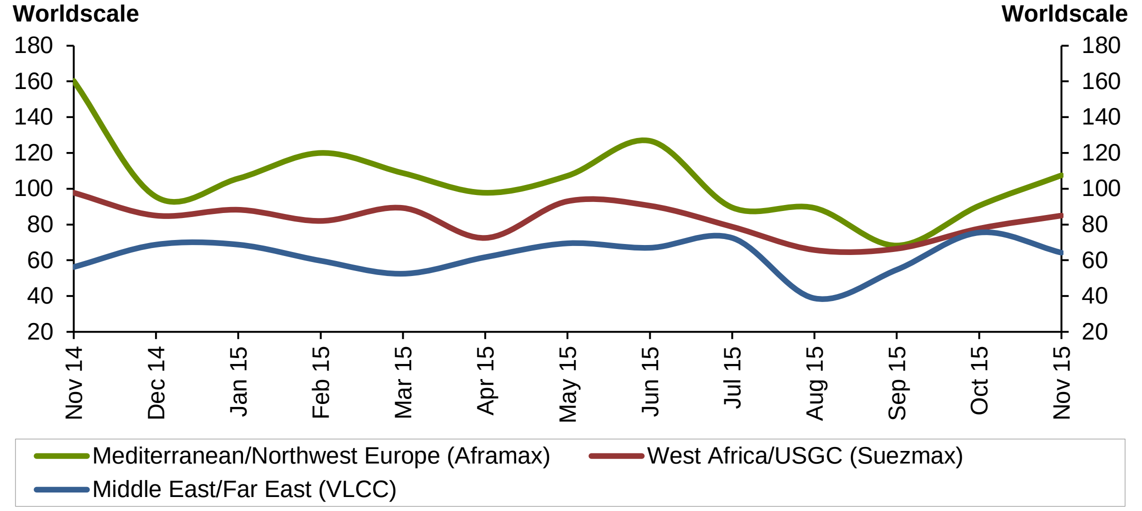
Spot freight rates

VLCC

In the dirty market, **VLCC** spot freight rates lost 13%, on average, in November, compared with the previous month, to stand at WS57 points. This drop came as a result of lower freight rates registered on all reported routes. VLCC Middle East-to-West spot freight rates showed the highest drop, reversing the gain registered a month ago and dropping by 18% in November to stand at WS38 points. Freight rates for VLCC operating on Middle East-to-East experienced a similar decline, falling by 15% from the previous month to average WS64 points. The declines in VLCC rates were driven by low activities in several markets, despite fluctuating rates often being balanced with the total number of chartering requirements, which were below the level seen a month before.

Freight rates registered for tankers trading on the West Africa-to-East route also declined, falling by 8% to average WS68 points. Despite the monthly drop in rates, VLCC spot freight rates remain 17% higher than the same month last year.

Graph 7.1: Monthly averages of crude oil spot freight rates



Suezmax

In contrast to VLCC performance, Suezmax spot freight rates saw gains in November from the previous month, rising on average by 11% in October, compared with the previous month, to average WS76 points, the highest Suezmax freight rate levels seen in several months. The average increase came mainly on the back of higher freight rates registered both in West Africa and Northwest Europe.

Suezmax spot freight rates for tankers operating on the West Africa-to-US route increased by 9% in November to stand at WS85 points, and rates on the Northwest Europe-to-US route increased by 13% to stand at WS66 points. Freight rates for both routes benefited from a decent amount of activity, mainly seen at the beginning of the month while tonnage supply thinned. The active Suezmax market supported rates in many regions, which included the Caribbean and Mediterranean. Delays at Turkish straits and in Brazilian ports added to a temporary increase in rates before dropping as market activity waned and tanker offers increased.

Table 7.2: Spot tanker crude freight rates, Worldscale

	Size *1,000 DWT*	Sep 15	Oct 15	Nov 15	Change Nov 15/Oct 15
Crude					
Middle East/East	230-280	55	76	64	-11
Middle East/West	270-285	33	46	38	-8
West Africa/East	260	56	74	68	-6
West Africa/US Gulf Coast	130-135	67	78	85	7
Northwest Europe/US Gulf Coast	130-135	55	59	66	8
Indonesia/East	80-85	97	95	104	9
Caribbean/US East Coast	80-85	110	114	171	57
Mediterranean/Mediterranean	80-85	73	96	113	17
Mediterranean/Northwest Europe	80-85	68	91	108	17

Sources: Galbraith's tanker market report and Platts.

Aframax

The Aframax class showed the highest gain in freight rates among other tanker sizes in November. Rates rose by 25% and stood at WS124 points on average. The Aframax market was active in several areas, and market activity supported Aframax rates in the Baltics and North Sea. Weather conditions and port delays seen in Italian ports and elsewhere made tonnage availability tighter in an already active market, in addition to vessels being tied up in other ports due to ullage problems. The prolonged transit time at Turkish straits further supported the gains in freight rates for this class. Spot freight rates for Aframax operating on the Caribbean-to-US route registered their highest gains over other reported routes, standing at WS171 points. This was up by 50% from one month before, mainly on the back of delays in the US Gulf, which led to a tighter positions list.

Spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-Northwest Europe routes increased by 18% and 19%, respectively, from the previous month to stand at WS112 points and WS107 points. As seen on other routes, freight rates on the Indonesia-to-East route also increased, although to a lesser degree, as they went up by 8% compared with one month earlier to stand at WS103 points.

Clean spot freight rates

On average, clean tanker spot freight rates showed minimal changes from the previous month, rising by a slight WS2 points to stand at WS115 points. Medium-range tanker activity remained mostly moderate during the month, while the market in several areas was balanced. The only exception was the increase in freight rates for vessels operating on the Northwest Europe-to-US route, due to weather delays in the Caribbean, which rose by 20% compared with the previous month, to average WS122 points. Freight rates for other routes in West-of-Suez remained mostly stable, while clean spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-Northwest Europe routes dropped slightly by 2% each.

East-of-Suez rates were mixed with no increase in activity as the market was quiet, mostly reporting no significant changes. In the East, spot freight rates for tankers operating on the Middle East-to-East route increased by WS3 points from the previous month, mainly because demand remained stable in the clean tonnage market. In contrast, freight rates on the Singapore-to-East route declined by WS10 points from one month earlier to average WS111 points in November, as chartering activity on this route remained insufficient to push rates up.

Graph 7.2: Monthly average of clean spot freight rates

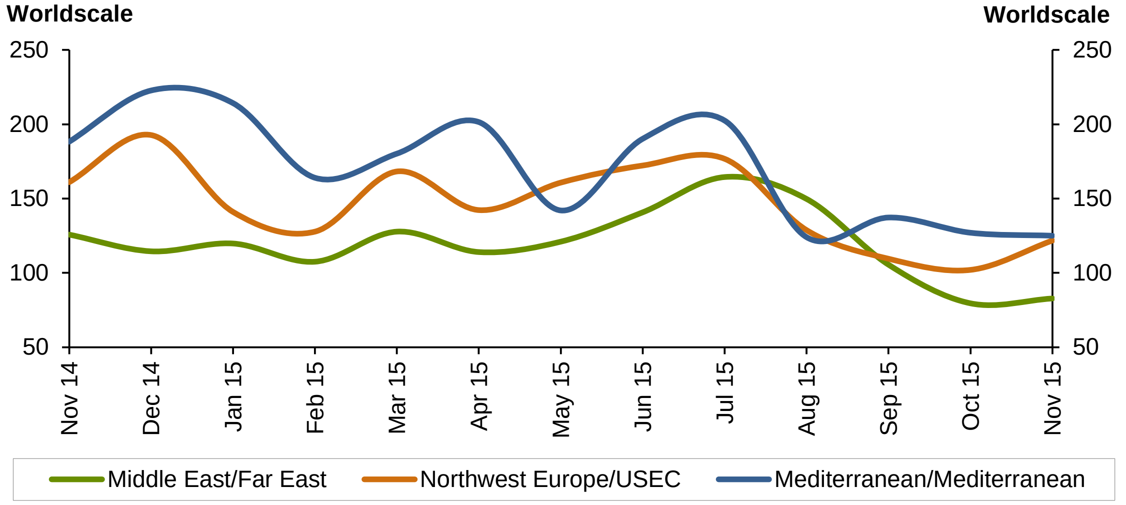


Table 7.3: Spot tanker product freight rates, Worldscale

	Size *1,000 DWT*	**Oct 15**	**Oct 15**	**Nov 15**	***Change*** **Nov 15/Oct 15**
Products					
Middle East/East	30-35	106	80	83	3
Singapore/East	30-35	145	121	111	-11
Northwest Europe/US East Coast	33-37	110	102	122	20
Mediterranean/Mediterranean	30-35	137	127	125	-2
Mediterranean/Northwest Europe	30-35	147	137	135	-2

Sources: Galbraith's tanker market report and Platts.

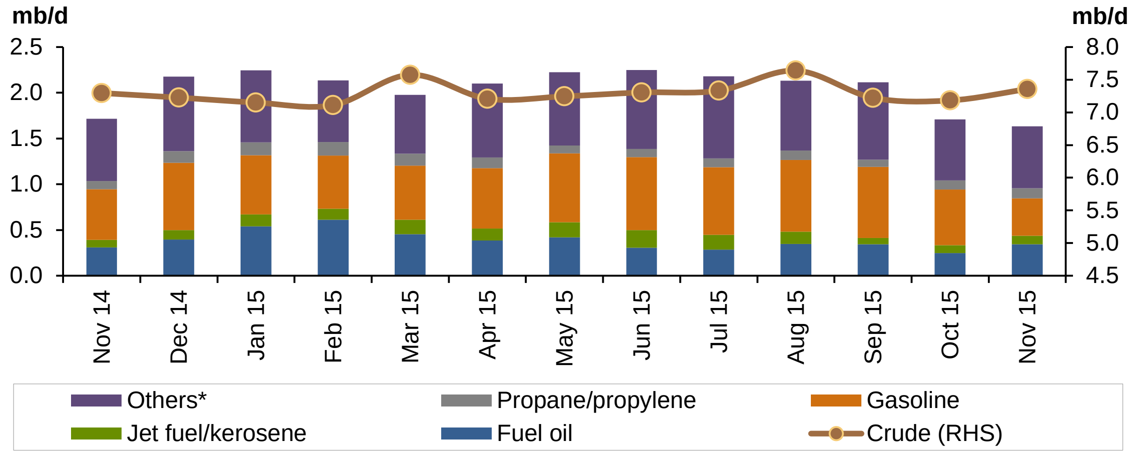
Oil Trade

Preliminary data for November shows that US crude oil imports increased to an average of 7.4 mb/d, up by 173 tb/d from the previous month and 60 tb/d from one year ago. US monthly product imports declined in November by 73 tb/d or 4% to average 1.6 mb/d. In an annual comparison, product imports declined by 80 tb/d. Japanese crude oil imports dropped in October by 141 tb/d or 4% to average 3.1 mb/d, and 188 tb/d or 6% y-o-y. Product imports dropped in October by 101 tb/d to average 570 tb/d, the lowest level for Japanese product imports since June 2015, reflecting a drop of 15% m-o-m, but a gain of 11% y-o-y. In October, China's crude imports declined following higher levels in the previous month, dropping by 597 tb/d or 9% to average 6.2 mb/d. Chinese petroleum product imports also declined in October, down by 15% m-o-m, though remaining higher than the same month one year ago by 159 tb/d or 17%. India's crude imports declined by 176 tb/d or 5% from the previous month to average 3.7 mb/d. Crude imports showed an annual drop of 147 tb/d or 4%. India's product imports in October increased by 30 tb/d or 5% m-o-m to average 647 tb/d, while increasing y-o-y by 209 tb/d.

US

Preliminary data for November shows that US **crude oil imports** increased to an average of 7.4 mb/d, up by 173 tb/d from the previous month and 60 tb/d from one year ago. On a y-t-d basis, imports were down in November by 52 tb/d.

Graph 8.1: US imports of crude and petroleum products



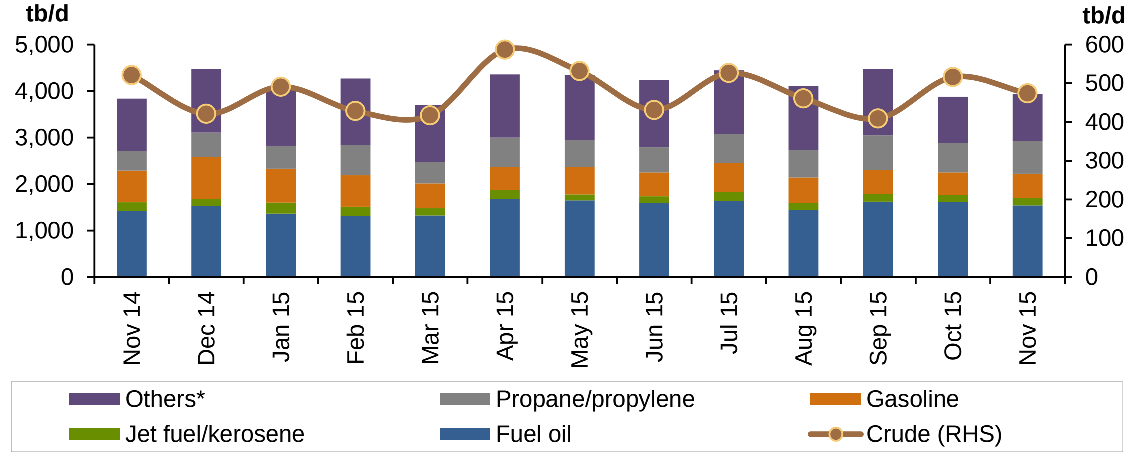
**Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.*

US monthly **product imports** declined in November by 73 tb/d or 4% to average 1.6 mb/d. In an annual comparison, they declined by 80 tb/d.

Meanwhile, US **product exports** in November reached a total of 3.9 mb/d, up by 56 tb/d from a month ago. Annually, product exports were higher by 100 tb/d or 3%.

As a result, **US total net imports were higher by 86 tb/d than the previous month to average 4.6 mb/d**, though showing a drop of 71 tb/d from the year before.

Graph 8.2: US exports of crude and petroleum products



**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.*

In September, the first and second **lead suppliers to the US** maintained the same order as seen the previous month, with Canada holding its top position, accounting for 45% of total US crude imports, though monthly volumes dropped by 126 tb/d from the previous month. Saudi Arabia kept its spot as second-largest supplier to the US in September, though its exports also declined in September from the previous month by 143 tb/d or 14%. Venezuela came in as the third-top supplier, accounting for 11% of total US crude imports with a drop from a month before by 23 tb/d or 3%.

Crude imports from OPEC Member Countries rose in September from one month earlier by 98 tb/d or 4%, accounting for 36% of total US crude imports. US **product imports from OPEC Member Countries** in September were almost stable from the previous month, up by a slight 6 tb/d or 2%. Canada and Russia maintained their positions as first and second product suppliers to the US, accounting for 24% and 16%, respectively, though exports from both countries were slightly lower in September. The United Kingdom was the third-top US supplier, increasing exports by 41 tb/d or 29% from the previous month.

US **crude imports by region** were broken down as follows in September: those from North America topped the chart with an average of 3.3 mb/d, followed by Latin America and the Middle East, which came in as second- and third-top regions with 2.2 mb/d and 1.3 mb/d, respectively. Imports from North America were higher than the same month a year ago, while imports from Latin America and the Middle East were lower annually.

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

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15
Crude oil	6,813	6,666	6,882	216
Total products	-2,362	-2,168	-2,298	-129
Total crude and products	**4,451**	**4,498**	**4,584**	**86**

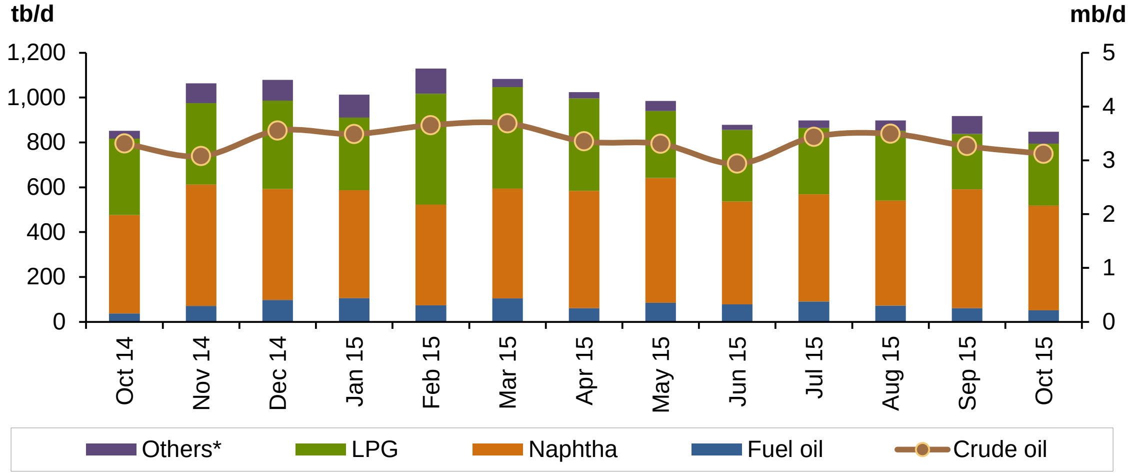
Regarding **crude imports by PADD**: the highest imports to the East Coast in PADD 1 were sourced from North America at 195 tb/d, followed by Africa, which averaged 192 tb/d. Crude imports from Africa were higher in September by 47 tb/d or 32% m-o-m, while those from North America dropped by 86 tb/d. Imports from PADD 2 were also mainly sourced from North America, averaging 2.1 mb/d, though this figure is lower than the previous month's number of 112 tb/d. The Middle East only exported 38 tb/d to PADD 2 in September. PADD 3 mainly sourced its imports from

Latin America, followed by the Middle East and North America. Imports to PADD 3 were down from Latin America and OECD Europe. As seen before, PADD 4 continued to import only from North America, averaging 280 tb/d in September, down by 41 tb/d from the month before. In PADD 5, imports to the West Coast increased from the Middle East and West Africa over the previous month, while imports from other regions declined from the month before.

Japan

Japan's **crude oil imports** dropped in a monthly comparison in October by 141 tb/d or 4% to average 3.1 mb/d; they also fell in a y-o-y comparison, declining in October by 188 tb/d or 6%. Saudi Arabia and the UAE remained as before the main suppliers to Japan, with shares of 34% and 22%, respectively, while Russia held the third position in October with a share of 11%. Saudi Arabian and UAE volumes exported to Japan were less than the previous month by 65 tb/d and 125 tb/d, respectively.

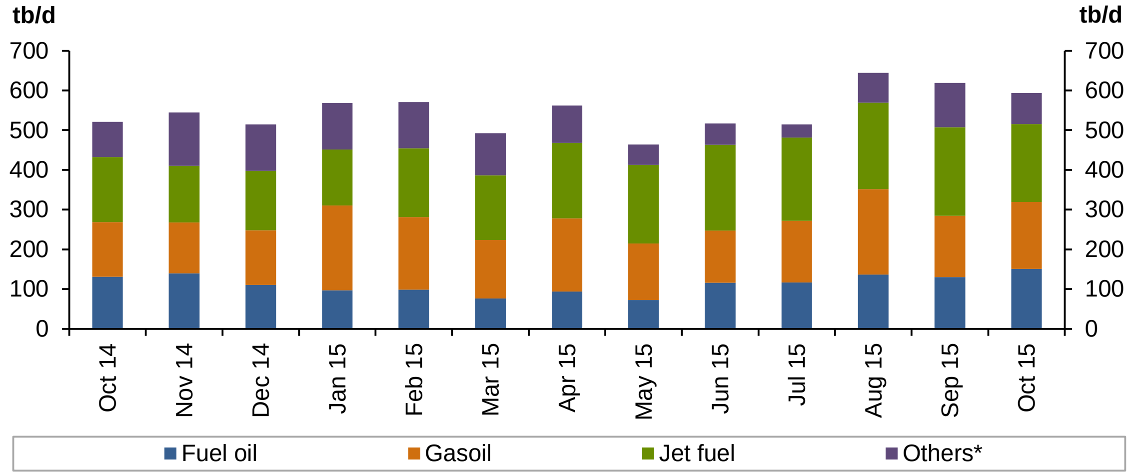
Graph 8.3: Japan's imports of crude and petroleum products



Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.

Product imports dropped in October by 101 tb/d to average 570 tb/d, their lowest level since June 2015, reflecting a drop of 15% m-o-m but a gain of 11% y-o-y. **Product sales** rose by 1.8% from the previous year. Japanese **product exports** in October dropped by 26 tb/d or 4% to average 593 tb/d. Y-o-y they rose by 73 tb/d from a year before.

Graph 8.4: Japan's exports of petroleum products



Others: Contains LPG, gasoline, naphtha, kerosene, lubricating oil, asphalt and paraffin wax.

Accordingly, **Japanese net imports went down in October by 217 tb/d to average 3.1 mb/d**, reflecting a monthly drop of 7% and annual loss of 6%.

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

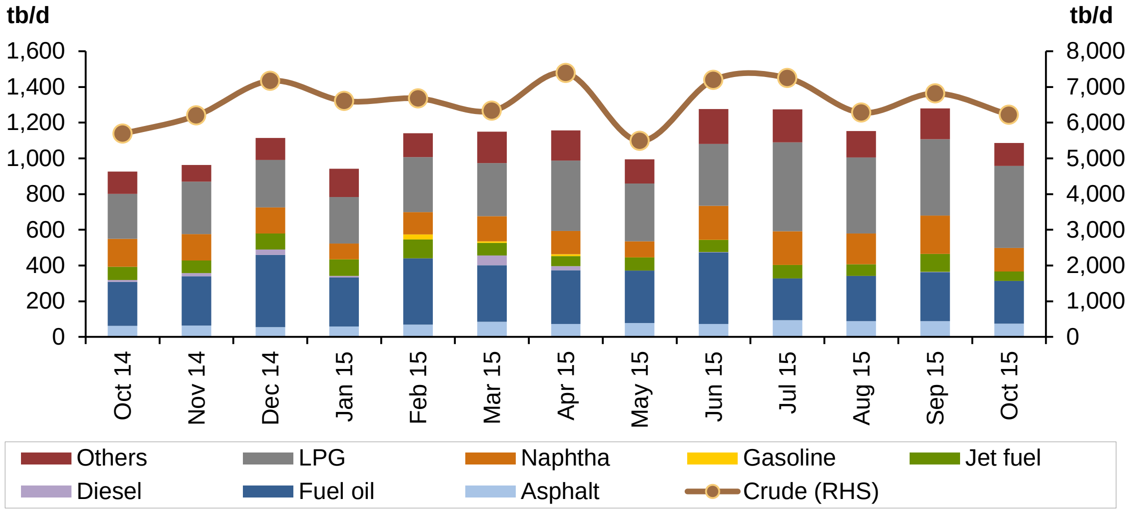
	Aug 15	Sep 15	Oct 15	*Change* Oct 15/Sep 15
Crude oil	3,494	3,263	3,122	-141
Total products	-56	52	-23	-76
Total crude and products	**3,438**	**3,315**	**3,098**	**-217**

China

In October, China's **crude oil imports** declined, following a high level in the month before, falling by 597 tb/d or 9% to average 6.2 mb/d. At the same time, Chinese stocks were down from a month before. In an annual comparison, China's crude imports were higher than in the same period the previous year by 534 tb/d or 9%. On a y-t-d basis, this shows a gain of 551 tb/d or 9%.

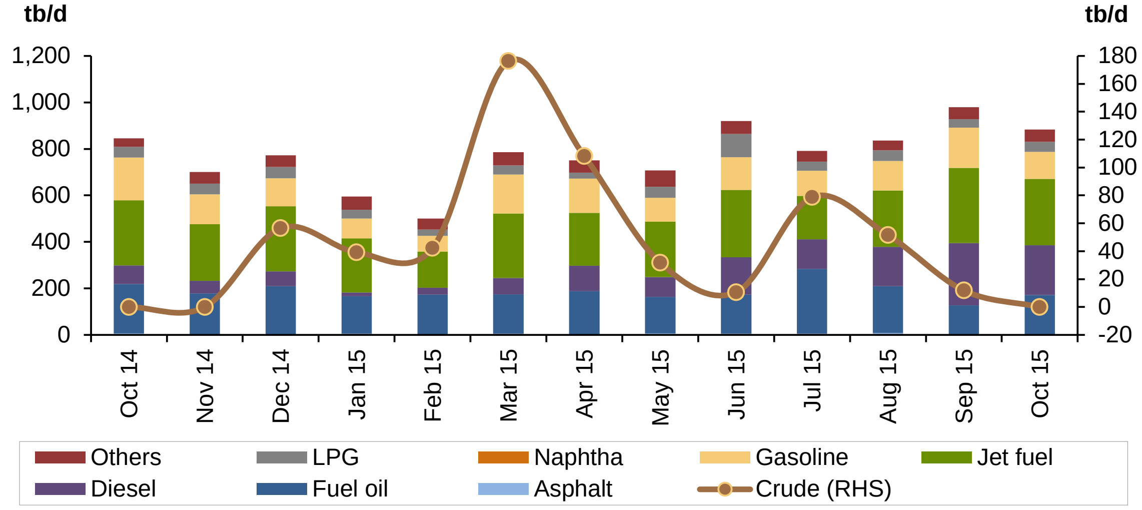
China's **petroleum product imports** also declined in October, dropping by 15% m-o-m, yet remaining higher than the same month of the previous year by 159 tb/d or 17%. In terms of supplier share, Saudi Arabia, Angola and Russia were the top suppliers to China in October accounting for 15%, 14% and 13%, respectively.

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



China's imports from Saudi Arabia's declined by 23 tb/d from a month before. Imports from Russia declined by 180 tb/d, while imports from Angola increased by 157 tb/d. Oman came in as the fourth-largest supplier to China in October, with lower imports by 101 tb/d from a month before.

Graph 8.6: China's exports of crude and petroleum products



Following a gain in the previous month, China's **product exports** dropped by 96 tb/d or 10% to average 883 tb/d. On the other hand, China did not export any crude in October. As a result, **the country's net oil imports decreased by 684 tb/d from the previous month**, but remained above the year-ago level by 656 tb/d, to stand at 6.4 mb/d.

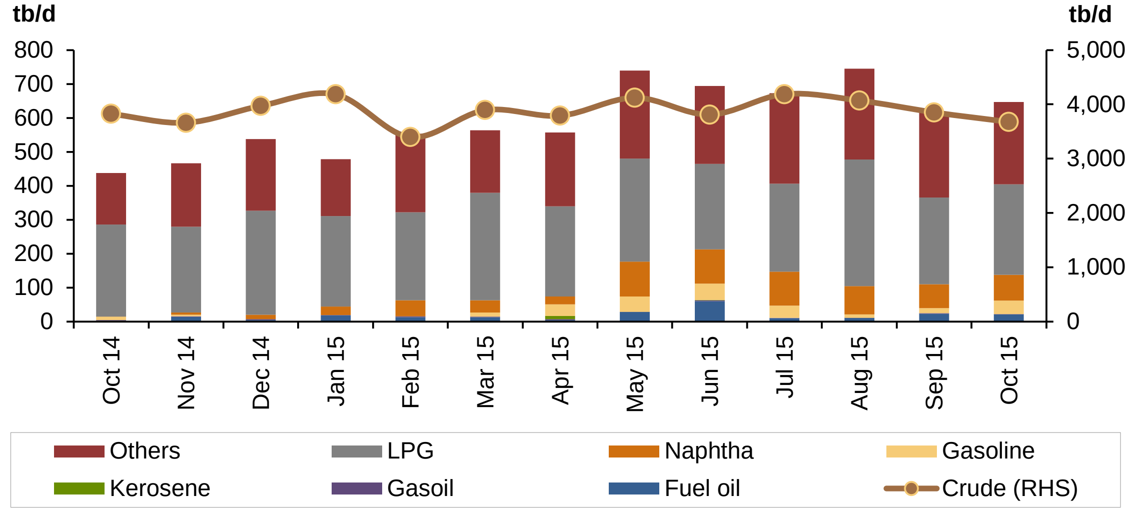
Table 8.3: China's crude and product net imports, tb/d

	Aug 15	Sep 15	Oct 15	*Change* Oct 15/Sep 15
Crude oil	6,228	6,808	6,222	-585
Total products	317	301	203	-98
Total crude and products	**6,545**	**7,109**	**6,425**	**-684**

India

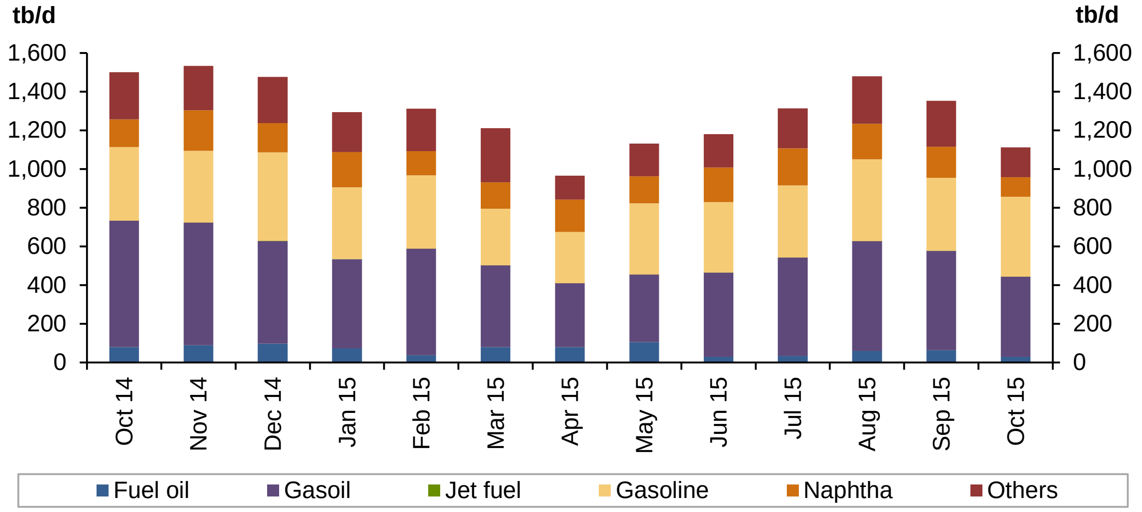
India's **crude imports** declined in October by 176 tb/d, or 5%, from a month ago to average 3.7 mb/d. Crude imports showed an annual drop of 147 tb/d, or 4%. India's **product imports** increased by 30 tb/d, or 5%, m-o-m to average 647 tb/d, while increasing y-o-y by 209 tb/d. Higher product imports came on the back of higher imported volumes of gasoline and LPG, which increased by 25 tb/d and 11 tb/d, respectively.

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



India's **product exports** dropped in October by 239 tb/d or 18% to average 1.1 mb/d, the lowest level since April 2015. Y-o-y, product exports showed a higher drop, declining by 389 tb/d. A monthly product export drop came on the back of lower diesel, naphtha and fuel oil exports, which declined by 98 tb/d, 60 tb/d and 35 tb/d, respectively, from the previous month.

Graph 8.8: India's exports of petroleum products



Consequentially, **India's net imports increased by 93 tb/d to average 3.2 mb/d**, reflecting a gain of 3% m-o-m and a 451 tb/d or 16% gain y-o-y.

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

	Aug 15	Sep 15	Oct 15	*Change* Oct 15/Sep 15
Crude oil	4,070	3,852	3,676	-176
Total products	-733	-734	-465	269
Total crude and products	**3,336**	**3,118**	**3,211**	**93**

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

FSU

Total crude oil exports in October from the former Soviet Union (FSU) increased by 1.2 mb/d or 21% following a drop the month before to average 6.5 mb/d. Crude exports through Russian pipelines rose by 121 tb/d or 3% to average 4.3 mb/d.

Total Black Sea shipments increased by 47 tb/d or 8% to average 637 tb/d, mainly as those from Novorossiysk port terminal rose over the previous month. **Total Baltic Sea** exports dropped by 42 tb/d in October, mostly due to less shipments from Primorsk port terminal, which declined by 45 tb/d on average. Total shipments through the **Druzhba** pipeline averaged 1.1 mb/d in October, showing higher exports by 56 tb/d from the previous month. Kozmino shipments increased by 51 tb/d or 9% to average 650 tb/d, while exports through the **Lukoil system** dropped in October from the previous month by 22 tb/d.

In other routes, **Black Sea total exports** increased by 566 tb/d as exports through Novorossiyk port terminal (CBC) increased by 553 tb/d. Additionally, Batumi port terminal exports rose by 16 tb/d from a month before. In the **Mediterranean Sea**, BTC supplies increased by 463 tb/d from the previous month to average 605 tb/d.

FSU **total product exports** all increased, with the exception of VGO, which went down by 53 tb/d. As a result, total FSU product exports averaged 3 mb/d in October.

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

Transneft system			**2013**	**2Q 15**	**3Q 15**	**Sep 15**	**Oct 15**
Europe	**Black sea total**		**739**	**561**	**594**	**590**	**637**
	Novorossiysk port terminal - total		739	561	594	590	637
	of which: Russian oil		535	421	433	402	540
	Others		204	139	160	188	97
	Baltic sea total		**1,546**	**1,427**	**1,358**	**1,545**	**1,503**
	Primorsk port terminal - total		1,083	917	836	940	895
	of which: Russian oil		1,007	917	836	940	895
	Others		76	0	0	0	0
	Ust-Luga port terminal - total		463	510	522	605	608
	of which: Russian oil		342	367	356	411	398
	Others		121	143	166	193	210
	Druzhba pipeline total		**1,032**	**1,078**	**1,058**	**1,091**	**1,147**
	of which: Russian oil		1,000	1,045	1,026	1,058	1,115
	Others		32	32	32	33	32
Asia	**Pacific ocean total**		**434**	**637**	**592**	**598**	**650**
	Kozmino port terminal - total		434	637	592	598	650
	China (via ESPO pipeline) total		**321**	**315**	**338**	**325**	**334**
	China Amur		321	315	338	325	334
Total Russian crude exports			**4,071**	**4,018**	**3,939**	**4,150**	**4,271**
Lukoil system			**2013**	**2Q 15**	**3Q 15**	**Sep 15**	**Oct 15**
Europe and North America	**Barents sea total**		**111**	**138**	**137**	**157**	**135**
	Varandey offshore platform		111	138	137	157	135
Europe	**Baltic sea total**		**19**	**14**	**15**	**19**	**19**
	Kalinigrad port terminal		19	14	15	19	19
Other routes			**2013**	**2Q 15**	**3Q 15**	**Sep 15**	**Oct 15**
Asia	**Russian Far East total**		**259**	**324**	**301**	**303**	**367**
	Aniva bay port terminal		114	111	105	87	112
	De Kastri port terminal		145	213	196	216	255
	Central Asia total		**239**	**232**	**217**	**259**	**225**
	Kenkiyak-Alashankou		239	232	217	259	225
Europe	**Black sea total**		**853**	**993**	**736**	**336**	**902**
	Novorossiysk port terminal (CPC)		704	903	649	259	812
	Supsa port terminal		76	69	79	71	69
	Batumi port terminal		53	20	8	6	22
	Kulevi port terminal		20	0	0	0	0
	Mediterranean sea total		**641**	**606**	**471**	**142**	**605**
	BTC		641	606	471	142	605
Russian rail			**2013**	**2Q 15**	**3Q 15**	**Sep 15**	**Oct 15**
	Russian rail		**198**	**16**	**13**	**12**	**10**
	of which: Russian oil		*9*	*7*	*8*	*8*	*7*
	Others		189	8	4	4	3
Total FSU crude exports			**6,392**	**6,342**	**5,829**	**5,379**	**6,533**
Products			**2013**	**2Q 15**	**3Q 15**	**Sep 15**	**Oct 15**
	Gasoline		122	200	115	79	150
	Naphtha		390	476	457	513	564
	Jet		11	37	29	13	25
	Gasoil		857	1,061	888	838	897
	Fuel oil		1,415	1,475	1,253	1,201	1,222
	VGO		263	250	270	270	211
Total FSU product exports			**3,058**	**3,499**	**3,012**	**2,914**	**3,069**
Total FSU oil exports			**9,450**	**9,841**	**8,842**	**8,293**	**9,602**

Sources: Argus Nefte Transport and Argus Global Markets.

Stock Movements

OECD commercial oil stocks fell in October to stand at 2,955 mb, which is around 244 mb higher than the latest five-year average. Crude and products indicated surpluses of around 180 mb and 64 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.5 days, which is 5.1 days higher than the latest five-year average. Preliminary data for November shows that total commercial oil stocks in the US rose by 6.5 mb to stand at 1,309.1 mb. At this level, they were 202 mb higher than the latest five-year average. Within the components, crude rose by 6.6 mb, while products remained almost unchanged. The latest information for China showed a drop in total commercial oil inventories of 23.5 mb in October to stand at 378.2 mb. Within the components, commercial crude oil and products fell by 11.4 mb and 12.2 mb, respectively.

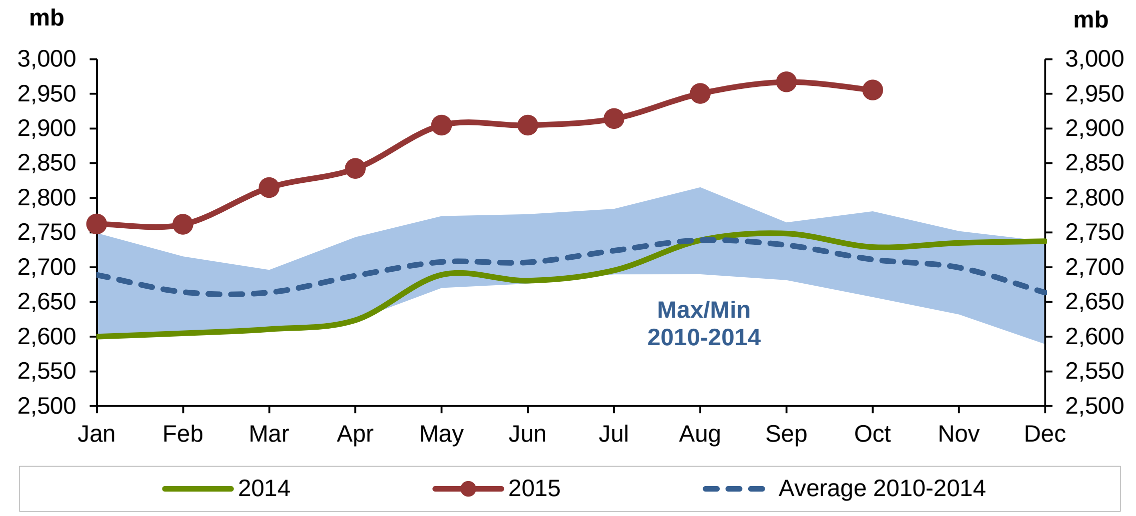
OECD

The latest information for October shows that **total OECD commercial oil stocks** fell by 11.7 mb, reversing the massive build of 64 mb during the last three months. At 2,955 mb, OECD commercial oil stocks were around 226 mb higher than at the same time one year ago and 244 mb above the latest five-year average. Within the components, crude rose by 17.5 mb, while products fell by 29.1 mb. Refinery turnarounds cut runs, resulting in a build in crude stocks and a large stock-draw in OECD total products.

OECD commercial crude stocks rose by 17.5 mb, ending October at 1,499 mb, which is 136 mb above the same time one year earlier and 180 mb higher than the latest five-year average. OECD Americas experienced a build, while OECD Asia Pacific and OECD Europe saw declines.

In contrast, **OECD product inventories** fell in October by 29.2 mb, reversing the build of the last three months, to stand at 1,456 mb. Despite this drop, product inventories stood 90 mb higher than a year ago at the same time and 64 mb above the seasonal norm.

Graph 9.1: OECD's commercial oil stocks



In terms of **days of forward cover**, OECD commercial stocks fell by 0.1 days in October from the previous month to stand at 63.5 days, which is 4.4 days above a year ago at the same time and 5.1 days higher than the latest five-year average. Within the regions, OECD Americas' days of forward cover were 7.0 days higher than the historical average to stand at 64.1 days in October. OECD Asia Pacific stood 3.3 days above the seasonal average to finish the month at 51.0 days. At the same time, OECD Europe indicated a surplus of 2.9 days above the seasonal norm, averaging 70.7 days in October.

Commercial stocks in **OECD Americas** fell by 3.6 mb in October to end the month at 1,571 mb, which represents a surplus of 161 mb above a year ago and nearly 200 mb higher than the seasonal norm. Within the components, crude stocks rose by 22.0 mb, while product inventories fell by 25.6 mb.

At the end of October, **commercial crude oil stocks** in **OECD Americas** stood at 830 mb, which was 101 mb above the same time one year ago and 143 mb above the latest five-year average. The build was mainly driven by lower refinery runs in the US, which fell by around 600,000 b/d to average 15.5 mb/d. Refineries were running at around 87.2% of operable capacity in October, which is 3.2 pp lower than in the previous month. In contrast, p**roduct stocks** in **OECD Americas** declined by 25.6 mb to end October at 1,456 mb, which is 53 mb above the same time one year ago and 56 mb higher than the seasonal norm. The drop came mainly from lower refinery output combined with increased US demand.

OECD Europe's commercial stocks declined by 6.9 mb in October to stand at 939 mb, which is 57.3 mb higher than the same time a year ago and 24 mb above the latest five-year average. Both crude and product stocks fell by 4.2 mb and 2.7 mb, respectively.

OECD Europe's commercial crude stocks fell in October to stand at 402 mb, which is 15.5 mb above the same period a year earlier and 8.6 mb higher than the latest five-year average. Higher crude runs were behind the decline. **OECD Europe's commercial product stocks** also fell by 2.7 mb in October, ending the month at 537 mb, which is 41.8 mb higher than a year ago at the same time and 15.4 mb higher than the seasonal norm. This drop was mainly driven by higher product demand in the region, especially for middle distillates.

OECD Asia Pacific commercial oil stocks fell by 1.2 mb in October to end the month at 442 mb, which is 8.1 mb higher than a year ago and 21.1 mb above the five-year average. Within the components, crude and product stocks fell by 0.3 mb and 0.9 mb, respectively. Crude inventories ended the month of October at 267 mb, which is 13.2 mb higher than a year ago and 28.5 mb above the seasonal norm. OECD Asia Pacific's total product inventories ended October at 175 mb, which is a deficit of 5.1 mb below a year ago and 7.4 mb lower than the seasonal norm.

Table 9.1: OECD's commercial stocks, mb

	Aug 15	Sep 15	Oct 15	*Change* Oct 15/Sep 15	Oct 14
Crude oil	1,470	1,481	1,499	17.5	1,363
Products	1,481	1,486	1,456	-29.2	1,367
Total	**2,950**	**2,967**	**2,955**	**-11.7**	**2,729**
Days of forward cover	**63.7**	**63.6**	**63.5**	**-0.1**	**59.1**

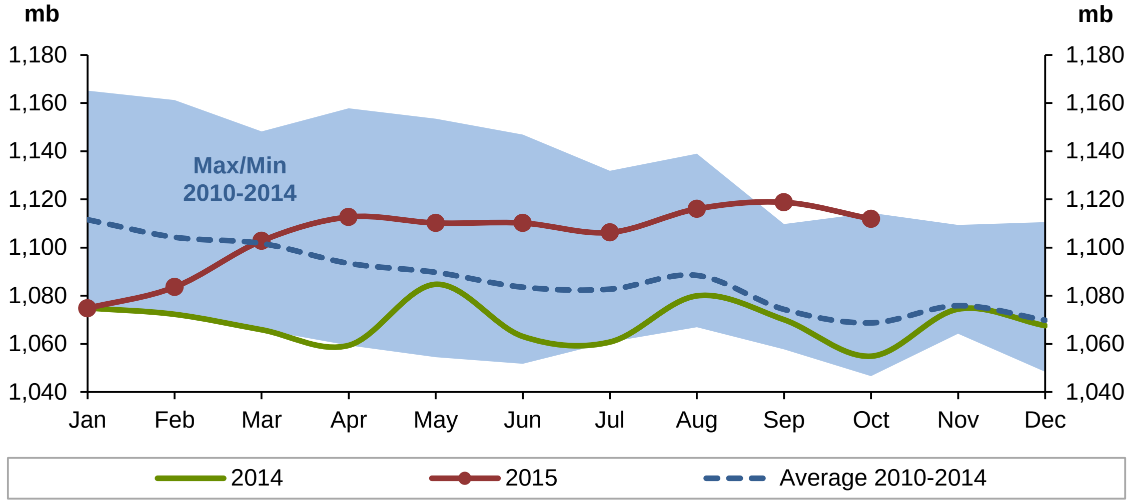
EU plus Norway

Preliminary data for October shows that **total European stocks** fell by 6.9 mb following a build of 10.4 mb in September. At 1,111.9 mb, European stocks were 57.0 mb, or 5.4%, above the same time a year ago and 43.2 mb, or 4.0%, higher than the latest five-year average. Both crude and product stocks fell by 4.2 mb and 2.6 mb, respectively.

European crude inventories fell in October to stand at 485.3 mb, which is 12.3 mb, or 2.6%, above the same period a year ago and 22 mb, or 4.8%, higher than the seasonal norm. The fall in crude oil stocks was driven by higher refinery runs, which increased by 20,000 b/d over the previous month, to average 10.6 mb/d in October.

European product stocks also fell by 2.6 mb in October to stand at 626.6 mb, which is 44.7 mb, or 7.7%, above the same time a year ago and 21.1 mb, or 3.5%, above the seasonal norm. Within products, the picture was mixed, with the bulk of the stock-draw coming from distillate inventories.

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



Gasoline stocks rose slightly by 0.2 mb in October to stand at 106.5 mb, which was 2.4 mb, or 2.3%, above a year earlier, but remained 1.3 mb, or 1.2%, less than the seasonal norm. In contrast, **distillate stocks** fell by 3.1 mb to end October at 420.7 mb, reversing the build of the last three months. Despite this stock-draw, distillate stocks were 38.5 mb, or 10.1%, higher than the previous year at the same time and 39.7 mb, or 10.4%, above the latest five-year average. This fall could be attributed to higher middle distillate demand in the region as well as lower distillate output.

Residual fuel oil stocks rose marginally by 0.3 mb in October, reversing the drop of last month, to settle at 76.1 mb, which is 7.1 mb, or 10.3%, above the same month a year ago but 11.8 mb, or 13.4%, lower than the latest five-year average. **Naphtha stocks** remained unchanged in October to end the month at 23.3 mb, which is 3.3 mb, or 12.3%, less than the same time a year ago and 5.5 mb, or 19.2%, lower than the seasonal average.

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

	Aug 15	Sep 15	Oct 15	*Change* Oct 15/Sep 15	Oct 14
Crude oil	**483.6**	**489.5**	**485.3**	**-4.2**	**473.0**
Gasoline	105.6	106.3	106.5	0.2	104.2
Naphtha	24.2	23.3	23.3	0.0	26.6
Middle distillates	425.5	423.8	420.7	-3.1	382.2
Fuel oils	77.2	75.9	76.1	0.3	69.0
Total products	632.5	629.3	626.6	-2.6	581.9
Total	**1,116.1**	**1,118.8**	**1,111.9**	**-6.9**	**1,054.9**

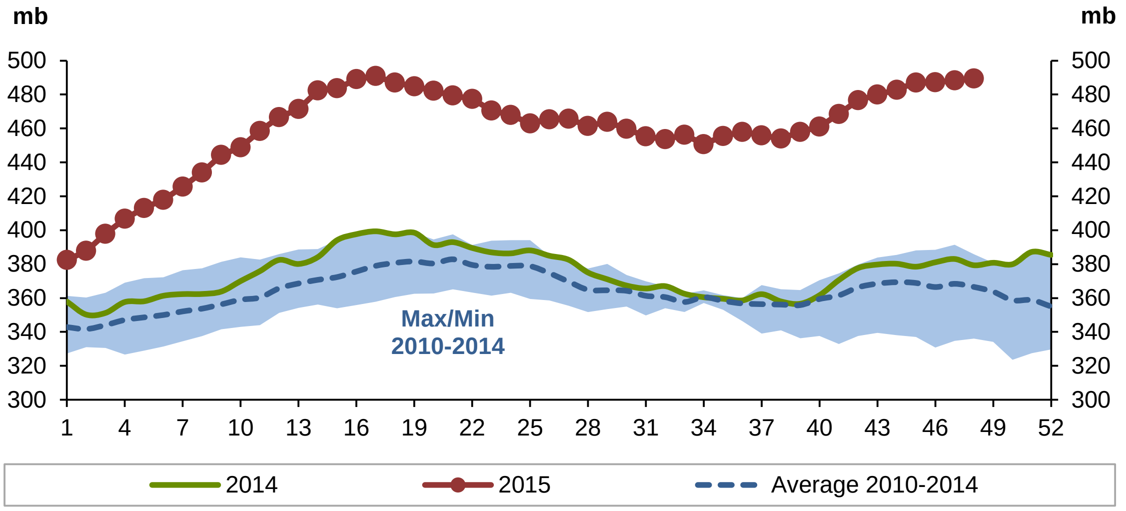
Sources: Argus and Euroilstock.

US

Preliminary data for November shows that **total commercial oil stocks** in the US rose by 6.7 mb, reversing the fall of last year to end the month at 1,309.1 mb. At this level, they were 158.3 mb, or 13.8%, above the same period a year ago and 202.2 mb, or 18.3%, higher than the latest five-year average. Within the components, crude rose by 6.6 mb, while products remained almost unchanged.

US commercial crude stocks rose in November to stand at 489.4 mb. Commercial crude stocks finished the month at 101.9 mb, or 26.3%, above the same time last year and 123.7 mb, or 33.8%, above the latest five-year average. Commercial crude stocks have risen for 10 consecutive weeks, defying expectations that inventories would start to fall once refineries exited the seasonal maintenance. Refinery runs rose in November by nearly 700,000 b/d, reaching 16.1 mb/d, raising the utilization rate to more than 90% in November from 86.7% in October. A build in crude oil imports contributed to the build in crude oil commercial inventories. Indeed, crude oil imports increased by 173,000 b/d to stand at 7.36 mb/d in November. Crude at Cushing, Oklahoma, also saw a stock build of 5.7 mb in November, ending the month at 59.0 mb.

Graph 9.3: US weekly commercial crude oil stocks

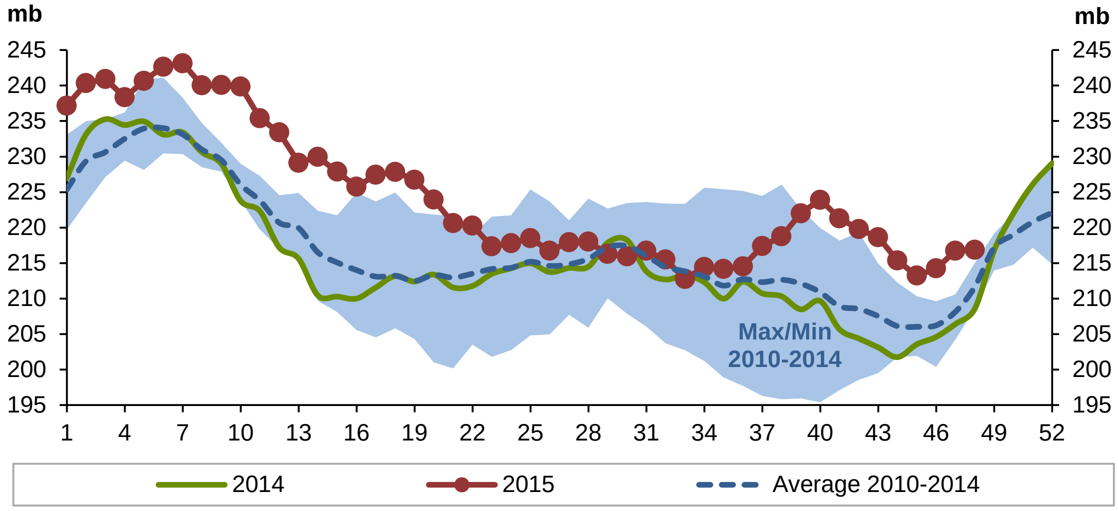


Total product stocks remained almost unchanged in November, following a massive drop of 25.6 mb in October. At 819.7 mb, US product stocks were at around 56.4 mb or 7.4% above the level seen at the same time a year ago, showing a surplus of 78.6 mb or 10.6% above the seasonal norm. Within products, the picture was mixed. All the major products saw builds, while other unfinished products experienced draws.

Gasoline stocks rose by 1.5 mb in November, reversing the fall of the previous month to stand at 216.9 mb. At this level, gasoline stocks were 2.2 mb, or 1.0%, lower than the same period a year ago, but remained in line with the latest five-year average. The build came mainly from higher gasoline production, which increased by around 30,000 b/d. Lower gasoline demand also contributed to the build in gasoline inventories.

Distillate stocks also rose by 3.7 mb in November, ending the month at 144.4 mb. At this level, they still indicated a surplus of 18.3 mb, or 14.5%, from the same period a year ago, and stood 10.2 mb, or 7.6%, above the latest five-year average. The build in middle distillate stocks was driven by lower demand, which declined by around 100,000 b/d to average 3.9 mb/d. Higher distillate fuel output also contributed to this build.

Graph 9.4: US weekly gasoline stocks



Residual fuel oil inventories rose by 1.0 mb to 43.5 mb, which was 7.2 mb, or 19.8%, higher than last year over the same period and 5.7 mb, or 15.1%, above the seasonal norm. **Jet fuel** stocks rose slightly, ending November at 38.1 mb. At this level, jet fuel stocks stood 2.2 mb, or 6.2%, higher than in the same month a year ago, but were 1.9 mb, or 4.8%, below the latest five-year average.

Table 9.3: US onland commercial petroleum stocks, mb

	Sep 15	Oct 15	Nov 15	Change Nov 15/Oct 15	Nov 14
Crude oil	460.8	482.8	489.4	6.6	389.0
Gasoline	225.1	215.3	216.9	1.5	219.6
Distillate fuel	148.8	140.8	144.4	3.7	126.2
Residual fuel oil	41.3	42.5	43.5	1.0	36.3
Jet fuel	40.4	38.0	38.1	0.1	36.0
Total	**1,306.0**	**1,302.5**	**1,309.1**	**6.7**	**1,153.5**
SPR	695.1	695.1	695.1	0.0	691.0

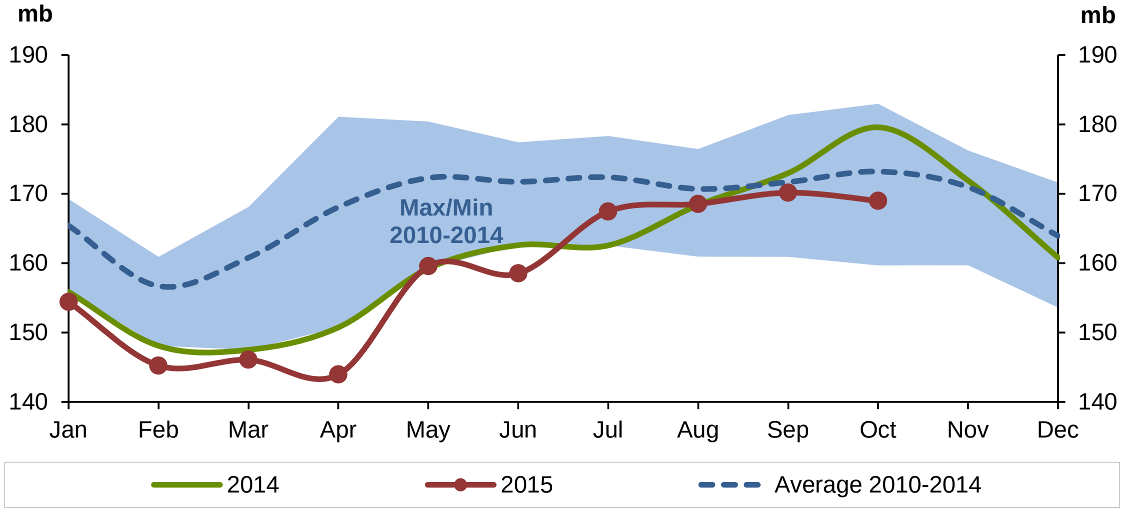
Source: US Energy Information Administration.

Japan

In Japan, total **commercial oil stocks** fell by 1.2 mb in October, reversing the build of the last three months, to settle at 169 mb, which is 10.6 mb or 5.9% below a year ago at the same time and 4.2 mb, or 2.4%, below the latest five-year average. Within the components, both crude and product inventories fell by 0.3 mb and 0.9 mb, respectively.

Japanese commercial **crude oil stocks** fell in October to stand at 99.5 mb, which is 6.9 mb, or 6.4%, below a year ago at the same time yet 1.9 mb above the seasonal norm. The drop was driven by lower crude imports, which declined by about 141,000 b/d or 4.3%, averaging 3.1 mb/d. Lower crude oil throughput limited further declines in crude oil stocks. Indeed, crude oil throughput fell by around 163,000 b/d or 5.1% in October from the previous month to stand at 3.1 mb/d, which is 1.1% higher than a year ago at the same time.

Graph 9.5: Japan's commercial oil stocks



Japan's **total product inventories** also fell by 0.9 mb in October, reversing the build of the last three months, to stand at 69.5 mb, which is 3.8 mb or 5.1% below the same time a year ago and 6.1 mb or 8.1% under the five-year average. The decline was driven mainly by lower refinery output, which fell by around 50,000 b/d or 1.9%, to stand at 2.95 mb/d. The decline in domestic sales limited a further drop in inventories. Indeed, domestic sales fell by around 20,000 b/d to average 3.0 mb/d, which is 2.5% lower than a year ago at the same time. Within products, the picture was mixed; gasoline and residual fuel oil stocks rose, while distillates and naphtha experienced stock draws.

Gasoline stocks rose by 0.1 mb in October to end the month at 10.2 mb, which is 0.4 mb, or 3.8%, below the same time a year ago and 2.2 mb, or 17.7%, less than the latest five-year average. This build was driven mainly by higher gasoline output, which rose by 1.6%, however, higher gasoline sales limited further builds in gasoline inventories. Total residual **fuel oil stocks** also rose by 0.2 mb in October to stand at 15.4 mb, which is 0.3 mb, or 1.8%, below a year ago and 0.6 mb, or 3.9%, lower than the latest five-year average. Within the fuel oil components, fuel oil A and fuel B.C stocks rose by 2.8% and 0.6%, respectively. This build was driven by higher production.

In contrast, **distillate stocks** fell by 1.0 mb in October to stand at 33.4 mb, which is 2.0 mb, or 5.8%, below the same period a year ago and 2.5 mb, or 7.1%, below the seasonal average. Within distillate components, jet fuel and gasoil inventories fell by 10.7% and 13.4%, respectively, while kerosene stocks rose by 8.4%. **Naphtha inventories** also fell by 0.1 mb in October to stand at 10.5 mb, which was 1.0 mb, or 8.9%, below a year ago at the same time and 0.7 mb, or 6.5%, less than the seasonal norm. This fall was driven mainly by lower output combined with reduced imports. However, lower domestic sales limited further stock-draws.

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

	Aug 15	Sep 15	Oct 15	Change Oct 15/Sep 15	Oct 14
Crude oil	**99.2**	**99.8**	**99.5**	**-0.3**	**106.3**
Gasoline	9.7	10.1	10.2	0.1	10.6
Naphtha	11.7	10.6	10.5	-0.1	11.5
Middle distillates	33.5	34.4	33.4	-1.0	35.4
Residual fuel oil	14.4	15.2	15.4	0.2	15.7
Total products	**69.3**	**70.4**	**69.5**	**-0.9**	**73.3**
Total**	**168.5**	**170.2**	**169.0**	**-1.2**	**179.6**

* *At end of month.*

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

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

China

The latest information for China showed a drop in total commercial oil inventories of 23.5 mb in October following a 5.6 mb stock-draw in September. At 378.2 mb, Chinese oil inventories were around 13 mb below the previous year at the same time. Within the components, crude commercial oil and products fell by 11.4 mb and 12.2 mb, respectively.

At 247.0 mb, **commercial crude stocks** showed a deficit of around 18.1 mb below the same period one year earlier. The decline could be attributed to both lower crude oil imports, which declined by around 600,000 b/d to average 6.2 mb/d, as well as to an increase in crude oil throughputs. However, higher crude oil output, which increased by 1.95%, limited further drops in crude oil stocks.

Table 9.5: China's commercial oil stocks, mb

	Aug 15	Sep 15	Oct 15	Change Oct 15/Sep 15	Oct 14
Crude oil	**252.4**	**258.4**	**247.0**	**-11.4**	**265.1**
Gasoline	51.1	52.3	51.8	-0.5	55.8
Diesel	88.5	74.6	64.2	-10.4	56.3
Jet kerosene	15.4	16.4	15.2	-1.2	14.0
Total products	**155.0**	**143.4**	**131.2**	**-12.2**	**126.2**
Total	**407.4**	**401.8**	**378.2**	**-23.5**	**391.3**

Source: OPEC Secretariat analysis.

Total **product stocks** in China also fell by 12.2 mb, ending October at 131.2 mb, which is 5.1 mb higher than a year ago at the same time. All product stocks declined, with the bulk coming from diesel inventories, which dropped by 10.4 mb to end the month of October at 64.2 mb, which is 7.9 mb higher than a year ago at the same time. Gasoline stocks also fell by 0.5 mb to stand at 51.8 mb in October, which is 4.0 mb below last year at the same time. Kerosene stocks fell by 1.2 mb to end the month of October at 15.2 mb, which is 1.2 mb over a year ago. The decline was attributed to higher demand as consumption increased in early October resulting from increased travel in connection with the observance of the National Day Holiday.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

At the end of October, **product stocks in Singapore** fell by 3.1 mb, reversing the build of 0.2 mb in September, to stand at 50.2 mb, which is 8.1 mb or 19.2% above the same period a year ago. All products experienced stock-draws.

Light distillate stocks fell by 1.5 mb to stand at 10.5 mb, which is 0.8 mb or 7.1% below the previous year at the same time. Middle distillate stocks also fell by 0.1 mb to finish the month of October at 13.2 mb, which is 1.8 mb or 15.5% above the same time a year ago. The drop was mainly driven by higher demand in the region. Residual fuel oil stocks fell by 1.5 mb in October to end the month at 26.5 mb, which is 7.1 mb or 36.6% higher than the same time a year ago.

Product stocks in Amsterdam-Rotterdam-Antwerp (ARA) fell by 2.5 mb in October, following a stock-draw of 1.1 mb in September, to settle at 47.3 mb, which is 13.0 mb or 37.8% higher than the same time a year ago. The drop was mainly driven by ongoing low water levels on the Rhine, which has reduced exports to the ARA hub. With the exception of a stock-build in jet fuel, all other products witnessed draws.

Gasoil fell by 0.4 mb to end the month of October at 25.9 mb, which is 6.0 mb or 30.1% higher than the same month last year. Gasoline and fuel oil stocks fell by 0.9 mb 0.4 mb, respectively. At 7.0 mb, gasoline stocks remained 2.6 mb or 61% above last year at the same time. Fuel oil stocks also indicated a surplus of 3.1 mb or 84% above a year ago. In contrast, jet oil rose by 0.2 mb to end October at 6.2 mb, which is 1.5 mb or 33% above a year ago at the same time.

Balance of Supply and Demand

Demand for OPEC crude in 2015 was revised down by 0.2 mb/d from the previous month's report to stand at 29.4 mb/d, which is 0.4 mb/d higher than the 2014 level. In 2016, demand for OPEC crude is projected at 30.8 mb/d, unchanged from last month's report and around 1.5 mb/d higher than in the current year.

Forecast for 2015

Demand for OPEC crude in 2015 was revised down by 0.2 mb/d from the previous month's report to stand at 29.4 mb/d. This represents an increase of 0.4 mb/d over the previous year. The last two quarters of the year were revised down by 0.4 mb/d, while 1Q15 and 2Q15 remained almost unchanged. This downward revision mainly reflects the upward adjustment in non-OPEC supply. The first quarter fell by 0.6 mb/d, while 2Q15 grew by 0.2 mb/d. The third and further quarters are expected to see growth of 0.4 mb/ and 1.5 mb/d, respectively, versus the same quarters last year.

Table 10.1: Summarized supply/demand balance for 2015, mb/d

	2014	1Q15	2Q15	3Q15	4Q15	2015
(a) World oil demand	**91.35**	**91.97**	**92.03**	**93.56**	**93.94**	**92.88**
Non-OPEC supply	56.52	57.90	57.57	57.43	57.17	57.51
OPEC NGLs and non-conventionals	5.83	5.86	5.94	6.01	6.13	5.99
(b) Total non-OPEC supply and OPEC NGLs	**62.35**	**63.76**	**63.51**	**63.44**	**63.29**	**63.50**
Difference (a-b)	**29.00**	**28.21**	**28.52**	**30.12**	**30.64**	**29.38**
OPEC crude oil production	30.07	30.33	31.19	31.56		
Balance	1.07	2.12	2.67	1.45		

Totals may not add up due to independent rounding.

Forecast for 2016

Demand for OPEC crude in 2016 remained unchanged from the previous month. For 1Q16, demand for OPEC crude was revised down by 0.1 mb/d, while 3Q16 was revised up by 0.1 mb/d. The second and fourth quarters remain unchanged from the previous assessment. Overall, demand for OPEC crude for next year is projected to increase by 1.5 mb/d to average 30.8 mb/d. The first and second quarters are expected to increase by 1.9 mb/d and 1.7 mb/d, respectively, while 3Q16 and 4Q16 are projected to rise by 1.5 mb/d and 0.7 mb/d, respectively.

Table 10.2: Summarized supply/demand balance for 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016
(a) World oil demand	**92.88**	**93.28**	**93.31**	**94.77**	**95.15**	**94.13**
Non-OPEC supply	57.51	57.05	56.92	56.98	57.60	57.14
OPEC NGLs and non-conventionals	5.99	6.14	6.14	6.16	6.21	6.16
(b) Total non-OPEC supply and OPEC NGLs	**63.50**	**63.18**	**63.05**	**63.14**	**63.81**	**63.30**
Difference (a-b)	**29.38**	**30.10**	**30.26**	**31.63**	**31.35**	**30.84**

Totals may not add up due to independent rounding.

Graph 10.1: Balance of supply and demand

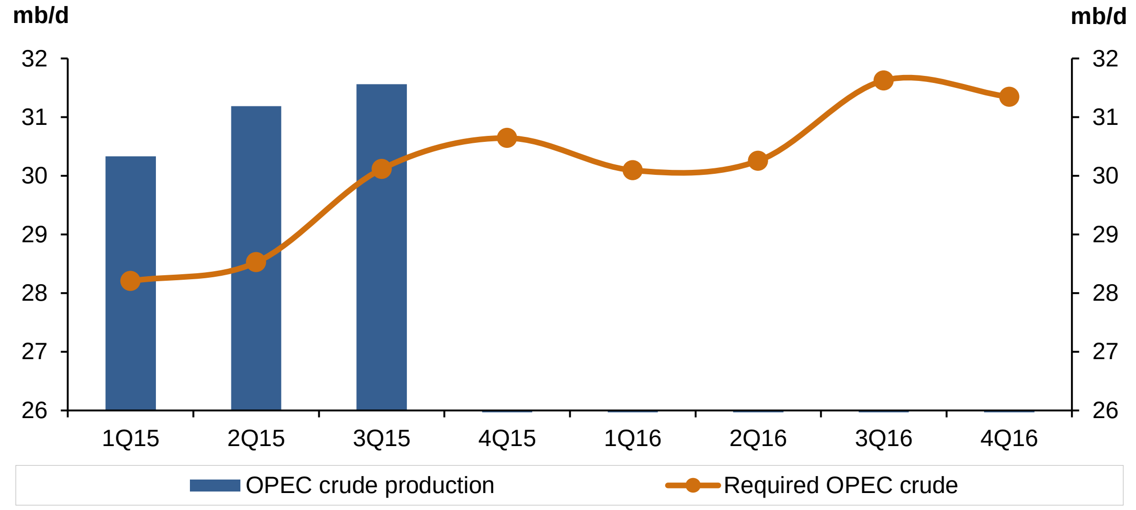


Table 10.3: World oil demand and supply balance, mb/d

	2012	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
World demand													
OECD	45.9	46.0	45.7	46.5	45.4	46.3	46.6	46.2	46.7	45.6	46.4	46.7	46.4
Americas	23.6	24.1	24.2	24.2	24.1	24.8	25.0	24.5	24.5	24.4	25.1	25.3	24.8
Europe	13.8	13.6	13.4	13.5	13.6	13.9	13.5	13.6	13.5	13.6	13.8	13.4	13.6
Asia Pacific	8.5	8.4	8.2	8.8	7.7	7.6	8.2	8.1	8.6	7.6	7.5	8.0	7.9
DCs	28.3	29.2	29.9	30.0	30.7	31.3	30.5	30.6	30.7	31.4	32.0	31.2	31.3
FSU	4.4	4.5	4.5	4.4	4.2	4.6	4.9	4.5	4.4	4.3	4.7	5.0	4.6
Other Europe	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.8	0.7
China	9.7	10.1	10.5	10.4	11.1	10.7	11.2	10.8	10.8	11.4	11.0	11.5	11.1
(a) Total world demand	**89.0**	**90.4**	**91.3**	**92.0**	**92.0**	**93.6**	**93.9**	**92.9**	**93.3**	**93.3**	**94.8**	**95.2**	**94.1**
Non-OPEC supply													
OECD	21.1	22.2	24.2	25.1	24.9	24.9	24.7	24.9	24.6	24.5	24.5	24.9	24.6
Americas	16.7	18.2	20.1	20.9	20.7	20.8	20.6	20.7	20.4	20.5	20.5	20.8	20.6
Europe	3.8	3.6	3.6	3.7	3.8	3.7	3.7	3.7	3.7	3.6	3.5	3.7	3.6
Asia Pacific	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
DCs	12.0	12.0	12.2	12.5	12.4	12.2	12.2	12.3	12.2	12.3	12.4	12.5	12.4
FSU	13.4	13.6	13.5	13.7	13.6	13.5	13.6	13.6	13.5	13.4	13.3	13.4	13.4
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	4.2	4.2	4.3	4.3	4.4	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4
Processing gains	2.1	2.1	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	52.9	54.3	56.5	57.9	57.6	57.4	57.2	57.5	57.0	56.9	57.0	57.6	57.1
OPEC NGLs + non-conventional oils	5.6	5.6	5.8	5.9	5.9	6.0	6.1	6.0	6.1	6.1	6.2	6.2	6.2
(b) Total non-OPEC supply and OPEC NGLs	**58.4**	**59.9**	**62.3**	**63.8**	**63.5**	**63.4**	**63.3**	**63.5**	**63.2**	**63.1**	**63.1**	**63.8**	**63.3**
OPEC crude oil production (secondary sources)	31.2	30.2	30.1	30.3	31.2	31.6							
Total supply	89.6	90.2	92.4	94.1	94.7	95.0							
Balance (stock change and miscellaneous)	0.6	-0.2	1.1	2.1	2.7	1.4							
OECD closing stock levels (mb)													
Commercial	2,683	2,589	2,738	2,815	2,905	2,967							
SPR	1,547	1,584	1,579	1,582	1,584	1,581							
Total	4,230	4,174	4,317	4,397	4,489	4,548							
Oil-on-water	879	909	924	864	916	924							
Days of forward consumption in OECD													
Commercial onland stocks	58	57	59	62	63	64							
SPR	34	35	34	35	34	34							
Total	92	91	93	97	97	98							
Memo items													
FSU net exports	9.0	9.1	9.0	9.3	9.4	8.9	8.6	9.0	9.1	9.1	8.6	8.4	8.8
(a) - (b)	**30.6**	**30.4**	**29.0**	**28.2**	**28.5**	**30.1**	**30.6**	**29.4**	**30.1**	**30.3**	**31.6**	**31.3**	**30.8**

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

Table 10.4: World oil demand/supply balance: changes from last month's table* , mb/d

	2012	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
World demand													
OECD	-	-	-	-	-	0.1	0.1	-	-	-	0.1	0.1	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	0.1	0.1	-	-	-	0.1	0.1	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) Total world demand	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-
World demand growth	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Non-OPEC supply													
OECD	-	-	-	-	0.1	0.5	0.3	0.2	-	-	-	-	-
Americas	-	-	-	-	0.1	0.4	0.2	0.2	-	-	-	-	-
Europe	-	-	-	-	-	0.1	0.1	-	-	-	-	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	0.1	0.1	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	0.1	0.6	0.4	0.3	0.1	-	-	-	-
Total non-OPEC supply growth	-	-	-	-	0.1	0.6	0.4	0.3	0.1	-0.1	-0.6	-0.4	-0.2
OPEC NGLs + non-conventionals	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	-	-	-	-	0.1	0.5	0.4	0.2	0.1	-	-	-	-
OPEC crude oil production (secondary sources)	-	-	-	-	-	-							
Total supply	-	-	-	-	0.1	0.5							
Balance (stock change and miscellaneous)	-	-	-	-	0.1	0.4							
OECD closing stock levels (mb)													
Commercial	-	-	-	-	-	25							
SPR	-	-	-	-	-	-2							
Total	-	-	-	-	-	23							
Oil-on-water	-	-	-	-	-	-							
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-	-							
SPR	-	-	-	-	-	-							
Total	-	-	-	-	-	-							
Memo items													
FSU net exports	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) - (b)	-	-	-	-	-0.1	-0.4	-0.4	-0.2	-0.1	-	0.1	-	-

* *This compares Table 10.3 in this issue of the MOMR with Table 10.3 in the November 2015 issue.*
This table shows only where changes have occurred.

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

		2011	2012	2013	2014	4Q13	1Q14	2Q14	3Q14	4Q14	1Q15	2Q15	3Q15
Closing stock levels, mb													
OECD onland commercial		**2,617**	**2,683**	**2,589**	**2,738**	**2,589**	**2,611**	**2,681**	**2,749**	**2,738**	**2,815**	**2,905**	**2,967**
	Americas	1,308	1,365	1,316	1,446	1,316	1,317	1,387	1,416	1,446	1,483	1,537	1,578
	Europe	914	912	881	886	881	885	889	897	886	939	938	946
	Asia Pacific	395	405	392	405	392	409	405	436	405	392	430	443
OECD SPR		**1,536**	**1,547**	**1,584**	**1,579**	**1,584**	**1,585**	**1,580**	**1,577**	**1,579**	**1,582**	**1,584**	**1,581**
	Americas	697	696	697	692	697	697	692	692	692	692	695	696
	Europe	426	436	470	470	470	470	469	469	470	470	471	468
	Asia Pacific	414	415	417	417	417	418	419	417	417	420	418	417
OECD total		**4,154**	**4,230**	**4,174**	**4,317**	**4,174**	**4,196**	**4,260**	**4,326**	**4,317**	**4,397**	**4,489**	**4,548**
Oil-on-water		**825**	**879**	**909**	**924**	**909**	**954**	**914**	**952**	**924**	**864**	**916**	**924**
Days of forward consumption in OECD													
OECD onland commercial		**57**	**58**	**57**	**58**	**57**	**58**	**58**	**59**	**59**	**62**	**63**	**64**
	Americas	53	55	55	57	55	55	57	57	60	61	62	63
	Europe	68	68	66	67	68	66	65	67	66	69	68	70
	Asia Pacific	47	48	46	48	44	53	52	52	46	51	56	54
OECD SPR		**33**	**34**	**33**	**34**	**35**	**35**	**34**	**34**	**34**	**35**	**34**	**34**
	Americas	30	30	29	29	29	29	28	28	29	29	28	28
	Europe	29	30	31	32	36	35	34	35	35	35	34	35
	Asia Pacific	50	50	48	50	47	54	54	50	48	54	55	51
OECD total		**90**	**92**	**90**	**92**	**91**	**93**	**93**	**93**	**93**	**97**	**97**	**98**

Table 10.6: Non-OPEC supply and OPEC natural gas liquids, mb/d

	2012	2013	2014	3Q15	4Q15	2015	Change 15/14	1Q16	2Q16	3Q16	4Q16	2016	Change 16/15
US	10.0	11.2	13.0	13.9	13.6	13.8	0.8	13.5	13.6	13.6	13.8	13.6	-0.2
Canada	3.8	4.0	4.3	4.3	4.4	4.4	0.0	4.5	4.4	4.5	4.6	4.5	0.1
Mexico	2.9	2.9	2.8	2.6	2.6	2.6	-0.2	2.5	2.5	2.5	2.4	2.5	-0.1
OECD Americas*	**16.7**	**18.2**	**20.1**	**20.8**	**20.6**	**20.7**	**0.7**	**20.4**	**20.5**	**20.5**	**20.8**	**20.6**	**-0.2**
Norway	1.9	1.8	1.9	1.9	1.9	1.9	0.0	2.0	1.9	1.9	2.0	1.9	0.0
UK	1.0	0.9	0.9	0.9	0.9	1.0	0.1	0.9	0.9	0.9	1.0	0.9	0.0
Denmark	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Other OECD Europe	0.7	0.7	0.7	0.7	0.6	0.7	0.0	0.6	0.6	0.6	0.6	0.6	0.0
OECD Europe	**3.8**	**3.6**	**3.6**	**3.7**	**3.7**	**3.7**	**0.1**	**3.7**	**3.6**	**3.5**	**3.7**	**3.6**	**-0.1**
Australia	0.5	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0
OECD Asia Pacific	**0.6**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0**
Total OECD	**21.1**	**22.2**	**24.2**	**24.9**	**24.7**	**24.9**	**0.7**	**24.6**	**24.5**	**24.5**	**24.9**	**24.6**	**-0.3**
Brunei	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.9	0.8	0.9	0.0	0.8	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	0.1	0.8	0.8	0.8	0.8	0.8	0.0
Thailand	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
Vietnam	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Asia others	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.3	0.3	0.3	0.3	0.0
Other Asia	**3.6**	**3.5**	**3.5**	**3.5**	**3.5**	**3.6**	**0.1**	**3.6**	**3.6**	**3.6**	**3.7**	**3.6**	**0.1**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.6	2.6	2.9	3.1	3.1	3.1	0.2	3.1	3.1	3.2	3.3	3.2	0.1
Colombia	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Trinidad & Tobago	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
L. America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Latin America	**4.7**	**4.8**	**5.0**	**5.2**	**5.2**	**5.2**	**0.2**	**5.1**	**5.2**	**5.2**	**5.3**	**5.2**	**0.0**
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	0.9	0.9	0.9	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Syria	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.2	0.1	0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Middle East	**1.5**	**1.4**	**1.3**	**1.2**	**1.2**	**1.3**	**-0.1**	**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	0.2	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Equatorial Guinea	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Gabon	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
South Africa	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
Sudans	0.1	0.2	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Africa other	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Africa	**2.3**	**2.3**	**2.4**	**2.3**	**2.3**	**2.3**	**0.0**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**0.0**
Total DCs	**12.0**	**12.0**	**12.2**	**12.2**	**12.2**	**12.3**	**0.1**	**12.2**	**12.3**	**12.4**	**12.5**	**12.4**	**0.0**
FSU	**13.4**	**13.6**	**13.5**	**13.5**	**13.6**	**13.6**	**0.0**	**13.5**	**13.4**	**13.3**	**13.4**	**13.4**	**-0.2**
Russia	10.5	10.6	10.7	10.8	10.8	10.8	0.1	10.8	10.7	10.7	10.7	10.7	-0.1
Kazakhstan	1.6	1.6	1.6	1.5	1.6	1.6	0.0	1.6	1.5	1.5	1.5	1.5	-0.1
Azerbaijan	0.9	0.9	0.9	0.8	0.8	0.9	0.0	0.8	0.8	0.8	0.8	0.8	0.0
FSU others	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.3	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	4.2	4.2	4.3	4.4	4.4	4.4	0.1	4.3	4.4	4.4	4.4	4.4	0.0
Non-OPEC production	**50.7**	**52.2**	**54.4**	**55.2**	**55.0**	**55.3**	**1.0**	**54.8**	**54.7**	**54.8**	**55.4**	**54.9**	**-0.4**
Processing gains	2.1	2.1	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	**52.9**	**54.3**	**56.5**	**57.4**	**57.2**	**57.5**	**1.0**	**57.0**	**56.9**	**57.0**	**57.6**	**57.1**	**-0.4**
OPEC NGL	5.4	5.4	5.6	5.7	5.9	5.7	0.2	5.9	5.9	5.9	5.9	5.9	0.2
OPEC non-conventional	0.2	0.2	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
OPEC (NGL+NCF)	**5.6**	**5.6**	**5.8**	**6.0**	**6.1**	**6.0**	**0.2**	**6.1**	**6.1**	**6.2**	**6.2**	**6.2**	**0.2**
Non-OPEC & OPEC (NGL+NCF)	**58.4**	**59.9**	**62.3**	**63.4**	**63.3**	**63.5**	**1.2**	**63.2**	**63.1**	**63.1**	**63.8**	**63.3**	**-0.2**

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

Table 10.7: World Rig Count

	2011	2012	2013	2014	*Change* 14/13	4Q14	1Q15	2Q15	3Q15	Oct 15	Nov 15	*Change* Nov/Oct
US	1,880	1,919	1,761	1,862	101	1,912	1,380	909	866	790	760	-30
Canada	423	364	354	380	26	406	309	99	191	185	178	-7
Mexico	94	106	106	86	-20	78	67	59	42	38	38	0
Americas	2,398	2,390	2,221	2,327	106	2,396	1,755	1,067	1,098	1,013	976	-37
Norway	17	17	20	17	-3	16	17	18	18	15	14	-1
UK	16	18	17	16	-1	17	18	14	13	14	12	-2
Europe	118	119	135	145	10	148	132	116	109	108	108	0
Asia Pacific	17	24	27	26	-1	25	21	17	16	16	14	-2
Total OECD	**2,532**	**2,533**	**2,383**	**2,499**	**116**	**2,569**	**1,908**	**1,200**	**1,222**	**1,137**	**1,098**	**-39**
Other Asia	239	217	219	228	9	229	214	203	201	197	194	-3
Latin America	195	180	166	172	6	174	161	143	149	137	130	-7
Middle East	129	136	102	108	6	105	103	98	100	101	108	7
Africa	2	7	16	28	12	29	22	12	8	3	4	1
Total DCs	**565**	**539**	**503**	**536**	**33**	**537**	**499**	**456**	**458**	**438**	**436**	**-2**
Non-OPEC rig count	**3,097**	**3,071**	**2,886**	**3,034**	**149**	**3,106**	**2,408**	**1,656**	**1,681**	**1,575**	**1,534**	**-41**
Algeria	31	36	47	48	1	48	52	52	51	49	48	-1
Angola	7	9	11	15	4	14	15	12	8	12	9	-3
Ecuador	13	20	26	24	-2	21	17	15	12	6	4	-2
Iran**	54	54	54	54	0	54	54	54	54	54	54	0
Iraq**	36	58	83	79	-4	59	57	53	47	50	51	1
Kuwait**	32	31	32	38	6	43	51	49	44	40	43	3
Libya**	3	9	15	10	-4	8	6	3	1	1	1	0
Nigeria	36	36	37	34	-3	36	35	29	28	28	28	0
Qatar	8	8	9	10	2	10	9	8	7	6	5	-1
Saudi Arabia	100	112	114	134	20	143	154	155	154	156	158	2
UAE	21	24	28	34	6	38	38	39	41	50	54	4
Venezuela	122	117	121	116	-5	106	108	105	114	113	112	-1
OPEC rig count	**461**	**513**	**576**	**596**	**20**	**579**	**595**	**575**	**561**	**565**	**567**	**2**
Worldwide rig count*	**3,559**	**3,584**	**3,462**	**3,631**	**169**	**3,685**	**3,002**	**2,231**	**2,242**	**2,140**	**2,101**	**-39**
of which:												
Oil	2,195	2,594	2,611	2,795	184	2,820	2,214	1,616	1,606	1,529	1,479	-50
Gas	1,257	886	746	743	-3	776	690	516	536	513	521	8
Others	103	106	109	95	-14	91	100	98	99	98	101	3

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

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

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Disclaimer

OPEC Basket average price

US$/b

down 4.52 in November

November 2015	40.50
October 2015	45.02
Year-to-date	**50.97**

November OPEC crude production

mb/d, according to secondary sources

up 0.23 in November

November 2015	31.70
October 2015	31.47

Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
2015	3.1	2.0	2.5	0.6	1.5	6.8	7.3
2016	3.4	2.1	2.5	1.2	1.5	6.4	7.6

Supply and demand

mb/d

2015		**15/14**	**2016**		**16/15**
World demand	92.9	1.5	World demand	94.1	1.3
Non-OPEC supply	57.5	1.0	Non-OPEC supply	57.1	–0.4
OPEC NGLs	6.0	0.2	OPEC NGLs	6.2	0.2
Difference	**29.4**	**0.4**	**Difference**	**30.8**	**1.5**

OECD commercial stocks

mb

	Aug 15	Sep 15	Oct 15	Oct 15/Sep 15	Oct 14
Crude oil	1,470	1,481	1,499	17.5	1,363
Products	1,481	1,486	1,456	–29.2	1,367
Total	**2,950**	**2,967**	**2,955**	**–11.7**	**2,729**
Days of forward cover	63.7	63.6	63.5	– 0.1	59.1

Next report to be issued on 18 January 2016.