OPEC

Monthly Oil Market Report

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Feature article:

Recent monetary policies and their impact on the oil market

Organization of the Petroleum Exporting Countries

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Indonesia returns as OPEC Member

The 168th Meeting of the Conference marked the return of Indonesia as a full Member of OPEC after a break of seven years.

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

In order to give an idea of the relative scale of the changes involved, Indonesia's crude oil supply in 2015 averaged 0.70 mb/d while production of natural gas liquids (NGL) averaged 0.17 mb/d. Accordingly, non-OPEC supply in 2015 has been adjusted lower by a combined figure of 0.87 mb/d.

Oil market highlights

Crude Oil Price Movements

The OPEC Reference Basket lost $6.86 in December to average $33.64/b. Persistent oversupply coupled with increasing signs of a slowing pace of growth in the Chinese economy exerted pressure on the oil market. ICE Brent was down $7.03 at $38.90/b, while Nymex WTI fell by $5.60 to $37.33/b. The Brent-WTI spread narrowed significantly to $1.58/b from $3/b in the previous month.

World Economy

World economic growth for 2015 has been revised down to 3.0% from 3.1%, while the forecast for 2016 remains unchanged at 3.4%. The growth risk is seen skewed to the downside as both emerging and some OECD economies are facing several challenges. OECD growth remains unchanged at 2.0% and 2.1% for 2015 and 2016, respectively. Also, growth in China remains at 6.8% and 6.4%, while India's growth numbers remain at 7.3% and 7.6%, respectively.

World Oil Demand

World oil demand is estimated to have increased by 1.54 mb/d in 2015 to average 92.92 mb/d. This represents a minor 10 tb/d upward adjustment, mainly reflecting an uptick in oil requirements in the OECD Europe and Other Asia in the 3Q15. In 2016, oil demand growth is expected to be around 1.26 mb/d, marginally higher than in the previous report, to average 94.17 mb/d.

World Oil Supply

Non-OPEC oil supply growth in 2015 now stands at 1.23 mb/d, following an upward revision of 0.23 mb/d. The increase has been due to better-than-expected growth in the US, Canada, Russia and Norway. In 2016, non-OPEC oil supply is now projected to contract by 0.66 mb/d, following a downward adjustment of 0.27 mb/d. The revision has been due to stronger declines expected in the US and Canada caused by the lower price environment. OPEC NGLs are seen growing by 0.17 mb/d in 2016, following an increase of 0.15 mb/d last year. In December, OPEC crude production decreased by 0.21 mb/d to average 32.18 mb/d, according to secondary sources.

Product Markets and Refining Operations

Product markets in the Atlantic Basin weakened in December. The mild winter weather caused a sharp drop in the middle distillates crack spreads, which hit levels not seen since 2009, outweighing unseasonably strong gasoline demand. Asian margins remained relatively healthy on the back of stronger naphtha and gasoline demand.

Tanker Market

Freight rates for dirty vessels saw mixed movements in December. On average, VLCCs freight rates increased by 30% as a result of enhanced rates for tankers operating on all reported routes. In contrast, Suezmax and Aframax rates showed declines on limited activities. Clean tanker spot freight rates were kept mostly at healthy levels compared to the previous month despite being lower on an annual basis.

Stock Movements

OECD commercial oil stocks fell in November to stand at 2,966 mb. At this level, inventories are around 267 mb higher than the five-year average. Crude and products showed surpluses of around 200 mb and 67 mb, respectively. In terms of forward cover, OECD commercial stocks stood at 63.7 days in November, some 5.8 days over the five-year average.

Balance of Supply and Demand

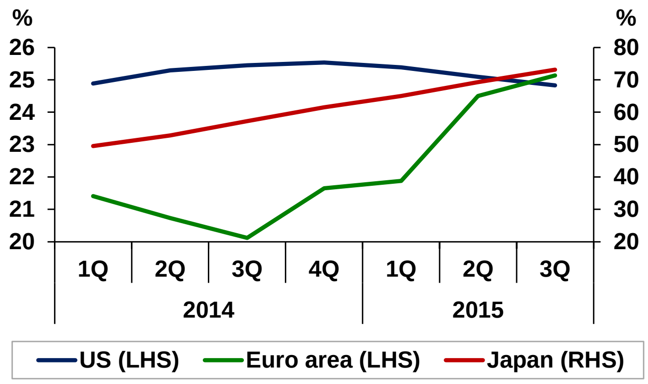
Demand for OPEC crude in 2015 is estimated at 29.9 mb/d, an increase of 0.2 mb/d over the 2014 level. In 2016, demand for OPEC crude is forecast at 31.6 mb/d, some 1.7 mb/d higher than the previous year.

Recent monetary policies and their impact on the oil market

Monetary policies have moved to the forefront of the economic analysis in the past weeks. The mid-December decision by the US Federal Reserve to raise interest rates by 0.25 percentage points represents an important shift in the monetary policy landscape. This decision represents a positive signal, as it has been taken by the Fed on the basis that US economic growth is healthy.

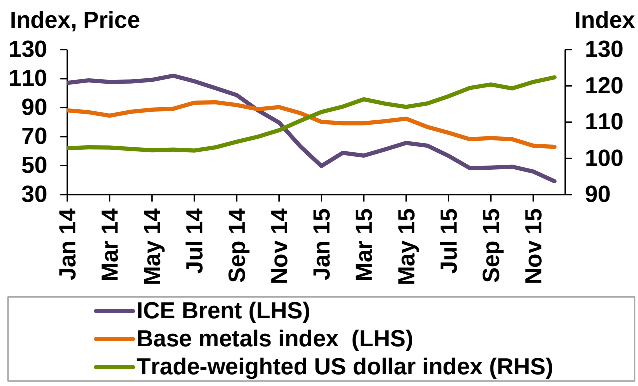
With official median projections by the Fed of interest rates reaching 1.375% in 2016, the Fed's monetary tightening is in stark contrast to the continuing monetary expansion of some central banks in the OECD, including the European Central Bank (ECB) and the Bank of Japan (***Graph 1***). The ECB at the start of December decided to extend its monetary stimulus programme and other central banks have pursued a similar accommodative monetary policy in support of their economies. Divergent money policies can also be seen in the emerging economies, with China and India pursuing loose policies, compared to tightening in Brazil and Russia.

Graph 1: Liquidity injections by central banks as a percentage of GDP



Sources: ECB, FRBBEA, CAOBOJ and Haver Analytics.

Graph 2: Trade-weighted US dollar index, ICE Brent and base metals



Sources: Federal Reserve Board and World Bank.

These recent monetary policy decisions have had an impact, even ahead of the decision in December as the move has been widely anticipated. For the oil market, the impacts can be seen not only on crude prices, but also on oil demand and supply. The expectation of rising interest rates in the US in recent months has been a factor behind capital outflows from emerging economies, which have led to a depreciation of their national currencies, inflation pressures, and eventually lower industrial activities, particularly in China. These have dampened economic growth and slowed the increase in oil consumption. In addition, the expectation of a continued appreciation of the US currency supported a significant rise in the US dollar value versus other major currencies – even prior to the actual rate increase – which weighed on oil prices. Other commodities have also been similarly affected, especially industrial metals (***Graph 2***). At the same time, the rise in US dollar interest rates has negatively affected US dollar-prone investments in the oil industry, as it has made them costlier, which has limited additional oil supply in expensive and debt-leveraged oil developments.

In the Euro-zone, Japan and China, monetary stimulus helped support economic growth last year, contributing to an improvement in oil demand growth. In India, further accommodative monetary policy along with a continued economic recovery also led to better-than-expected oil demand growth in 2015.

The appreciation of the US dollar has also had an impact on trade balances. On the one hand, exporting countries benefit from the lower value of their currencies relative to the dollar, while on the other they are challenged by the higher costs for imported goods and services. For commodity-driven economies, an additional challenge comes from budget constraints. These can result in the delay or cancellation of a range of industrial projects, thus leading to lower growth in oil consumption.

If the financial industry is able to channel the global liquidity made available by ongoing monetary stimulus programmes into the real economy of various countries, this should lead to a broader improvement in the world economic outlook. This in turn would result in an improving world oil supply-demand balance over the medium-term.

Crude Oil Price Movements

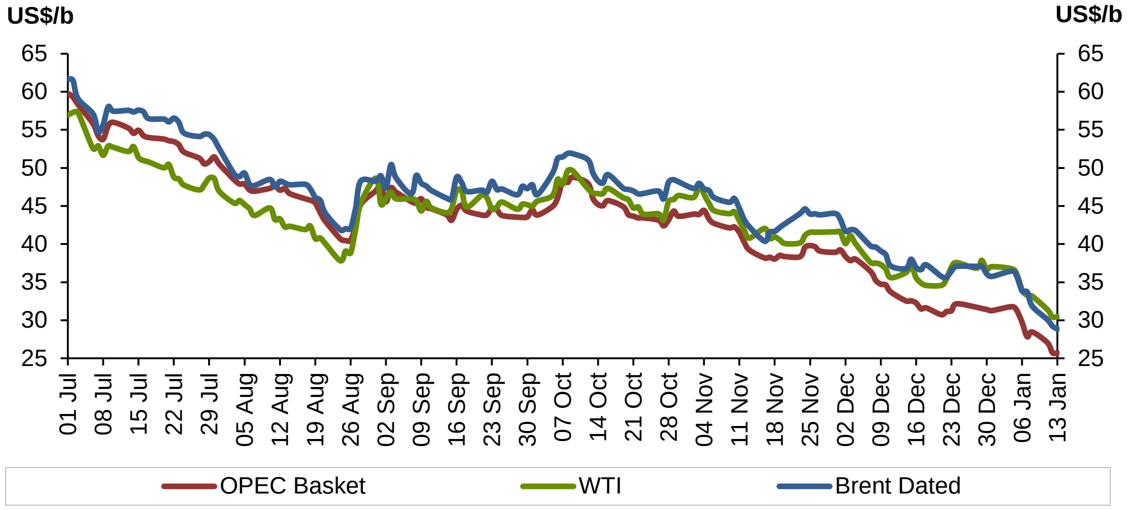
The OPEC Reference Basket (ORB) plunged by almost 17% in December, and its yearly value almost halved, as persistent oversupply in the oil market coupled with increasing signs of slowdown in the Chinese economy to exert pressure on the oil markets. In addition, oil prices were being driven downward by the appreciation of the US dollar and a fall in equity markets. Less-than-expected seasonal demand due to warmer weather also weighed on prices. M-o-m, the ORB dropped $6.86 to $33.64/b, while y-o-y, it was down 48.6% at $49.49/b. Crude oil futures declined significantly for the month and the year. ICE Brent ended December down $7.03 to stand at $38.90/b, while Nymex WTI fell by $5.60 to settle at $37.33/b. On a yearly average basis, both fell double digits and for a second straight year, with ICE Brent averaging 2015 down at $53.64/b compared to $99.51/b in 2014. Nymex WTI plunged by $44.20 to settle at $48.80/b from $93/b in 2014. Speculators cut their net long positions in Nymex WTI futures and options to the lowest since 2010. The Brent-WTI spread continued to narrow significantly in December to average $1.58/b, as US crude gained some support from a flash fall in inventories, reduced drilling and the lifting of a ban on most US crude exports.

OPEC Reference Basket

The ORB plunged by nearly 17% in December to its lowest monthly average since December 2003. Its yearly value dropped for the second consecutive year, the first time this has occurred since 1998, settling at its lowest level since 2004.

The ORB's 2015 yearly value declined by almost half compared to 2014, dropping to below the $35/b level for the month and below $50/b for the year. Global oil markets continue to suffer from a year-and-a-half-long period of oversupply in the oil market, coupled with increasing signs of slowdown in the Chinese economy. In addition, oil prices were being driven downward by an appreciation of the US dollar and by fluctuations in the equity markets. Moreover, less-than-expected winter seasonal demand due to warmer weather has also affected prices negatively, causing inventories, both crude and refined products, to swell further.

Graph 1.1: Crude oil price movement, 2015-2016



Crude Oil Price Movements

On a monthly basis, the **ORB** dropped by $6.86 to $33.64/b, on average, a m-o-m decrease of 16.9%. Compared to 2014, the ORB value sunk by 48.6% in 2015 to $49.49/b versus its $96.29/b yearly value for 2014. This is its lowest yearly value since the $36.05/b level registered in 2004.

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

	Nov 15	Dec 15	Change Dec/Nov	2014	2015
Basket	**40.50**	**33.64**	**-6.86**	**96.29**	**49.49**
Arab Light	40.64	33.70	-6.94	97.18	49.85
Basrah Light	38.70	32.06	-6.64	94.45	47.87
Bonny Light	44.81	38.16	-6.65	100.85	52.95
Es Sider	43.30	37.16	-6.14	98.51	51.38
Girassol	44.74	37.88	-6.86	99.19	52.96
Iran Heavy	38.92	31.73	-7.19	96.18	48.80
Kuwait Export	38.39	31.49	-6.90	95.32	48.13
Qatar Marine	41.66	34.36	-7.30	96.39	50.71
Merey	31.87	24.42	-7.45	86.88	41.11
Murban	45.99	39.19	-6.80	99.45	53.87
Oriente	36.40	32.18	-4.22	87.31	44.94
Sahara Blend	45.30	38.59	-6.71	99.68	52.79
Other Crudes					
Brent	44.30	38.16	-6.14	99.08	52.41
Dubai	41.79	34.59	-7.20	96.71	50.94
Isthmus	43.29	37.68	-5.61	93.65	51.14
LLS	44.45	38.86	-5.59	96.92	52.36
Mars	39.90	34.69	-5.21	92.93	48.19
Minas	40.79	33.53	-7.26	98.68	49.17
Urals	43.05	36.97	-6.08	98.08	51.90
WTI	42.67	37.23	-5.44	93.26	48.73
Differentials					
Brent/WTI	1.63	0.93	-0.70	5.82	3.69
Brent/LLS	-0.15	-0.70	-0.55	2.16	0.05
Brent/Dubai	2.51	3.57	1.06	2.37	1.48

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.

All ORB component values dropped sharply in line with the crude oil outright prices. Global oil benchmark values deteriorated over the month with Dubai suffering the most of the benchmarks, falling by more than 17%, or $7.20. Dated Brent and WTI prices fell by $6.14 and $5.44, respectively.

Apart from Murban, all **Middle East and multi-destination Basket components** followed the Dubai and Oman benchmarks, plunging by more than 17% in December. Nevertheless, spot premiums for light grades in the Middle East crude market rose to multi-month highs after supply tightened earlier in the month. Competitive official selling prices (OSPs), healthy refining margins and stronger demand for crude priced on Dubai, rather than Brent, led to the strong demand. Differentials and outright prices dropped toward the end of the month, as demand eased going into the spring supplies and Asian refiners prepared for maintenance at their plants. Middle Eastern spot component grades slipped by $7.05 to $36.78/b, while multi-destination grades, Arab light, Basrah light, Iran Heavy and Kuwait Export, plunged by $6.92 to $32.25/b.

Meanwhile, despite tenders from Asian buyers, such as India, having helped clear more than 20 mb of **West African (WAF) crude** oil in early December and open arbitrage to the US, WAF crude differentials remained near multi-year lows amid a glut of unsold cargoes with the number expected to rise further. The values of the Brent-related West and Northern African light sweet Basket components – Saharan Blend, Es Sider, Girassol and Bonny Light – decreased by $6.59, or 14.8%, to $37.95/b in December.

For the **Latin American ORB components**, Merey was down by $7.45 or 23.4% to settle at $24.42/b, while Oriente declined by about $4.22, or 11.6%, to stand at $32.18/b. The sharp drop of the fuel oil element in the Merey formula affected its performance in December.

On 15 January, the OPEC Reference Basket was down at $24.74/b, $8.90 below the December average.

The oil futures market

Crude oil futures declined significantly for the month and the year. ICE Brent dropped in December by $7.03, or 15.3%, to stand at $38.90/b, while Nymex WTI fell by $5.60, or 13.0%, to settle at $37.33/b. Both futures contracts are below the $40/b level for the first time in several years – Brent since July 2004 and WTI since February 2009.

On a yearly average basis, both fell double digits and for a second straight year, with ICE Brent ending 2015 down by $45.87, or 46.1%, to stand at $53.64/b, compared to $99.51/b in 2014. Nymex WTI plunged by $44.20, or 47.5%, to $48.80/b from $93/b in 2014. Both futures contracts experienced the largest-ever declines y-o-y.

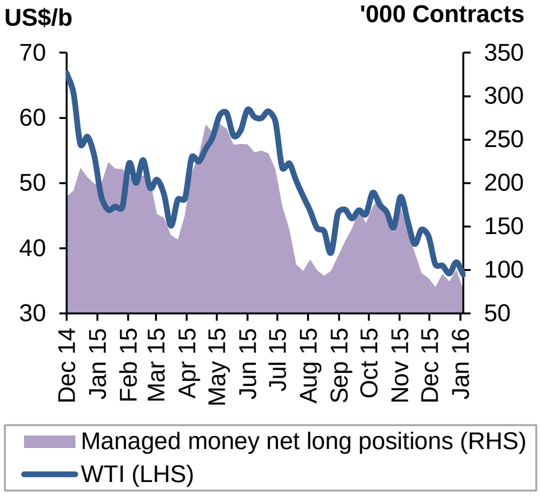
The ongoing glut of crude oil and the notable slowdown in China's economy and their predicted effects on oil demand continue to be the key factors weighing on oil prices since the sell-off in oil began 18 months ago. Deterioration in key stock markets, particularly Chinese equities and the appreciation of the US dollar relative to other currencies, have also exerted downward pressure on crude oil and other commodity prices. A significantly warmer-than-usual start to winter in the Northern Hemisphere due to the El Niño weather phenomenon, one the warmest on record, undercut seasonal demand for heating oil. This has caused lower demand for physical crude and contributed to a significant build in crude and product inventories everywhere, particularly in the US, adding to the bearish sentiment on oil prices.

Crude oil futures prices deteriorated in the second week of January. On 15 January, ICE Brent stood at $28.94/b and Nymex WTI at $29.42/b.

US Commodity Futures Trading Commission (CFTC) data showed that Nymex WTI speculators cut their net long positions to the smallest since 2010, bailing out of the market just as oil prices were tumbling toward 12-year lows. Hedge funds cut their net long positions to around 75,000 contracts, or 75 mb. At the end of November, they held close to 100,000 net long positions.

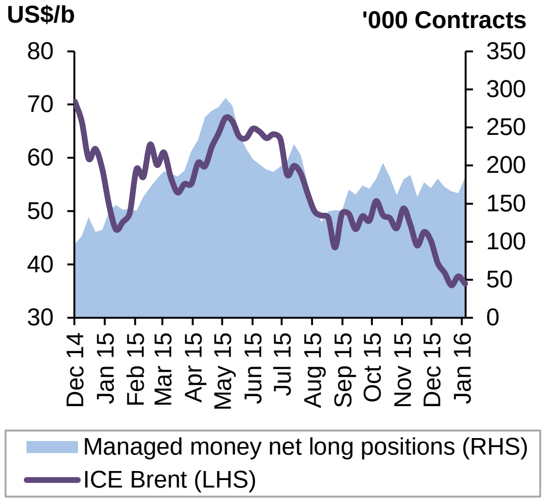
On the other hand, in **ICE Brent**, net long positions increased by 7,107 lots to 185,052 contracts, ICE data showed. Meanwhile, the total futures and options open interest volume in the two markets increased by 42,460 contracts to 4.84 million lots.

Graph 1.2: Nymex WTI price vs. Speculative activity, 2014-2016



Source: CFTC.

Graph 1.3: ICE Brent price vs. Speculative activity, 2014-2016



Source: IntercontinentalExchange, Inc.

The **daily average traded volume** during December for Nymex WTI contracts increased by 13,913 lots to average 821,041 contracts, while ICE Brent daily traded volume increased by 14,000 contracts to 686,935 lots. The daily aggregate traded volume in both crude oil futures markets increased by 27,913 contracts to around 1.51 million (mn) lots, equivalent to around 1.5 billion barrels per day. The total traded volume in Nymex WTI was up at 18.06 mn contracts, and ICE Brent was also up at 15.11 mn lots.

The futures market structure

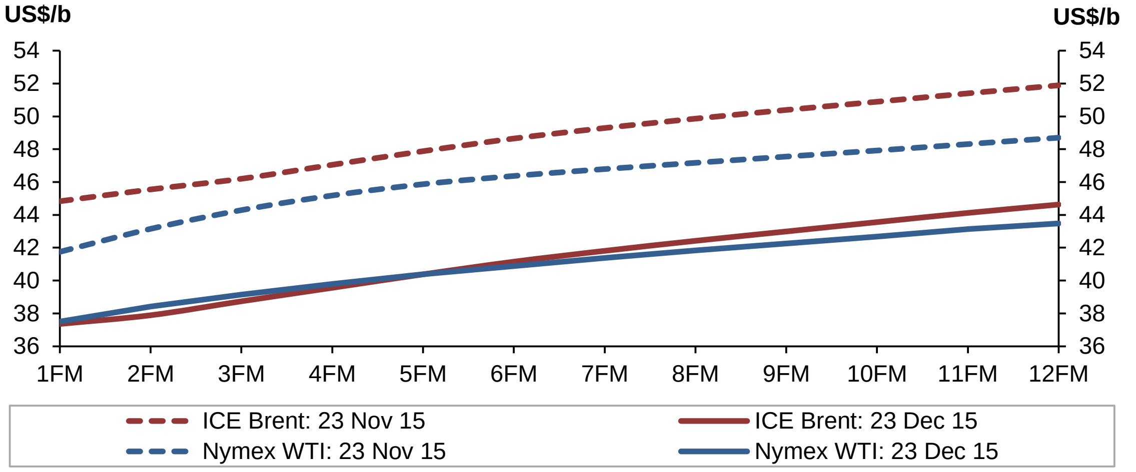
Although Europe and Asia eased slightly, the three markets remained in contango in December, as crude oil oversupply continued in all regions, with the WTI market staying at super-contango, as available storage capacity in the US remained a concern. An end-of-the-year surprise build in US stocks, particularly in Oklahoma, reinforced the concerns. Crude stockpiles in the storage hub at Cushing, Oklahoma, climbed to 63.9 mb during the last week of December, the highest on record, according to data released by the US Energy Information Administration (EIA). For the month, the WTI contango remain unchanged, but very steep, with the (M1-M3) spread at $2.30/b. For the year, the $1.15/b WTI backwardated structure in 2014 flipped into an average of $1.70/b contango as US stocks grew continually throughout 2015.

Amid easing regional supplies, the Brent market contango narrowed by 25¢ in December, with the (M1-M3) spread at $1.67/b. Meanwhile, the Brent flat price structure in 2014 weakened significantly in 2015 to $1.60/b.

Likewise, the Middle East crude contango structure eased further amid healthy demand and lower arbitrage flows to Asia as Brent's premium to Dubai swaps rose to over $3.50/b. For the month, the Dubai contango strengthened by about 55¢, with the M1 $2.25/b discount to M3 decreasing to around $1.70/b. On the other hand, for the year, oversupply in the Dubai market in 2015 forced the prompt month to trade at a steep discount to the forward months, where the (M1-M3) spread moved from equilibrium in 2014 to a decline of $1.35 in 2015, on average.

The **Brent-WTI spread** continued to narrow significantly in December with US crude gaining some support from a flash fall in inventories, reduced drilling and the lifting of a ban on most US crude exports.

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



FM = future month.

The Brent-WTI spread narrowed by about $1.45 to $1.58/b in December. For the year, the spread also narrowed by about $1.58, from $6.50/b in 2014 to $4.85/b in 2015.

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

Nymex WTI	1FM	2FM	3FM	6FM	12FM	12FM-1FM
23 Nov 15	41.75	43.15	44.29	46.37	48.70	6.95
23 Dec 15	37.50	38.42	39.15	40.89	43.48	5.98
Change	**-4.25**	**-4.73**	**-5.14**	**-5.48**	**-5.22**	**-0.97**
ICE Brent	**1FM**	**2FM**	**3FM**	**6FM**	**12FM**	**12FM-1FM**
23 Nov 15	44.83	45.55	46.20	48.65	51.89	7.06
23 Dec 15	37.36	37.89	38.74	41.15	44.63	7.27
Change	**-7.47**	**-7.66**	**-7.46**	**-7.50**	**-7.26**	**0.21**

FM = future month.

The light sweet/medium sour crude spread

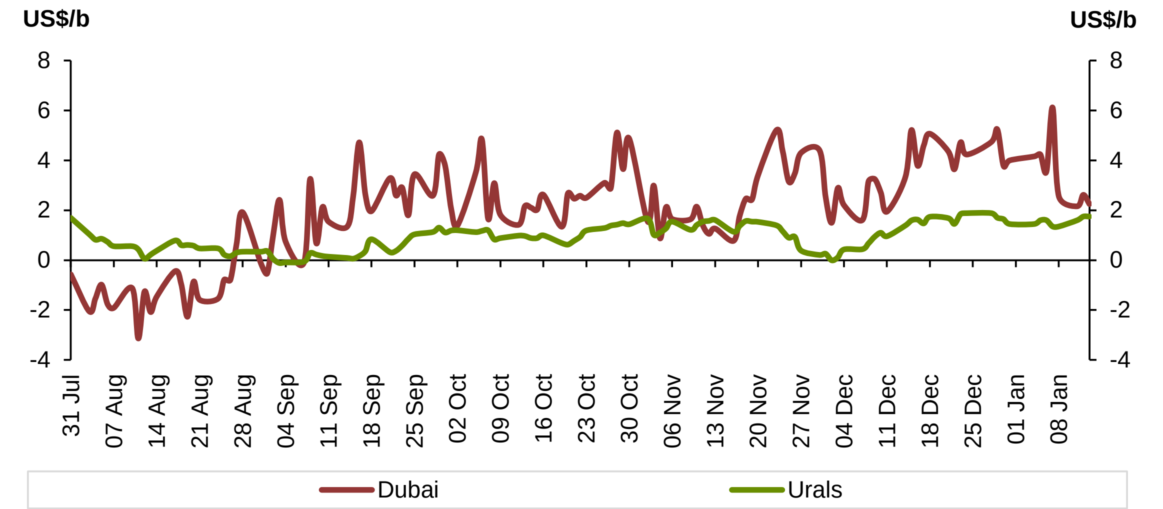
Sweet/sour differentials widened again in Asia, while they narrowed slightly in Europe and the US Gulf Coast (USGC).

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 to arbitrage volumes from outside the region. The Brent/Dubai spread widened to about $3.60/b from $2.50/b in the previous month. This has helped to limit arbitrage movement of light sweet crudes from the Atlantic Basin and supported shorter-haul cargoes. Robust margins for light oil products also buoyed demand for light crude and condensate. Meanwhile, the medium sour Middle East crudes were under pressure with spot differentials for most grades facing downward pressure towards the end of the month as refiners had largely met their requirements early on in the trading cycle. The light sweet Tapis premium over medium sour Dubai increased 55¢ to a hefty $7.20/b, its highest this year.

In **Europe**, the Urals medium sour crude discount to Brent eased slightly in December from record highs in the previous month on firm demand amid attractive low flat prices. Nevertheless, a wide availability of alternative grades and a rise in exports weighed on the Urals markets. On the other hand, more broadly, the North Sea market stumbled due to the scale of excess supply relative to demand and the differentials for all four major grades − Brent, Forties, Ekofisk and Oseberg − have struggled to remain in positive territory. Nevertheless, North Sea light sweet was supported by a supply glitch and signs of demand from outside the region. The Med Urals discount of $1.25/b to Dated Brent in November inched down to $1.20/b in December, narrowing by about 5¢.

In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium sour Mars fell again to $4.15/b, shrinking by about 40¢. Meanwhile, most of USGC grade differentials weakened as the Brent/WTI spread narrowed. Strength in WTI relative to Brent mostly came after the United States lifted a 40-year-old ban on exporting crude.

Graph 1.5: Brent Dated vs. Sour grades (Urals and Dubai) spread, 2015-2016



Commodity Markets

Average commodity prices declined in December, with larger drops observed in energy commodities after large falls in both crude oil and natural gas prices, while in the group of non-energy commodities both metals and agriculture prices were down on average, but with mixed movements among group components. A strengthening of the US dollar on top of higher interest rates in the US were generally sources of weakness.

Trends in selected commodity markets

The start of the process of monetary policy normalization in the US, with its first interest rate hike in a decade by the US Federal Reserve (Fed), translated into an appreciation in the value of the US dollar, mainly against emerging market currencies. This generally added weakness to commodity prices. The Fed continues to signal additional tightening for this year, which pressured precious metals, as real interest rate expectations increased during the month. Meanwhile, persistent overcapacity continued to affect the group of metals, while plentiful inventories of a wide array of crops also kept a lid on agricultural prices.

Table 2.1: Commodity price data, 2015

Commodity	Unit	*Monthly averages*			*% Change*		
		Oct 15	Nov 15	Dec 15	Dec/Nov	2014	2015
World Bank commodity price indices (2010 = 100)							
Energy		59.7	55.2	47.9	-13.2	118.3	64.9
Coal, Australia	$/mt	52.3	52.6	52.3	-0.5	70.1	57.5
Crude oil, average	$/bbl	47.0	43.1	36.6	-15.2	96.2	50.8
Natural gas, US	$/mmbtu	2.3	2.1	1.9	-7.4	4.4	2.6
Non-energy		79.2	77.3	76.3	-1.2	97.0	82.4
Agriculture		86.7	85.9	85.3	-0.6	102.7	89.3
Food		87.6	86.1	85.5	-0.7	107.4	90.8
Soybean meal	$/mt	380.0	356.0	337.0	-5.3	527.9	394.7
Soybean oil	$/mt	742.0	726.0	761.0	4.8	909.3	756.9
Soybeans	$/mt	376.0	368.0	379.0	3.0	491.8	391.0
Grains		84.6	83.6	82.4	-1.4	103.9	88.6
Maize	$/mt	171.4	166.2	163.9	-1.3	192.9	169.8
Wheat, US, HRW	$/mt	172.7	176.9	173.7	-1.8	284.9	203.2
Sugar, world	$/kg	0.3	0.3	0.3	0.6	0.4	0.3
Base Metal		68.2	63.8	62.9	-1.3	89.0	73.6
Aluminum	$/mt	1,516.5	1,467.9	1,497.2	2.0	1,867.4	1,664.7
Copper	$/mt	5,216.1	4,799.9	4,638.8	-3.4	6,863.4	5,510.5
Iron ore, cfr spot	$/dmtu	53.0	47.0	41.0	-12.8	96.9	55.8
Lead	$/mt	1,720.1	1,618.4	1,706.6	5.5	2,095.5	1,787.8
Nickel	$/mt	10,316.8	9,244.3	8,707.8	-5.8	16,893.4	11,862.6
Tin	$/mt	15,794.6	14,745.3	14,691.7	-0.4	21,898.9	16,066.6
Zinc	$/mt	1,724.3	1,583.3	1,527.8	-3.5	2,161.0	1,931.7
Precious Metals							
Gold	$/toz	1,159.3	1,086.4	1,068.3	-1.7	1,265.4	1,160.0
Silver	$/toz	15.8	14.5	14.1	-2.5	19.1	15.7

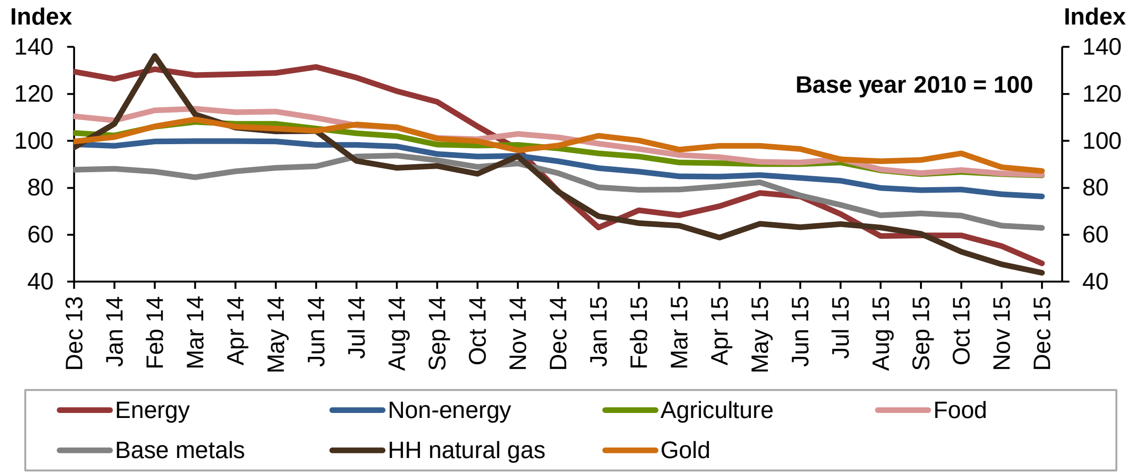
Source: World Bank, Commodity price data.

Metals continue to be under pressure as manufacturing activity conditions worsened in China as shown by the readings of the manufacturing Purchasers Managers Index (PMI) at 48.2 for the month of December vs 48.6 the previous month, while in the US, the Institute of Supply Management manufacturing PMI at 48.2 vs 48.6 also signalled a contraction in activity. Another factor contributing to the weakness in metals was the depreciation of the Chinese yuan which increases the competitiveness of local metal producers. Iron ore experienced a large drop on lower demand for steel production, which declined by 4.1% y-o-y in November globally, while major mining companies continue to pursue a strategy of larger volumes.

Agricultural products decreased on average amid mixed movements among group components. The US Department of Agriculture continues to expect plentiful supplies of wheat, corn and soybeans, which could keep their prices generally subdued. Moreover, the large devaluation of the Argentinean peso by 34% in December, and the new measures taken by the government to eliminate the export levies on wheat and corn, added pressure to their prices. In the case of soybeans, the government reduced the export levy from 35% to 30% for 2016. However, soybean prices were supported by dry weather conditions in some producing areas of Brazil, the world largest exporter.

Crude prices experienced a sharp drop due to continuing excess supply. This was exacerbated by warm weather conditions in the Northern Hemisphere due to the impact of El Niño and the impact of a stronger US dollar. Natural gas prices declined sharply during the month due to the warmest December on record in the US – especially in the East Coast region. Meanwhile, in Europe, warmer than average temperatures have pressured prices, which translated into large inventories at the end of the month. "Gas Infrastructure Europe" reported that EU-28 inventories were at around 70% of capacity – at the end of December - versus 75% a year ago but, in absolute terms, are higher than a year ago.

Graph 2.1: Major commodity price indices, 2013-2015



Source: World Bank, Commodity price data.

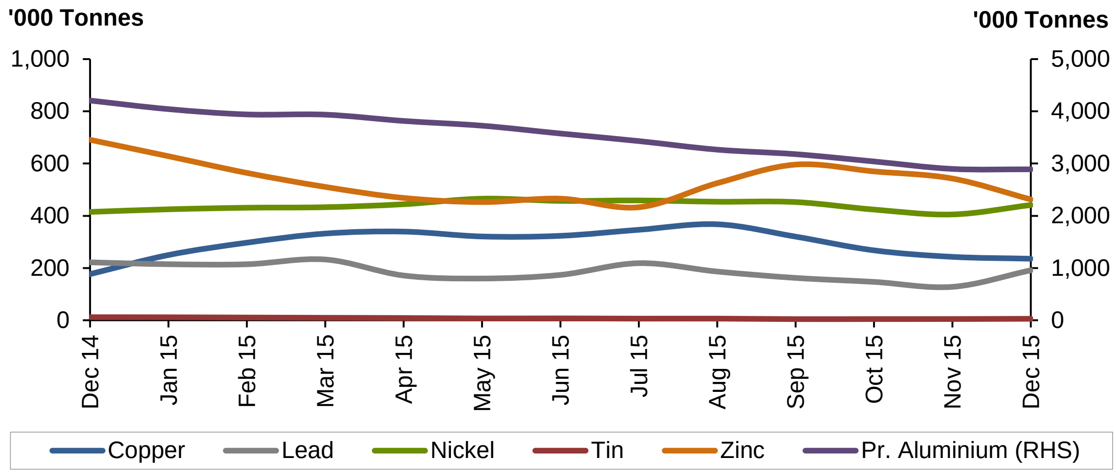
Average **energy prices** declined by 13.2%, mainly due to a 15.2% decline in crude oil. Natural gas prices declined in the US by 7.4% m-o-m, while average import prices in Europe were down by 2.2%.

Agricultural prices dropped by 0.6%, with declines of 0.7%, 0.5% and 0.6% in the groups of food, beverages and raw materials, respectively. Maize and wheat decreased by 1.4% and 1.8%, respectively. Meanwhile, soybean and soy oil prices advanced by 3.0% and 4.8%, respectively.

Average **base metal prices** declined by 1.3%, with copper and nickel prices down by 3.4% and 5.8%, respectively, on weakening manufacturing in China. Meanwhile, average iron ore prices declined by 12.8% m-o-m on continued oversupply.

Precious metals dropped to the lowest since September 2009, with gold prices declining by 1.7% on average, on the impact of the interest rates increase by the Fed. Meanwhile, silver and platinum prices dropped by 2.5% and 2.8% m-o-m, respectively.

Graph 2.2: Inventories at the LME



Sources: London Metal Exchange and Thomson Reuters.

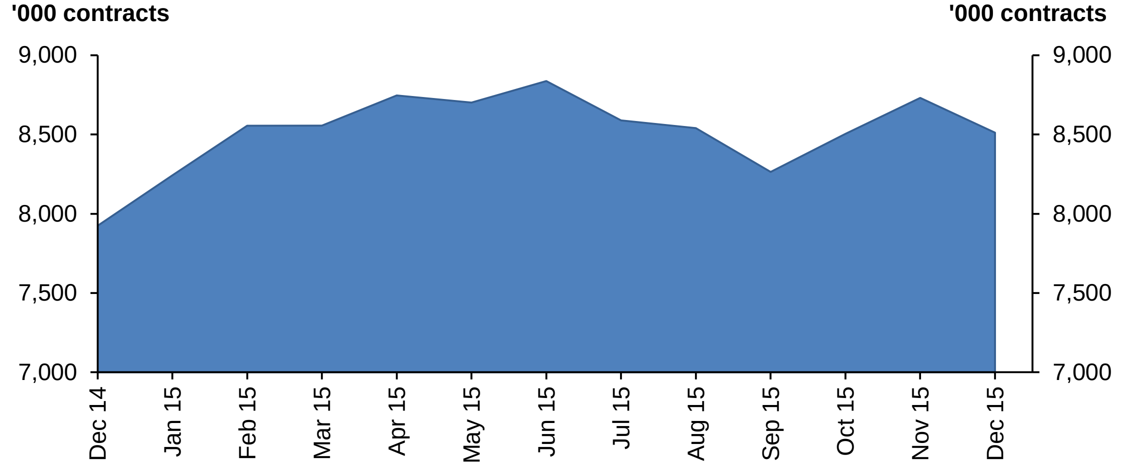
In December, the **Henry Hub natural gas index** decreased. The average price was down 15¢, or 7.4%, to $1.92 per million British thermal units (mmbtu) after trading at an average of $2.08/mmbtu the previous month.

The US Energy Information Administration (EIA) said utilities withdrew 117 billion cubic feet (bcf) of **gas from storage** during the week ending 1 January. This was much higher than market expectations of a 97 bcf decrease. Total working gas in storage stood at 3,643 bcf, which was 17% higher than at the same time in the previous year and 15% higher than the previous five-year average. The EIA noted that temperatures during the reported week were "warmer than normal".

Investment flows into commodities

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

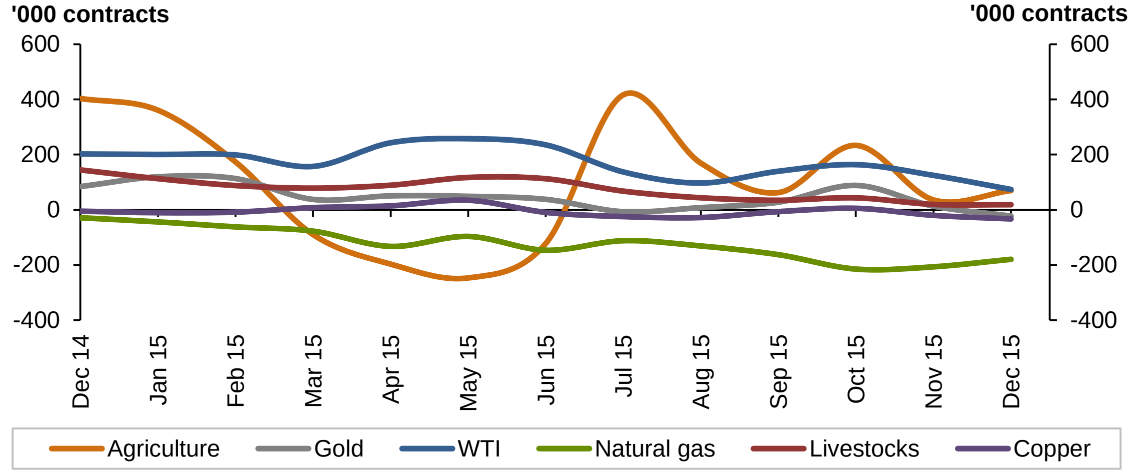
Graph 2.3: Total open interest volume



Source: US Commodity Futures Trading Commission.

Agriculture's OIV decreased by 3.0% m-o-m to 4,792,063 contracts in December. Meanwhile, money managers almost doubled their net long positions to 68,816 lots, largely because of increases in net long positions of soybeans, soy oil and sugar.

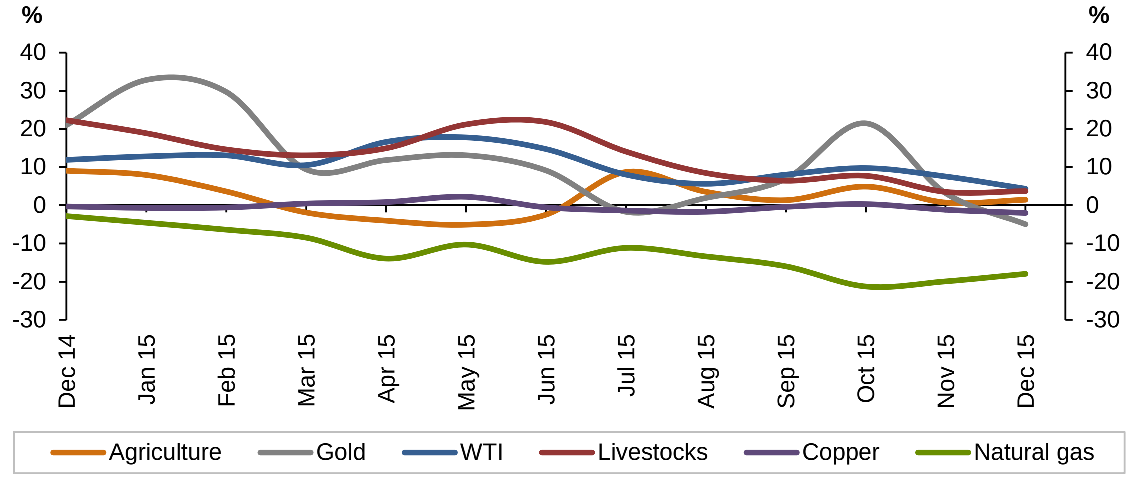
Graph 2.4: Speculative activity in key commodities, net length



Source: US Commodity Futures Trading Commission.

Henry Hub's natural gas OIV slightly decreased by 0.5% m-o-m to 1,004,508 contracts in December. Money managers decreased their net short positions by 13.2% to reach 179,400 lots, after some withdrawals from inventories above market expectation. But managers have remained deeply bearish.

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



Source: US Commodity Futures Trading Commission.

Copper's OIV decreased by 2.5% m-o-m to 175,285 contracts in December. Money managers increased their net short positions by 64% to 32,986 lots on continuing oversupply.

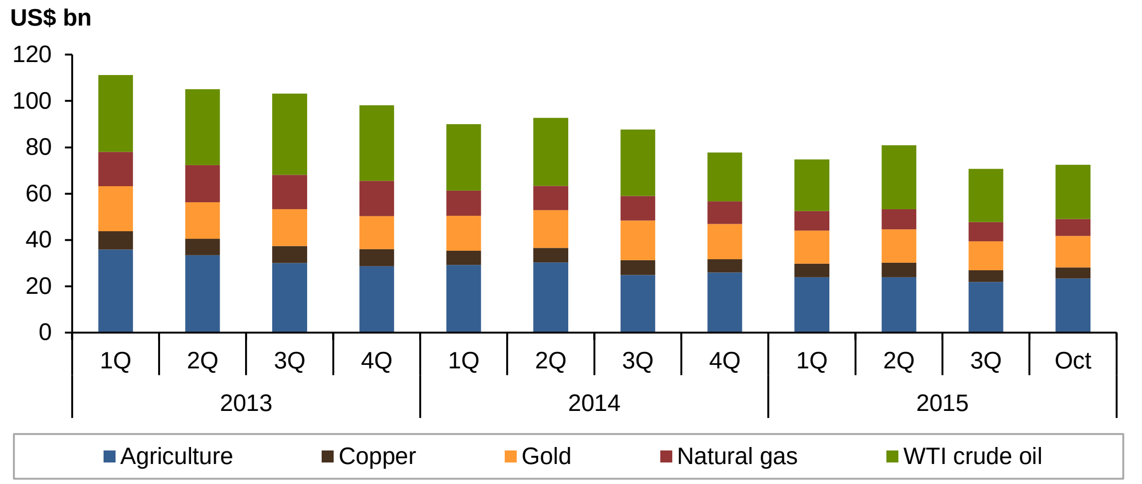
Table 2.2: CFTC data on non-commercial positions, '000 contracts

	Open interest		*Net length*			
	Nov 15	**Dec 15**	**Nov 15**	**% OIV**	**Dec 15**	**% OIV**
Crude oil	1,661	1,670	125	8	74	4
Natural gas	1,010	1,005	-207	-20	-179	-18
Agriculture	4,938	4,792	36	1	70	1
Precious metals	596	560	38	6	-14	-3
Copper	180	175	-20	-11	-33	-19
Livestock	514	473	20	4	19	4
Total	**8,898**	**8,675**	**-9**	**-13**	**-65**	**-29**

Source: US Commodity Futures Trading Commission.

The **precious metals' OIV** decreased by 6.0% m-o-m to 560,443 contracts in December. Money managers switched to a net short position of 14,281 lots from net length of 37,543 lots, with a large net short position in gold on 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 GDP growth for 2015 has been lowered to 3.0%, while the 2016 growth forecast remains at 3.4%. The trend of slowing momentum in the emerging and developing economies remains apparent, given the risk of further weakening in Brazil and Russia, and lower GDP growth in commodity producing economies. Recent volatility in China's asset markets added some concern. Also, challenges remain in the OECD, as indicated by declining industrial production in the US and signals of a slowdown in Japan. Risks in the Euro-zone remain, despite its current solid momentum. The upside potential to the current GDP growth forecast is limited but could come from the Euro-zone and India, as both are gaining strength. Also, US private household consumption remains very healthy and could boost the US economy further. Besides the many ongoing country-specific economic challenges, geopolitical issues and their potential spill-over into the real economy remain a concern as well. Also, central bank policies will continue to constitute an influential factor, amid lower global inflation.

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

	World	OECD	US	Japan	Euro-zone	China	India	Brazil	Russia
2015*	**3.0**	**2.0**	**2.5**	**0.7**	**1.5**	**6.8**	**7.3**	**-3.0**	**-3.2**
Change from previous month	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	-0.3	0.0
2016*	**3.4**	**2.1**	**2.5**	**1.2**	**1.5**	**6.4**	**7.6**	**-1.0**	**0.3**
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0

** 2015 = estimate and 2016 = forecast.*

OECD

OECD Americas

US

The US continues to grow at a solid level, although 3Q15 GDP was revised down slightly from a seasonally adjusted annualised rate (SAAR) of 2.1% q-o-q to 2.0% q-o-q. This is, however substantially higher than in the first release, when it stood at only 1.5% q-o-q. Still, improvements in the labour market continue to support consumption and it is clear that improvements are underway. It seems, however, 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.

In light of positive developments in the labour market, the US Federal reserve (Fed) has decided to lift interest rates in its latest meeting. The mid-December decision by the Fed to raise interest rates by 0.25 percentage points (pp) represents an important shift in the monetary policy landscape, as it has been taken on the basis that US economic growth is healthy and capable of digesting a normalisation of monetary policy. With the Fed's official median projections of interest rates reaching 1.375% in 2016, its monetary tightening is in stark contrast to continuing monetary expansion of some central banks in the OECD, including the European Central Bank (ECB), the Bank of Japan, but also the People's Bank of China (PBoC) and the Reserve Bank of

India (RBI). This may explain not only the US dollar's strength in the past month, but also suggests a likely continuation of its strengthening. This is one aspect that is weighing on the US expansion, as exports become less competitive. Another aspect is that industrial production has been weak in the past months and in November has even declined. This trend has been significantly influenced by the decline in oil prices and its consequence on capital expenditure. Moreover, the manufacturing sector has recently weakened considerably as can be seen in the latest readings of the country's lead indicators. Given the latest turbulence in the global asset markets and the effect that the US Fed's interest rate hike obviously had on capital outflows from emerging economies, it remains to be seen how the Federal Open Market Committee (FOMC) will decide on key interest rates in the coming months.

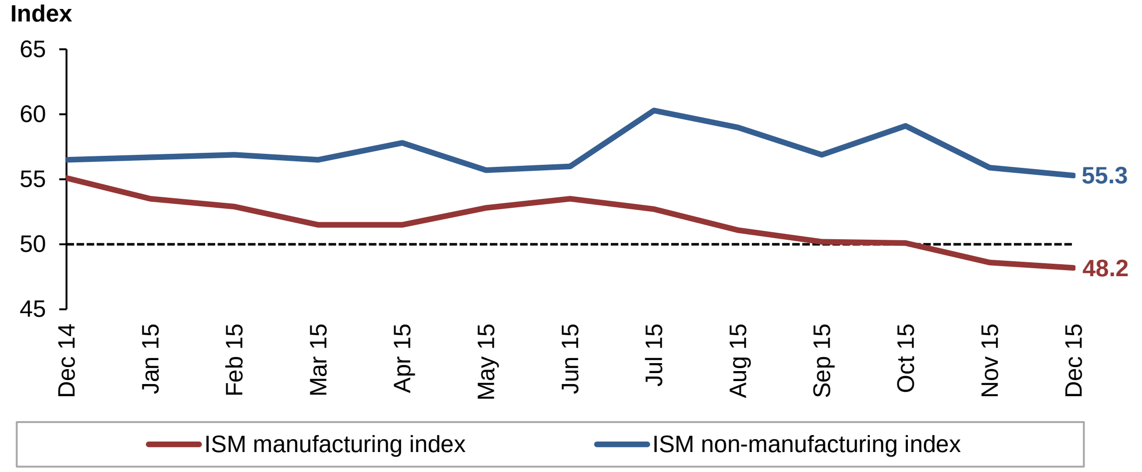
Personal consumption expenditures in the 3Q grew by 3.0% q-o-q SAAR, only slightly below the 2Q15 level of 3.6% q-o-q. A major driver for this supportive consumption trend is the continuously improving situation in the **labour market**. The unemployment rate remained at 5.0% in December for a third consecutive month. Non-farm payroll additions grew by a solid 292,000 in December, again more than the upwardly revised 252,000 in November. The share of long-term unemployed has remained almost steady at 26.3% after November's 25.7%. The participation rate, however, remained at only 62.6%, but was 0.1 pp higher than in November.

While GDP seems to be well supported by the services sector, **industrial production** remains weak. It fell by 1.2% y-o-y in November, after a small rise of 0.3% y-o-y in October. The important forward-looking lead indicator of manufacturing orders declined again by 3.5% y-o-y in November, after a decline of 5.8% y-o-y in October.

While the ongoing improvements in the labour market continue, **consumer confidence** increased slightly in December. The Conference Board's Consumer Confidence Index rose to 96.5 in December from 92.6 in November. On the consumption side, retail trade increased in December, when it grew by 2.2% y-o-y compared to November's level of 1.6% y-o-y.

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 remained below the growth-indicating level of 50 for the second consecutive month in December and stands now at only 48.2, after 48.6 in November. This is indeed an area that will need close monitoring in the near term. The services sector index performed better but fell back slightly to 55.3 in December, after 55.9 in November.

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. The economy remains well supported by consumption, while the weakness in the industrial sector weighs on the current momentum. The growth forecast levels for both 2015 and 2016 remain at 2.5%.

Canada

While the Canadian economy seems to gradually recover from the challenges of the first half of the year, the situation remains weak and has been negatively impacted, not only by low oil prices and the decline in investments in the oil industry, but also by the challenges of the global economy. Industrial production remained negative, contracting by 2.5% y-o-y in October, weaker still than the contraction of 2.2% y-o-y seen in September. This weak trend is also reflected in the latest PMI for manufacturing, which, in December, declined to 47.5, compared to November's number of 48.6, again clearly below the growth-indicating level of 50. The GDP growth forecast remains unchanged at 1.1% for 2015 and at 1.9% for 2016.

OECD Asia Pacific

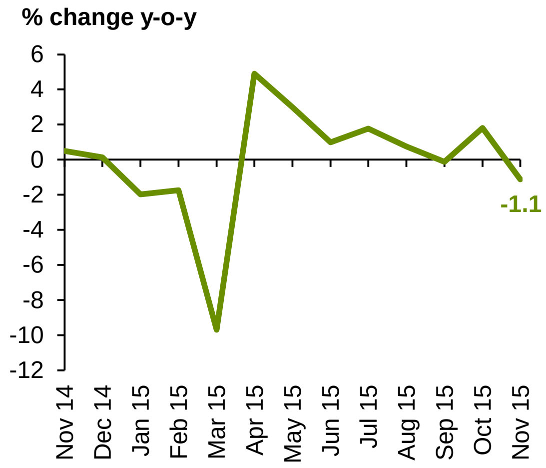
Japan

The situation in Japan remains relatively weak. While some improvements have materialised over the past months, it is not entirely clear if this trend will continue, given the weakness in external trade and the upcoming soft development in domestic consumption. Domestic demand is again weakening amid low inflation and declining real income. Exports are continuing to decline, 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. The domestic services sector is a major area that is supporting the economy. The challenges in China's economy are also expected to have some effect on Japan's exports in the near future.

GDP growth in the 3Q15 has been revised up and is now reported to have risen by 1.0% q-o-q at a SAAR, rather than having declined by 0.8% q-o-q. This is significantly better than the also upwardly revised decline of 0.5% q-o-q in the 2Q. While in the 1Q GDP rose by an impressive 4.4% q-o-q, the lower numbers in the 2Q and the 3Q highlight the ongoing fragility of the economy. Importantly, **low inflation** still constitutes a drag on domestic consumption. Inflation stood at 0.3% y-o-y in November, the same level as in October. Excluding the two volatile groups of energy and food, the inflation figures have performed better, rising by 0.9% in November compared to 0.8% y-o-y in October. Amid low inflation, real income is declining further. Average monthly earnings fell by 1.2% y-o-y in November, after falling 0.6% y-o-y in October. However, given the very tight labour market (with an unemployment rate of only 3.3% in November) the expectation remains that this may soon turn positive.

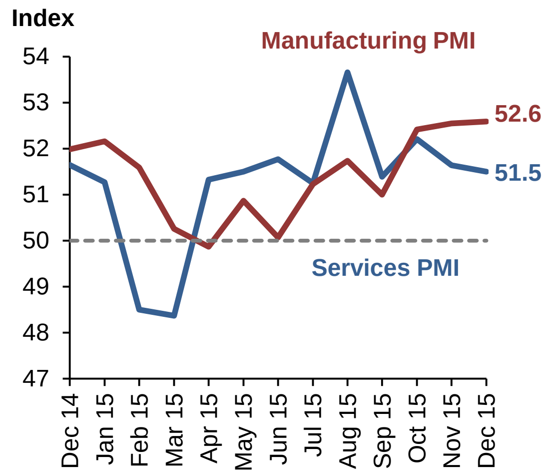
Japanese exports have slowed down again significantly. They declined for a second consecutive month in November, falling by 3.3% y-o-y on a non-seasonally adjusted base, after a decline of 2.2% y-o-y in October. **Industrial production** turned positive in November after three months of decline, rising by 1.6% y-o-y after falling by 1.4% y-o-y on a non-seasonally adjusted base in October. **Domestic demand** has remained weak in the past months, as retail sales again fell into negative territory in November, when they declined by 1.1% y-o-y after growth of 1.8% y-o-y in October.

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 slowdown in the Japanese economy, the **latest PMI numbers,** as provided by Markit, point at a continued recovery in manufacturing activity. December's manufacturing PMI remained at the November level of 52.6. The momentum of the important services sector also remained intact. The PMI was almost flat at 51.5 in December, after 51.6 in November.

Given the latest upward revision in the 2Q and the 3Q of 2015, the GDP growth forecast has been revised up slightly to 0.7% from 0.6%, respectively, 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

While the economic performance of South Korea seems to have again gained traction recently, the very latest output numbers have again decelerated. Industrial production rose by 2.2% y-o-y in November, after 2.4% y-o-y in October. After having turned slightly positive in November at 0.1% y-o-y, exports declined again by 8.5% y-o-y in December. The latest PMI numbers for manufacturing are also mirroring a weak but improving situation. The December PMI jumped above the growth-indicating level of 50 to stand at 50.7 after 49.1 in November. Given the ongoing uncertainties in the economy, the GDP growth forecast for 2015 remains at 2.5%. Also, the GDP growth forecast for 2016 remains unchanged at 2.7%.

OECD Europe

Euro-zone

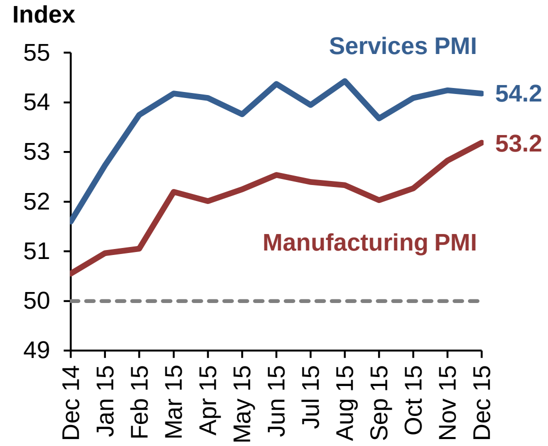
The Euro-zone is still benefitting from its cyclical recovery. With the latest round of additional monetary stimulus by the ECB, the development seems to be well supported. As the improvements are relatively broad-based in the various Euro-zone member countries, rising domestic consumption has become an important factor in this improving situation. Exports are also slightly expanding, amid some weakness of the euro, particularly compared to the US dollar. Most indicators point at a continuation of the current positive trend, but numerous challenges remain. These include the still-uncertain economic situations in Italy and Greece, the political dead-lock in Spain after the recent elections and the soft balance sheet situation of many large banks, which will continue to keep debt-financed growth from rising quickly. Also, the British referendum on a possible "EU exit" may have some impact. High unemployment, while improving, is also 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 November, at a growth level of 1.1% y-o-y, they have continued on a positive trend. Moreover, **retail sales** performed well, with a yearly growth rate of 1.6% in November after 2.5% y-o-y in October. Challenges in the labour market, however, remain. The unemployment rate remained at 10.5% in November.

Despite the latest round of ECB stimulus, **inflation** remains low at 0.2% y-o-y in December, after 0.1% y-o-y in November and October. Core inflation – excluding energy and food – remained relatively healthier at 0.8% y-o-y in December, slightly lower than in November, when it reached 0.9% y-o-y. The stimulus of the ECB has also been positive for credit supply. After some slowdown in September and October, loan growth in November increased again considerably by 2.1% y-o-y.

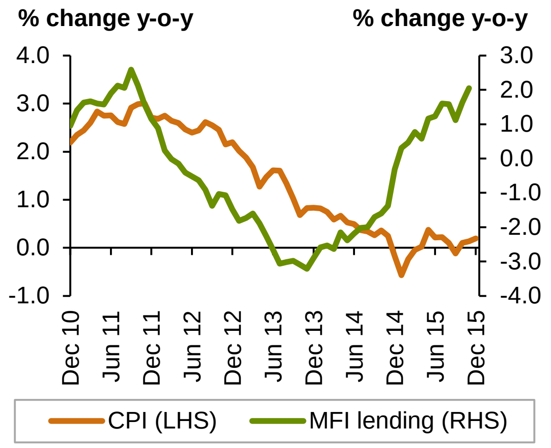
The improvements are also reflected in the latest **PMI indicators**. The manufacturing PMI for December rose to a healthy 53.2 from 52.8 in November. The services PMI remained at the same level as in November at a healthy 54.2.

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. However, some indicators have become patchy recently. Industrial production increased by only 1.0% y-o-y in November, after 1.7% y-o-y in October. Positively, the headline series of retail sales increased by a strong 5.0% y-o-y in November, after already a healthy rise of 4.2% y-o-y in October. The latest PMI numbers for the manufacturing sector fell again to stand at 51.9 in December after reaching 52.5 in November 55.5 in October. The services sector remained at a high level and is almost unchanged at 55.5 in December after to 55.9 in November. In general, GDP growth this year seems to be well supported. Given some slight weakening, the economic growth forecast has been revised down by 0.1 pp to 2.4% for both 2015 and 2016.

Emerging and Developing Economies

In **Brazil**, GDP is estimated to have contracted by 3.0% in 2015, while the forecast for 2016 is clouded with further economic challenges ahead – like the return to positive interest rates in the US and uncertainties over China's financial markets and currency. Brazil's GDP is thus forecast to contract by 1.0% in 2016 with the balance of risks pointing to the likelihood of an even deeper contraction.

Russia's GDP is estimated to have contracted 3.2% in 2015, while 2016 growth is forecast at 0.3%.

India's 3Q15 GDP indicated that growth picked up to 7.4%, driven by stronger manufacturing. At the same time, India's CPI inflation accelerated because of a jump in food prices, while the trade deficit remained soft, as expected, in November. The country's current account deficit in the 3Q widened, with such quarterly widening mainly reflecting an increase in gold imports earlier during the 2Q. Meanwhile, oil and non-oil, non-gold imports remained broadly flat from the previous quarter. Net capital inflows declined sharply and India's factory output turned negative in December 2015 for the first time since October 2013, on the back of a decline in new orders. The manufacturing PMI fell to a 28-month low, though this was distorted by the impact of the flood, while both output and new orders also fell sharply.

China's economy will expand 6.9% in 2015 and 6.8% in 2016, according to forecasts from the PBoC, compared to the Secretariat's forecast of 6.8% and 6.4%, respectively. The primary reasons to expect a deceleration in 2016 include overcapacity, further profit deceleration and rising non-performing loans. Positive factors include expectations of improved real estate sales, lagging impacts from 2015 stimulus policy and modest improvements in external demand. Domestic demand growth in China stabilised in November, benefiting from macro policy easing measures taken earlier in the year. Overall fixed asset investment and industrial output growth picked up somewhat, while consumption remained robust. Meanwhile, operating conditions faced by Chinese goods producers continued to deteriorate in December, with production declining for the seventh time in the past eight months. This was driven, in part, by a further fall in total new work. Separately, on 4 January, the first trading day of 2016, the country's stock market closed earlier than expected after a 7% drop triggered a new circuit breaker mechanism, which is designed to control excessive price swings in the stock market.

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	-3.0	-1.0	9.0	8.3	-70.9	-53.0	-9.7	-7.1	69.7	74.8
Russia	-3.2	0.3	15.6	8.7	61.8	67.1	-3.5	-3.2	13.7	16.2
India	7.3	7.6	4.8	5.3	-17.2	-28.8	-4.0	-3.7	49.5	49.1
China	6.8	6.4	1.5	2.1	349.2	292.1	-2.5	-2.8	16.7	18.5

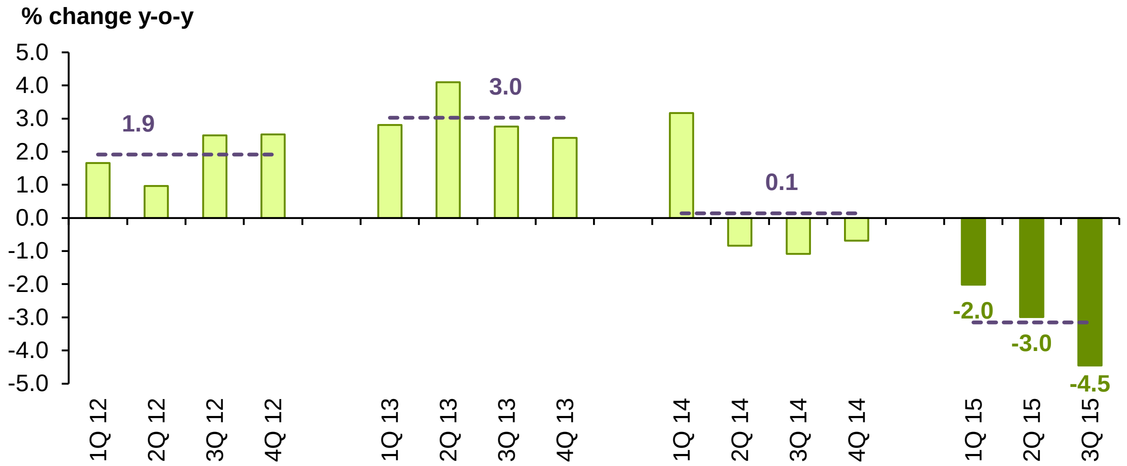
Sources: OPEC Secretariat, Consensus Economics, Economic Intelligence Unit, Financial Times and Oxford.

** 2015 = estimate and 2016 = forecast.*

Brazil

The Brazilian economy is estimated to post a sharp contraction in 2015 after having declined by 2.0%, 3.0% and 4.5% in each of the first three quarters of the year, and after noting that the 4Q15 provided no encouraging signals. The **unemployment rate** stayed at, or above, 7.5% throughout the July–November period, while both the **services** and **manufacturing** sectors continued their deceleration as suggested by their respective PMIs. The manufacturing PMI readings were consistently under the neutral 50-point mark during February–December 2015. The index posted 45.6 in December, up slightly from 43.8 in November. Surveyed firms reported sharp declines in output, new orders and employment. The services sector also had its PMI register in the contraction territory in December at 43.9, down from 44.5 in November.

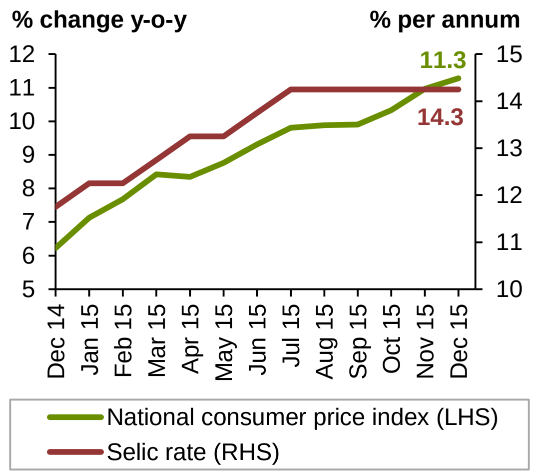
Graph 3.6: Brazilian quarterly GDP growth



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

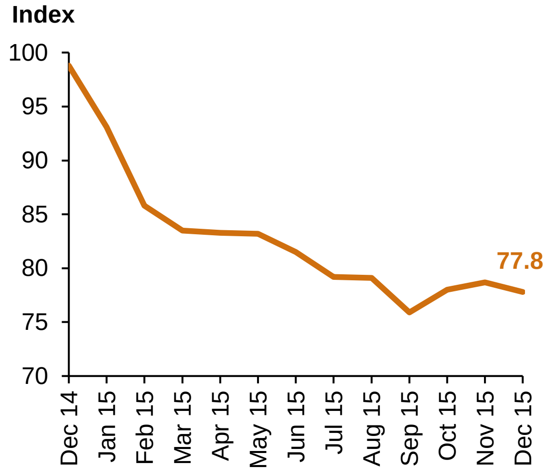
Inflation in Brazil increased further in December to 11.3% y-o-y, rising slightly from 11.0% in the previous month. This contrasts with inflation of 6.2% y-o-y registered in December 2014. The **real** depreciated 2.5% m-o-m against the dollar in December, making for a total loss of more than 40% in 2015. The country's central bank held its benchmark **interest rate** unchanged last month at 14.25%. The **consumer confidence index** has continued to fluctuate around a very low level, falling to 77.8 in December, its second lowest reading on record.

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 consumer confidence index



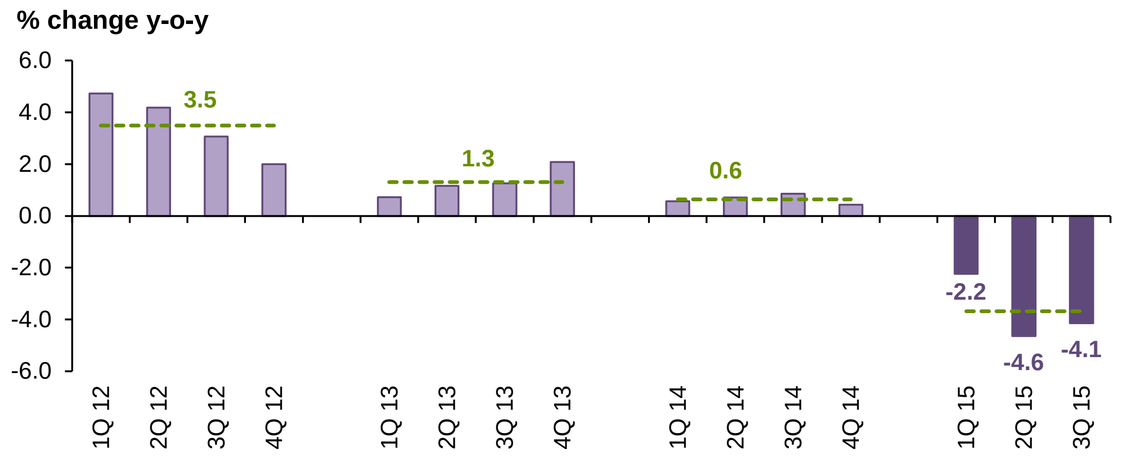
Sources: Fundação Getúlio Vargas and Haver Analytics.

In terms of Brazil's economic indicators, the final month of 2015 was not much different from the rest of the year. All major indicators seemed to collaborate in painting a generally unpleasant picture of a recession. In addition, the political challenges that face the taking of required economic measures do not seem to be easing with time. The country's **GDP** is estimated to have contracted by 3.0% in 2015, while the forecast for 2016 is clouded over with further economic challenges – like a return to positive interest rates in the US and uncertainties over China's financial markets and currency. GDP is thus forecast to contract by 1.0% in 2016, with the balance of risks pointing to the likelihood of an even deeper contraction.

Russia

The economy shrank 4.15% y-o-y in the 3Q15. This was in line with preliminary estimates, following a 4.65% drop in the previous quarter, final figures showed. **Household consumption** declined by the largest rate since the 4Q of 1998, posting a drop of 9.4% y-o-y, while **government expenditures** slightly dropped by 0.4% y-o-y. **Gross Fixed Capital Formation (GFCF)** saw another plunge, dropping by 8.1%. Meanwhile, **exports** decreased 1.9% y-o-y and **imports** fell 25.5% y-o-y.

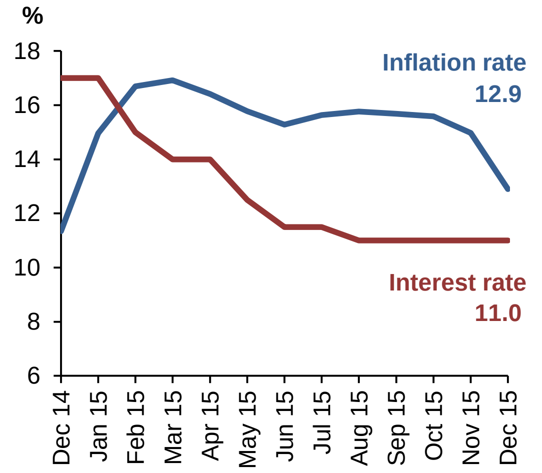
Graph 3.9: Russian quarterly GDP growth



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

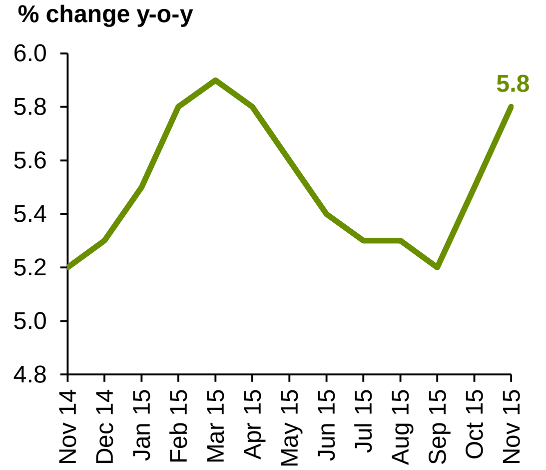
Russia's central bank kept its benchmark **interest rate** unchanged in December at 11.0%. The interest rate stood at 17.0% at the beginning of the year. The **ruble** depreciated 7.2% m-o-m in December. Its accumulated depreciation in 2015 amounted to more than 26%. **Inflation** continued to increase at high rates and posted a 13% y-o-y increase in December, marking the first rise in consumer prices below 15% in 2015. Meanwhile, the **unemployment rate** increased from 5.5% in October to 5.8% in November, its highest rate since April.

Graph 3.10: Russian inflation vs. Interest rate



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

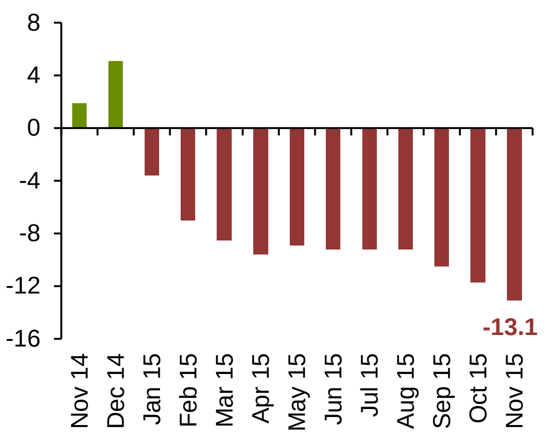
Graph 3.11: Russian unemployment rate



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

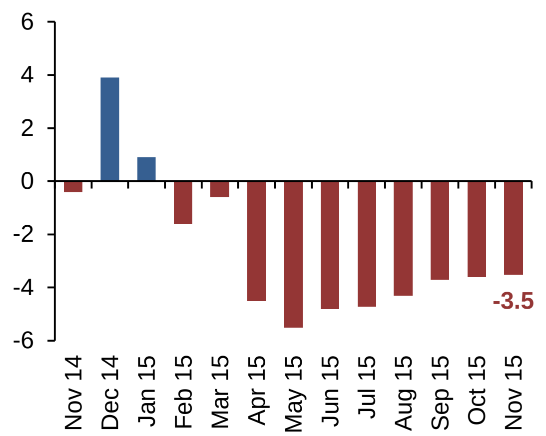
The downturn in Russia's **services sector** deepened in December as business activity fell further, amid a decline in new orders. The services PMI dropped slightly from 49.8 in November to 47.8 in December. The index showed increases in the prices of both inputs and outputs, suggesting persistent inflationary pressures. **Retail sales volume** plunged 13.1% y-o-y in November, the sharpest drop since January 1999. The **manufacturing sector** showed similar behaviour to that of the services sector, with the manufacturing PMI posting 48.7 in December, down from 50.1 in November. Output and new business both returned to contraction territory in December, reflecting weak demand conditions, particularly from abroad. **Industrial production** fell 3.5% y-o-y in November, marking the tenth consecutive month of deceleration.

Graph 3.12: Russian retail sales



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3.13: Russian industrial production



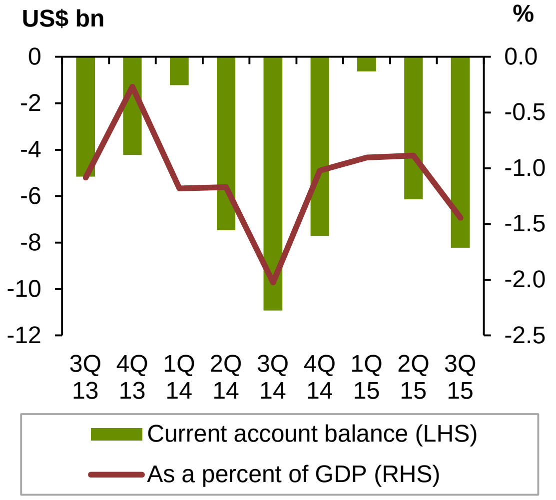
Sources: Federal State Statistics Service and Haver Analytics.

Russia's **GDP** is estimated to have contracted 3.2% in 2015 while growth in 2016 is forecast at 0.3%.

India

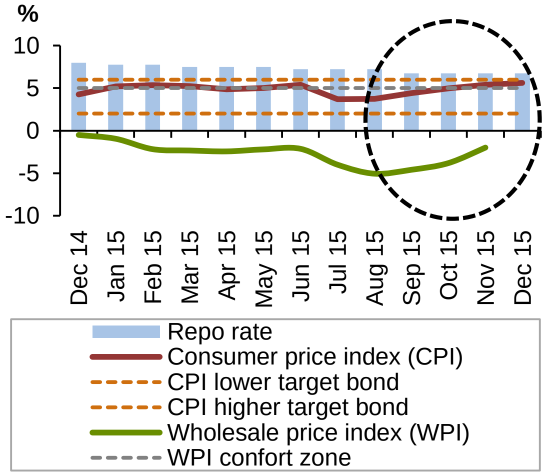
The **RBI** kept the repo rate on hold at 6.75% at its December meeting. However, the policy statement was more aggressive than expected, with the bank retaining an accommodative stance in spite of rising inflation. Indeed, CPI inflation has increased in each of the last three months. Although most of this rise has been driven by food prices, it confirms that India's disinflationary period has ended. Meanwhile, 3Q15 GDP data indicates that growth picked up, posting 7.4% for the quarter, driven by stronger manufacturing. This strength, however, is at odds with recent survey data indicating that trade has remained sluggish.

Graph 3.14: Indian current account balance



Sources: Reserve Bank of India and Haver Analytics.

Graph 3.15: Indian inflation vs. Repo rate



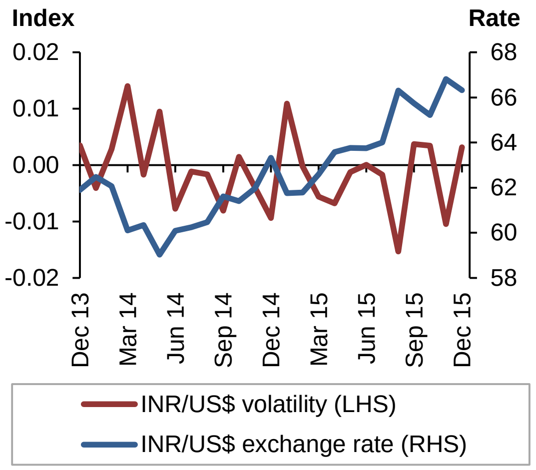
Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

India's **CPI inflation** accelerated to 5.4% y-o-y in November, up slightly from 5% in October, on the back of a jump in food prices (particularly eggs, oils, pulses and sugar). This rise underpinned a seasonally-adjusted 0.8% sequential m-o-m increase in headline prices, marking the strongest monthly momentum since February 2015. With the seasonal decline in food prices being less than what is typical – such that food prices are actually rising meaningfully on a seasonally-adjusted basis – the annual headline CPI continues to accelerate above 5.5%. Although it remains in line with the RBI's projections, Indian CPI is now approaching the bank's inflation target of 6%, Meanwhile, the depreciation in the Indian rupee, triggered by a likely US Fed interest rate increase, combined with the Indian government's plans to raise the salaries of civil servants in 2016, could further intensify price pressures. Rising inflation will make it difficult for the RBI to cut interest rates further in order to stimulate the domestic economy, an action the bank has undertaken four times already during 2015.

The **current account deficit** in July–September 2015 stood at $8.2 bn, which was equivalent to 1.6% of GDP. RBI data showed that the current account stood at $10.9 bn in the previous year. The quarterly widening of the current account deficit mainly reflected an increase in the 3Q15 of gold imports to $10 bn from $7.5 bn in the 2Q. Meanwhile, oil and non-oil, non-gold imports remained broadly flat from the previous quarter. Aggregate exports (both merchandise and services) also remained unchanged as did remittances. Despite widening in the 3Q, the current account deficit has not raised financial stability concerns and is consistent with deficit forecasts of roughly 1% of GDP in FY16. This is the case in spite of a current account deficit forecast of 1.4% of GDP in the 1H of FY16. However, it seems the deficit may narrow sharply in the 2H on the back of the seasonal boost in exports in the last quarter of the fiscal year. India's current account deficit would then widen significantly, putting further pressure on the rupee in the near future.

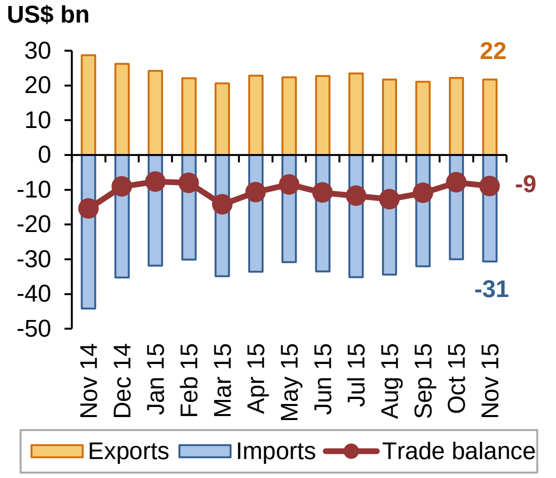
The **trade deficit** remained, as expected, soft in November, posting $9.0 bn, more than the level in October. Exports fell by 24.4% y-o-y to $20 bn in November, while imports fell by an even stronger 30% to reach $29.8 bn. As a result, the trade deficit shrank from $16.2 bn to $9.8 bn in November. The decline in exports is mostly attributable to low global commodity prices.

Graph 3.16: INR exchange rate



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

Graph 3.17: Indian trade balance



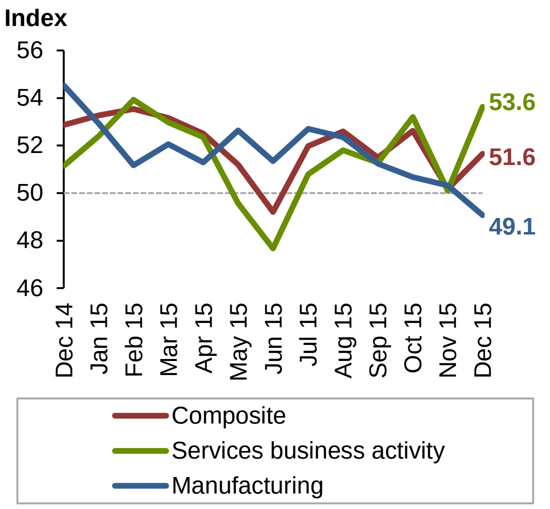
Sources: Ministry of Commerce and Industry and Haver Analytics.

Strong output in manufactured goods and consumer durables drove growth of India's **industrial output** to 9.8% y-o-y in October, the highest in five years. Although this was positive for growth, October's industry data has been largely inflated by strong base effects and should be interpreted with caution. In contrast to October 2014, when industrial output in India contracted 2.7% y-o-y, industrial output growth hit a five-year high of 9.8% y-o-y in October 2015, supported by strong base effects and a boost in consumer demand ahead of the major festival of Diwali.

India's **factory output** turned negative in December 2015, for the first time since October 2013, pulled back by declining new orders. The PMI slipped to 49.1, dropping further from the 50.3 level seen in November. In contrast to previous months, manufacturing weakness has largely stemmed from poor domestic orders, while the export orders sub-index increased marginally to 51.5 in December from 51.1 in November. On the price front, the inflation rates of both input costs and output charges were at a seven-month high. Meanwhile, an earlier release of core-sector data showed that India's infrastructure activity shrank in November, the first time in seven months.

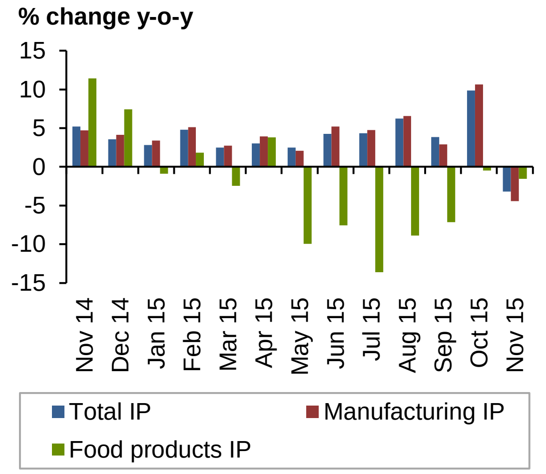
The **GDP growth expectations** for 2015 and 2016 remain unchanged at 7.3% and 7.6%, respectively.

Graph 3.18: Indian PMIs



Sources: HSBC, Markit and Haver Analytics.

Graph 3.19: Indian industrial production breakdown

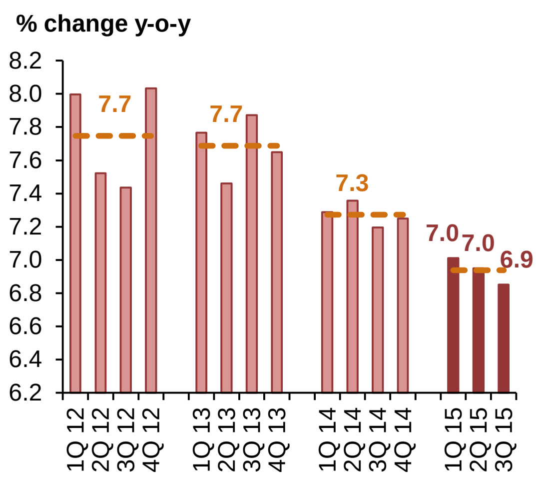


Sources: Central Statistical Organisation of India and Haver Analytics.

China

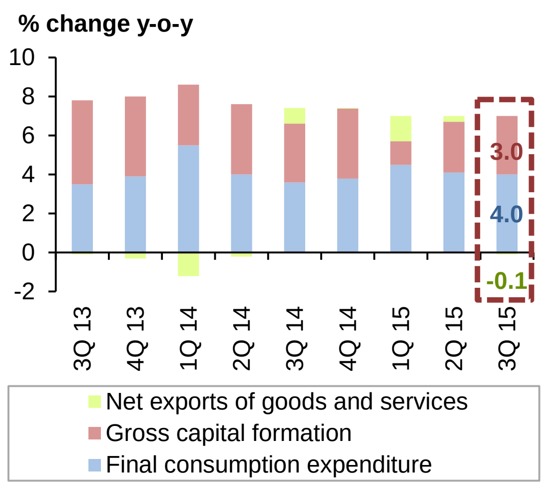
The **PBoC** forecasts that China's economy will have expanded 6.9% in 2015 and sees 6.8% in 2016. The primary reasons for this slight deceleration in 2016 include overcapacity, further profit deceleration and rising non-performing loans. Positive factors include expectations of improved real estate sales, lagged impacts from the stimulus policy of 2015 and modestly improved external demand. Central bank officials also forecast a marginal acceleration in investment and retail sales, and a current account balance equivalent to 2.8% of GDP. The PBoC estimate is likely to be overly optimistic, given recent experience with government outlooks.

Graph 3.20: Chinese GDP growth rate, SAAR



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

Graph 3.21: Contributions to Chinese GDP growth



Sources: China National Bureau of Statistics and Haver Analytics.

Domestic demand growth in China stabilised in November, benefiting from macro policy easing measures taken earlier in the year. Overall fixed asset investment and industrial output growth picked up somewhat, while consumption remained robust. It seems the government has continued to support domestic demand in order to ensure that GDP growth does not deviate too much from the official target, which seems to be set at 6.5%. Furthermore, depreciation against the US dollar should provide some help to Chinese exports. But with current investment and consumption trends forecast to continue into 2016, it seems the economy's growth trend will be sluggish after 2016. Fiscal easing is likely to remain largely focused on infrastructure spending, with projects brought forward, as well as on the monetary front and perhaps further cuts made to benchmark interest rates (the last reduction was on 23 October), continued efforts to keep interbank rates low and further encouragement of bank lending. Policymakers, however, are unlikely to let the Chinese yuan (CNY) depreciate, given the bad experience they had with the initial move in August.

In first week of the New Year, on the first trading day of 2016 (4 January), the Chinese stock market closed earlier than expected after a 7% drop triggered a **new circuit-breaker mechanism**. This was designed so that a 5% drop in the stock market index would trigger a 15-minute pause in trading, while a 7% drop would suspend trading for the rest of the day. Since their introduction, the circuit-breakers have already been triggered twice – on 4 January and 7 January – due to investor unease over continuing economic weakness and the depreciation of the CNY. The media reported widespread complaints from local traders about this interference. Investors blame the circuit-breaker mechanism for fuelling panic and exacerbating the market decline.

Also, it is worth noting that the PBoC lowered the daily central parity rate on 7 January by 50 basis points to CNY6.5646/USD1.0000, the weakest rate since March 2011, consistent with market sentiment in recent months. As a result, the **China Foreign Exchange Trade System** (CFETS), a unit of the PBoC, published a notice regarding a new index to track the value of CNY against a basket of currencies. China's CFETS index demonstrates the well-known fact that while the CNY has depreciated steadily against the US dollar since August, it remains relatively stronger against most other currencies. In the CFETS index, the US dollar is weighted highest, although even then it only accounts for 26.4% of the basket, followed by the euro and Japanese yen. Creation of the CFETS index and the timing of its announcement are strong indicators that China will allow further depreciation of the CNY/USD exchange rate, with the index almost certainly intended to blunt competitive devaluation criticisms.

China's top policymakers held the annual Central Economic Work Conference on 18-21 December, laying out the key tasks and economic policies for 2016, the starting year of the government's **13th Five-Year Plan**. The conference emphasized that the economy is at a "new normal" status – that is, the economy has good fundamentals and growth potential but is facing a lot of challenges, especially in terms of structural overcapacity. At the conference, the importance of supply side reforms, and the improvement of the quality and efficiency of economic growth were stressed. To achieve these targets, policy coordination was broken down into five areas:

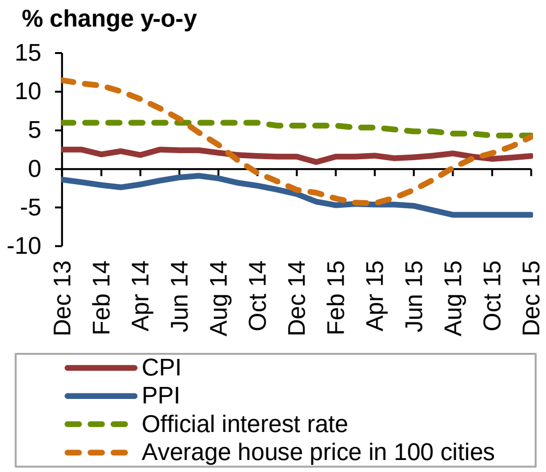
1. Pro-active fiscal policy and prudent monetary policy
2. Industrial policy
3. Microeconomic policy
4. Reform measures
5. Social policy

These five tasks address the economy's main structural problems – that is, overcapacity, high debt and evolving financial risk – and support new sources of growth.

China's **CPI** fell to a six-year low of 1.4% y-o-y in 2015, below the annual target of 3%. Inflation in December 2015 rose to 1.6% y-o-y, compared to 1.5% y-o-y in November.

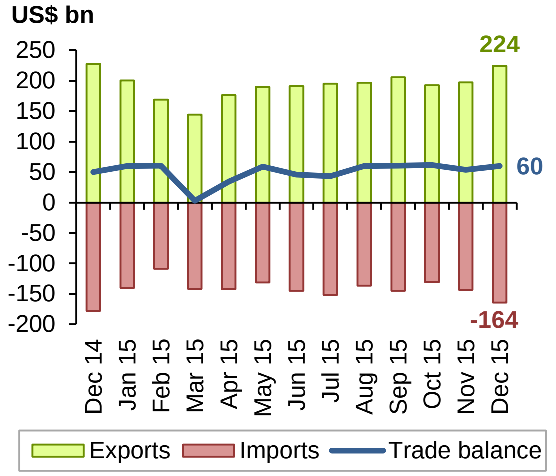
China's **producer price index** (PPI) maintained a 5.9% y-o-y contraction for the fifth consecutive month. In the meantime, the m-o-m growth decelerated 0.1 pp resulting in a 0.6% contraction in December. Deceleration in mining and heavy manufacturing remained the main drags, which was reflected in a faster decline in petroleum and natural gas extraction, petroleum processing, non-ferrous metals processing and mining. Given de-capacity and de-stocking policies contemplated under supply-side reforms to be implemented in 2016, China's fiscal policy will mainly focus on stabilising rather than stimulating economic growth. This points to a weaker PPI in the near future, particularly with regard to international crude oil prices, which have recorded historic lows, and other commodity prices that have continued to drop in January. Also, it seems that further monetary easing is likely through 1H16, given low inflation and weak domestic demand, though the continuous pressure of capital flight and a devaluation of the Chinese renminbi threaten to reduce this possibility in the short-term.

Graph 3.22: Chinese consumer price index (CPI) vs. Producer price index (PPI)



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

Graph 3.23: Chinese trade balance

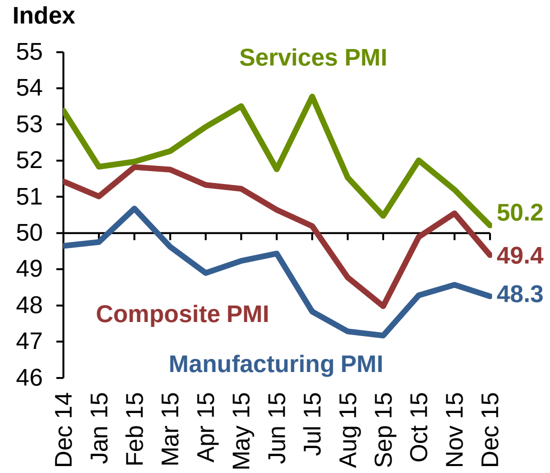


Sources: China Customs and Haver Analytics.

Operating conditions faced by Chinese goods producers continued to deteriorate in December and **PMI** data dropped below the threshold. Production declined for the seventh time in the past eight months, driven, in part, by a further fall in total new work. The data suggests that client demand was weak both at home and abroad, with new export business falling in December for the first time in three months. As a result, manufacturers continued to reduce their staff numbers and purchasing activity in line with lower production requirements.

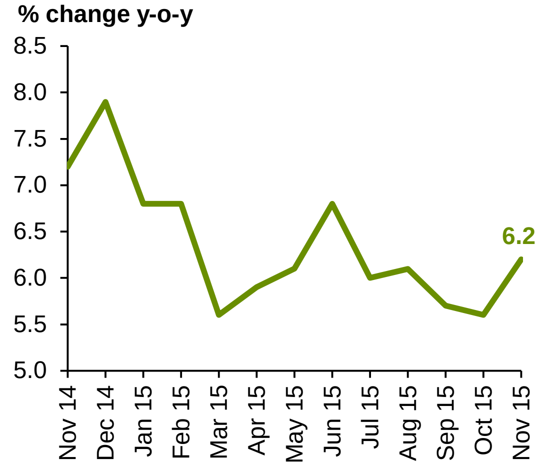
Meanwhile, deflationary pressures have persisted, as highlighted by further marked declines in both input costs and selling prices. The Caixin Manufacturing PMI for December is 48.2, down 0.4 points from its November reading. This shows that the forces driving an economic recovery have encountered obstacles and that the economy now faces a greater risk of weakening. Also, more fluctuations in global markets are expected now that the US Fed has started raising interest rates. The Chinese government needs to pay more attention to external risk factors in the short-term and seek to fine-tune its macroeconomic policies accordingly so that the economy does not fall off a cliff. At the same time, it needs to push forward supply-side reforms in order to release economic potential and reap the benefits.

Graph 3.24: Chinese PMIs



Sources: HSBC, Markit and Haver Analytics.

Graph 3.25: Chinese industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

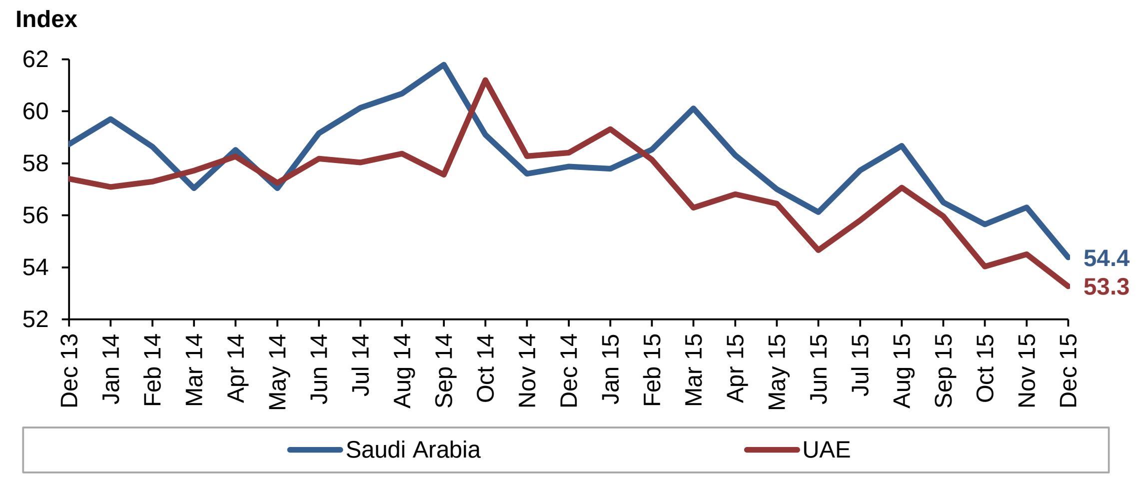
The **GDP growth expectations** remain unchanged at 6.8% for 2015 and 6.4% for 2016. In 2016 China is expected to increase its fiscal deficit and on the monetary side, again cut the benchmark rate as well as the RRR. Meanwhile, the country's exchange rate policy will likely become more flexible. Focusing this policy as well as market attention on the trade-weighted exchange rate should allow the renminbi to depreciate against the US dollar.

OPEC Member Countries

The GDP of **Saudi Arabia** grew 3.4% y-o-y in 2015 after posting an expansion of 3.6% in the 4Q. The non-oil private sector continued expanding in December as indicated by the PMI provided by Emirates NBD Saudi Arabia. The index remained in the growth territory last month, registering 54.4 on growing output, new orders and job creation.

In the **UAE**, business conditions in the non-oil private sector continued improving in December, though at slower pace than a month earlier. The PMI stood at 53.3 in December, down slightly from 54.5 in November. Output, new work and employment have all increased, while output prices have fallen due to increased competition.

Graph 3.26: Saudi Arabia and UAE: PMIs



Sources: SAAB, HSBC, Markit and Haver Analytics.

The economy of **Nigeria** registered growth of 2.8% y-o-y in 3Q15, up from 2.3% in the previous quarter, according to the country's National Bureau of Statistics. The PMI, provided by Stanbic IBTC Bank Nigeria, pointed to acceleration in private sector growth in December, posting 54.5, which was up from November's 53.9, on notable growth in output and new work.

In **Indonesia**, inflation in December registered its lowest reading since December 2009 at 3.4% y-o-y. The country's central bank left its benchmark interest rate on hold at 7.5% in December, believing that there is plenty of room for monetary easing on the back of preserved macroeconomic stability – especially after December's low inflation rate and the country's current account deficit, recently projected to be around 2% of GDP. The Nikkei Indonesia Manufacturing PMI remained in the sub-50 territory in December.

Other Asia

In **Vietnam**, inflation increased 0.6% y-o-y in December, up from 0.3% a month earlier. Its manufacturing PMI bounced back above 50 in December, posting 51.3, up from November's 49.4. The firms surveyed reported growth in production, new work and employment. Growth was seen in new export business, the first time after six consecutive months of deceleration. Low oil prices led to more ease in input costs and eventually to a notable drop in the prices charged for outputs.

In **Malaysia**, inflation registered a 2.6% y-o-y increase in November. The economy grew 4.7% y-o-y in 3Q15, its slowest pace of growth since 2Q13. Operating conditions in the manufacturing sector deteriorated at a slower pace in December. The respective PMI was at 48.0 last month, up from November's 47.0 on a slower drop in new business and output.

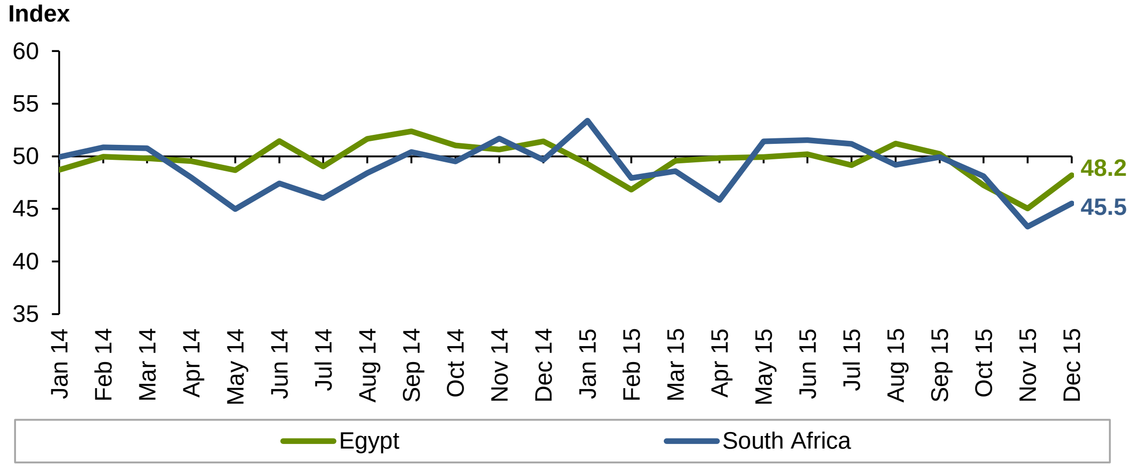
The central bank of the **Philippines** left its benchmark overnight borrowing rate steady at 4% for the 16th consecutive month in December as policymakers considered that leaving rates steady at this juncture would give them more room to continue to assess global economic conditions and calibrate policy tools as appropriate. Meanwhile, inflation increased by 1.5% y-o-y last month, its highest level in seven months.

Africa

In **Egypt**, consumer price inflation posted its highest increase in 17 months in December at 11.9% y-o-y. Similarly, the input cost pressure remained strong in the non-oil private sector as indicated by the PMI. The December reading of the index suggested a lesser worsening in business conditions with the index at 48.2 in December, from 45.0 in the previous month. The survey showed that output, new work and job creation all decreased at slower rates.

The economy of **South Africa** posted growth of 1.0% y-o-y in 3Q15. This compares with 1.4% and 2.2% posted in the first two quarters of the year, respectively. The downturn in the economy's private sector extended to its seventh consecutive month in December, according to the PMI. The survey showed a sharp decline in private sector output amid another deceleration in new orders, alongside a slight decrease in job creation.

Graph 3.27: PMIs in Egypt and South Africa



Sources: Investec, IPSA, Markit, Reuters Telerate and Haver Analytics.

Latin America

In **Argentina**, the peso depreciated nearly 19% m-o-m on the decision to float the currency as part of an economic reform package aimed at restoring foreign investors' confidence. The government is also working on settling debt issues with foreign creditors, something which has kept the country locked out of international debt markets since its 2001 default. The economy posted markedly higher growth in the 1H of 2015, with GDP growing 2.1% and 2.3% in the first two quarters, respectively, whereas growth for the whole of 2014 stood at only 0.5% y-o-y.

In **Chile**, the key interest rate was raised to 3.5% by the central bank in December on expectations that inflation will exceed 4% in the near future. Consumer price inflation stood at 3.0% y-o-y in December, up from 2.4% in the previous month.

Transition region

In December, the manufacturing sector of **Czech Republic** gained further strength. The manufacturing PMI increased to 55.6 in December, up from 54.2 in November. This improvement was attributed to faster increases in production, new work and employment. As for inflation, input prices were reported to have remained broadly unchanged after three months of deflation, while output prices increased by the highest rate since June. The economy expanded 4.1% y-o-y in 3Q15, down slightly from 4.6% y-o-y in the previous quarter.

In **Poland**, GDP grew 3.6% y-o-y in 3Q15, following 3.8% and 3.3% in the first two quarters of 2015, respectively. The manufacturing PMI remained unchanged in December after November's 52.1, suggesting a continued expansion on increased in production and employment.

Oil prices, US dollar and inflation

While the **US dollar** in general weakened slightly in December on average compared to its most important currency counterparts, it remained strong, particularly against the currencies of emerging and developing economies. It fell a slight 1.2% against the euro, declined by 1.1% against the Swiss franc, was 0.5% lower compared to the yen but increased by 1.5% against the pound sterling. Given the divergence of the Fed's monetary policy compared to the ECB's and the BoJ's, the US dollar is forecast to remain strong compared to its major currency counterparts.

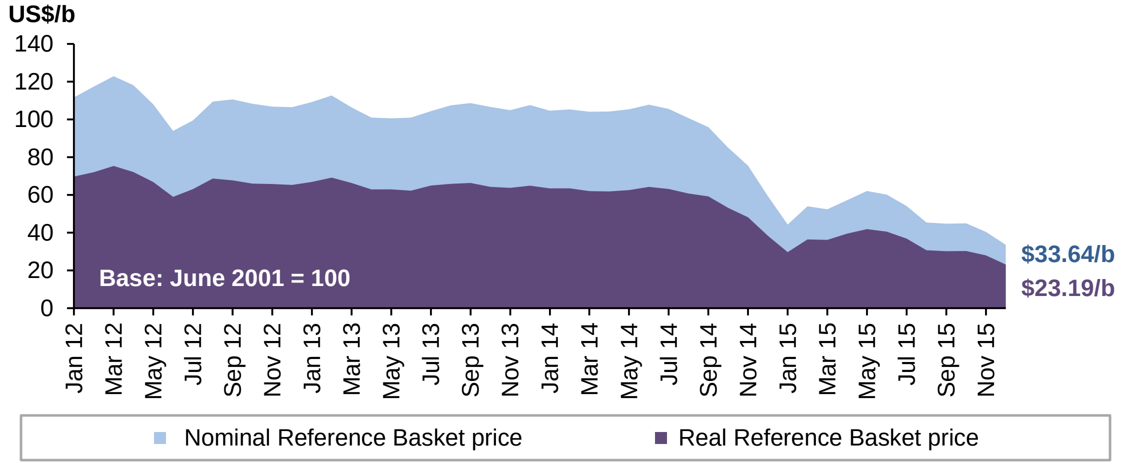
The main focus in currency markets was, however, on the relationship between the US dollar and the Chinese yuan. After a notable decline in August and September, the Chinese yuan continued to fall in December, dropping 1.3% on average against the US dollar. The weakening trend continued in January. This development of a weakening yuan is likely to stay as the PBoC is expected to further stimulate the Chinese economy via monetary measures, while the US Fed will more likely pursue its monetary tightening. This has already led to considerable capital outflows from China. Moreover, the uncertainty about the near-term growth trend in China has also created volatility in asset and currency markets, adding additional pressure on the yuan.

The decline of the Brazilian real also continued in December. The real fell by an average of 2.5% m-o-m against the US dollar in December. Also, the Russian rouble continued weakening by 7.2% m-o-m against the US dollar.

In general, it is expected that the US Fed will continue a policy of monetary tightening, while most of the world's other major central banks are pursuing a different policy. It is therefore expected that the US dollar will gain strength in the next few months, particularly if the current consumer-led growth momentum in the US continues. This may again have a similar effect on oil prices, as has been visible in past months. Hence, monetary policies and their effect on currencies will remain drivers for the global economy and commodity markets.

In nominal terms, the price of the **OPEC Reference Basket (ORB)** fell by a monthly average of $6.86 or 16.9% from $40.50/b in November to $33.64/b in December. In real terms, after accounting for inflation and currency fluctuations, the ORB declined by 17.3% or $4.86 to $23.19/b from $28.05/b (base June 2001=100). Over the same period, the US dollar declined by 0.5% against the import-weighted modified Geneva I + US dollar basket*, while inflation remained flat.

Graph 3.28: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price*



Source: OPEC Secretariat.

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

World Oil Demand

World oil demand growth in 2015 was revised marginally higher by 10 tb/d to 1.54 mb/d to average 92.92 mb/d. This upward revision was broadly a result of better-than-expected data for OECD Europe and Other Asia in 3Q15. For 2016, global oil demand growth is expected to be at around 1.26 mb/d, a little higher than the previous month's report, to reach 94.17 mb/d.

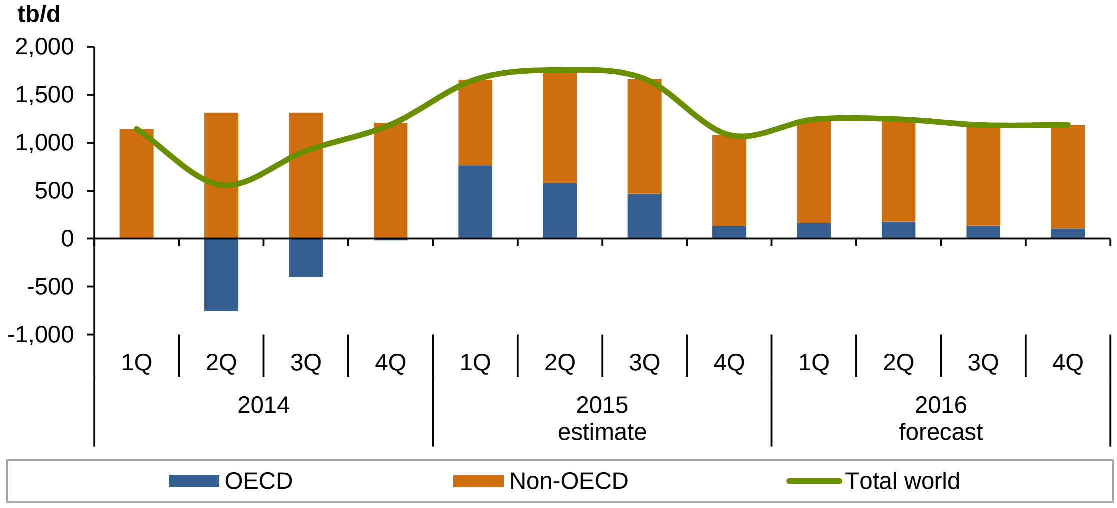
World oil demand in 2015 and 2016

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

							Change 2015/14	
	2014	1Q15	2Q15	3Q15	4Q15	2015	Growth	%
Americas	24.18	24.25	24.12	24.77	24.89	24.51	0.32	1.34
of which US	*19.43*	*19.60*	*19.47*	*19.99*	*20.10*	*19.79*	*0.36*	*1.87*
Europe	13.39	13.49	13.52	13.98	13.47	13.61	0.23	1.71
Asia Pacific	8.16	8.77	7.74	7.61	8.26	8.09	-0.07	-0.84
Total OECD	**45.73**	**46.50**	**45.38**	**46.36**	**46.62**	**46.21**	**0.48**	**1.06**
Other Asia	11.42	11.46	11.95	11.89	11.78	11.77	0.35	3.07
of which India	*3.79*	*4.01*	*3.98*	*3.91*	*4.07*	*3.99*	*0.21*	*5.43*
Latin America	6.60	6.40	6.66	6.89	6.54	6.62	0.02	0.30
Middle East	8.14	8.24	8.21	8.74	8.22	8.35	0.21	2.59
Africa	3.78	3.88	3.85	3.79	3.94	3.86	0.09	2.25
Total DCs	**29.95**	**29.99**	**30.66**	**31.31**	**30.48**	**30.61**	**0.67**	**2.22**
FSU	4.58	4.43	4.27	4.66	4.97	4.58	0.00	0.09
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	11.13	10.83	0.37	3.51
Total "Other regions"	**15.70**	**15.53**	**15.95**	**16.01**	**16.84**	**16.09**	**0.39**	**2.48**
Total world	**91.38**	**92.01**	**92.00**	**93.68**	**93.95**	**92.92**	**1.54**	**1.68**
Previous estimate	91.35	91.97	92.03	93.56	93.94	92.88	1.53	1.68
Revision	0.03	0.05	-0.04	0.12	0.01	0.04	0.01	0.01

Totals may not add up due to independent rounding.

Graph 4.1: Quarterly world oil demand growth



OECD Americas

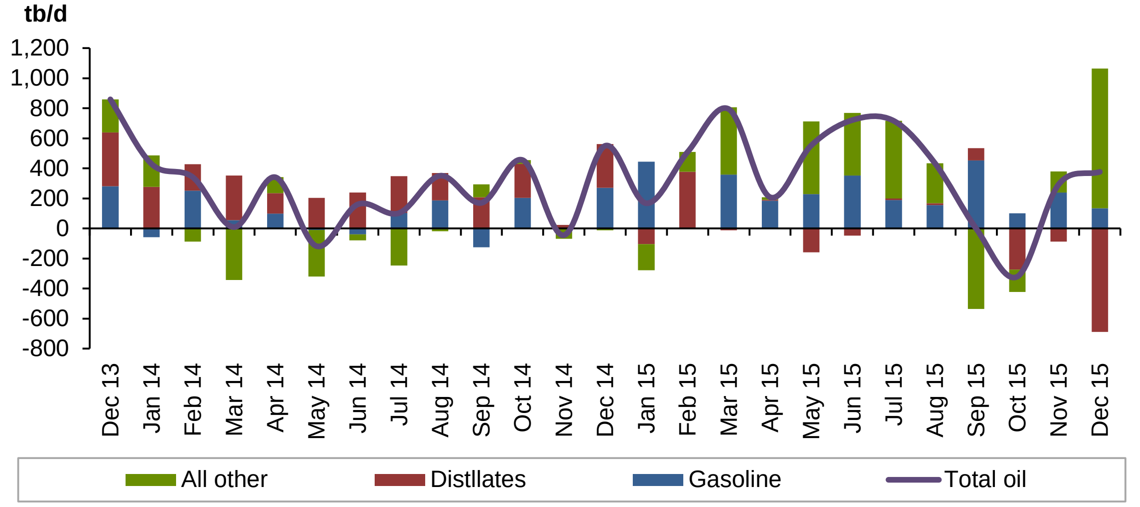
According to the most recent available data, October, **US** oil demand saw a drop in oil requirements of around 0.32 mb/d or 1.6% y-o-y. This monthly drop, the first observed since November 2014 and the highest since December 2012, was largely determined by declining distillates and residual fuel oil demand, mainly as a result of warmer-than-expected weather.

The declines have, however, been partly offset by solid gasoline demand, which was supported by lower fuel prices, as well as robust growth in both auto sales and the general economy. Data covering 10 months of 2015 shows US oil demand is experiencing robust growth of approximately 0.4 mb/d, or around 2%, y-o-y, in line with general economic growth in the country. The low oil price environment favours oil use in the road transportation sector.

Preliminary weekly data for November and December extend the existing overall picture, but with diverse views as far as main petroleum product categories are concerned – gasoline continues to grow, while unusually warm weather seems to have capped and shrunk distillate fuel oil usage, particularly in December.

The US oil demand outlook for 2016 remains largely dependent on developments in the US economy and oil price levels, with risks balanced compared with the previous month's projections.

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



In **Mexico**, November came up positive, increasing by around 25 tb/d or 2% y-o-y. Growing demand for gasoline, jet fuel and residual fuel was partly offset by shrinking demand for diesel and LPG, the latter essentially affected by substitution with other energy commodities. Data for 11 months of 2015 shows Mexican oil demand remained flat compared with the same period in 2014 – gasoline and jet fuel use grew, but were offset by shrinking demand in all other petroleum product categories.

Mexican oil demand is expected to grow slightly in 2016, with risks skewed to the upside compared with the previous month's projections, primarily due to slightly improving expectations of the country's economy.

Canadian data for October shows strongly declining oil demand compared with the same month a year earlier, falling by more than 0.1 mb/d, or around 5% y-o-y. All main petroleum product category requirements fell, with the strongest declines observed in LPG, gas/diesel oil and residual fuel oil. Projections for Canadian oil demand in 2016 remain unchanged from those in the previous month's report and foresee slight growth y-o-y.

In 2015, **OECD Americas'** oil demand grew by 0.32 mb/d compared with 2014. In 2016, OECD Americas oil demand is projected to grow by 0.29 mb/d compared with 2015.

OECD Europe

Following several months of increasing oil requirements, **European** oil demand switched to become marginally negative y-o-y in October, decreasing slightly for the second month in 2015.

October demand was supported by rising requirements for automotive diesel, naphtha and jet fuel. However, this was more than offset by bearish residual fuel oil and motor gasoline demand, the latter despite a continuing lower oil price environment. Residual fuel oil demand was negatively influenced by changing marine bunker fuel specifications throughout the region's ports, which favour diesel usage. Moreover, heating oil demand gained as a result of colder-than-expected weather compared with the same month in 2014 and the historical norm.

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

	Nov 15	Nov 14	Change from Nov 14	Change from Nov 14, %
LPG	384	355	30	8.3
Gasoline	1,045	1,059	-14	-1.3
Jet/Kerosene	734	694	39	5.6
Gas/Diesel oil	3,200	3,137	63	2.0
Fuel oil	277	281	-4	-1.6
Other products	868	914	-45	-4.9
Total	**6,508**	**6,440**	**68**	**1.1**

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

Total European oil requirements shed only 11 tb/d y-o-y in October. Early indications for November show gains of approximately 0.07 mb/d in Germany, France, Italy and the UK. Among the European Big 4 oil consumers, Italy and France grew, while Germany and the UK declined. Gas/diesel oil together with jet fuel/kero accounted for the bulk of overall growth.

European auto sales continued their positive momentum in November, with an increase of almost 9% y-o-y, rising for the 27th consecutive month. All major auto markets rose with particularly bullish rates in Spain, Italy and France in line with improving economies and lower fuel prices.

However, warmer weather in the region for December over the same period the previous year and the norm, is projected to put some downward pressure on oil demand in the residential sector. The outlook for the region's oil demand in 2016 has not changed from the previous month's projections and is predominantly capped by downside risks that traditionally affect demand, including taxation polices, fuel substitution and pending economic issues in some countries.

OECD Europe's oil demand grew by 0.23 mb/d in 2015, while in 2016 oil demand is projected to slightly decline by 0.01 mb/d compared with 2015.

OECD Asia Pacific

Japanese oil demand decreased sharply in November by 0.23 mb/d, a decrease of more than 6% y-o-y, with all main petroleum product categories declining, particularly residual fuel oil, gasoline, naphtha, kerosene and gasoil, as well as and direct crude burning. The use of natural gas and coal for electricity generation continued to increase in November, which was warmer than the same month in 2014, while fuel substitution seemed to account for losses in demand for LPG and naphtha.

In December, early economic indicators were rather gloomy, with automobile registrations falling and projections for industrial production on the negative side. Furthermore, the status of nuclear power plants remained unchanged, with two reactors currently operating, while another few could start operating in the first half of 2016.

The outlook for Japanese oil demand in 2016 thus remains unchanged from the previous month's forecast, with risk continuing to be skewed towards the downside, mainly due to bearish economic forecasts.

Table 4.3: Japanese domestic sales, tb/d

	Nov 15	Change from Nov 14	Change from Nov 14, %
LPG	358	-13	-3.4
Gasoline	896	-13	-1.4
Naphtha	793	-44	-5.2
Jet fuel	81	-3	-3.6
Kerosene	297	-51	-14.7
Gasoil	564	-20	-3.4
Fuel oil	405	-96	-19.2
Other products	64	3	4.1
Direct crude burning	120	6	5.4
Total	**3,579**	**-231**	**-6.1**

November came up strongly increasing in **South Korea**, rising by more than 0.23 mb/d or more than 6% y-o-y. All main petroleum product category requirements rose, particularly gasoline, automotive diesel and fuel oil, the latter being strongly supported by lower prices increasing its attractiveness over LNG. The outlook for South Korean oil consumption during 2016 remained unchanged and positive compared with the previous month's projections.

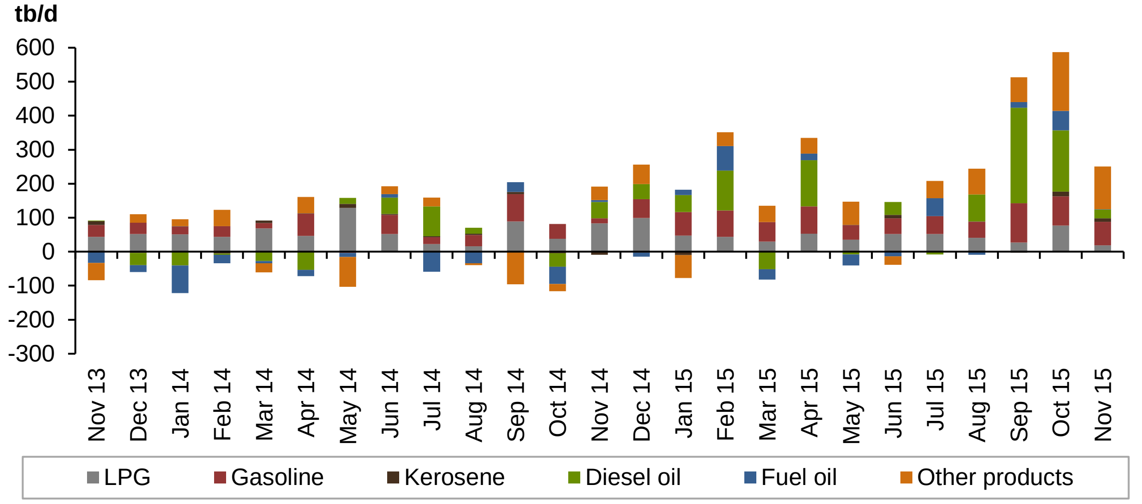
OECD Asia Pacific oil consumption for 2015 shrank by 0.07 mb/d. The downward trend will continue in 2016 to a higher degree, by 0.12 mb/d.

Other Asia

In **India**, oil demand for November grew by 0.25 mb/d, an increase of more than 6% y-o-y and about half of the historical levels seen in the past two months. Lower retail prices complemented overall progress and macroeconomic indicators gave a boost to product demand.

This development was led by solid growth in gasoline demand, which continues to play a leading role in positively contributing to oil demand growth in India. Gasoline rose by more than 17% y-o-y, adding almost 70 tb/d during the month of November. However, growth was lower in scale compared with the previous two months and remains within the average growth rate for 2015. This is can be attributed to a slowdown in car sales, which only rose by 3% y-o-y compared with growth of around 22% y-o-y in October. Two-wheeler sales specifically grew by around 2% y-o-y. Additionally, lower retail prices contributed positively to gasoline consumption in November, while gasoline retail prices fell under 60 rupees per liter for the first time since the beginning of 2Q15.

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



LPG demand was stable, rising by just 3% y-o-y, the slowest rate of growth in 2015, as the high base line started to impact data. Additionally, diesel demand picked up its pace, growing marginally by around 2% y-o-y after two months of substantial increases, mainly due to the weak monsoon season. Going forward, diesel consumption is anticipated to be negatively impacted by a temporary government ban on diesel vehicles with large engines in cities. Fuel oil demand growth, on the other hand, was flat, rising little y-o-y, with no significant activities to highlight.

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

	Nov 15	Nov 14	Change	Change, %
LPG	680	662	18	2.8
Gasoline	471	402	69	17.2
Kerosene	326	316	10	3.2
Diesel oil	1,675	1,648	26	1.6
Fuel oil	247	246	1	0.4
Other products	764	638	126	19.7
Total oil demand	**4,162**	**3,911**	**251**	**6.4**

In **Indonesia**, oil demand rose during the month of October 2015 by around 36 tb/d, with all products in positive territory with the exception of “other products”.

In **Thailand**, oil demand rose marginally in October by around 7 tb/d, with transportation fuels – gasoline, diesel oil and jet fuel – in positive territory, while LPG, fuel oil and “other products” declined.

Looking forward, the risks for 2016 in **Other Asian** oil demand are anticipated to be tilted slightly to the upside as a result of an overall improvement in economic activity along with lower oil prices, all of which should lend support to product demand. In Indonesia and Malaysia, subsidy reductions for transportation fuels may influence oil demand growth. However, lower international prices should moderate any impact at this stage.

Other Asia's oil demand rose by 0.35 mb/d in 2015. Oil demand in 2016 is forecast to be 0.32 mb/d higher than in 2015.

Latin America

In **Brazil**, November oil demand saw a decrease of around 0.13 tb/d or more than 5% y-o-y. Sluggish performance continued largely as a result of overall slower economic activity in the country. Gasoline consumption remained poor, declining by around 61 tb/d or more than 8% y-o-y. A decline in car sales of around 32% in November y-o-y and more than 24% y-o-y for the period January to November has been a factor in falling gasoline consumption. Additionally, and more importantly, price differentials between gasoline and ethanol have supported usage of the latter for most of 2015. Diesel demand also weakened, down by almost 74 tb/d or around 7.2% y-o-y as a result of slower economic conditions and a higher base of comparison. Conversely, ethanol demand rose by around 90 tb/d, or more than 40% y-o-y as the lower price environment encouraged additional usage.

Table 4.5: Brazilian inland deliveries, tb/d

	Nov 15	Nov 14	Change	Change, %
LPG	217	223	-6	-2.8
Gasoline	682	743	-61	-8.2
Jet/Kerosene	123	131	-8	-5.9
Diesel	956	1,029	-74	-7.2
Fuel oil	83	112	-28	-25.4
Alcohol	295	244	51	20.7
Total	**2,356**	**2,482**	**-126**	**-5.1**

In **Argentina**, October saw positive oil demand, with transportation fuels on an increasing trend. LPG and fuel oil also positively impacted oil demand growth; LPG rose by almost 12% y-o-y and fuel oil increased by around 2% y-o-y.

Looking forward, the risks for 2016 are currently skewed to the downside as economic development in Brazil, the major consuming nation of the region, is anticipated to slow down considerably. The continuation of lower oil prices as well as unusual weather conditions should moderate the impact.

Latin American oil demand grew marginally in 2015 by 20 tb/d. During 2016, oil demand growth is forecast to increase by 0.12 mb/d.

Middle East

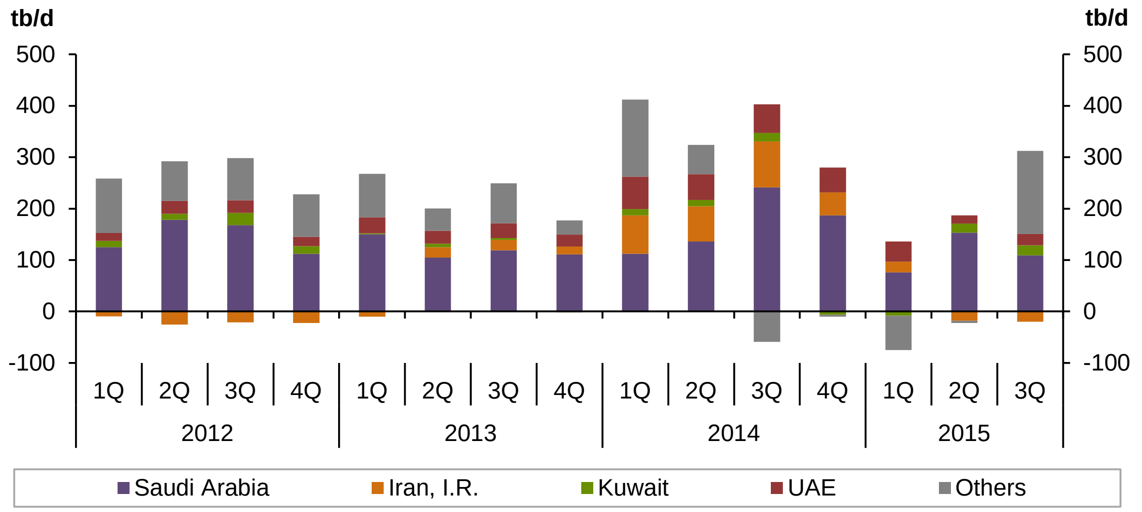
In **Saudi Arabia**, November oil demand was characterized by increases across the barrel with the exception of fuel oil, which decreased slightly. Total oil demand was elevated during the month, increasing by 0.25 mb/d with total product consumption at 2.46 mb/d. Direct crude burning for power generation seemed to continue to rise despite the end of peak summer season, seemingly more in lieu of fuel oil in the power generation sector. Direct crude burning rose during the month of November by more than 0.14 mb/d, which equates to growth of more than 40% y-o-y. Furthermore, solid growth in transportation fuels gasoline and diesel was supported by gains in auto sales in 2015. Data for the first half of the year shows an increase in light passenger vehicle sales of more than 6% y-o-y. Saudi Arabia's vehicle market is the largest market in

Middle East and is dominated primarily by Japanese brands. The vehicle market is worth more than $22 billion. Jet/kero also registered positive growth, increasing by more than 11% y-o-y. On the other hand, fuel oil dipped slightly by 9 tb/d or around 2% y-o-y, presumably as there was less use of the product in the power generation sector.

In **Iraq**, November oil demand growth was in slightly positive territory with much lower growth levels than over the previous four months. Total product demand increased by a modest 4 tb/d, equal to around 0.7% y-o-y, taking the country's total product demand to 0.57 mb/d. In products, gasoline, fuel oil and "other products" recorded gains above 6% y-o-y, while LPG and middle distillates declined.

In 2016, Saudi Arabia is expected to be the oil demand growth driver, with transportation fuels, petrochemical feedstock and crude oil for direct use projected to contribute to product growth. Conversely, subsidy reductions and geopolitical concerns in the Middle East region are anticipated to have a negative effect on oil consumption in certain areas.

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



In 2015, **Middle East oil demand** grew by 0.21 mb/d, while oil demand in 2016 is projected to increase by 0.18 mb/d.

China

In **China**, November oil demand declined by around 0.15 mb/d, despite solid growth in gasoline and LPG. Oil demand was predominantly characterized by less-than-anticipated performance from diesel oil and fuel oil, largely as a result of slower manufacturing activity in the country.

Positively, LPG and gasoline demand continued to increase, with LPG feeding mainly into the petrochemical sector, while gasoline satisfied growing road transportation requirements; the products grew by around 10% and 8% y-o-y, respectively.

According to statistics and analysis from the China Association of Automobile Manufacturers (CAAM), November sales of passenger cars increased by more than 20% y-o-y, setting new highs, with the number of vehicles sold exceeding 2.1 million units. On a cumulative basis, with data up for November, sales reached 18.7 million units or 6% higher than the same period the previous year. Sport Utility Vehicles (SUV) continued to grow at the staggering rate of 51% and Multi-Purpose Vehicles (MPV)

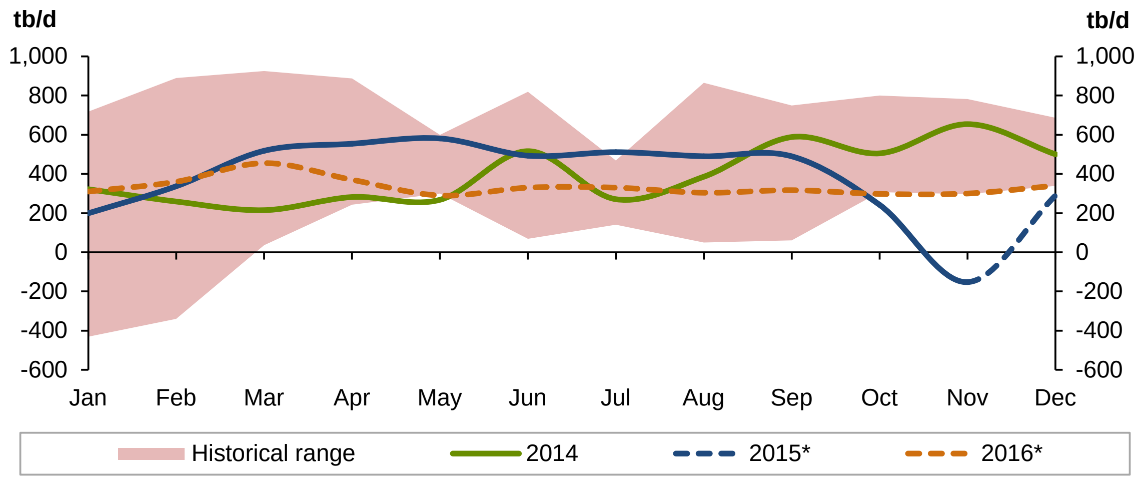
also rose by around 8% y-o-y. Vehicle sales were noticeably supported by government tax breaks in an effort to improve manufacturing. Car sales in China are set reach a new record in 2015, with data for the month of December yet to be confirmed.
Jet fuel also saw positive performance in November, rising by around 10% y-o-y.

Conversely, diesel oil consumption decreased by around 8% y-o-y, in line with slower momentum in the manufacturing and construction sectors. Fuel oil also dropped, but at a greater magnitude than diesel oil, dipping by around 0.27 mb/d or more than 40% y-o-y as teapot refineries elected to switch to crude oil rather than fuel oil as a product for their feed. Additionally, bunker fuel requirements were lower as the result of slower trade activities reducing demand for fuel oil.

The assumptions going forward point to the downside and are mainly focused on a possible economic slowdown and implementation of measures in order to limit transportation fuel consumption. On the other hand, additional propylene dehydration plants (PDH), which require propane as a feedstock, and developments in refining capacity, are factors that could push oil demand estimates higher.

Chinese oil demand in 2015 grew by 0.37 mb/d, while oil demand in 2016 is projected to increase again by 0.29 mb/d.

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



** Forecast.*

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

	2015	1Q16	2Q16	3Q16	4Q16	2016	*Change 2016/15* Growth	%
Americas	24.51	24.54	24.44	25.05	25.15	24.80	0.29	1.19
of which US	*19.79*	*19.86*	*19.75*	*20.24*	*20.33*	*20.04*	*0.25*	*1.26*
Europe	13.61	13.50	13.51	13.96	13.44	13.60	-0.01	-0.08
Asia Pacific	8.09	8.64	7.62	7.50	8.15	7.98	-0.12	-1.43
Total OECD	**46.21**	**46.68**	**45.57**	**46.52**	**46.74**	**46.38**	**0.17**	**0.36**
Other Asia	11.77	11.79	12.27	12.21	12.10	12.09	0.32	2.73
of which India	*3.99*	*4.18*	*4.14*	*4.07*	*4.24*	*4.16*	*0.17*	*4.13*
Latin America	6.62	6.53	6.78	7.00	6.66	6.74	0.12	1.79
Middle East	8.35	8.42	8.39	8.93	8.40	8.54	0.18	2.19
Africa	3.86	3.98	3.95	3.89	4.05	3.97	0.11	2.75
Total DCs	**30.61**	**30.72**	**31.40**	**32.02**	**31.21**	**31.34**	**0.73**	**2.38**
FSU	4.58	4.49	4.33	4.71	5.02	4.64	0.05	1.13
Other Europe	0.67	0.68	0.64	0.68	0.77	0.69	0.02	2.98
China	10.83	10.73	11.35	10.99	11.42	11.13	0.29	2.71
Total "Other regions"	**16.09**	**15.89**	**16.32**	**16.37**	**17.21**	**16.45**	**0.37**	**2.27**
Total world	**92.92**	**93.30**	**93.29**	**94.91**	**95.17**	**94.17**	**1.26**	**1.36**
Previous estimate	92.88	93.28	93.31	94.77	95.15	94.13	1.25	1.35
Revision	0.04	0.02	-0.02	0.14	0.02	0.04	0.01	0.00

Totals may not add up due to independent rounding.

World Oil Supply

Non-OPEC oil supply[1] is estimated to have averaged 56.87 mb/d in 2015, an increase of 1.23 mb/d y-o-y, up by 0.23 mb/d over the previous *Monthly Oil Market Report* (*MOMR*), driven mainly by more growth from the US, Canada, Russia and Norway. Non-OPEC oil supply in 2016 is projected to decline by 0.66 mb/d, down by 0.27 mb/d from the previous assessment to average 56.21 mb/d. Non-OPEC marginal barrel production in the next six months will be sensitive to sustained low oil prices, whereby its breakeven point would not be able to tolerate the price conditions at that time.

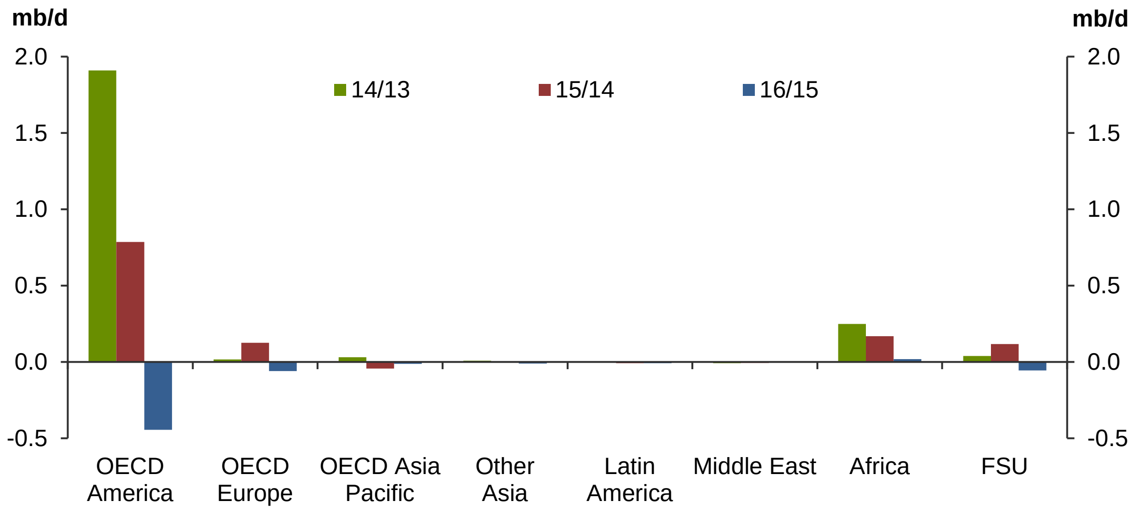
OPEC NGLs production is forecast to grow by 0.17 mb/d to average 6.32 mb/d in 2016 (including 0.16 mb/d from Indonesia), following growth of 0.15 mb/d in 2015. In December, OPEC production decreased by 211 tb/d, according to secondary sources, to average 32.18 mb/d (including Indonesia, which re-activated its membership in OPEC). As a result, preliminary data indicates that global oil supply decreased by 340 tb/d in December to average 95.20 mb/d.

Estimate for 2015

Non-OPEC supply

Non-OPEC oil supply is estimated to have averaged 56.87 mb/d in 2015, an increase of 1.23 mb/d over 2014, an upward revision of 0.23 mb/d from the previous *MOMR*. Within quarters, non-OPEC oil supply encountered upward revisions mainly in the second half of the year. The mostly updated production data for 4Q led to this adjustment, concluding an upward revision of 164 tb/d in the OECD, 27 tb/d in DCs and 38 tb/d in FSU.

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



Non-OPEC supply in 2015 saw two contrary developments: on the one hand, strong growth from OECD Americas, OECD Europe, Other Asia, Latin America, FSU and China, and on the other hand, different declines in the Middle East and Africa. OECD Americas' oil supply growth estimate of 0.79 mb/d in 2015 is much lower than the

[1] *Non-OPEC supply is excluding Indonesia as of this MOMR.*

growth of 1.91 mb/d in 2014, while declines of 0.08 mb/d in the Middle East represented a larger contraction than in 2014.

On a quarterly basis, non-OPEC supply in 2015 is estimated at 57.05 mb/d, 56.68 mb/d, 56.95 mb/d and 56.78 mb/d, respectively.

The upward revision in non-OPEC supply this month was due to higher-than-expected production as well as upward revisions by national data sources, mainly in the US (103 tb/d), Canada (30 tb/d), Russia (28 tb/d), Norway (15 tb/d), Other OECD Europe (13 tb/d) and Vietnam (12 tb/d), as well as minor upward revisions in other producers. This was partially offset by some downward revisions in the production of other countries. Growth in OECD Americas was mainly supported by tight crude and unconventional NGLs, while declines in other regions were driven mainly by political, technical and weather-related factors. Disruptions mainly affected output from Mexico, Yemen, Australia, Kazakhstan and Latin America.

Table 5.1: Non-OPEC oil supply in 2015, mb/d

	2014	1Q15	2Q15	3Q15	4Q15	2015	*Change* 15/14
Americas	20.08	20.99	20.64	21.08	20.77	20.87	0.79
of which US	*12.96*	*13.74*	*14.01*	*14.00*	*13.75*	*13.87*	*0.91*
Europe	3.60	3.69	3.77	3.67	3.78	3.73	0.13
Asia Pacific	0.51	0.43	0.45	0.50	0.49	0.47	-0.04
Total OECD	**24.19**	**25.12**	**24.85**	**25.25**	**25.04**	**25.06**	**0.87**
Other Asia	2.60	2.72	2.72	2.65	2.68	2.69	0.09
Latin America	5.01	5.23	5.16	5.18	5.14	5.18	0.17
Middle East	1.34	1.30	1.27	1.24	1.23	1.26	-0.08
Africa	2.36	2.36	2.36	2.35	2.34	2.35	-0.01
Total DCs	**11.31**	**11.61**	**11.51**	**11.42**	**11.38**	**11.48**	**0.17**
FSU	13.55	13.68	13.61	13.59	13.66	13.63	0.09
of which Russia	*10.68*	*10.74*	*10.76*	*10.81*	*10.87*	*10.79*	*0.12*
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	4.38	4.37	0.08
Total "Other regions"	**17.97**	**18.14**	**18.13**	**18.10**	**18.18**	**18.14**	**0.16**
Total Non-OPEC production	**53.48**	**54.87**	**54.49**	**54.77**	**54.59**	**54.68**	**1.20**
Processing gains	2.16	2.19	2.19	2.19	2.19	2.19	0.02
Total non-OPEC supply	**55.64**	**57.05**	**56.68**	**56.95**	**56.78**	**56.87**	**1.23**

Note: Please refer to the announcement on page 1 regarding Indonesia's return to OPEC.

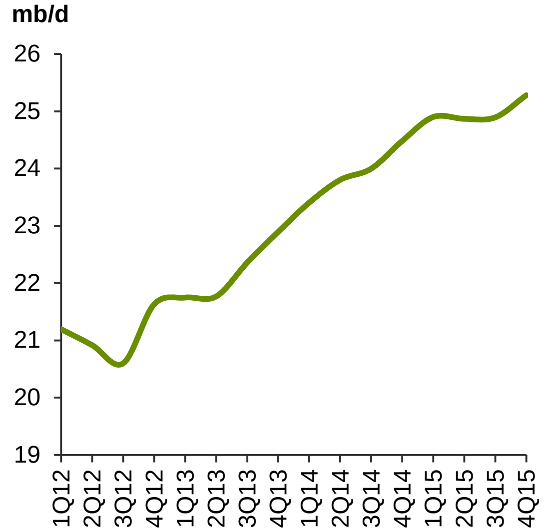
According to preliminary and estimated data, total non-OPEC supply in 4Q15 decreased by 0.19 mb/d over the same period a year earlier. During 2H15, non-OPEC supply increased by 0.62 mb/d, compared with the same period of the previous year.

OECD

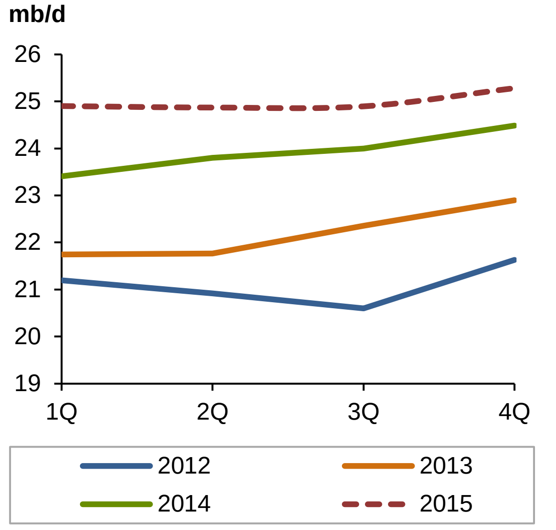
Total OECD oil supply in 2015 is estimated to grow by 0.87 mb/d to average 25.06 mb/d, indicating an upward revision of 0.16 mb/d from the last *MOMR*. Output in the 4Q reached 25.04 mb/d, with a decrease of 0.08 mb/d compared with the same quarter in 2014. The upward revision came from OECD Americas, OECD Europe and less so in OECD Asia Pacific, compared to the last *MOMR*.

On a quarterly basis, total OECD supply is estimated to average 25.12 mb/d, 24.85 mb/d, 25.25 mb/d and 25.04 mb/d, respectively.

Graph 5.2: OECD's quarterly production



Graph 5.3: OECD's quarterly production, annual comparison



OECD Americas

OECD Americas' oil supply in 2015 is estimated to average 20.87 mb/d, showing growth of 0.79 mb/d compared with a year earlier. It is projected to decrease by 0.45 mb/d in 2016 over the previous year – the highest decline among all non-OPEC regions – to average 20.43 mb/d, representing a downward revision of 0.13 mb/d from the previous month. The US and Canada's supply are both expected to grow in 2015, while that of Mexico is estimated to decline by 0.2 mb/d. On a quarterly basis, OECD America's oil supply in 2015 is estimated to average 20.99 mb/d, 20.64 mb/d, 21.08 mb/d and 20.77 mb/d, respectively.

US

US total oil supply is estimated to increase by 0.91 mb/d to average 13.87 mb/d in 2015, representing an upward revision of 0.1 mb/d from the last *MOMR*. US crude oil production was pegged at 9.35 mb/d in October, higher y-o-y by only 0.22 mb/d and lower m-o-m by 0.11 mb/d, down from the 50 tb/d rise seen in September. The reason for this came from lower production in the Gulf of Mexico (GOM) and onshore fields in Texas.

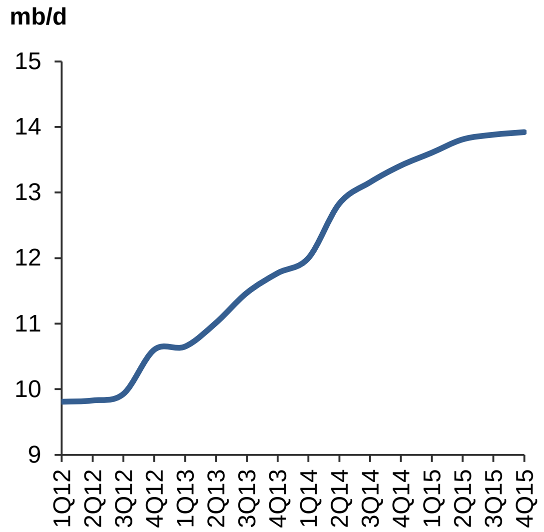
US oil output is expected to fall in the coming months due to a reduction in the number of active drilling rigs in December by 49 to average a total of 711 rigs, including 18 rigs at the Permian basin, 6 rigs at Willston basin in North Dakota and 16 rigs at Eagle Ford.

The production from **GOM** is estimated to continue growing in 2015 due to a number of startups and ramp-ups of projects already initiated in 2014. Nevertheless, GOM output in October fell to 1.61 mb/d, 90 tb/d lower than September's output. Still, October production was 180 tb/d higher than a year ago. Offshore production continues to race higher, benefitting from 0.21 mb/d of field start-ups last year. GOM output rose by 0.18 mb/d y-o-y to 1.61 mb/d although output eased m-o-m as works at the Atlantis and Marco Polo platforms slowed gains. Despite robust production growth, equally resilient demand for medium sours in the US Gulf Coast (USGC) have supported USGC sour crude prices, with the LLS-Mars spread at its tightest level in almost six months at $3.30/b in mid-December.

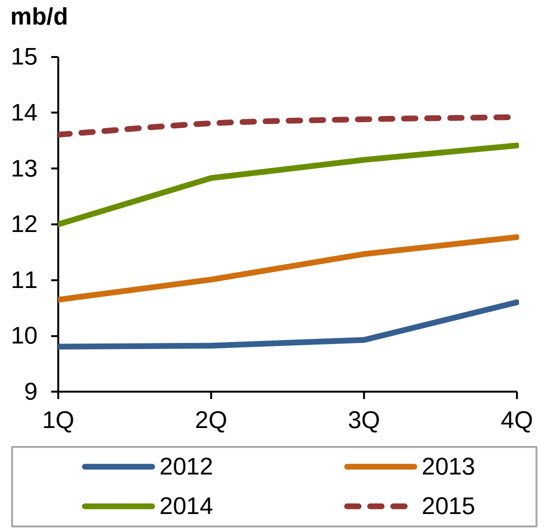
Elsewhere, in **North Dakota**, oil production increased slightly by 7 tb/d to average 1.16 mb/d m-o-m but lowered by 23 tb/d y-o-y. According to EIA's "Drilling Productivity Report" (DPR), Bakken region in North Dakota produced 1.18 mb/d through 63 rigs in October 2015, 10 tb/d less than in September 2015. Production per rig in Bakken registered an average of 688 b/d in October.

Texas is a main source of much of the production growth experienced in onshore oil. Although total crude oil output in Texas declined by 26 tb/d m-o-m in October, it averaged 3.4 mb/d and registered an increase of 59 tb/d y-o-y. The **Eagle Ford** play has three main sections: the oil window in the north (which represents 64% of output), the 'wet gas' (NGLs and condensates) window below the north section (14%) and the dry gas window in the south (22%). According to the Texas Railroad Commission, the main liquid areas are in Wilson, La Salle, DeWitt, Gonzales, McMullen and Dimmit counties. Indeed, of the 32 counties making up the Eagle Ford, just six account for 89% of output. Preliminary data on Eagle Ford crude (and NGLs) production shows a drop by 58 tb/d in October compared to September in which it averaged 1.43 mb/d, with production per rig at 762 b/d in October. The average oil production of **Permian** (conventional crude + tight crude) in October was pegged at 1.99 mb/d with rig productivity of 408 b/d. In October, there were an average of 63 rigs in Bakken, 90 rigs in Eagle Ford and 234 rigs in the Permian region.

Graph 5.4: US quarterly production



Graph 5.5: US quarterly production, annual comparison



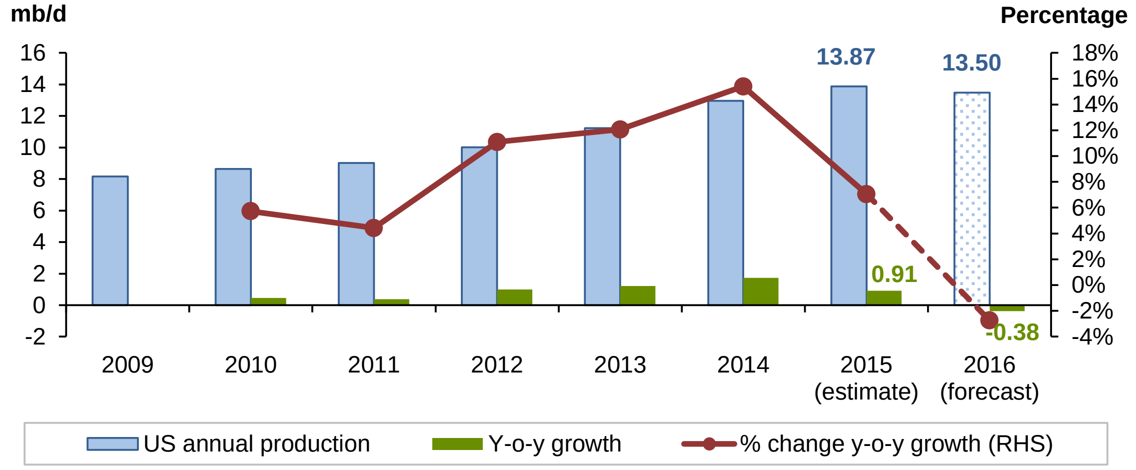
Total output in the Permian basin in 2015 is estimated at 1.92 mb/d, 0.29 mb/d higher y-o-y, which is more or less steady compared to 2014 growth at 0.28 mb/d, according to preliminary data of DPR.

Biofuels

US production of biodiesel was 82 tb/d in October 2015. Biodiesel production during October 2015 remained the same as production in September 2015. Biodiesel production from the Midwest region (PADD-2) was about 68% of the US total. Production came from 101 biodiesel plants with a capacity of 2.2 billion gallons per year (or 144 tb/d).

According to the last released report from the EIA on fuel ethanol production capacity dated 1 January 2016, total capacity in 2015 from 195 plants was expected to increase by 70 tb/d to 962 tb/d compared to a year earlier. Fuel ethanol production in 4Q15 is expected to be 0.98 mb/d according to the EIA's short-term outlook released January 2016. Total biofuels is expected to increase to 1.11 mb/d in 4Q15.

Graph 5.6: US annual liquids production and annual growth



Source: OPEC Secretariat.

US oil rig count

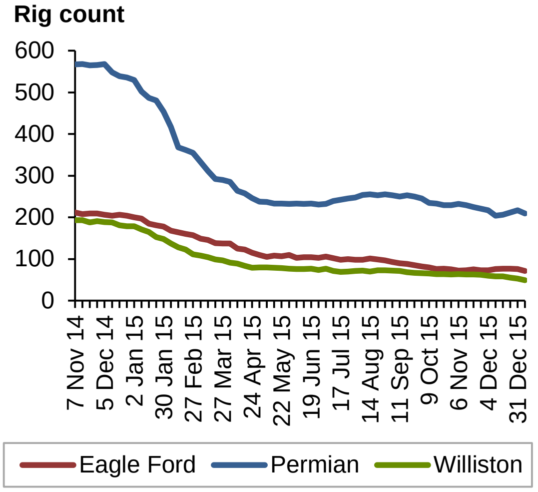
According to Baker Hughes' latest weekly report dated 8 January 2016, the total **drilling rig count** in the US dropped by 1,086 rigs (a decline of 62%) y-o-y to 664 rigs. More than 97% of this decline was in onshore fields, more than 83% of this drop is in oil and more than 80% of the decline is in horizontal and directional drilling.

Table 5.2: US rotary rig count

			Change		
Oil and gas split	**8 Jan 16**	**W-o-w**	**M-o-m**	**Y-o-y**	**Y-o-y, %**
Oil	516	-20	-29	-905	-64
Gas	148	-14	-44	-181	-55
Location					
Land	637	-36	-75	-1,059	-62
Offshore	27	2	2	-27	-50
Drilling type					
Directional	64	4	0	-97	-60
Horizontal	519	-30	-50	-782	-60
Vertical	81	-8	-23	-207	-72
US drilling total	**664**	**-34**	**-73**	**-1,086**	**-62**

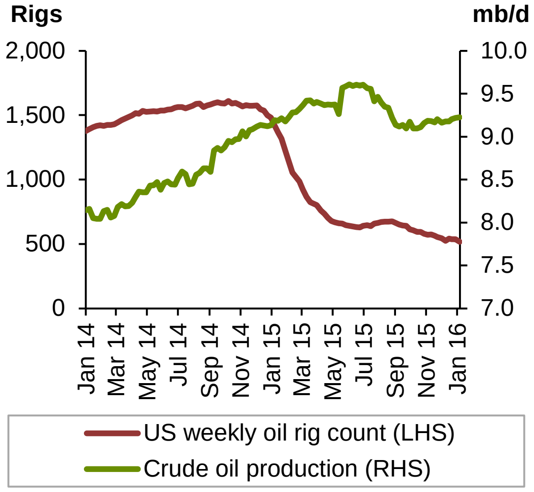
Source: Baker Hughes.

Graph 5.7: US total rig count by selected basin



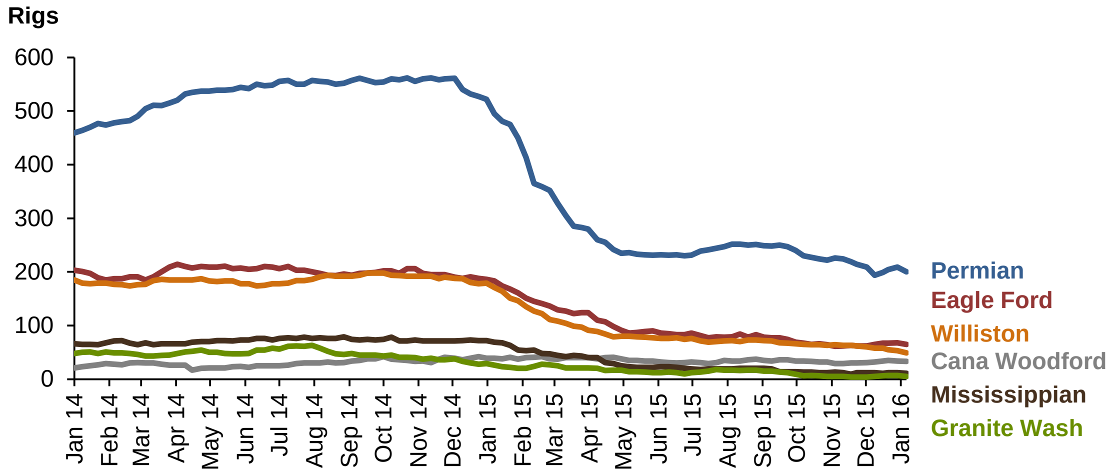
Source: Baker Hughes.

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



Sources: Baker Hughes and EIA.

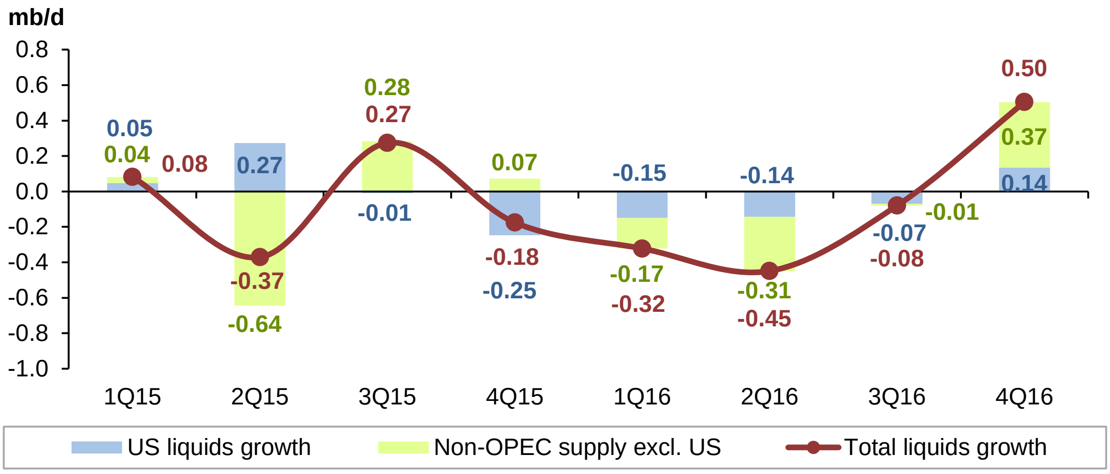
Graph 5.9: US oil rig count for selected basins



Source: Baker Hughes.

On a quarterly basis, US oil supply in 2015 is expected to stand at 13.74 mb/d, 14.01 mb/d, 14.00 mb/d and 13.75 mb/d, respectively.

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



Source: OPEC Secretariat.

Canada and Mexico

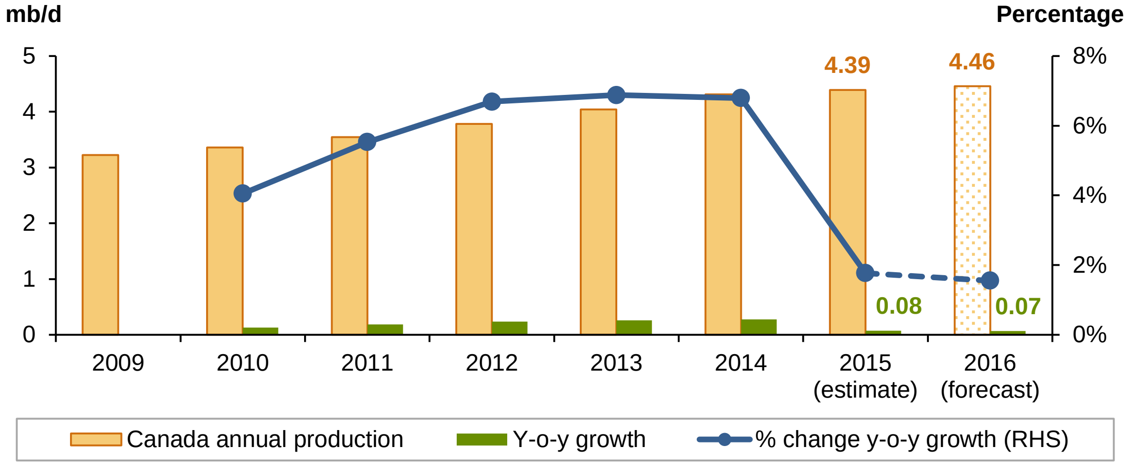
Oil supply in **Canada** registered growth of 0.08 mb/d in 2015 to average 4.39 mb/d, revised up by 30 tb/d over the previous month, due to an upward revision of 179 tb/d in 3Q15 and a downward revision of 59 tb/d in the 2Q.

Canadian production growth has been disappointing with 2015 output increasing by only 0.08 mb/d, compared to market expectations of well over 0.2 mb/d. This has been due to y-o-y declines in conventional production (including tight oil), as well as weak output in 2Q15 due to wild fires in Alberta, which caused the outage of a large portion of total output. The bulk of the conventional declines have hit light and medium output, rather than heavy, which has increased by 0.14 mb/d y-o-y, led by surging oil sands output on the back of 0.46 mb/d of new project start-ups. Much like Deepwater projects, the long lead times and longer payback periods on oil sands projects mean that such projects continue to be brought online despite WCS (Western Canadian Select) prices averaging just $36/b across 2015.

The weakness in conventional output is being driven by Canadian producers scaling back conventional drilling activities given the comparative ease with which they can idle these projects when compared to other producing assets in their portfolio (such as a bitumen mine). Thus, persistently low oil prices have led to delays or cancellations of projects previously scheduled to come online during the forecast period, including the cancellation of the 80,000 b/d Carmon Creek project in October. Other projects continue as planned, including the Imperial Oil and Cenovus oil sands projects scheduled to come online by the end of 2016.

On a quarterly basis, Canada's supply in 2015 is estimated to average 4.27 mb/d, 4.11 mb/d, 4.16 mb/d and 4.20 mb/d, respectively.

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



Source: OPEC Secretariat.

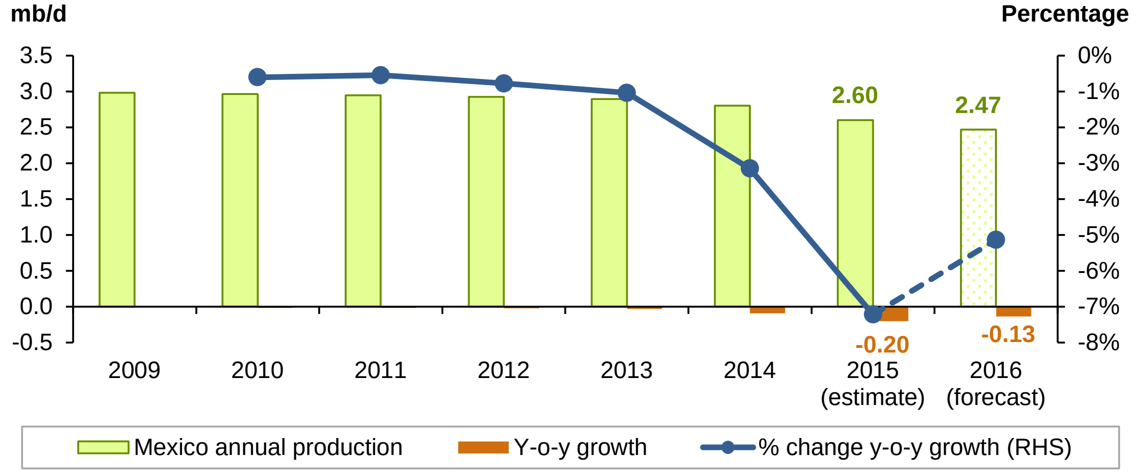
Mexico's oil supply averaged of 2.60 mb/d in 2015, showing a decline of 0.2 mb/d, unchanged from the previous month's estimation. Mexican liquids output declined by 10 tb/d m-o-m to 2.59 mb/d in November. NGLs output came under further pressure, down 47 tb/d y-o-y to 0.30 mb/d, a record low. Crude output inched a touch lower m-o-m to 2.28 mb/d, which was 86 tb/d lower y-o-y. Preliminary figures of oil output for December already show output is stagnant at 2.59 mb/d.

Pemex's 2015 budget saw spending at the KMZ field 29% lower y-o-y at $1.82 billion compared to $2.57 billion in 2014. Across 2015, KMZ output declines accelerated to

1.5% (from 0.8% in 2014) despite increased efforts to arrest precipitous falls through the use of nitrogen injection. Pemex's financial situation has continued to deteriorate, as reflected by the deferral of payments to contractors by up to nine months. Moody's has also recently downgraded the company's debt. Credit metrics are expected to worsen in the short- to medium-term as oil prices remain depressed, production continues to drop, taxes remain high and the company's capital expenditures (capex) needs are financed with debt. To compound issues, rig count has fallen to its lowest level since June 2003 with only 35 rigs at the end of 2015.

On a quarterly basis, Mexico's supply is seen averaging 2.65 mb/d, 2.55 mb/d, 2.60 mb/d and 2.59 mb/d, respectively.

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



Source: OPEC Secretariat.

OECD Europe

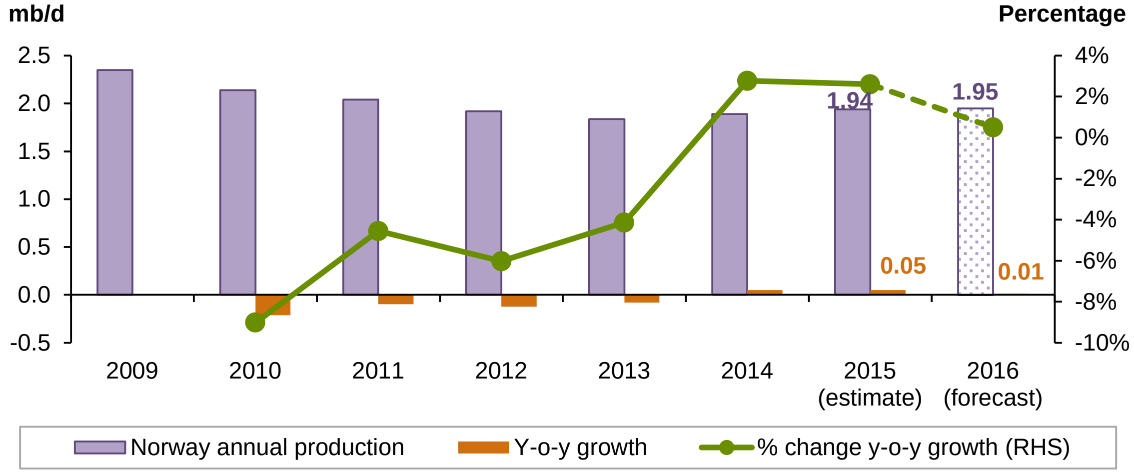
Total OECD Europe oil supply, which grew 20 tb/d in 2014 to average 3.60 mb/d for that year, increased by 130 tb/d from the previous year to average 3.73 mb/d in 2015. This was revised up by 30 tb/d from the previous *MOMR*. Output from the region continued on an upward trend from 1Q15 to 4Q15, although the output in 3Q15 was 100 tb/d than in the 2Q15 due to the maintenance season. Production in the 4Q15 was revised up by 101 tb/d due to higher output in Norway, UK and Other OECD Europe.

OECD Europe is expected to see quarterly supply of 3.69 mb/d, 3.77 mb/d, 3.67 mb/d and 3.78 mb/d, respectively.

Norway's oil supply is estimated to increase by 0.05 mb/d from the previous year to average 1.94 mb/d in 2015, revised up by 20 tb/d from the previous *MOMR*. Preliminary production figures for 4Q15 indicate an average production of about 1.98 mb/d of oil, NGLs and condensate, 70 tb/d more than 3Q15. Preliminary production figures for December 2015 show an average daily production of about 2.02 mb/d of oil, NGLs and condensate. This is 37 tb/d (about 2.0%) more than November 2015. According to the monthly report of the Norwegian Petroleum Directorate (NPD), the average daily liquid production in December was: 1.61 mb/d of oil, 0.37 mb/d of NGLs and 0.05 mb/d of condensate. Oil production is about 2.5% above oil production in December of last year and the oil production is about 5% above the NPD's prognosis for the month. Final production figures from November 2015 show an average production of about 1.6 mb/d, and 0.4 mb/d of NGLs and condensate.

According to the NPD's report, "The shelf in 2015: field developments", in 2015 four new fields started production on the Norwegian continental shelf, all in the North Sea. The authorities approved four Plans for Development and Operation (PDOs), compared to just one in 2014. The four new producing fields are the Statoil-operated Valemon, Det Norske-operated Bøyla, BG-operated Knarr and Lundin-operated Edvard Grieg.

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



Source: OPEC Secretariat.

Ten years ago, there were 51 producing fields on the shelf, while at the end of the year, 82 fields were operational: 65 in the North Sea, 16 in the Norwegian Sea and one in the Barents Sea. Never before have more wells been drilled than in 2015, when exploration wells were included. Fifty-six exploration wells were spudded, 11 discoveries were made in the North Sea and six in the Norwegian Sea. However, most of these discoveries were minor. So far, 18 fields on the Norwegian shelf have been shut down. The latest (and only) shutdown in 2015 was the Tor field in the Ekofisk Area.

In addition to the four fields that started producing in 2015, nine fields were under development at the end of the year. Six of these are located in the North Sea, two in the Norwegian Sea and one in the Barents Sea.

On a quarterly basis, Norway's production is seen averaging 1.93 mb/d, 1.93 mb/d, 1.91 mb/d and 1.98 mb/d, respectively.

The **UK's** oil supply in 2015 registered an average of 0.95 mb/d, representing an increase of 90 tb/d y-o-y after an annual decline of 10 tb/d in 2014. This is unchanged from the previous *MOMR*. Liquids production in November eased 20 tb/d m-o-m to 0.98 mb/d and it is estimated that 4Q15 production will increase by 70 tb/d compared to the 3Q at 0.98 mb/d. Eight oil fields, all offshore, have been started up in the UK during 2015 (see ***Table 5.3***).

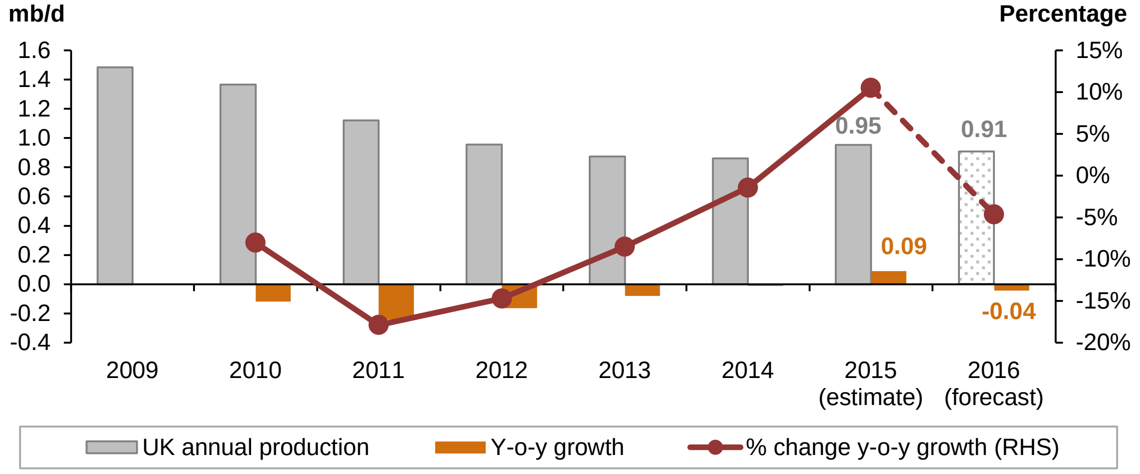
Table 5.3: UK offshore field started-up in 2015

Oil fields	Block number	Start-up date	Operator at time of start-up
Peregrine	20/1	Feb 15	Nexen
Ythan	211/18a	May 15	Enquest
Enochdhu	21/5	Jun 15	ConocoPhillips
Godwin	22/17	Jul 15	Talisman
Alma	30/24	Oct 15	Enquest
Galia	30/24	Nov 15	Enquest
Cladhan	210/29a	Dec 15	Taqa
Solitaire	014/26a	Dec 15	Nexen

Source: UK Government.

On a quarterly basis, UK oil output in 2015 is estimated to average 0.93 mb/d, 100 mb/d, 0.91 mb/d and 0.98 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 estimated to decline by 40 tb/d in 2015 to average 0.38 mb/d, which is revised up by 10 tb/d from the previous month. Australia's oil supply is likely to decline by 20 tb/d in 2016, while New Zealand's production is forecast to show an increase by less than 10 tb/d from a year earlier.

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 0.49 mb/d, respectively.

Australia's oil supply is estimated to decline by 50 tb/d to an average output of 0.38 mb/d in 2015, unchanged from the last *MOMR*. Australia's oil production outlook for 2016 could reverse directions on expected healthy oil from new start-up projects. However, the risk forecast for 2016 is on the high side due to budget cuts in the IOCs in areas like upstream investments, as well as issues related to logistics and unplanned shutdowns due to the weather.

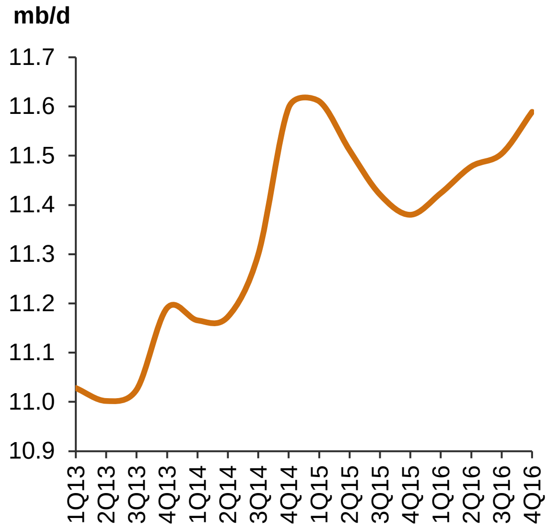
On a quarterly basis, Australia's oil supply is seen standing at 0.35 mb/d, 0.36 mb/d, 0.42 mb/d and 0.40 mb/d, respectively.

Developing Countries

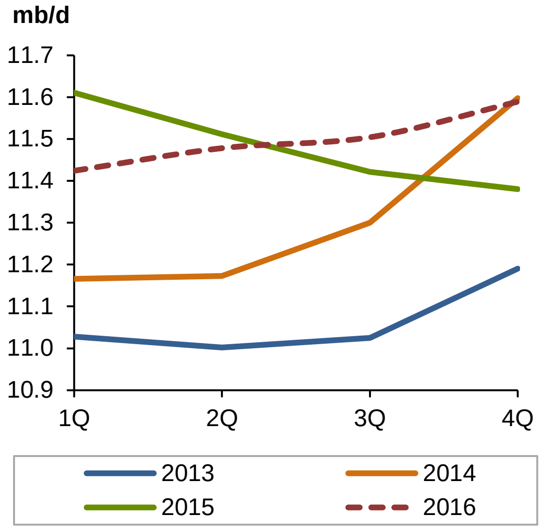
Total oil output in DCs reached 11.48 mb/d in 2015, indicating an increase of 0.17 mb/d, revised up by 30 tb/d from the last *MOMR*. A decline expected in 2016 is seen as mainly due to political, technical and economic challenges. According to preliminary data, supply averaged 11.38 mb/d in the 4Q15, down by 0.22 mb/d from the same period a year earlier. This growth is supported mainly by Latin America and Other Asia, while the Middle East and Africa's supply are seen dropping during 2015.

On a quarterly basis, total oil supply in DCs is estimated to average 11.61 mb/d, 11.51 mb/d, 11.42 mb/d and 11.38 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 estimated to increase by 90 tb/d in 2015 to average 2.69 mb/d (excluding Indonesia), representing an upward revision in growth by 20 tb/d from the previous *MOMR*. On a quarterly basis, Other Asia's supply in 2015 is forecast to average 2.72 mb/d, 2.72 mb/d, 2.65 mb/d and 2.68 mb/d, respectively.

India's oil supply is estimated to decline by 10 tb/d in 2015 to average 0.87 mb/d, revised up by 10 tb/d from the previous month.

Malaysia's supply is projected to experience an increase in 2015 of 50 tb/d to average 0.73 mb/d, unchanged from the last *MOMR*.

Thailand's production is also expected to grow by 10 tb/d to average 0.40 mb/d in 2015, also unchanged from the previous *MOMR*.

Oil production in **Vietnam** is expected to grow by 30 tb/d to average 0.35 mb/d in 2015, unchanged from the last *MOMR*. Finally, **Brunei**'s oil supply is estimated to remain steady at an average of 0.12 mb/d in 2015, but Asia others will grow by 10 tb/d to average 0.23 mb/d.

Latin America

Latin America's oil supply is estimated to grow by 0.17 mb/d to average 5.18 mb/d in 2015, revised down from the last *MOMR.* However*,* in 2016 oil supply is forecast to grow by only 40 tb/d to average 5.22 mb/d. Latin America has been the second-highest driver of growth among all the non-OPEC regions in 2015. It is expected that Brazil and Colombia will contribute to growth in 2016, while output from other Latin American countries will decline. Argentina and Trinidad & Tobago are likely to remain steady in 2015 to average 0.69 mb/d and 0.11 mb/d, respectively.

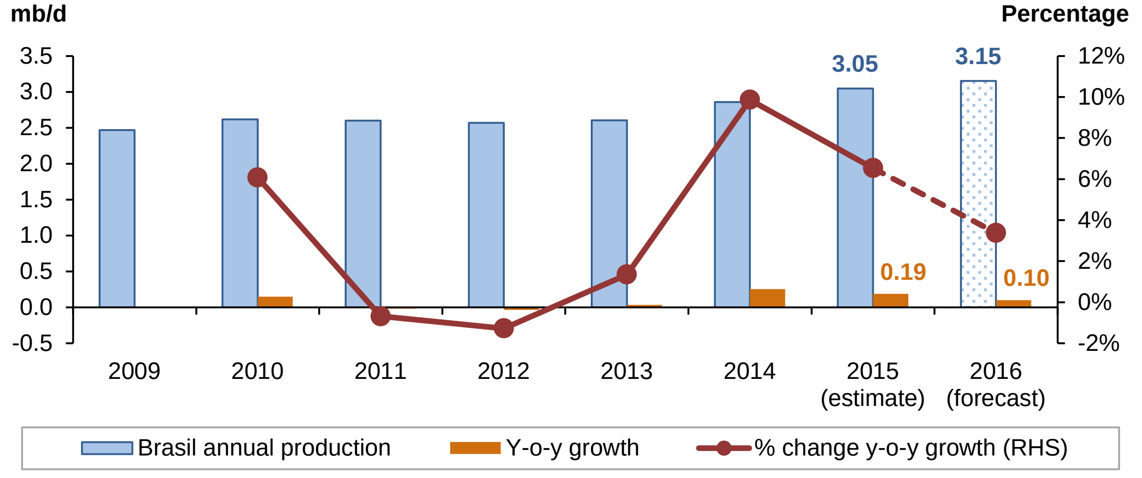
On a quarterly basis, Latin America's supply in 2015 is expected to stand at 5.23 mb/d, 5.16 mb/d, 5.18 mb/d and 5.14 mb/d, respectively.

Brazil's oil supply is estimated to average 3.06 mb/d in 2015, indicating an increase of 0.19 mb/d over the previous year, with a downward revision of 10 tb/d from the previous *MOMR.* This revision is mainly due to a downward adjustment on production data from 4Q14. Brazilian liquids output totalled 2.47 mb/d in November, lower by 26 tb/d m-o-m with y-o-y growth remaining broadly flat. Post-salt declines remained elevated at 0.20 mb/d led by the Marlim Sul field, while pre-salt output rose by 11 tb/d to another record high. December 2015 data is expected to continue this trend.

In addition, another 72 new wells were connected in 2015 – following the 87 in 2014 – with 52 in the first nine months of the year and 20 across the 4Q. High and stable flow rates from these wells meant that Brazil was able to register production growth of 0.19 mb/d across 2015, despite only one new 0.15 mb/d FPSO being brought online, compared to 0.66 mb/d of peak capacity in 2014.

Despite fairly stable crude production in November, the oil union strikes appear to have had a significant impact on Brazilian refinery runs, which plummeted y-o-y by 0.26 mb/d to 1.88 mb/d, their lowest since May 2012.

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



Source: OPEC Secretariat.

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

Middle East

Middle East oil supply is estimated to decrease by 0.08 mb/d in 2015 from the previous year to average 1.26 mb/d, revised up by 10 tb/d from the previous *MOMR*.

Oman, non-OPEC's biggest producer in the region, is expected to grow by 30 tb/d to average 0.98 mb/d in 2015, revised down by 10 tb/d from the previous *MOMR*.

Oil production in **Bahrain** is expected to decrease in 2015 by 10 tb/d to average 0.22 mb/d, representing an upward revision of 10 tb/d.

On a quarterly basis, Middle East supply in 2015 is seen averaging 1.30 mb/d, 1.27 mb/d, 1.24 mb/d and 1.23 mb/d, respectively.

Africa

Africa's oil supply is projected to average 2.35 mb/d in 2015, with a decline of 10 tb/d from the previous year, revised up by 10 tb/d from the previous *MOMR,* due to a positive revision of 18 tb/d in 4Q15. Oil production in the Sudans, Gabon and Chad are expected to decrease, while oil output of Egypt and Equatorial Guinea will grow. Moreover, Africa others, South Africa and Congo will remain steady or see a minor declined in 2015.

On a quarterly basis, Africa's oil supply in 2015 is expected to average 2.36 mb/d, 2.36 mb/d, 2.35 mb/d and 2.34 mb/d, respectively.

FSU, other regions

Total FSU oil supply is estimated to increase by 90 tb/d in 2015 to average 13.63 mb/d, with an upward revision of 40 tb/d in growth from the previous month. This revision was due mainly to updated production figures from 4Q14. The production data of Russia and FSU others encountered upward revisions in 4Q14 that partly carried over to 2016.

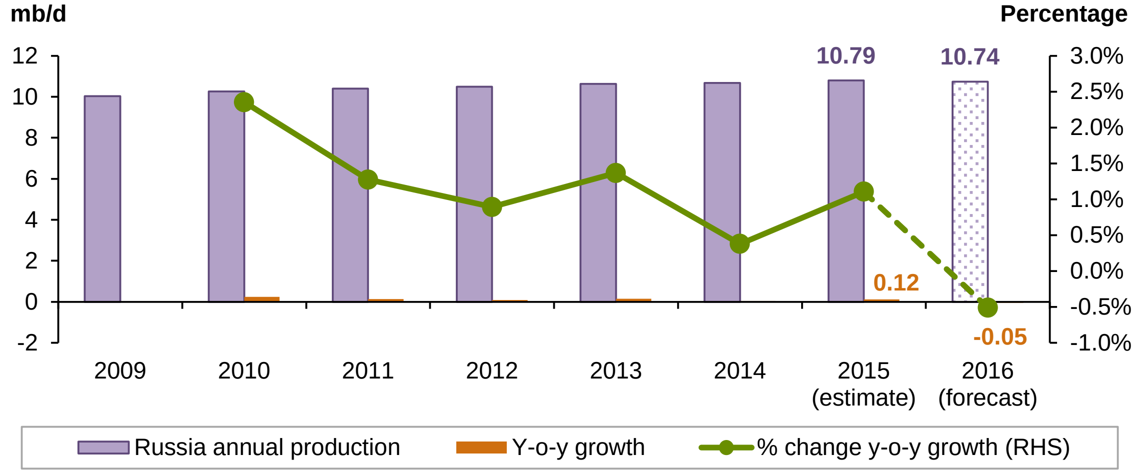
On a quarterly basis, total supply from the FSU in 2015 is seen averaging 13.68 mb/d, 13.61 mb/d, 13.59 mb/d and 13.66 mb/d, respectively.

Russia

Despite financial sanctions and the impact of the falling global oil price, **Russia**'s preliminary data on oil supply in 2015 indicated a record high of 10.79 mb/d, up 1.3% on the year. In September, Russian output of crude and gas condensate reached a new monthly record of 10.88 mb/d. According to the Ministry of Energy, December oil production will overtake the September record.

Although in the short-term Russian companies look comfortably set to make new discoveries and boost reserves, the country's ability to replenish its stocks in the longer term will depend on a number of factors, including the development in oil prices, tax changes, and the viability of offshore and shale oil exploration and development. The Natural Resources Ministry aims to offer new exploration and production licenses in 2016 to stimulate exploration and new discoveries.

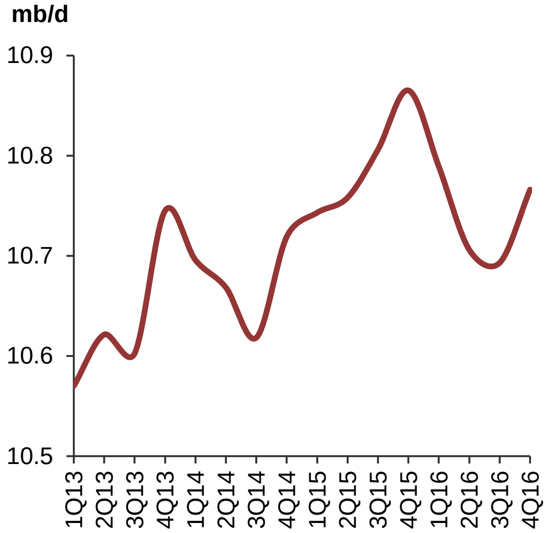
Graph 5.18: Russia's annual liquids production and annual growth



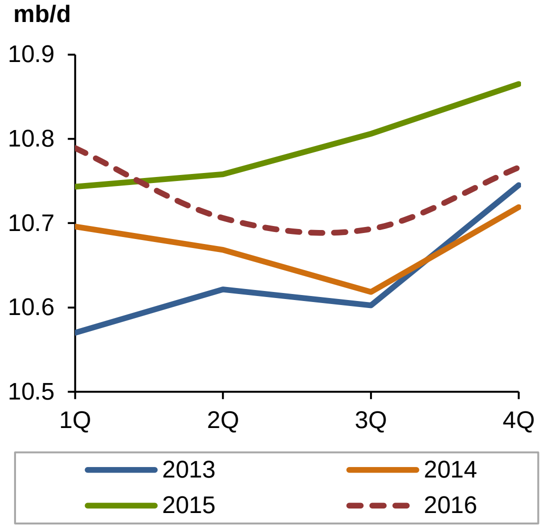
Source: OPEC Secretariat.

Russian December output rose m-o-m to a record 10.90 mb/d, up y-o-y by 0.23 mb/d. The start of Novatek's first big crude field, the 70 tb/d Yarudeiskoye field, supported the rise. Crude production from the country's shelf is expected to reach 378 tb/d this year, up by 16% from 2014. Major volumes will come from the Sea of Okhotsk, where Sakhalin-1 and Sakhalin-2 operate under production sharing agreements. Output from the Sea of Okhotsk is set to grow by 14.9% on the year to nearly 321 tb/d, according to Energy Ministry data. In 2015, 44 oil and gas fields were discovered, with the biggest harbouring slightly over 25 million tons. Some 27 oil and gas licenses should be auctioned off in 1H16. Russia is ready to review license terms, including those for offshore fields, partly to help oil firms cope with the consequences of low prices and sanctions. In 2015, the Energy Ministry refreshed the terms for 580 of 762 existing oil and gas exploration and production licenses.

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, unchanged from the previous *MOMR*. Kazakhstan's output recovered seasonally by 0.16 mb/d m-o-m to 1.65 mb/d in November but remained

70 tb/d lower y-o-y, with Tengiz output lower for the fourth straight month. The risk that decline rates will increase in 2016 is high, with y-o-y declines since August already at 0.1 mb/d.

On a quarterly basis in 2015, output will average 1.66 mb/d, 1.60 mb/d, 1.53 mb/d and 1.56 mb/d, respectively.

Azerbaijan's oil supply is estimated to have remained stagnant during 2015 averaging 0.86 mb/d. This was revised up by 10 tb/d from the previous *MOMR*. Output in November fell 0.81 mb/d m-o-m due to maintenance at the Azeri-Chirag-Guneshli (ACG) complex for 25 days starting 10 November. But output is up by 0.13 mb/d y-o-y as last November saw heavier maintenance with the Central Azeri platform offline and BTC exports falling to a six-year low of 0.52 mb/d. The deadly fire at Gunashli platform 10, which handles 60% of Socar's oil output, is likely to weigh on December output, while capex cuts will lead to steeper declines this year.

On a quarterly basis, Azerbaijan's oil output is estimated to average 0.89 mb/d, 0.85 mb/d, 0.85 and 0.85 mb/d, respectively.

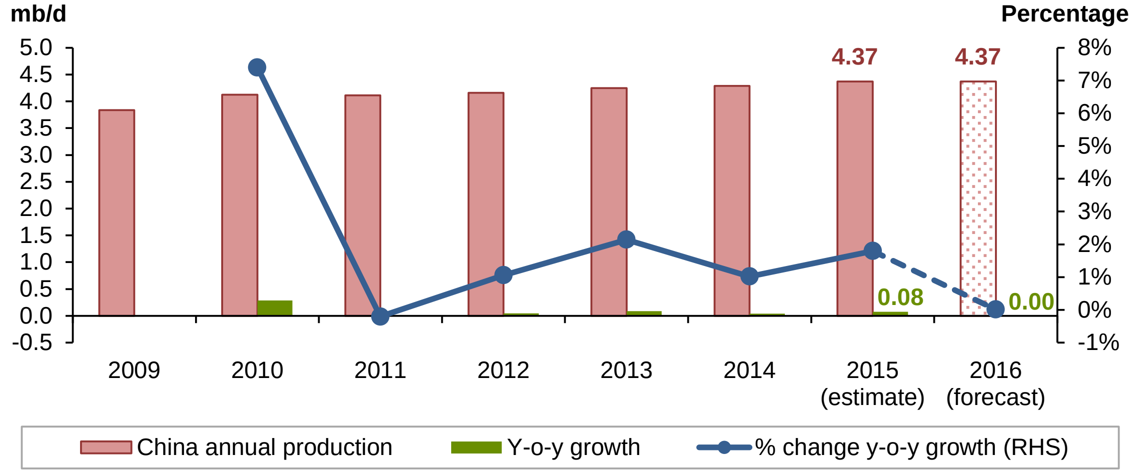
Oil supply in FSU others (mainly in Turkmenistan) is expected to grow by 10 tb/d in 2015 to average 0.39 mb/d, revised up 10 tb/d due to upward revisions in 3Q and 4Q liquids production.

Other Europe's oil supply is estimated to remain flat from 2012 to average 0.13 mb/d and continue at this level in 2015.

China

China's supply is estimated to grow by 80 tb/d over the previous year to average 4.37 mb/d in 2015, unchanged from the previous month. Chinese total oil output was pegged at 4.39 mb/d in November, more or less steady compare to a year earlier. A revision in 4Q was introduced to adjust for updated production.

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



Source: OPEC Secretariat.

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

Forecast for 2016

Non-OPEC supply

The analysis indicates that 2016 will be a supply-driven market. It will also be the year when the rebalancing process starts. After seven straight years of phenomenal non-OPEC supply growth, often greater than 2 mb/d, 2016 is set to see output decline as the effects of deep capex cuts start to feed through. The lingering effects of a few years of solid additions – sanctioned during four years of $100 oil – will help to reduce the decline, as more than 2 mb/d of new projects are still planned for 2016. But the decline in maintenance capex should also start to show through higher decline rates and possibly greater supply outages. Places like Canada, the North Sea, Latin America and parts of Asia are particularly vulnerable, with all projects in Canada now below cash cost.

Table 5.4: Non-OPEC oil supply in 2016, mb/d

	2015	1Q16	2Q16	3Q16	4Q16	2016	*Change* 16/15
Americas	20.87	20.58	20.32	20.32	20.48	20.43	-0.45
of which US	*13.87*	*13.60*	*13.46*	*13.39*	*13.53*	*13.50*	*-0.38*
Europe	3.73	3.74	3.64	3.57	3.71	3.67	-0.06
Asia Pacific	0.47	0.45	0.46	0.46	0.44	0.45	-0.01
Total OECD	**25.06**	**24.77**	**24.42**	**24.36**	**24.63**	**24.55**	**-0.52**
Other Asia	2.69	2.69	2.71	2.73	2.76	2.72	0.03
Latin America	5.18	5.15	5.19	5.23	5.31	5.22	0.04
Middle East	1.26	1.24	1.23	1.22	1.22	1.23	-0.03
Africa	2.35	2.34	2.35	2.32	2.30	2.33	-0.02
Total DCs	**11.48**	**11.42**	**11.48**	**11.50**	**11.59**	**11.50**	**0.02**
FSU	13.63	13.58	13.42	13.37	13.47	13.46	-0.18
of which Russia	*10.79*	*10.79*	*10.71*	*10.69*	*10.77*	*10.74*	*-0.05*
Other Europe	0.13	0.13	0.13	0.13	0.13	0.13	0.00
China	4.37	4.35	4.36	4.36	4.41	4.37	0.00
Total "Other regions"	**18.14**	**18.06**	**17.91**	**17.87**	**18.01**	**17.96**	**-0.17**
Total Non-OPEC production	**54.68**	**54.26**	**53.81**	**53.73**	**54.23**	**54.01**	**-0.67**
Processing gains	2.19	2.20	2.20	2.20	2.20	2.20	0.01
Total non-OPEC supply	**56.87**	**56.46**	**56.01**	**55.93**	**56.43**	**56.21**	**-0.66**

Note: Please refer to the announcement on page 1 regarding Indonesia's return to OPEC.

On a regional basis, OECD Americas is expected to have the highest production decline, dropping by 0.45 mb/d, followed by FSU, OECD Europe, Middle East, Africa and OECD Asia Pacific, while production in Latin America and Other Asia is seen increasing. Growth is expected to come mainly from Brazil, Canada, Malaysia, Australia, Asia others, Africa other and China, while oil supply from Mexico, UK, Indonesia, Egypt and FSU is seen declining. The risk and uncertainties associated with the supply forecast due to the oil price collapse remain high on both sides, especially for the US, Canada, Russia, Brazil and the UK.

On a quarterly basis, non-OPEC supply in 2016 is expected to average 56.46 mb/d, 56.01 mb/d, 55.93 mb/d and 56.43 mb/d, respectively.

Revisions to the 2016 forecast

In addition to historical revisions, there were a few offsetting adjustments to the 2016 non-OPEC supply forecast. The non-OPEC oil supply growth forecast in 2016 was revised down by 0.27 mb/d to average 0.66 mb/d. A downward revision by 264 tb/d in OECD Americas – above 200 tb/d in the US and 55 tb/d in Canada – and minor revisions in Norway, Australia, India, Asia others, Oman, Egypt and China.

Data from consultancy Rystad Energy shows 62 pre-sanction megaprojects worldwide have been deferred since mid-2014, delaying total capital investment of $222 billion as well as the development of nearly 4.2 million barrels of oil equivalent (boe) per day of peak production capacity and some 25.1 bn boe of reserves. Of that total, 43 projects were delayed due to low prices, while 19 were deferred for other political or technical reasons – although low prices could also affect how they proceed. These suspended megaprojects have all passed the appraisal phase, meaning companies were quite serious about sanctioning them before prices began to fall in mid-2014.

Other studies on megaproject deferrals show a potentially larger production impact, but criteria differ on how close to sanctioning projects are. Tudor Pickering sees deferrals putting 5 mb/d of oil production at risk by 2020, while Wood Mackenzie's tally is 68 megaprojects and capex of $380 billion, with impacted volumes reaching 1.5 mb/d by 2021, rising to 2.9 mb/d by 2025. More positively, Energy Intelligence's own Research & Advisory unit notes that since July 2014, some 24 megaprojects with a total spend of $150 billion have reached a final investment decision (FID), compared to seven outright cancellations. The majors took very few FIDs on new megaprojects in 2015. Royal Dutch Shell took just one upstream – for the Appomattox development in the deepwater Gulf of Mexico – but drew more attention for the numerous projects it deferred or cancelled, including Bonga Southwest in Nigeria and Carmon Creek and Pierre River in Canada's oil sands. The capital-intensive, long-cycle nature of megaprojects forces the IOCs to be long-term planners, but they have been thrown by the recent volatility in oil markets.

OECD

Total OECD oil supply in 2016 is expected to decline by 0.52 mb/d, to average 24.55 mb/d, revised down by 0.27 mb/d from the previous *MOMR*. The y-o-y decline in the OECD in 2016 compared to the previous year is expected to come from the following: OECD Americas by 0.45 mb/d, OECD Europe by 0.06 mb/d and OECD Asia Pacific by 10 tb/d.

On a quarterly basis, total OECD supply in 2016 is estimated to average 24.77 mb/d, 24.42 mb/d, 24.36 mb/d and 24.63 mb/d, respectively.

OECD Americas

OECD Americas' oil supply in 2016 is estimated to average 20.43 mb/d, showing a decline of 0.45 mb/d y-o-y, revised down by 0.27 mb/d from the previous month's report. The US and Mexico are both expected to see declines, while Canada's supply is forecast to grow by 0.07 mb/d.

On a quarterly basis, OECD Americas oil supply in 2016 is expected to average 20.58 mb/d, 20.32 mb/d, 20.32 mb/d and 20.48 mb/d, respectively.

US

The largest decline in non-OPEC output is expected to come from the US at 0.38 mb/d. **US** oil production is anticipated to average 13.50 mb/d in 2016, indicating a contraction of 0.38 mb/d y-o-y. It was revised down by 0.21 mb/d compared to last month's prediction as the steep drop in the global oil prices could endanger the output of marginal barrels from unconventional sources (that is, tight crude and unconventional NGLs). Declines in rig count by more than 60% y-o-y, as well as the deferral of megaprojects especially in the Gulf of Mexico will also be factors. Those projects that are already sanctioned will come onstream, such as Anadarko Petroleum Corp., which has provided an interim update on its 4Q15 performance. The company announced that its Heidelberg development in the GOM is "well ahead of schedule." Anadarko now expects first oil in 1Q16 from the three initial wells, pending regulatory approvals. The project, which is Located in the Green Canyon area of the US GoM, was originally scheduled to come onstream in 2Q16. The ultra-deepwater field is located in 5,300 ft. (1,615 m) of water and has 200-400 mb of recoverable resources.

Tight crude producers are aware that the typical oil wells in shale plays decline 60% annually and that the loss is recouped only by drilling new wells. As drilling subsides due to high costs and a potentially sustained low oil price, production can be expected to follow, possibly late in 2016.

According to a report by Energy Aspects published on 4 Jan 2016 entitled "The oil world in 2016", "…Across 2016, US capex is expected to fall further to $96.1 billion, almost 40% below its 2014 peak and 18% below 2015 levels. Therefore, the recovery in US land rigs is unlikely to resemble previous cycles. In fact, to mirror the recoveries of 2001-02 and 2008-09, rigs would have had to reverse the downward trend in 4Q15. Activity is most likely to pick up, if prices increase in 2H16, although producers may remain cautious. Furthermore, drilled but uncompleted (DUCs) will limit the rise in rig counts as they will likely attract capital before producers allocate funds to putting more rigs to work. Output during 1Q16 could benefit from increased completion activity from these DUCs while a milder winter should also benefit producers in North Dakota."

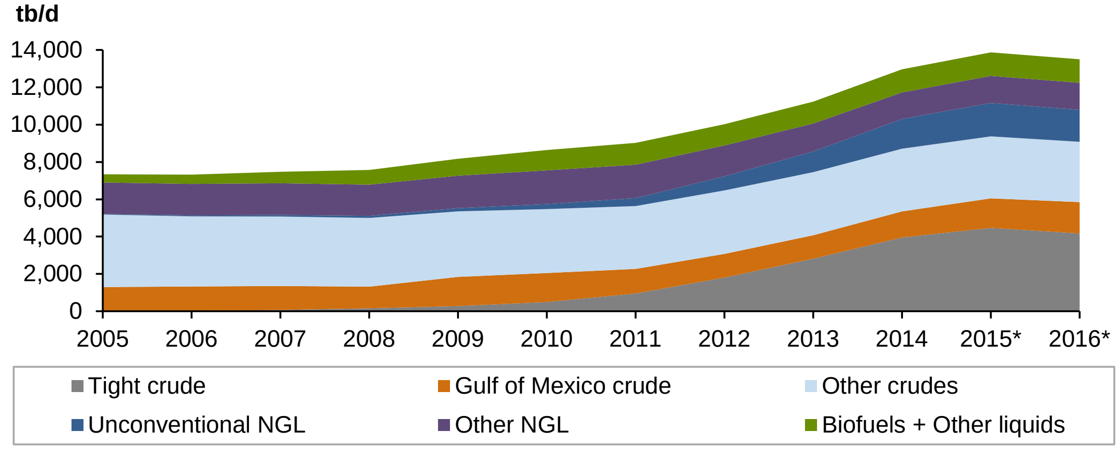
The breakdown of US liquids production for 2016, based on 2015 output assumptions, is shown in ***Table 5.5*** and ***Graph 5.22***.

Table 5.5: US liquids production breakdown in 2015 and 2016, mb/d

Production type	**2014**	**2015***	***Change* 2015/14**	**2016***	***Change* 2015/16**
Tight crude	3,955	4,470	515	4,170	-300
Gulf of Mexico crude	1,397	1,580	183	1,680	100
Other crude	3,358	3,320	-38	3,230	-90
Unconventional NGL	1,594	1,790	196	1,710	-80
Other NGL	1,420	1,450	30	1,450	0
Biofuels + Other liquids	1,238	1,260	22	1,250	-10
US total supply (excluding processing gains)	**12,963**	**13,870**	**907**	**13,490**	**-380**

*Note: * 2015 = estimate and 2016 = forecast.*
Source: US Department of Energy.

Graph 5.22: Trend of US oil production components, 2005-2016



*Note: * 2015 = estimate and 2016 = forecast.*
Source: US Department of Energy and OPEC analysis.

Canada and Mexico

On a quarterly basis, the US liquids supply in 2016 is expected to average 13.60 mb/d, 13.46 mb/d, 13.39 mb/d and 13.53 mb/d, respectively.

Canada's oil output is forecast to average 4.46 mb/d in 2016, an increase of 0.07 mb/d over the previous year but with a downward revision of 50 tb/d compared with the previous *MOMR*. This revision comes on the expectation of weak production following companies' capex cut, lower drilling activities, project deferrals and higher declines in Canadian conventional crude.

According to a report by Energy Aspects published on 4 Jan 2016 entitled "The oil world in 2016", "…Light conventional oil production has seen declines accelerate progressively through 2015. In Alberta, conventional light and medium output fell in 2015 after finishing 2014 higher by almost 3% y-o-y at 0.44 mb/d. Output fell progressively across 2015 by 3% y-o-y in the 1Q15 (0.43 mb/d), 10% y-o-y in 2Q (0.4 mb/d) and 12% y-o-y in the 3Q (0.38 mb/d). Newfoundland and Labrador have seen a more dramatic decline in percentage terms. After rising by 7% y-o-y to 0.22 mb/d in 4Q14, their combined output fell by 8% in 1Q15 (0.22 mb/d), 30% in 2Q15 (0.15 mb/d) and 26% in 3Q15 (0.14 mb/d). The fall in Newfoundland comes as activity has dwindled at the Hibernia and North Amethyst fields, and growth has slowed at the Terra Nova field. It is expected that oil production from conventional sources will stabilize this year relative to 2015, as one-off operational issues stabilize, although lower investment is expected to mean structural declines remain in place. It is predicted that the output of conventional oil will drop to 0.80 mb/d in 2016."

On a quarterly basis, Canada's oil supply in 2016 is expected to average 4.45 mb/d, 4.40 mb/d, 4.47 mb/d and 4.51 mb/d, respectively.

Mexico's oil output is forecast to average 2.47 mb/d in 2016, a decline of 0.13 mb/d over the previous year, unchanged compared with the previous *MOMR*. It is expected that 2016 will be another challenging year in which output falls once again. The forecasts indicate that KMZ's decline will increase to 1.7%. The weak base should keep Mexico's y-o-y production declines to less than 0.15 mb/d in the 1H16. But with only 35 rigs operational since September, declines are likely to step up in 2H16. Pemex's financial situation makes matters worse, with the company nearing $100 billion in debt and posting a record loss of $10.2 billion in 3Q15. The company reduced 2016 capex by $4.4 billion to its lowest level since 2007.

OECD Europe

Total **OECD Europe oil supply** is expected to decline by 60 tb/d to average 3.67 mb/d in 2016, revised up by 10 tb/d from the previous *MOMR.* OECD Europe is estimated to see quarterly oil supply in 2016 of 3.74 mb/d, 3.64 mb/d, 3.57 mb/d and 3.71 mb/d, respectively.

Norwegian oil supply is expected to grow by 10 tb/d to average 1.95 mb/d in 2016, revised down by 10 tb/d from the previous *MOMR.* For 2016, the NPD estimates that total liquid production will drop somewhat compared to 2015 to 1.9 mb/d. But surprisingly, the conservative prediction of NPD for 2015 was lower than actual production. They expect production to remain at a relatively stable level over the next few years but expect it to decline somewhat more than what was predicted in the previous prognosis. The uncertainty is particularly contingent on the ability of the reservoirs to deliver, the drilling of new development wells, the start-up of new fields and the regularity of operational fields.

UK oil supply is expected to decline by 40 tb/d to average 0.91 mb/d in 2016, revised up by 10 tb/d from the previous *MOMR.* According to a report by Energy Aspects published on 4 Jan 2016 entitled “The oil world in 2016”, “..The 0.2 mb/d Buzzard field, the largest contributor to UK production, produced its five hundred millionth barrel of oil earlier in 2015 after delivering first oil in 2007. However, the current oil price environment will pose challenges for the next stage of field development, particularly as the field has moved into plateau/decline phase, according to the field’s development manager at Nexen. The pace of development is highly contingent on oil prices and so output is expected to average less than 0.17 mb/d in 2015, to decline to below 0.15 mb/d in 2016. In particular, the lack of maintenance in 2015 has the potential to lead to more unplanned outages.”

OECD Asia Pacific

OECD Asia Pacific’s oil supply is expected to decline by 10 tb/d in 2016 to average 0.45 mb/d, revised down by 10 tb/d from the previous month’s forecast. Australia’s oil supply will grow by 20 tb/d to average 0.40 mb/d.

On a quarterly basis, total OECD Asia Pacific oil supply in 2016 is estimated to average 0.45 mb/d, 0.46 mb/d, 0.46 mb/d and 0.44 mb/d, respectively.

Developing Countries

Total DCs’ oil output will grow by 20 tb/d to average 11.50 mb/d in 2016, revised down by 10 tb/d from the previous *MOMR*. On a quarterly basis, total DCs’ oil supply in 2016 is estimated to average 11.42 mb/d, 11.48 mb/d, 11.50 mb/d and 11.59 mb/d, respectively.

Other Asia

Other Asia’s oil production is predicted to increase by 30 tb/d in 2016 to average 2.72 mb/d (excluding of Indonesia), which is revised down by 20 tb/d from the previous *MOMR*. Oil output in Malaysia, Thailand and Asia others is expected to increase, while production in India and Brunei will decline. Oil production in Vietnam will be stagnant in the year.

On a quarterly basis, Other Asia’s oil supply in 2016 is expected to stand at 2.69 mb/d, 2.71 mb/d, 2.73 mb/d and 2.76 mb/d, respectively.

Latin America

Latin America's oil supply is estimated to grow by 40 tb/d to average 5.22 mb/d in 2016, revised up by 10 tb/d from the previous *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 will be the main driver of growth in this region as well as among non-OPEC producers 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 5.15 mb/d, 5.19 mb/d, 5.23 mb/d and 5.31 mb/d, respectively.

Brazilian oil supply is expected to grow by 0.1 mb/d to an average output of 3.15 mb/d in 2016, revised down by 10 tb/d from the last MOMR. It is expected that 2016 will see the addition of three new FPSO's with a peak capacity of 0.38 mb/d, all in the Santos basin. However, overall output growth will slow to 0.1 mb/d in 2016 due to a high base, lower spending (for example, with Petrobras E&P capex down by 28%) and increased maintenance in the Campos basin. Moreover, Rio de Janeiro, which has production of 1.6 mb/d, will impose two new taxes on producers in 2016 which will weigh further on investment. Petrobras has slashed around $32 bn in capital expenditures from its already diluted $130.3 bn business plan for 2015-19 and has trimmed this year´s oil production target. The company now plans to produce 2.145 mb/d of oil, including crude and NGLs, in Brazil in 2016, down from 2.185 mb/d under the previous plan. The company reiterated that sub-salt production remains its priority. Under the new, leaner business plan, Petrobras plans to invest $98.4 bn through 2019. Around $80 bn, or 81%, of that amount is earmarked for upstream projects, down from $108.6 bn, or 83% of the total, under the initial 2015-19 plan announced in June. Petrobras plans to fund the short-term investments through cost-cutting and extensive divestitures. The company cut $1 bn in operating expenses in 2015 and planned to trim another $6 bn in 2016.

According to a report by Energy Aspects published on 4 Jan 2016 entitled "The oil world in 2016", "…The revival seen in Brazilian production growth is likely to be jolted in 2016 as declines accelerate in the Campos basin. The Marlin Sul field which ranked as the sixth largest field in Brazil in 2015 saw declines almost double from an average 45 tb/d in 2014 to just under 90 tb/d in 2015. In 2012, recognizing the need to arrest declines as well as grow pre-salt production, Petrobras embarked on a programme to increase operational efficiency in the Campos basin. In fact, this formed a key part of the 2013-2016 business plan. The fruits of this were seen in 2014, when overall Campos basin output reversed the 2012 declines of 67 tb/d and the 2013 declines of 94 tb/d to grow by 69 tb/d in 2014. The efficiency gains in 2014 were achieved by conducting extensive campaigns and regular maintenance on platforms, in addition to scheduled unit stoppages.

However, since Petrobras slashed its spending plans for the second time in 2015, Campos basin declines have accelerated to 0.13 mb/d in 2H15. The Marlim Sul field has borne the brunt of the declines, falling y-o-y by 82 tb/d, or 33%, across 2015. Investments dedicated to such programmes were cut as capital was diverted to pre-salt. Given that the focus last year was on maximizing near term output by deferring or reducing maintenance schedules, 2016 is likely to see overall production growth ease to around 0.1 mb/d, one-third the level seen between March 2014 and 2015."

Colombia's oil supply is estimated to decline by 20 tb/d over the previous year to average 1.0 mb/d in 2016, revised up by 10 tb/d from the previous month. The fate of the Rubiales field, which accounts for nearly 20% of the country's liquids production, remains a key factor in the outlook for Colombia's crude production. Ecopetrol announced in mid-December that E&P spending will be lower in 2016 by 37%, yet they maintain they will be able to hold production constant. An increased focus on reviving the Rubiales will at best leave output flat y-o-y, although declines are most likely.

Indeed, operational problems at the Rubiales field led to output declining by 13% in 2014 to 0.18 mb/d. it is estimated that output declined by 8% in 2015 to below 0.17 mb/d. The mature field has seen rising water cut and production has been impacted by limited water disposal capacity. Capacity was expected to increase by an incremental 0.5 mb/d on receipt of final regulatory approval to start operations of Phase 1 of the Agro Cascada reverse osmosis facility. This was initially expected to start in December. 2014 but is unlikely to occur until 2H16 when Ecopetrol assumes operatorship, so it is hard to see how Colombian output grows this year.

Middle East

Middle East oil supply is estimated to decrease by 0.03 mb/d in 2016 from the previous year to average 1.23 mb/d, revised down by 10 tb/d from the previous *MOMR*. There is no expectation for growth or decline in oil supply in Oman and Syria, while oil output in Yemen is expected to decline to a negligible level of 10 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 averaging 1.24 mb/d, 1.23 mb/d, 1.22 mb/d and 1.22 mb/d, respectively.

Africa

Africa's oil supply is projected to decline by 20 tb/d to average 2.33 mb/d in 2016 y-o-y, revised up by 10 tb/d from the previous *MOMR*. Oil production in Congo and Africa other is expected to grow, while others are forecast to decline, with the exception of South Africa and Chad, which should remain steady.

Average production from the **Jubilee field offshore Ghana** this year is forecast at around 101,000 b/d. The project of extended field production and increased commercial reserves, has been redesigned to reduce the overall capital needs and allow flexibility in the timing of the capital investment, given current market conditions. Following first oil, a gradual ramp-up in production toward plateau is expected during the 2H of the year.

On a quarterly basis, Africa's oil supply in 2016 is forecast to average 2.34 mb/d, 2.35 mb/d, 2.32 mb/d and 2.30 mb/d, respectively.

FSU and other regions

Oil production in **FSU,** particularly in **Russia,** would decline in 2016 given the impact of sanctions, low prices and no large projects expected to come online, making declines from Western Siberian assets more apparent. Nevertheless, as seen in December 2015, Russian oil output increased to a new record high in Russian oil industry history. Therefore, the production outlook for the coming months is uncertain. It is expected oil production in FSU will decline by 0.18 mb/d to average 13.46 mb/d in 2016, revised up by 10 tb/d from the previous forecast in December 2015.

Preliminary predictions indicate that FSU oil output in 2016 on a quarterly basis would be at 13.58 mb/d, 13.42 mb/d, 13.37 mb/d and 13.47 mb/d, respectively.
Russia's oil supply is projected to decline by 50 tb/d to average 10.74 mb/d in 2016 y-o-y, revised up by 10 tb/d from the previous *MOMR*. Russian December output rose m-o-m to a record high due to start of Novatek's first big crude field, the 70 tb/d Yarudeiskoye field, which supported the rise.

December crude exports fell m-o-m by 0.13 mb/d to 4.26 mb/d as refinery runs picked up further, although y-o-y growth was a record 0.91 mb/d. Even though the crude export duty is not being lowered as the government seeks to limit the damage to its rising budget shortfall, the sharp fall in crude prices has meant the export tax will fall further in January, boosting January Baltic and Black Sea export volumes.

Preliminary predictions indicate that Russian oil output in 2016 on a quarterly basis would be 10.79 mb/d, 10.71 mb/d, 10.69 mb/d and 10.77 mb/d, respectively.

In **Kazakhstan**, oil production is expected to decline by 60 tb/d to average 1.53 mb/d in 2016. According to a report by Energy Aspects published on 4 Jan 2016 entitled "The oil world in 2016", "…The Tengiz field produced 0.54 mb/d in 2014, although declines picked up in 2H15 after a strong performance across 1H15. This trend is likely to continue this year. Operator Chevron was expected to implement several methods to maintain production capacity and extend production plateau at the field but these have now been put on the backburner following a 24% reduction in Chevron's 2016 capex. The first method was the Wellhead Pressure Management Programme (WPMP), followed by the Capacity and Reliability (CAR) project, designed to reduce facility bottlenecks and increase plant efficiency. Finally, the Future Growth Project (FGP) was designed to increase total production by 50 tb/d and increase recovery from the reservoir. The FGP was to be achieved using sour gas injection technology and final investment decision was expected in 2H15 (alongside WPMP)."

In **Azerbaijan**, the oil supply is forecast to decline by 40 tb/d to average 0.82 mb/d in 2016. According to a report by Energy Aspects published on 4 Jan 2016 entitled "The oil world in 2016", "…BP, which operates Azerbaijan's largest field – the ACG complex – has strived to maintain steady output levels but without much success recently. Capex has been on a steady downtrend and is expected to annualise around $2 billion in 2015, following $2.3 billion in 2014 and $2.8 billion in 2013. Low oil prices have seen BP rein in spending and it is likely the capital will be diverted to resources which the company judges to have better long-term prospects – such as the Shah Deniz II gasfield project. Indeed, gas will be a key driver of BP's production portfolio over the coming years. Maintenance in 2015 was much lower compared to 2014. Despite lower maintenance, output declines in 2015 stepped up to more than 3% and are only likely to increase in 2016."

China

In **China,** oil production in 2016 is expected to be uncertain. Hence, China oil supply is estimated to remain steady over the previous year to average 4.37 mb/d in 2016, revised down by 10 tb/d from the previous month. Petrochina's onshore Daqing field, which accounts for one-fifth of Chinese oil production, and which once produced 1 mb/d, entered its second and terminal decline phase last year. The field suffers from significant reservoir depletion and requires intensive enhanced recovery techniques.

Looking beyond new field starts at CNOOC – where a total seven projects started up last year, helping CNOOC's output to grow by around 0.15 mb/d y-o-y – the trends in Chinese crude oil output look challenging. In fact, Petrochina and Sinopec, which together account for 84% of state-owned enterprise output and 75% of total output, saw output decline y-o-y by around 40 tb/d each last year. PetroChina lowered its 2019 production target for Daqing by 12% compared to its 2014 output. Sinopec, too, signalled that it could lower the production target for its flagship field, Shengli, by 15% on high costs. Output at the field declined by 15 tb/d last year to 0.54 mb/d. In its three-year outlook, CNOOC stated that production growth beyond 2015 would be muted with a decline forecast in 2017.

OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional oils were estimated to average 6.15 mb/d in 2015, representing growth of 0.15 mb/d over the previous year. In 2016, OPEC NGLs and non-conventional oil are projected to average 6.32 mb/d, an increase of 0.17 mb/d over the previous year. There are no changes in the 2015 estimation and 2016 predictions for OPEC NGLs and non-conventional production compared with the previous *MOMR*.

Table 5.6: 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	**5.82**	**6.00**	0.17	6.02	6.11	6.18	6.29	**6.15**	0.15	**6.32**	0.17

OPEC crude oil production

According to secondary sources, total OPEC crude oil production averaged 32.18 mb/d in December, a decrease of 211 tb/d over the previous month. Crude oil output decreased mostly from Nigeria, Saudi Arabia, Iraq, Kuwait and Venezuela.

Table 5.7: OPEC crude oil production based on *secondary sources*, tb/d

	2014	**2015**	**2Q15**	**3Q15**	**4Q15**	**Oct 15**	**Nov 15**	**Dec 15**	***Dec/Nov***
Algeria	1,151	1,109	1,107	1,109	1,107	1,113	1,106	1,103	*-2.8*
Angola	1,660	1,744	1,717	1,760	1,750	1,731	1,768	1,751	*-17.2*
Ecuador	542	547	546	541	549	545	550	551	*1.4*
Indonesia	696	693	706	694	695	693	698	693	*-5.2*
Iran, I.R.	2,766	2,836	2,828	2,860	2,878	2,876	2,876	2,882	*5.7*
Iraq	3,265	3,927	3,868	4,159	4,217	4,006	4,340	4,309	*-31.1*
Kuwait	2,774	2,726	2,726	2,721	2,711	2,696	2,730	2,708	*-22.5*
Libya	473	404	450	381	402	426	387	394	*6.8*
Nigeria	1,911	1,853	1,814	1,852	1,861	1,928	1,866	1,789	*-77.2*
Qatar	716	669	667	659	672	668	675	674	*-0.9*
Saudi Arabia	9,683	10,113	10,253	10,259	10,126	10,147	10,145	10,088	*-57.7*
UAE	2,761	2,855	2,838	2,880	2,884	2,872	2,885	2,895	*10.2*
Venezuela	2,373	2,368	2,376	2,368	2,361	2,369	2,368	2,348	*-20.1*
Total OPEC	**30,771**	**31,846**	**31,897**	**32,243**	**32,213**	**32,070**	**32,393**	**32,182**	***-210.6***

Totals may not add up due to independent rounding.

Table 5.8: OPEC crude oil production based on *direct communication*, tb/d

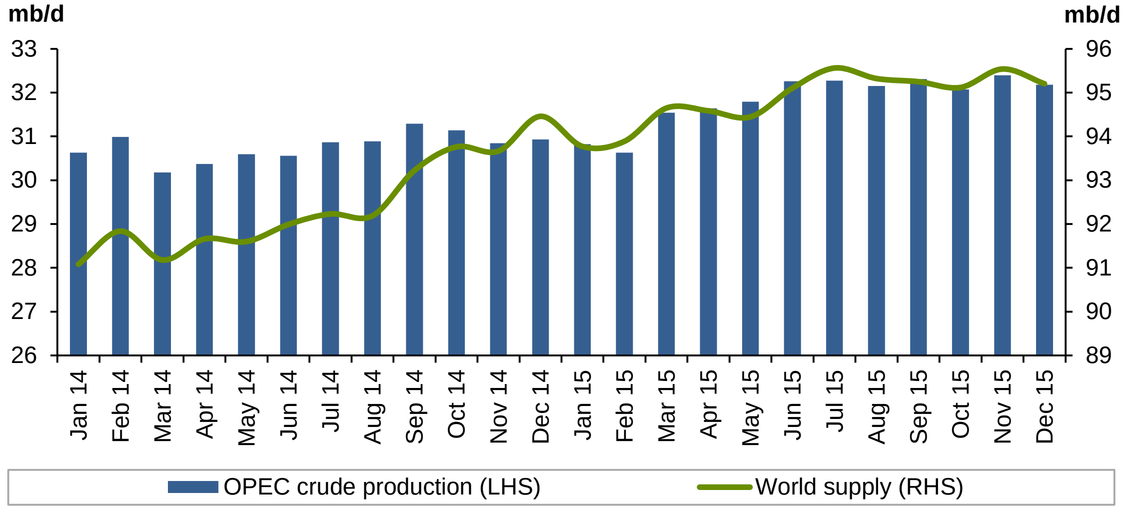
	2014	2015	2Q15	3Q15	4Q15	Oct 15	Nov 15	Dec 15	Dec/Nov
Algeria	1,193	1,156	1,147	1,159	1,179	1,172	1,181	1,185	*4.0*
Angola	1,654	1,767	1,784	1,777	1,742	1,762	1,722	1,740	*18.0*
Ecuador	557	542	544	538	536	538	537	533	*-3.7*
Indonesia	..	..	..	..	..	..	..	..	..
Iran, I.R.	3,117	3,152	3,103	3,170	3,313	3,280	3,310	3,350	*40.0*
Iraq	3,110	3,504	3,351	3,744	3,846	3,659	3,747	4,130	*383.0*
Kuwait	2,867	2,859	2,838	2,870	2,876	2,800	2,900	2,930	*30.0*
Libya	480	..	..	..	..	..	..	..	..
Nigeria	1,807	1,749	1,622	1,780	1,833	1,812	1,797	1,889	*92.4*
Qatar	709	656	647	640	651	639	683	632	*-51.1*
Saudi Arabia	9,713	10,193	10,401	10,285	10,202	10,276	10,186	10,144	*-42.0*
UAE	2,794	2,987	2,973	3,030	2,998	2,971	3,033	2,993	*-39.7*
Venezuela	2,683	2,655	2,683	2,631	2,586	2,601	2,587	2,570	*-17.3*
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

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

World oil supply

Preliminary data indicates that global oil supply decreased by 0.34 mb/d to average 95.20 mb/d in December 2015 compared with the previous month. Non-OPEC supply declined by 0.13 mb/d and OPEC crude oil production dropped by 0.21 mb/d. The share of OPEC crude oil in total global production decreased to 33.8% in December, compared with the previous month at 33.9%. (Estimates are based on preliminary data for non-OPEC supply as well as OPEC NGLs and non-conventional from direct communications, while estimates for OPEC crude production come from secondary sources.)

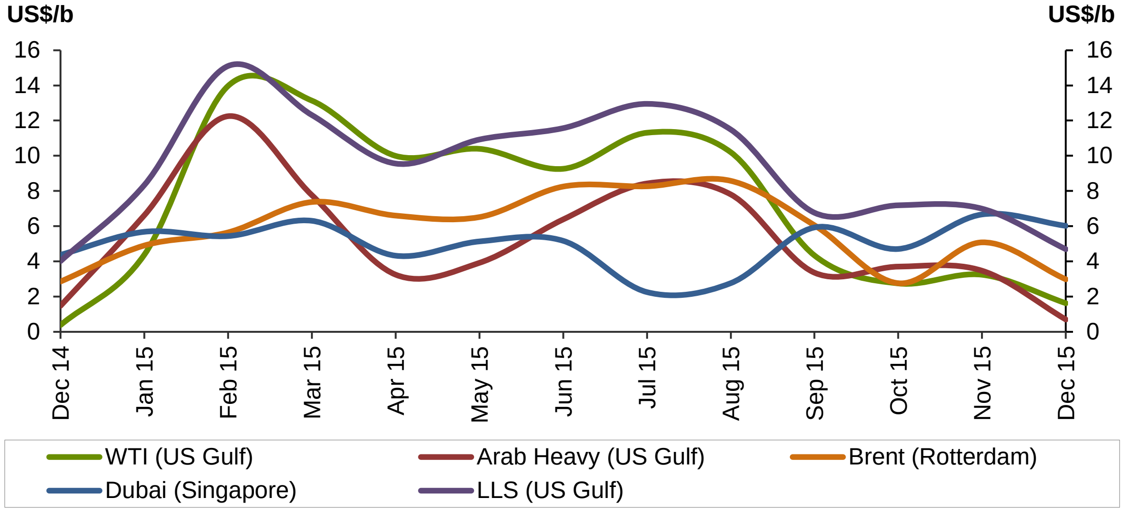
Graph 5.23: OPEC and world oil supply



Product Markets and Refinery Operations

Product markets in the Atlantic Basin weakened during December due to warmer winter weather, causing a sharp drop in middle distillate demand. This triggered a large decline in the crack spreads, hitting levels not seen since 2009, causing refinery margins to fall despite the unseasonably strong gasoline demand. Meanwhile, Asian margins remained relatively healthy on the back of stronger regional demand for gasoline for transportation and naphtha for the petrochemical sector.

Graph 6.1: Refinery margins, 2014-2015



US product markets weakened during December, despite unseasonably strong gasoline demand amid some temporary tightening sentiment which lent strong support to the top of the barrel. The gasoil crack spread suffered sharp losses, hitting the lowest level seen in more than five years, under pressure from increasing supplies amid thin demand due to warmer winter weather.

The US Gulf Coast (USGC) refinery margin for WTI crude lost $1.50 to average around $2/b in December. Meanwhile, the margins for Light Louisiana Sweet (LLS) crude averaged $5/b in December, losing around $2 versus the previous month's level.

Product markets in **Europe** exhibited mixed performance during December. Strong gasoline demand, along with higher export opportunities to the petrochemical sector, continued providing support to the top of the barrel. However the European refinery margins edged lower on the weakness seen in the middle and bottom of the barrel, due to the oversupply environment. The refinery margin for Brent crude in Northwest Europe (NWE) showed a sharp drop of more than $2 versus the previous month, to average $3/b in December.

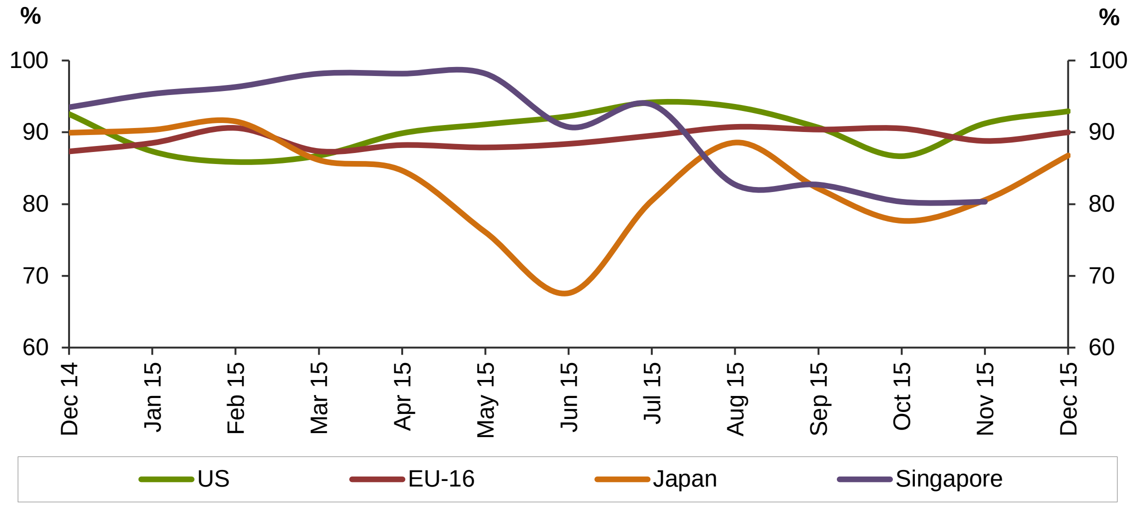
Asian product markets continued relatively healthy, despite losing some of the ground recovered during November. The top of the barrel continued supported during December by stronger regional gasoline and naphtha demand. Meanwhile, oversupply and weaker demand hit the middle and bottom of the barrel, causing the refinery margins to decline slightly in the region. Refinery margins in Singapore edged down around 60¢ to average $6/b in December.

Refinery operations

Refinery utilization rates continued to rise worldwide following the end of the heavy maintenance season in several regions during October and November. Around 7 mb/d of capacity was offline during these months.

Refinery utilization in the **US** averaged around 93% in December, corresponding to 16.6 mb/d, a level that is 300 tb/d higher than a month earlier. This level could have been higher, however, it was limited by some operational issues in several refineries, mainly in the US West Coast (USWC). Higher refinery runs have contributed to product inventories being above typical average levels, thus keeping the market under pressure.

Graph 6.2: Refinery utilisation rates, 2014-2015



European refinery runs averaged around 90% of refining capacity in December, corresponding to a throughput of 10.5 mb/d. This was up by 110 tb/d from the previous month and was more than 300 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, although the overhang of middle distillates has started to weigh on the margins.

Asian refinery utilization recovered its upward trend following the end of refinery turnarounds in several countries. Chinese refineries have reportedly been increasing runs to hit a new record level of around 10.7 mb/d during November. Refinery runs in Singapore for November averaged around 80%, similar to the level reached a month earlier. Meanwhile, Japanese throughputs increased to 87% of capacity in December, which is around 6.2 percentage points (pp) higher than a month ago.

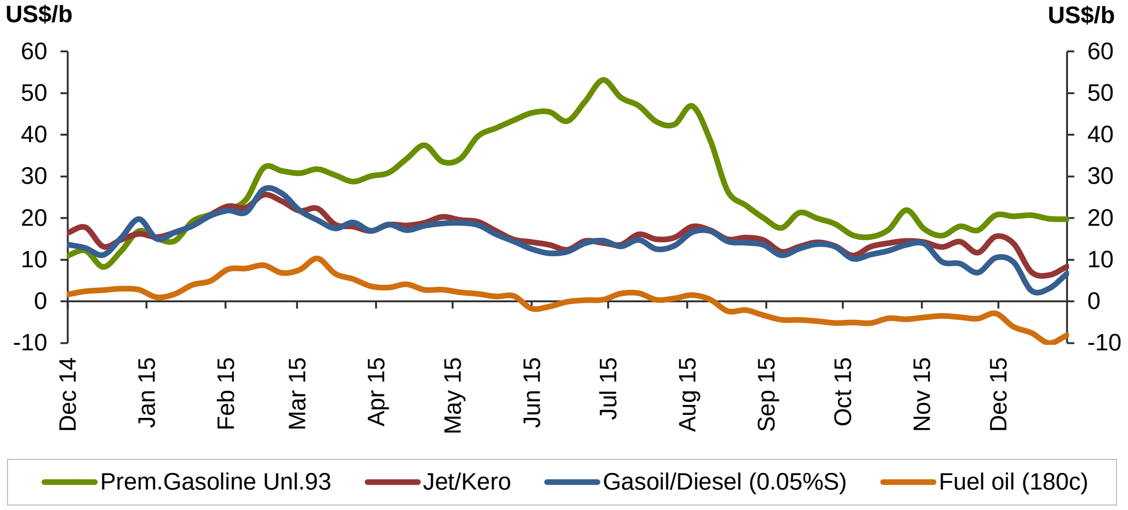
US market

US **gasoline** demand stood at around 9.1 mb/d in December, around 80 tb/d lower than the previous month and 130 tb/d higher than in the same month a year earlier. Demand remained stronger y-o-y, allowing the gasoline crack spread to continue strengthening, despite some pressure from the supply side, with refineries increasing runs and inventories continuing to rise. This pressure was outweighed, however, by tightening sentiment fuelled by operational issues at several refineries in the US, as well as Mexico.

Additional support came from the supply side with the delayed restart of catalytic cracking units on the USWC and in Brazil.

The gasoline crack spread gained more than $2 versus the previous month's level to average $20.4/b in December.

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



Middle distillate demand stood at around 3.5 mb/d in December, some 330 tb/d lower than in the previous month and about 680 tb/d lower than in the same month a year earlier.

The middle distillate market continued to be under substantial pressure from the supply side, with increasing refinery output amid slower demand, which caused inventories to show a sharp increase of around 15 mb during December, thus remaining well above the five-year average and exerting further pressure on the market. This caused the gasoil crack spread to suffer a sharp drop.

Warmer weather dented heating oil demand in December, while US middle distillate demand fell to multi-year low levels, averaging around 3.7 mb/d in 4Q15, which is more than 300 tb/d lower than in the same quarter a year ago.

Another bearish factor has been limited export opportunities to Latin America and Europe as the gasoil market in the Atlantic Basin remained oversupplied and inventories stayed high.

The US Gulf Coast (USGC) gasoil crack lost more than $5 versus the previous month to average around $6.4/b in December, the lowest level seen in more than five years.

At the **bottom of the barrel**, the fuel oil market lost some ground in December due to lower bunker demand along with ample availability, with inventories remaining high amid strong seller competition approaching the end of the year.

Availability is expected to remain ample, partially on the back of rising US production with refinery runs on the rise amid higher VLCC freight rates, which are impacting US export economics. In Latin America, supplies are expected to increase, with new online refinery capacity in Brazil and Colombia.

The fuel oil crack on the USGC lost more than $2/b in December.

European market

Product markets in Europe exhibited a mixed performance during December. Strong gasoline demand and greater export opportunities to the petrochemical sector provided support to the top of the barrel, while middle distillates suffered sharp losses due to the oversupply environment and the mild winter weighed on heating fuel demand.

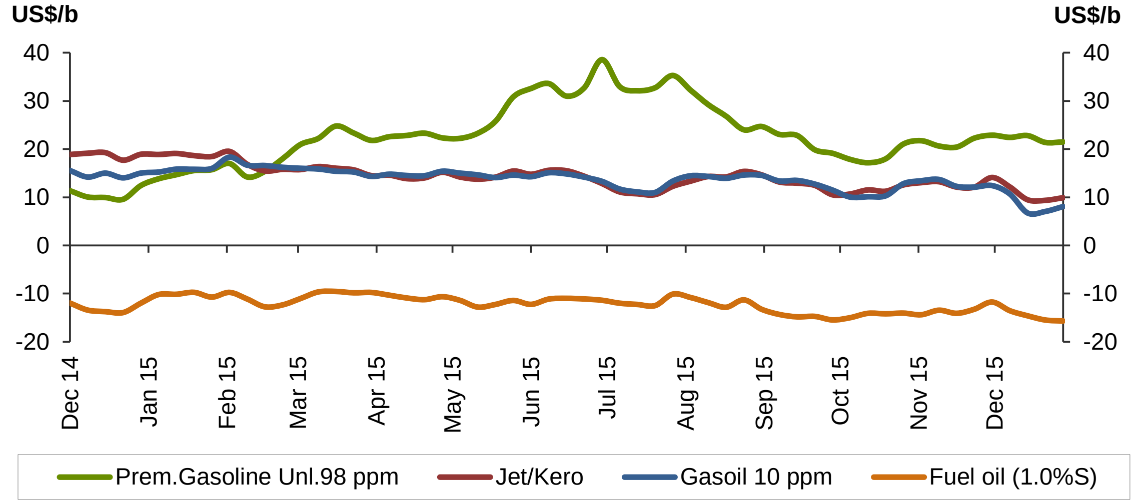
The **gasoline** market continued receiving support during December. NWE gasoline cracks strengthened as stronger domestic demand was reported along with higher export opportunities to the US East Coast (USEC).

Another supporting factor has been steady volumes exported to West Africa and expectations of a continuing rise with the announcement of Nigerian import quotas for the first quarter. Additional support came from steady import requirements in key North African countries due to maintenance at Morocco's Samir refinery, along with higher requirements from the Middle East.

The gasoline crack spread against Brent gained about $1.5 to average around $22.4/b in December.

The light distillate naphtha crack continued to strengthen during December, gaining more than $2, supported by increasing domestic demand for naphtha in the petrochemical sector. In addition, a stronger Asian market with elevated ethylene margins continued to draw more western volumes of naphtha.

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



The **gasoil** market weakened in Europe during December and crack spreads suffered a sharp loss in an oversupply environment, with output increasing due to ongoing high refinery runs, which are pushing large volumes of gasoil onto the regional market. In addition, milder temperatures so far this winter are keeping heating oil demand thin.

The European gasoil market remained oversupplied amid elevated production and high inventories. This has caused several ex-Baltic gasoil cargoes to bypass Amsterdam-Rotterdam-Antwerp (ARA) and head to Latin America, while interest in floating middle distillate storage in NWE is reportedly growing.

Another bearish factor has been the mild weather, which has weighed on demand for heating fuels within the region. Several countries, such as Switzerland and the UK, are reporting their warmest December in several decades.

The gasoil crack spread against Brent crude at Rotterdam lost more than $3 versus the previous month to average around $9/b in December.

At the **bottom of the barrel**, the fuel oil market continued to be pressured by bearish fundamentals, with ARA inventories on the high side amid increasing arrivals from Russia following the end of the refinery maintenance season. In addition, higher VLCC chartering costs limited arbitrage opportunities to Asia, thus weighing on the fuel oil market.

The NWE fuel oil crack dropped almost $2 versus the previous month's level to average around minus $16/b in December.

Asian market

The Asian market showed mixed performance during December; support was seen at the top of the barrel with stronger regional gasoline and naphtha demand, while oversupply and weaker demand hit the middle and bottom of the barrel, causing refinery margins to slightly fall in the region.

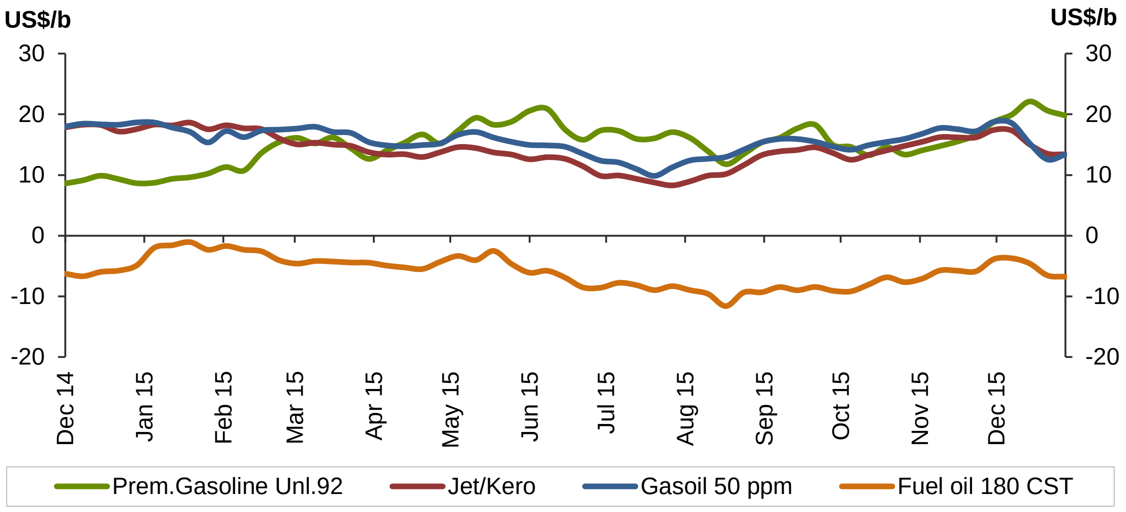
The gasoline market continued to be supported by peaking demand reported during December from several countries within the region, such as in India, Vietnam and Tanzania.

The Singapore **gasoline** crack strengthened during December in a relatively balanced market. A tightening environment was fuelled by delays in the restarting of some conversion units in Taiwan along with lower exports from Japan and China, where gasoline demand peaked at the end of the year.

The gasoline crack spread against Dubai crude in Singapore averaged around $18/b in December, gaining more than $3 versus the previous month's level.

The Singapore naphtha crack continued to improve over the month, gaining almost $4/b, supported by stronger demand from the petrochemical sector, with cracker units running at high levels while others returned from maintenance.

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



At the **middle of the barrel**, the gasoil market came under supply pressure, causing crack spreads to suffer a sharp drop during December. Regional supply had been on the rise following the peak of the maintenance season, while demand was thin. In addition, arbitrage opportunities to Europe were limited by an ARA supply glut amid lower winter heating demand.

Demand has also been slowing following the peak of the harvesting season in several countries amid higher-than-average winter temperatures. Meanwhile, increasing refinery runs in the region contributed to higher gasoil availability from India, China and Japan, keeping regional gas oil inventories on the high side.

The gasoil crack spread in Singapore against Dubai lost more than $3 versus the previous month to average around $13.4/b in December.

The Asian fuel oil market weakened slightly during December, as crack spreads were pressured by the regional overhang amid expectations of rising arbitrage volumes from the West.

Additional pressure came from slower demand from the power generation sector amid rising inventories in Japan and South Korea. The fuel oil crack spread in Singapore against Dubai fell slightly by 40¢ to average about minus $7/b in December.

Table 6.1: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				*Refinery utilization, %*			
	Oct 15	Nov 15	Dec 15	*Change* Dec/Nov	Oct 15	Nov 15	Dec 15	*Change* Dec/Nov
US	15.48	16.30	16.60	0.30	86.68	91.24	92.94	1.70
France	1.26	1.27	-	-	83.53	83.86	-	-
Germany	1.79	1.83	-	-	79.65	81.21	-	-
Italy	1.31	1.39	-	-	63.88	67.79	-	-
UK	1.18	1.14	-	-	89.28	86.77	-	-
Euro-16	10.60	10.42	10.54	0.11	90.53	88.80	90.00	1.20
Japan	3.07	3.18	3.43	0.25	77.68	80.57	86.77	6.21

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

Table 6.2: Refined product prices, US$/b

		Nov 15	Dec 15	*Change* Dec/Nov	2014	2015
US Gulf (Cargoes FOB):						
Naphtha*		52.78	47.04	-5.73	104.74	60.56
Premium gasoline	*(unleaded 93)*	61.03	56.58	-4.44	123.34	79.81
Regular gasoline	*(unleaded 87)*	52.76	50.59	-2.17	112.16	69.30
Jet/Kerosene		56.67	46.40	-10.27	117.29	66.36
Gasoil	*(0.2% S)*	54.30	42.94	-11.36	114.89	65.60
Fuel oil	*(1.0% S)*	33.51	25.59	-7.91	93.67	44.86
Fuel oil	*(3.0% S)*	31.59	23.03	-8.56	85.65	42.31
Rotterdam (Barges FoB):						
Naphtha		46.13	42.67	-3.46	95.77	51.53
Premium gasoline	*(unleaded 98)*	65.27	58.79	-6.48	118.70	77.01
Jet/Kerosene		56.78	47.54	-9.24	118.20	68.00
Gasoil/Diesel	*(10 ppm)*	57.06	45.68	-11.38	115.93	67.69
Fuel oil	*(1.0% S)*	30.20	22.40	-7.80	90.36	41.60
Fuel oil	*(3.5% S)*	30.68	22.59	-8.09	86.63	42.24
Mediterranean (Cargoes FOB):						
Naphtha		44.06	40.29	-3.77	93.35	48.71
Premium gasoline**		58.77	51.81	-6.97	110.61	69.36
Jet/Kerosene		55.29	45.98	-9.32	112.45	63.84
Gasoil/Diesel**		57.28	46.40	-10.88	113.26	67.50
Fuel oil	*(1.0% S)*	32.83	25.88	-6.95	91.29	43.36
Fuel oil	*(3.5% S)*	30.02	22.20	-7.81	86.51	42.05
Singapore (Cargoes FOB):						
Naphtha		48.95	45.69	-3.25	97.73	53.28
Premium gasoline	*(unleaded 95)*	59.10	55.63	-3.47	114.38	70.43
Regular gasoline	*(unleaded 92)*	56.42	52.83	-3.59	111.53	67.32
Jet/Kerosene		57.46	47.70	-9.76	115.49	66.29
Gasoil/Diesel	*(50 ppm)*	58.74	48.00	-10.74	116.84	67.80
Fuel oil	*(180 cst 2.0% S)*	36.11	28.20	-7.91	91.15	47.46
Fuel oil	*(380 cst 3.5% S)*	34.98	27.15	-7.83	89.44	45.78

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

Tanker Market

In December, dirty tanker spot freight rates were mixed, with VLCC rates showing gains following a decline encountered the previous month, while other vessels in the dirty class did not share this positive trend. Spot freight rates for both Suezmax and Aframax tankers were down from a month earlier. In the VLCC sector, freight rates recovered in December from a drop the month before, showing gains on all reported routes, reaching occasional highs not seen for some time. On average, VLCC freight rates rose by 30% as a result of steady tonnage demand, which supported VLCC loading to many destinations. The VLCC market saw strong activity during December, however this did not have a spillover effect on smaller vessels in the dirty sector. On the contrary, Suezmax and Aframax rates registered drops of 7% and 2%, respectively, as the amount of tonnage demand remained limited in several areas.

Clean tanker spot freight rates increased by 6%, on average, in December compared with the previous month, as a result of gains registered for tankers operating both East and West of Suez, up by 8% and 5%, respectively. The clean tanker market remained mostly balanced, despite higher monthly rates. In an annual comparison, average clean tanker freight rates were significantly lower than the year before.

Spot fixtures

Global fixtures dropped by 3.5% in December, compared with a month earlier. **OPEC spot fixtures** also declined by 0.56 mb/d, or 4.8%, to average 11.10 mb/d, according to preliminary data. Lower fixtures were registered in all regions, with the only exception outside the Middle East, where chartering activities increased by 0.42 mb/d. Fixtures from the Middle East to both east- and west-bound destinations dropped starting in November by 0.4 mb/d and 0.58 mb/d, respectively. Global fixtures were 4.6% lower than in December 2014.

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

	Oct 15	Nov 15	Dec 15	*Change* Dec 15/Nov 15
Spot Chartering				
All areas	15.99	16.52	15.94	-0.58
OPEC	11.57	11.66	11.10	-0.56
Middle East/East	5.53	5.39	4.98	-0.40
Middle East/West	2.73	2.98	2.40	-0.58
Outside Middle East	3.31	3.29	3.72	0.42
Sailings				
OPEC	23.99	24.20	23.67	-0.53
Middle East	17.34	17.59	17.07	-0.52
Arrivals				
North America	9.79	10.57	10.26	-0.31
Europe	12.68	12.11	11.84	-0.27
Far East	8.29	8.22	8.30	0.08
West Asia	4.81	4.81	4.87	0.05

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

Sailings and arrivals

Preliminary data shows that **OPEC sailings** were down by 0.53 mb/d or 2.2% in December to average 23.67 mb/d, though they remained at 0.32 mb/d, 1.4% higher than the same month a year ago. Port arrivals were mixed; in North America and Europe they dropped from the previous month, while in the Far East and West Asia they were higher by 0.08 mb/d and 0.05 mb/d, respectively, to average 8.30 mb/d and 4.87 mb/d.

Spot freight rates

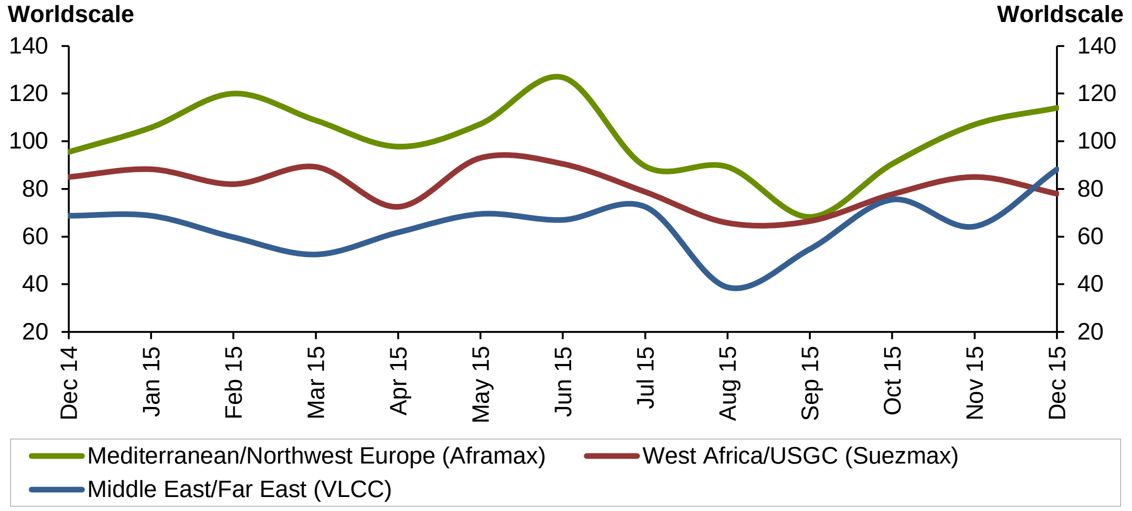
VLCC

In the **VLCC** sector, the market reversed the freight rate drops from the month before, registering gains of 30% m-o-m and 32% from the previous year. The VLCC market saw strong demand starting from the beginning of December, as cargo flows were steady, leading to a firmer market in several areas.

Spot freight rates for tankers operating on the Middle East-to-East route registered the highest increase among all reported routes. VLCC spot freight rates for tankers operating on the Middle East-to-East route edged up by WS24, or 37%, in December, compared with the month before. Tonnage requirements from Asian charterers affected VLCC requirements in both the Middle East and West African markets.

VLCC spot freight rates for tankers operating on the West Africa-to-East route increased in December from a month earlier to average WS80 points, up by WS12 points or 17% from the previous month. Tonnage requirements from the West were also kept at high levels, supported by winter requirements. VLCC spot freight rates on the Middle East-to-West long-haul route in December averaged WS53, higher by 40% from the previous month and remarkably up by 50% from the same month the previous year.

Graph 7.1: Monthly averages of crude oil spot freight rates



Suezmax

Unlike the development of VLCC freight rates in December**,** **Suezmax** spot rates dropped from the previous month, losing 7% on average. Despite a small pre-holiday rush, which occasionally supported rates, limited activity was the main reason behind a drop, notwithstanding delays seen in several regions and prolonged transit time in the Black Sea. Moreover, east-heading fuel oil cargo requirements were not enough to significantly support freight rates.

Freight rates for Suezmax operating on the West Africa-to-US route declined by 8%, mainly as a result of low tonnage requirements. Rates for tankers operating on the Northwest Europe (NWE)-to-US route decreased by 6%. The Suezmax market in the Caribbean remained mostly quiet, with limited fixtures.

Table 7.2: Spot tanker crude freight rates, Worldscale

	Size *1,000 DWT*	**Oct 15**	**Nov 15**	**Dec 15**	***Change*** **Dec 15/Nov 15**
Crude					
Middle East/East	230-280	76	64	88	24
Middle East/West	270-285	46	38	53	15
West Africa/East	260	74	68	80	12
West Africa/US Gulf Coast	130-135	78	85	78	-7
Northwest Europe/US Gulf Coast	130-135	59	66	62	-4
Indonesia/East	80-85	95	104	123	19
Caribbean/US East Coast	80-85	114	171	125	-46
Mediterranean/Mediterranean	80-85	96	112	120	8
Mediterranean/Northwest Europe	80-85	91	107	114	7

Sources: Galbraith's tanker market report and Platts.

Aframax

Similar to what was seen with Suezmax, **Aframax** spot freight rates showed a decline in December on average from one month before, although the average drop remained below what was seen in the Suezmax class, as the tonnage list was mostly balanced. Aframax freight rates declined by WS3 points, on average, as a result of a mixed performance on different routes.

Delays in the North Sea and Baltic regions did not affect rates significantly, while delays at Black Sea and Turkish straits closure supported freight rates, in combination with steady activity in the Mediterranean. Therefore, freight rates in both directions – Mediterranean-to-Mediterranean and Mediterranean-to-NWE – increased by 7% each, as ships with confirmed itineraries limited availability.

Slow activity in the Caribbean market led to increased tonnage buildup, which affected the balance of vessel supply and demand in the area. High vessel availability occurred partially on the back of prompt discharge following ullage delays. As a result, the Caribbean-to-US rate dropped by 27% from the previous month to average WS125 points, showing a decline of 15% from the same month a year before.

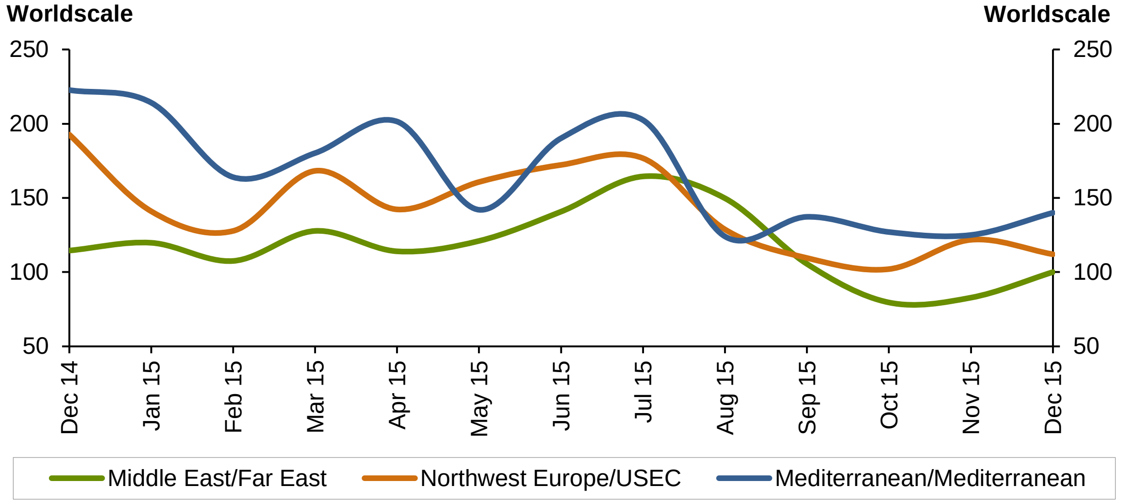
Aframax freight rates in the East were higher, showing gains on the Indonesia-to-the-East route by 18% to average WS123 points.

Clean spot freight rates

In the clean sector, **spot freight rates** for tankers operating on several routes registered gains in December in different vessel classes. The East-of-Suez Middle East market was busy with high demand for long-range and mid-range classes. In the West of Suez, tightening vessel availability at the beginning of the month supported freight rates, mainly in the Mediterranean. The clean tanker market lost its firming trend afterwards, as cargo requirements lessened and chartering orders dropped, partially on the back of a warmer winter in the West.

On average, rates for tankers operating on the Middle East-to-East route rose by 21% compared with the previous month and rates for the Singapore-to-East route remained flat from one month earlier to average WS109 points in December.

Graph 7.2: Monthly average of clean spot freight rates



In the West of Suez, rates seen on the NWE-to-US route registered the highest drop among reported routes, down by 8% to average WS112 points. The Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes saw gains of 12% and 11%, respectively.

Table 7.3: Spot tanker product freight rates, Worldscale

	Size *1,000 DWT*	Oct 15	Nov 15	Dec 15	*Change* Dec 15/Nov 15
Products					
Middle East/East	30-35	80	83	100	17
Singapore/East	30-35	121	110	109	-1
Northwest Europe/US East Coast	33-37	102	122	112	-10
Mediterranean/Mediterranean	30-35	127	125	140	15
Mediterranean/Northwest Europe	30-35	138	135	150	15

Sources: Galbraith's tanker market report and Platts.

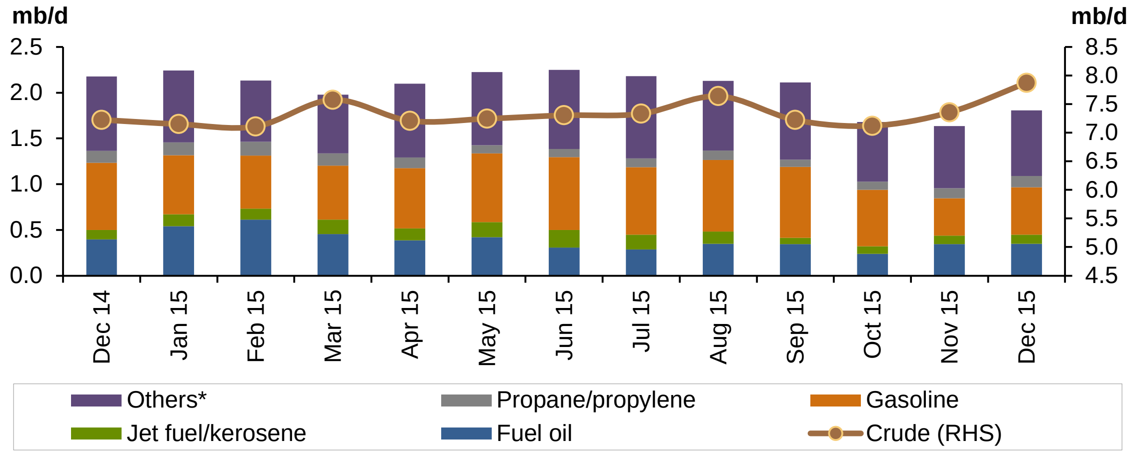
Oil Trade

In December, preliminary data shows that US crude oil imports went up from the month before by 516 tb/d, to average 7.9 mb/d, and increased from the year before by 647 tb/d. US product monthly imports increased from last month's level to average 1.8 mb/d, while on an annual basis, they decreased by 369 tb/d or 17% from a year earlier. In November, Japan increased its crude oil imports by 139 tb/d, or 4%, m-o-m to average 3.3 mb/d, and on an annual basis, they increased by 183 tb/d or 6%. Product imports increased marginally in November m-o-m by 8 tb/d, or 1%, while y-o-y, they showed a drop of 122 tb/d, or 17%. India's crude oil imports increased by 376 tb/d, or 10%, in November from the previous month and by 391 tb/d, or 11%, y-o-y, to average 4 mb/d as the refinery maintenance season approached an end. Product imports dropped in November by 25 tb/d, or 4%, to average 629 tb/d, yet y-o-y, they increased by 162 tb/d, or 34%. In China, crude oil imports increased in November, following the drop seen the month before, rising by 448 tb/d, to average 6.7 mb/d. In contrast, China's product imports dropped from the previous month, to average 978 tb/d, down by 107 tb/d, or 10%, m-o-m, yet up slightly by 16 tb/d, or 2%, y-o-y.

US

In December, preliminary data shows that **US crude oil imports** increased to average 7.9 mb/d, a rise of 516 tb/d from the previous month and up by 647 tb/d from the same month a year before. Y-t-d, preliminary data shows no difference in US crude imports in December.

Graph 8.1: US imports of crude and petroleum products

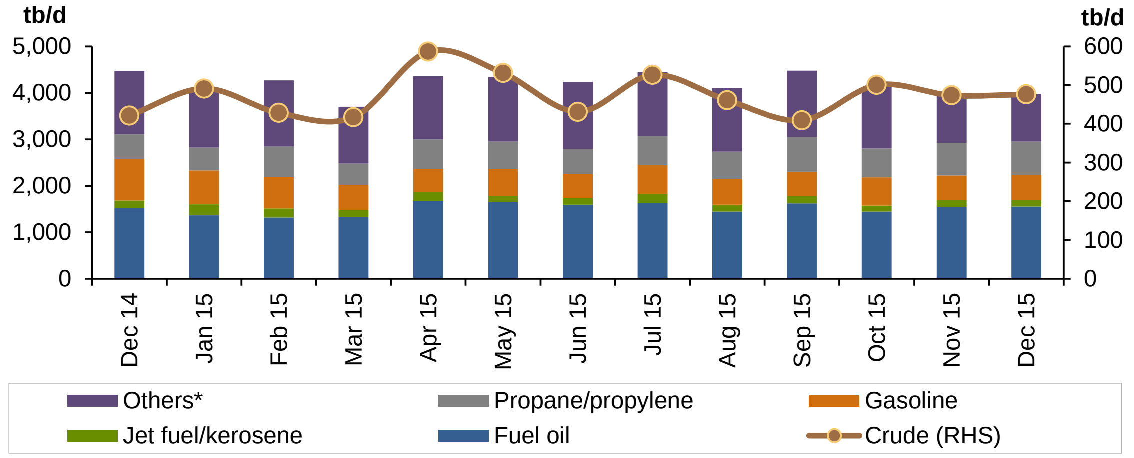


**Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.*

US monthly product imports increased in December to average 1.8 mb/d from last month's level, while on an annual basis, they were 369 tb/d, or 17%, lower than in 2014. Y-t-d, product imports went up by 8%. US product exports were 48 tb/d higher than a month ago, to average 4 mb/d, while y-o-y, they were lower than a year ago by 491 tb/d, or 11%. As a result, **US total net imports increased by 640 tb/d in December to average 5.2 mb/d**.

In October, the **top first and second suppliers** to the US maintained the same order as seen last month. Canada remained the premier crude supplier to the US, accounting for 38% of total US crude imports, yet Canada showed a drop in its exports to the US by 329 tb/d or 10%. Saudi Arabia was the second largest supplier to the US in October, increasing its exports to the US by 122 tb/d. Venezuela came in as the third top supplier, accounting for 11% of total US crude imports despite its exports being 78 tb/d lower than the month 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.*

Crude imports from OPEC Member Countries increased in October from last month, rising by 121 tb/d or 5% and accounting for 38% of total US crude imports. On the other hand, US product imports from OPEC Member Countries declined by 57 tb/d or 22% from last month. As for the product supplier share, Canada and Russia maintained their positions as first and second suppliers to the US, accounting for 27% and 12%, respectively.

In October 2015, **US crude imports from North America** averaged 3 mb/d, maintaining its status as the top regional supplier, followed by Latin America, which exported 2 mb/d in October to the US. Imports from the Middle East increased by 253 tb/d as it came in as third region with an average of 1.5 mb/d, while imports from Africa were down from last month by 37tb/d.

In **PADD 1**, US crude imports were lower, mainly from Africa. Imports by PADD 2 declined from both its sources, North America and the Middle East, which were down by 267 tb/d and 28 tb/d, respectively. PADD 3 sourced their imports mainly from Latin America and the Middle East. In October, imports from the Middle East were 27% higher than a month before, while imports from Latin America and North America went down by 137 tb/d and 107 tb/d, respectively. PADD 4, as seen previously, imported only from North America and averaged 306 tb/d in October, up by 26 tb/d from a month before. In PADD 5, the West Coast imported 439 tb/d from the Middle East, equal to its imports of the previous month, while its imports from Africa dropped by 73 tb/d.

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

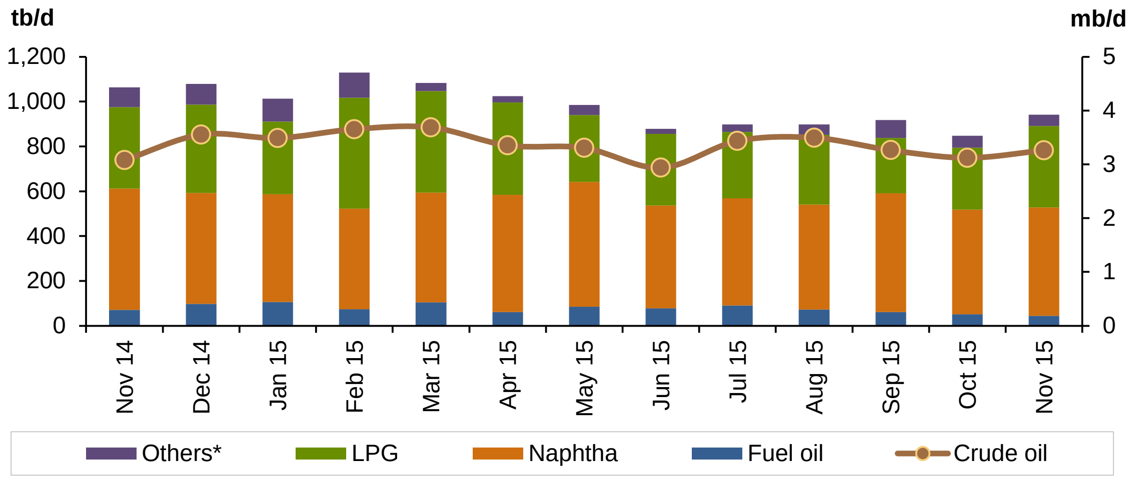
	Oct 15	Nov 15	Dec 15	*Change* Dec 15/Nov 15
Crude oil	6,621	6,882	7,396	514
Total products	-2,449	-2,298	-2,172	126
Total crude and products	**4,172**	**4,584**	**5,224**	**640**

Japan

In November, Japan increased its **crude oil imports** m-o-m by 140 tb/d or 4% to average 3.3 mb/d, while on an annual comparison, they increased by 183 tb/d or 6% as refinery runs went up. As for the **crude supplier share**, Saudi Arabia maintained its position as top crude supplier to Japan as seen before, accounting for 46% of total Japanese crude imports, an increase of 12% from the month before. Kuwait came in as the second top supplier, increasing its crude exports to Japan by 57% from the previous month to average 301 tb/d in November. On the other hand, Russia saw a decline in their monthly exported volume to Japan by 22% from the previous month.

Product imports increased marginally in November m-o-m, rising by 8 tb/d or 1%, while on a yearly comparison, they decreased by 122 tb/d or 17% as product sales dropped by 1% from a year earlier.

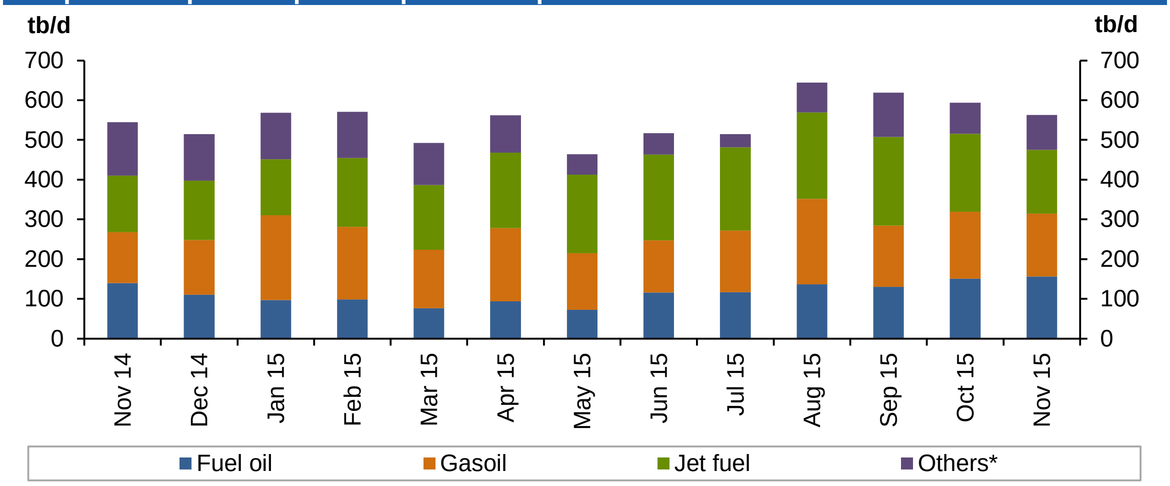
Graph 8.3: Japan's imports of crude and petroleum products



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

Product exports declined in November by 31 tb/d or 5% m-o-m and by 18 tb/d or 3% y-o-y.

Graph 8.4: Japan's exports of petroleum products



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

As a result, **Japan's net trade imports increased by 178 tb/d or 6% to average 3.3 mb/d**.

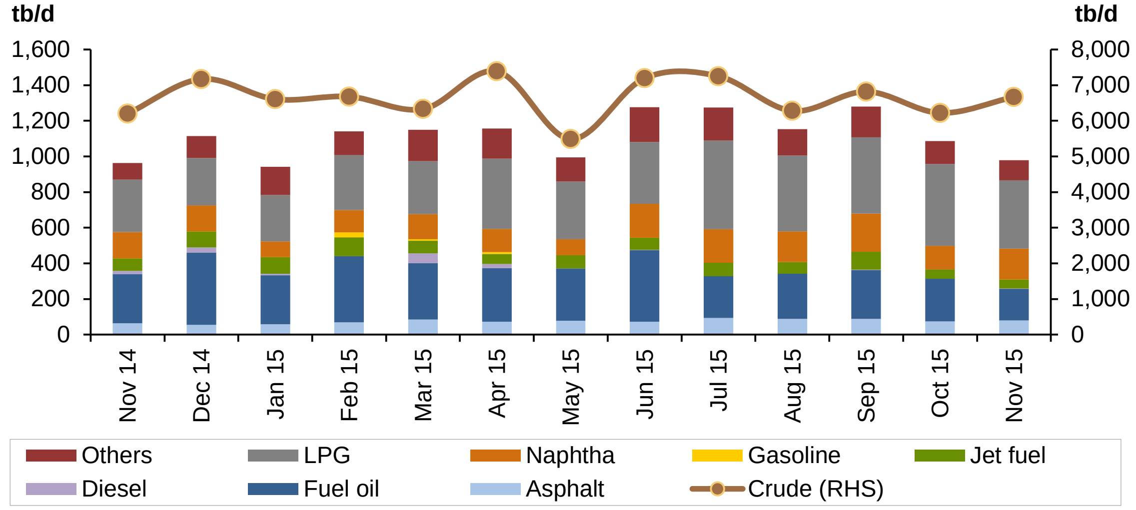
Table 8.2: Japan's crude and product net imports, tb/d

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15
Crude oil	3,263	3,122	3,260	139
Total products	52	-23	16	39
Total crude and products	**3,315**	**3,098**	**3,276**	**178**

China

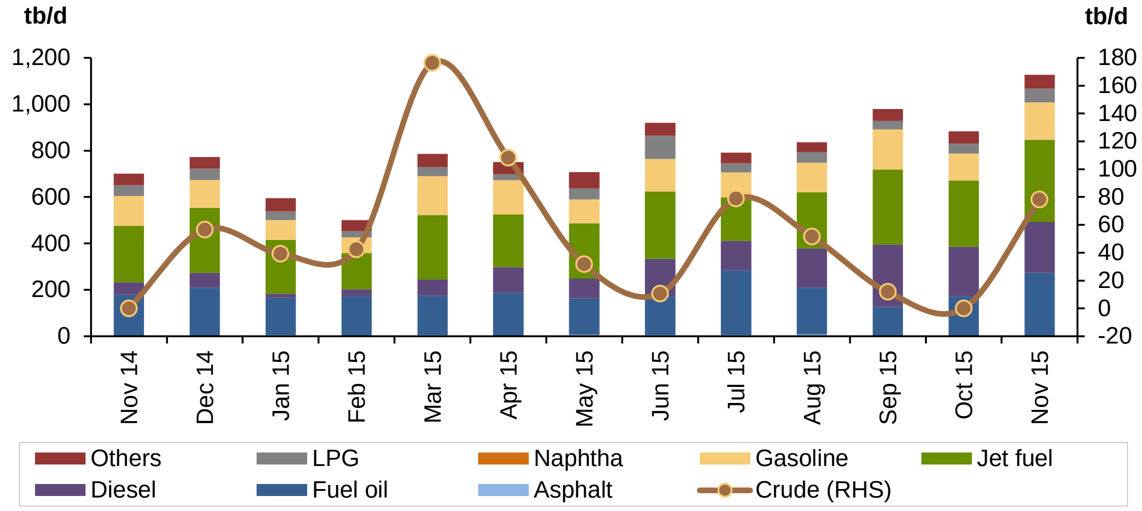
China's **crude oil imports** rose in November, following the drop seen the month before, up by 448 tb/d to average 6.7 mb/d, as refinery runs increased. On an annual comparison, crude imports increased by 470 tb/d or 8% from last year's level. Y-t-d, the numbers dictate an increase of 543 tb/d or 9%. China's crude imports from Russia were up by 147 tb/d in November, while imports from Saudi Arabia, Oman and Angola all dropped from the month before by 52 tb/d, 39 tb/d and 249 tb/d, respectively.

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



On the contrary, China's **product imports** dropped from the previous month to average 978 tb/d, down by 107 tb/d or 10% m-o-m, while y-o-y, they went up slightly, rising by 16 tb/d or 2%.

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



In November, China **exported** 78 tb/d of **crude**, while **product exports** saw a monthly gain of 244 tb/d or 28% and a greater increase y-o-y, rising by 427 tb/d or 61% from the previous year to reach 1.1 mb/d in November. Accordingly, **China's net oil trade increased by a slight 18 tb/d m-o-m to stand at 6.4 mb/d**, and dropped by a similar amount from a year ago.

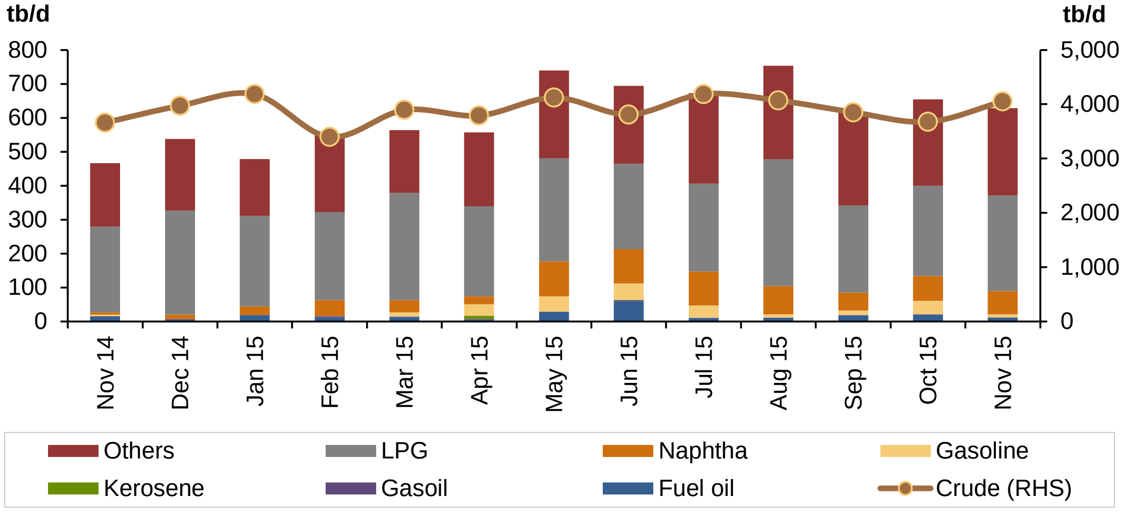
Table 8.3: China's crude and product net imports, tb/d

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15
Crude oil	6,808	6,222	6,592	370
Total products	301	203	-149	-351
Total crude and products	**7,109**	**6,425**	**6,443**	**18**

India

India's crude oil imports increased in November from the previous month by 376 tb/d or 10% and by 391 tb/d or 11% y-o-y to average 4 mb/d, mainly on the back of increased refinery runs as the peak refinery maintenance ended.

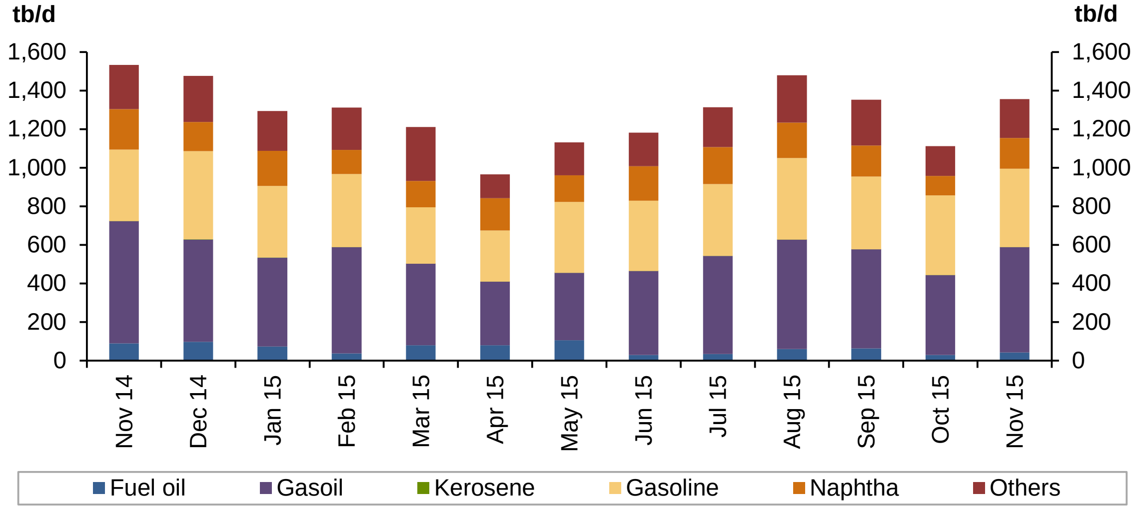
Graph 8.7: India's imports of crude and petroleum products



India's **product imports** dropped in November by 25 tb/d or 4% to average 629 tb/d, while increasing y-o-y by 162 tb/d or 34%. The monthly drop came as a result of higher imported volumes of naphtha and LPG, as both product imports increased in November by 61 tb/d and 29 tb/d, respectively.

India's **product exports** increased from the previous month, rising in November by 244 tb/d to average 1.4 mb/d, while decreasing from a year earlier by 176 tb/d or 12%. The monthly gains in product exports came on the back of higher exports of diesel and naphtha, which went up by 131 tb/d and 58 tb/d, respectively.

Graph 8.8: India's exports of petroleum products



As a result, **India's net trade imports increased in November by 106 tb/d or 3% m-o-m** and by 729 tb/d or 28% y-o-y, **to average 3.3 mb/d**.

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

	Sep 15	Oct 15	Nov 15	Change Nov 15/Oct 15
Crude oil	3,852	3,676	4,052	376
Total products	-735	-458	-728	-269
Total crude and products	**3,117**	**3,218**	**3,324**	**106**

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

FSU

In November, **total crude oil exports from the FSU declined slightly, dropping by 22 tb/d, to average 6.5 mb/d**.

Total shipments from the Black Sea decreased as those from Novorossiysk dropped by 92 tb/d or 15% to average 545 tb/d, while total Baltic Sea exports increased by 67 tb/d in November as shipments from the Primorsk port terminal increased by 118 tb/d. This increase was counterbalanced by a drop of 51 tb/d at the UST Luga port terminal. The Druzhba pipeline's total shipments declined by 112 tb/d to average 1 mb/d, while the Kozmino shipments also dropped by 32 tb/d or 5% to average 617 tb/d.

Exports through the **Lukoil system** went down from the previous month in the Barents Sea, where the Varandey offshore platform reported a drop of 13 tb/d. Exports from the Baltic Sea's, Kalinigrad port terminal declined slightly by 7 tb/d.

Black Sea total exports increased by 260 tb/d from the previous month, mainly as the Novorossiyk port terminal (CPC) increased its exports by 234 tb/d. In the **Mediterranean** Sea, BTC supplies showed a drop of 31 tb/d or 5% from the previous month to average 574 tb/d.

Looking at Russian product exports, **FSU's total product exports** dropped by 152 tb/d or 5% from last month to average 2.9 mb/d. The decline in product exports came as a result of lower exports in all product categories, with the only exception being gasoil, which decreased by 28 tb/d from the previous month.

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

		2013	2Q 15	3Q 15	Oct 15	Nov 15
Transneft system		**2013**	**2Q 15**	**3Q 15**	**Oct 15**	**Nov 15**
Europe	**Black sea total**	**739**	**561**	**594**	**637**	**545**
	Novorossiysk port terminal - total	739	561	594	637	545
	of which: Russian oil	535	421	433	540	357
	Others	204	139	160	97	187
	Baltic sea total	**1,546**	**1,427**	**1,358**	**1,503**	**1,569**
	Primorsk port terminal - total	1,083	917	836	895	1,013
	of which: Russian oil	1,007	917	836	895	1,013
	Others	76	0	0	0	0
	Ust-Luga port terminal - total	463	510	522	608	557
	of which: Russian oil	342	367	356	398	339
	Others	121	143	166	210	218
	Druzhba pipeline total	**1,032**	**1,078**	**1,058**	**1,147**	**1,035**
	of which: Russian oil	1,000	1,045	1,026	1,115	1,003
	Others	32	32	32	32	32
Asia	**Pacific ocean total**	**434**	**637**	**592**	**650**	**617**
	Kozmino port terminal - total	434	637	592	650	617
	China (via ESPO pipeline) total	**321**	**315**	**338**	**334**	**345**
	China Amur	321	315	338	334	345
Total Russian crude exports		**4,071**	**4,018**	**3,939**	**4,271**	**4,112**
Lukoil system		**2013**	**2Q 15**	**3Q 15**	**Oct 15**	**Nov 15**
Europe and North America	**Barents sea total**	**111**	**138**	**137**	**135**	**122**
	Varandey offshore platform	111	138	137	135	122
Europe	**Baltic sea total**	**19**	**14**	**15**	**19**	**12**
	Kalinigrad port terminal	19	14	15	19	12
Other routes		**2013**	**2Q 15**	**3Q 15**	**Oct 15**	**Nov 15**
Asia	**Russian Far East total**	**259**	**324**	**301**	**367**	**309**
	Aniva bay port terminal	114	111	105	112	97
	De Kastri port terminal	145	213	196	255	211
	Central Asia total	**239**	**232**	**217**	**225**	**208**
	Kenkiyak-Alashankou	239	232	217	225	208
Europe	**Black sea total**	**853**	**993**	**736**	**902**	**1,162**
	Novorossiysk port terminal (CPC)	704	903	649	812	1,046
	Supsa port terminal	76	69	79	69	111
	Batumi port terminal	53	20	8	22	5
	Kulevi port terminal	20	0	0	0	0
	Mediterranean sea total	**641**	**606**	**471**	**605**	**574**
	BTC	641	606	471	605	574
Russian rail		**2013**	**2Q 15**	**3Q 15**	**Oct 15**	**Nov 15**
	Russian rail	**198**	**16**	**13**	**10**	**12**
	of which: Russian oil	9	*7*	*8*	*7*	*7*
	Others	189	8	4	3	4
Total FSU crude exports		**6,392**	**6,342**	**5,829**	**6,533**	**6,511**
Products		**2013**	**2Q 15**	**3Q 15**	**Oct 15**	**Nov 15**
	Gasoline	122	200	115	150	178
	Naphtha	390	476	457	564	418
	Jet	11	37	29	25	17
	Gasoil	857	1,061	888	897	834
	Fuel oil	1,415	1,475	1,253	1,222	1,206
	VGO	263	250	270	211	264
Total FSU product exports		**3,058**	**3,499**	**3,012**	**3,069**	**2,917**
Total FSU oil exports		**9,450**	**9,841**	**8,842**	**9,602**	**9,428**

Sources: Argus Nefte Transport and Argus Global Markets.

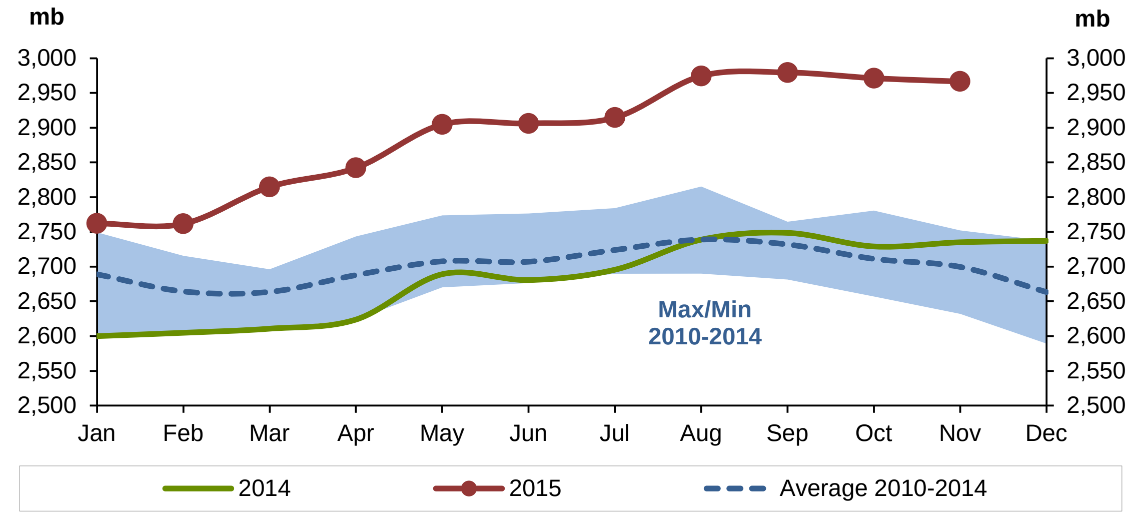
Stock Movements

OECD commercial oil stocks fell in November to stand at 2,966 mb, around 267 mb higher than the latest five-year average. Crude oil and products indicated a surplus of around 200 mb and 67 mb above the seasonal norm, respectively. In terms of days of forward cover, OECD commercial stocks stood at 63.7 days, 5.8 days higher than the latest five-year average. Preliminary data for December shows that total commercial oil stocks in the US rose by 3.4 mb to stand at 1,312.6 mb. At this level, they were 220 mb higher than the latest five-year average. Within the components, crude fell by 7.1 mb, while products rose by 10.5 mb. The latest information for China shows a slight increase in total commercial oil inventories in November, to stand at 378.9 mb. Within the components, crude commercial oil fell by 1.8 mb, while product inventories rose by 2.5 mb.

OECD

The latest information for November shows that **total OECD commercial oil stocks** fell by 4.8 mb, following a drop of 8.2 mb in October. At 2,966 mb, OECD commercial oil stocks are around 231 mb higher than the same time one year ago and 267 mb above the latest five-year average. Within the components, crude rose by 0.7 mb, while products fell by 5.5 mb.

Graph 9.1: OECD's commercial oil stocks



OECD commercial crude stocks rose slightly by 0.7 mb, ending November at 1,507 mb, which is 168 mb above the same time one year earlier and nearly 200 mb higher than the latest five-year average. OECD Americas experienced a build, while OECD Europe and OECD Asia saw a drop.

In contrast, **OECD product inventories** fell in November by 5.5 mb, following a massive drop of 29.8 mb a month earlier. At 1,460 mb, product inventories stood 63 mb higher than a year ago at the same time, and were 67 mb above the seasonal norm. OECD Americas experienced a drop, while OECD Europe and OECD Asia Pacific witnessed builds.

In terms of **days of forward cover**, OECD commercial stocks fell by 0.6 days in November from the previous month to stand at 63.7 days, or 5.3 days above the previous year in the same period and 5.8 days higher than the latest five-year average.

Within the regions, OECD Americas had 7.1 more days of forward cover than the historical average, standing at 64.1 days in November. OECD Asia Pacific stood 3.4 days above the seasonal average to finish the month at 49.1 days. At the same time, OECD Europe indicated a surplus of 3.4 days above the seasonal norm, averaging 72.8 days in November.

Commercial stocks in **OECD Americas** fell by 4.9 mb in November, ending the month at 1,156 mb. At this level, they represented a surplus of 134 mb above a year ago and nearly 193 mb higher than the seasonal norm. Within components, crude stocks rose by 2.7 mb, while product inventories fell by 7.6 mb.

At the end of November, **crude commercial oil stocks** in **OECD Americas** rose to stand at 830 mb, which was 111 mb above the same time one year ago, and 151 mb above the latest five-year average. An increase in crude oil imports into the US contributed to the build in crude oil commercial inventories, while higher refinery runs limited a further increase.

In contrast, **product stocks** in **OECD Americas** declined by 7.6 mb, ending November at 1,460 mb. Despite this drop, they indicated a surplus of 24 mb above the same time one year ago, and were 41.2 mb higher than the seasonal norm. The drop in product stocks came mainly from higher US demand.

OECD Europe's commercial stocks rose by 0.8 mb in November to stand at 970 mb. At this level, they were 85.3 mb higher than the same time a year ago and are 53.5 mb above the latest five-year average. Crude stocks fell by 1.1 mb, while product inventories rose by 1.9 mb.

OECD Europe's commercial crude stocks fell in October to stand at 412 mb, though still 34.4 mb above the same period a year earlier and 20.4 mb higher than the latest five-year average. The fall in crude oil stocks was driven by higher refinery runs. In contrast, **OECD Europe's commercial product stocks** rose by 1.9 mb in November, ending the month at 558 mb, 50.9 mb higher than a year ago at the same time and 33.1 mb higher than the seasonal norm. This build was mainly driven by higher refinery output, combined with lower product demand in the region, due to mild weather.

OECD Asia Pacific commercial oil stocks fell by 0.7 mb in November to end the month at 436 mb, which was 11.9 mb higher than a year ago and 20.7 mb above the five-year average. Within components, crude stocks fell by 0.9 mb, while products rose slightly by 0.2 mb. Crude inventories ended the month of November at 265 mb, which was 23.3 mb higher than a year ago and 27.8 mb above the seasonal norm. OECD Asia Pacific's total product inventories ended November at 171 mb, indicating a deficit of 11.4 mb with a year ago and 7.1 mb lower than the seasonal norm.

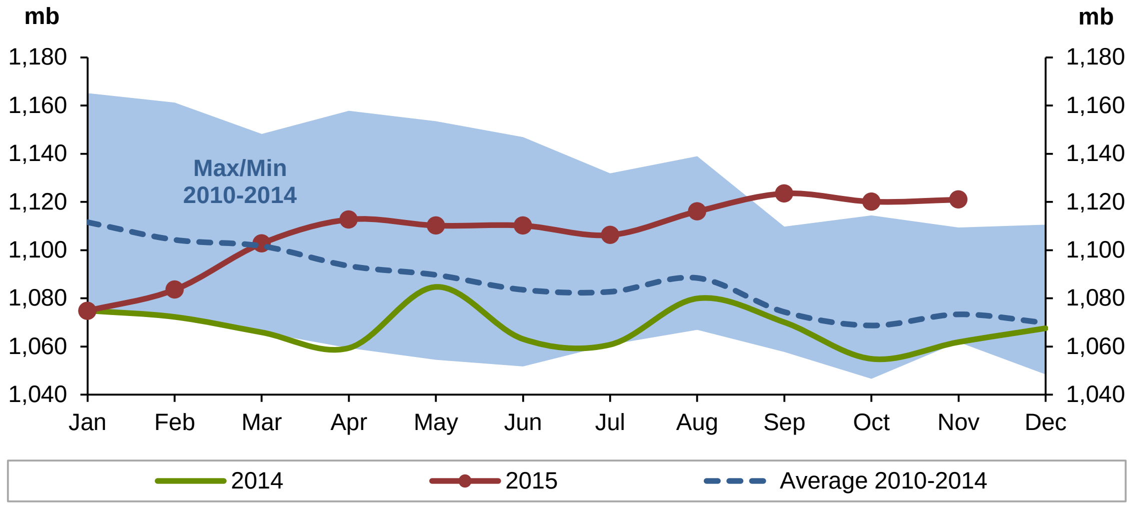
Table 9.1: OECD's commercial stocks, mb

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15	Nov 14
Crude oil	1,485	1,506	1,507	0.7	1,338
Products	1,495	1,465	1,460	-5.5	1,397
Total	**2,979**	**2,971**	**2,966**	**-4.8**	**2,735**
Days of forward cover	**64.4**	**64.3**	**63.7**	**-0.6**	**58.4**

EU plus Norway

Preliminary data for November shows that **total European stocks** rose slightly by 0.8 mb to stand at 1121.0 mb. At this level, European stocks are 59.1 mb or 5.6% above the same time a year ago and 47.6 mb or 4.4% higher than the latest five-year average. Crude fell by 1.1 mb, while product stocks rose by 1.9 mb.

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



European crude inventories fell in November to stand at 484.9 mb, which was 15.6 mb, or 3.3%, above the same period a year ago and 20.8 mb, or 4.5%, higher than the seasonal norm. The fall in crude oil stocks was driven by high supply, while the fall in refinery runs, which declined by 180,000 b/d over the previous month, limited further stock draws.

In contrast, **European product stocks** rose by 1.9 mb in November to stand at 636.0 mb, which was 43.5 mb, or 7.3%, above the same time a year ago; they are 26.8 mb, or 4.4%, above the seasonal norm. All products witnessed builds, with the exception of residual fuel oil.

Gasoline stocks rose by 0.7 mb in November to stand at 107.0 mb, which was 0.7 mb below a year earlier, and 1.9 mb, or 1.7%, less than the seasonal norm. **Distillate stocks** also rose by 1.2 mb, to end November at 428.9 mb, reversing the stock draw of the previous month. With this build, distillate stocks were 41.4 mb, or 10.7%, higher than the previous year at the same time and 45.0 mb, or 11.7%, above the latest five-year average. This build could be attributed to lower middle distillate demand in the region.

In contrast, **residual fuel oil stocks** fell marginally by 0.4 mb in November to stand at 76.8 mb. At this level, residual fuel oil stocks were 4.7 mb, or 6.6%, above the same month a year ago, but remained 10.8 mb, or 12.3.%, lower than the latest five-year average. **Naphtha stocks** rose by 0.4 mb in November, ending the month at 23.3 mb. At this level, they were 1.9 mb, or 7.4%, less than the same time a year ago and 5.5 mb, or 19.1%, lower than the seasonal average.

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

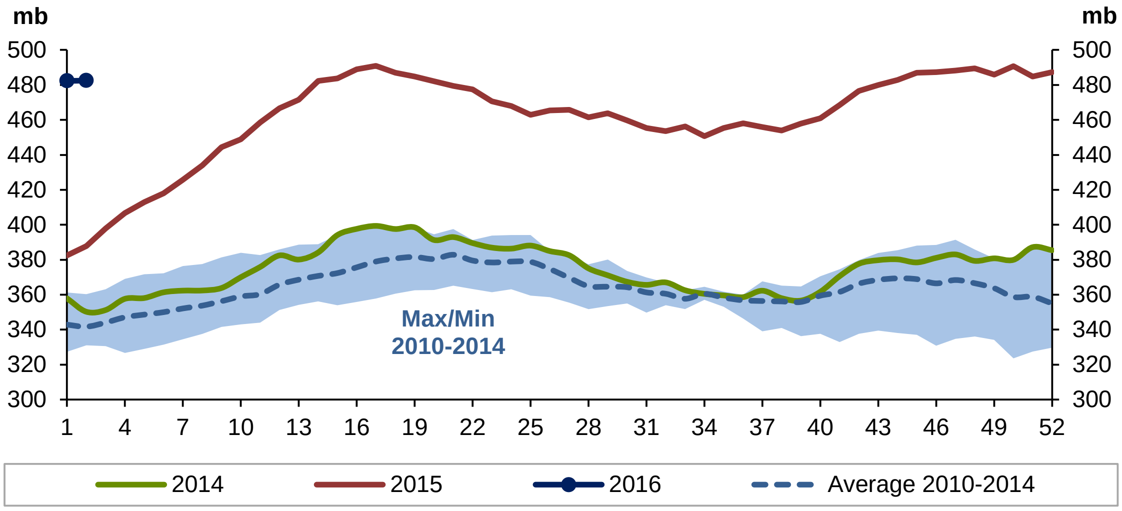
	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15	Nov 14
Crude oil	**485.0**	**486.0**	**484.9**	**-1.1**	**469.4**
Gasoline	106.8	106.3	107.0	0.7	107.7
Naphtha	22.9	22.9	23.3	0.4	25.2
Middle distillates	431.5	427.7	428.9	1.2	387.5
Fuel oils	77.3	77.2	76.8	-0.4	72.1
Total products	638.5	634.1	636.0	1.9	592.5
Total	**1,123.5**	**1,120.1**	**1,121.0**	**0.8**	**1,061.9**

Sources: Argus and Euroilstock.

US

Preliminary data for December shows that **total commercial oil stocks** in the US rose by 3.4 mb, reversing the fall of the previous month to stand at 1,312.6 mb. At this level, they were 147.1 mb, or 12.6%, above the same period a year ago and 219.7 mb, or 20.1%, higher than the latest five-year average. Within the components, crude fell by 7.1 mb, while products rose by 10.5 mb.

Graph 9.3: US weekly commercial crude oil stocks

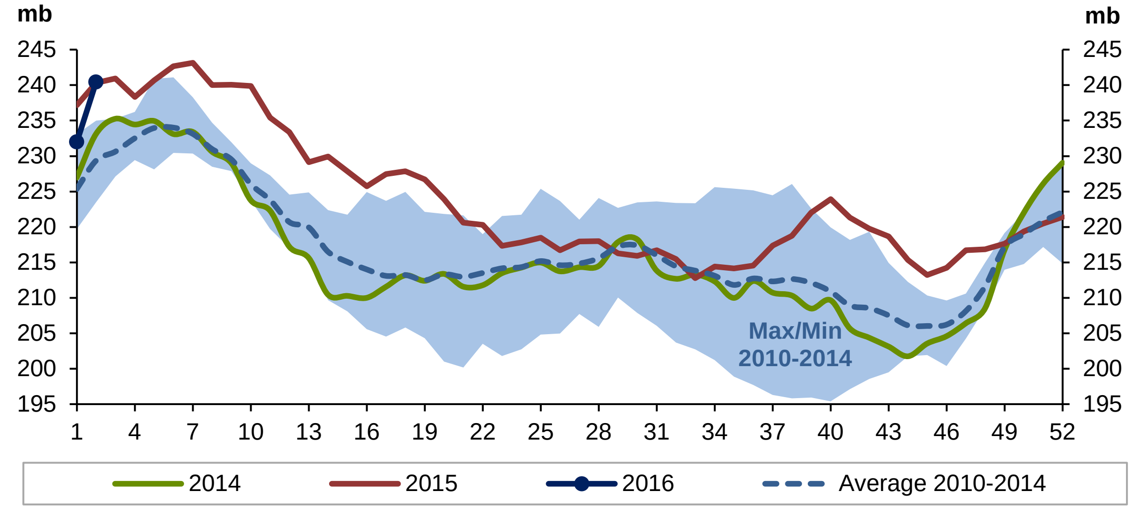


US commercial crude stocks fell in December to stand at 482.3 mb. They are 88.6 mb, or 22.5%, above the same time one year ago and 126.5 mb, or 35.6%, above the latest five-year average. The fall was mainly driven by higher refinery runs, which increased by around 300,000 b/d, reaching 16.6 mb/d. Refiners were running at 92.2% or 1.7 percentage points (pp) higher than previous month. In contrast, crude at Cushing, Oklahoma, rose by nearly 4.0 mb to reach a record high of 63.4 mb. This build has put pressure on WTI crude prices.

Total product stocks rose by 10.5 mb in December, reversing the fall of the previous two months. At 830.2 mb, US product stocks were around 58.5 mb, or 7.6%, above the level seen at the same time a year ago, showing a surplus of 93.1 mb, or 12.6%, above the seasonal norm. Within products, the picture was mixed. All major products saw builds, while other unfinished products, propylene and residual fuel stocks experienced draws.

Gasoline stocks rose by 15.1 mb, ending December at 232.0 mb. Despite this build, gasoline stocks were 6.5 mb, or 2.7%, lower than the same period a year ago, but remained 4.0 mb, or 1.8%, higher than the latest five-year average. The build came mainly from lower gasoline demand, which declined by around 100,000 b/d, to average 9.1 mb/d. Higher gasoline production also contributed to a build in gasoline inventories.

Graph 9.4: US weekly gasoline stocks



Distillate stocks also rose by 15.0 mb in December, ending the month at 159.4 mb. At this level, they indicated a surplus of 23.4 mb, or 17.2%, from the same period a year ago, and stood 17 mb, or 11.9%, above the latest five-year average. The build in middle distillate stocks was driven by lower demand; they declined by around 300,000 b/d, to average 3.5 mb/d.

Jet fuel stocks rose by 2.1 mb, ending December at 40.2 mb. At this level, jet fuel stocks stood 2.7 mb, or 7.1%, higher than the same month a year ago, and were 0.4 mb, or 1.0%, below the latest five-year average. In contrast, **residual fuel oil** inventories fell by 1.4 mb to 42.1 mb, which was 8.4 mb, or 25.0%, higher than the previous year over the same period and 5.9 mb, or 16.2%, above the seasonal norm.

Table 9.3: US onland commercial petroleum stocks, mb

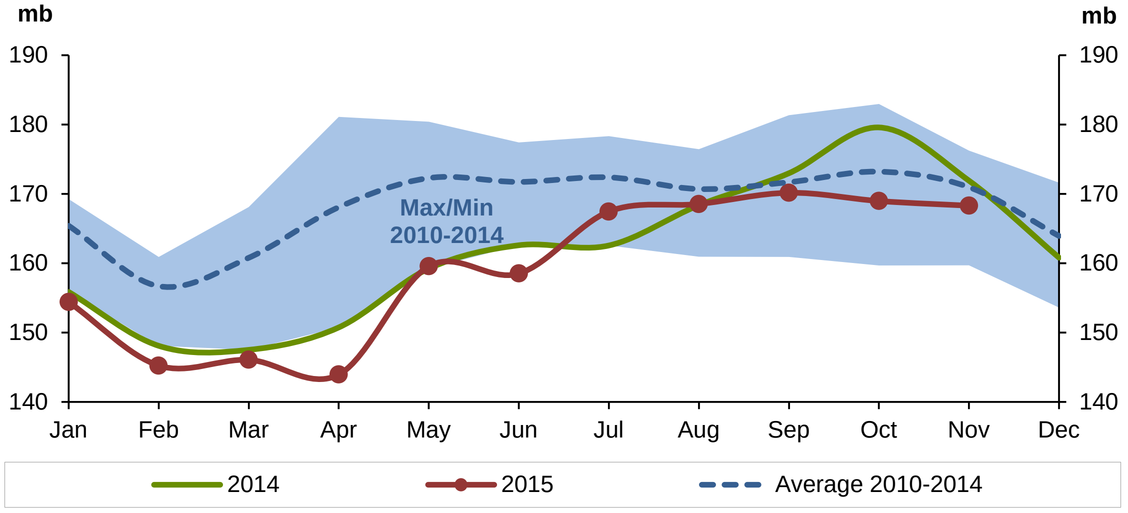
	Oct 15	Nov 15	Dec 15	*Change* Dec 15/Nov 15	Dec 14
Crude oil	486.7	489.4	482.3	-7.1	393.3
Gasoline	217.0	216.9	232.0	15.1	240.4
Distillate fuel	143.3	144.4	159.4	15.0	136.3
Residual fuel oil	43.2	43.5	42.1	-1.4	33.7
Jet fuel	38.0	38.1	40.2	2.1	38.3
Total	**1,314.0**	**1,309.1**	**1,312.6**	**3.4**	**1,168.6**
SPR	695.1	695.1	695.1	0.0	691.0

Source: US Energy Information Administration.

Japan

In Japan, total **commercial oil stocks** fell slightly by 0.7 mb in November to stand at 168.3 mb. At this level, Japanese commercial oil stocks stood at 3.6 mb, or 2.1%, below a year ago at the same time, and 2.7 mb, or 1.6%, below the five-year average. Within the components, crude stocks went down by 0.9 mb, while product stocks rose by 0.2 mb.

Graph 9.5: Japan's commercial oil stocks



Japanese commercial **crude oil stocks** fell in November to stand at 98.5 mb. With this drop, they were 6.9 mb, or 6.4%, below a year ago at the same time, but remained 2.2 mb, or 2.3%, above the seasonal norm. The drop in crude oil stocks was driven by higher crude throughput, which increased by about 141,000 b/d, or 4.5%, to average 3.2 mb/d. Higher crude oil imports limited a further drop in crude oil stocks. Indeed, crude oil imports rose by around 140,000 b/d, or 4.4%, in November from the previous month to stand at 3.3 mb/d, which was 6.0% higher than a year ago at the same time.

In contrast, Japan's **total product inventories** rose by 0.2 mb in November reversing the fall of the previous month. At 69.8 mb, product stocks stood 5.8 mb, or 7.6%, below the same time a year ago, showing a deficit of 5.1 mb, or 6.8%, with the five-year average. The build was driven mainly by higher refinery output, which rose by around 80,000 b/d, or 2.7%, to stand at 3.03 mb/d. The increase in domestic sales limited a further build in product inventories. Indeed, domestic sales rose by nearly 90,000 b/d, averaging 3.04 mb/d, but remained 6.9% below a year ago at the same time. Within products, the picture was mixed; gasoline and distillate oil stocks rose, while residual fuel oil and naphtha experienced stock draws.

Gasoline stocks rose by 0.3 mb in November, ending the month at 10.5 mb. At this level, they indicated a surplus of 0.1 mb, or 0.7%, with the same time a year ago, but are 1.7 mb, or 14.3%, below the latest five-year average. This build was driven mainly by lower gasoline sales, which declined by 3.1%.

Distillate stocks also rose by 0.9 mb in November to stand at 34.2 mb. At this level, they were 2.3 mb, or 6.4%, below the same period a year ago and 1.4 mb, or 3.9%, below the seasonal average. Within distillate components, jet fuel and kerosene inventories rose by 4.4% and 5.5% respectively, while gasoil stocks fell by 4.6%.

In contrast, total residual **fuel oil stocks** fell by 0.4 mb in November to stand at 15.0 mb, which was 1.1 mb, or 7.0%, below a year ago and 0.6 mb, or 4.0%, lower than the latest five-year average. Within the fuel oil components, fuel oil A rose by 2.7% on the back of lower domestic sales, while fuel B.C stocks fell by 5.1%, driven by higher exports.

Naphtha inventories also fell by 0.5 mb in November to stand at 10.0 mb, which was 2.4 mb, or 19.3%, below a year ago at the same time and 1.4 mb, or 12.0%, less than the seasonal norm. This fall was driven mainly by lower output combined with higher domestic sales.

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

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15	Nov 14
Crude oil	**99.8**	**99.5**	**98.5**	**-0.9**	**96.4**
Gasoline	10.1	10.2	10.5	0.3	10.4
Naphtha	10.6	10.5	10.0	-0.5	12.4
Middle distillates	34.4	33.4	34.2	0.9	36.5
Residual fuel oil	15.2	15.4	15.0	-0.4	16.2
Total products	**70.4**	**69.5**	**69.8**	**0.2**	**75.5**
Total**	**170.2**	**169.0**	**168.3**	**-0.7**	**171.9**

* *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 slight increase in total commercial oil inventories of 0.7 mb in November, following a 23.5 mb stock draw in the previous month. At 378.9 mb, Chinese oil inventories were around 4.5 mb below the previous year at the same time. Within the components, crude commercial oil fell by 1.8 mb, while product inventories rose by 2.5 mb.

At 245.2 mb, **commercial crude stocks** represented a deficit of around 15.0 mb with the same period one year earlier. The fall in crude oil commercial stocks could be attributed to lower crude output, which declined by 2.4%. However, higher crude oil imports, which increased by 8.0%, limited a further drop in crude oil stocks.

Table 9.5: China's commercial oil stocks, mb

	Sep 15	Oct 15	Nov 15	*Change* Nov 15/Oct 15	Nov 14
Crude oil	**258.4**	**247.0**	**245.2**	**-1.8**	**260.2**
Gasoline	52.3	51.8	56.3	4.5	55.6
Diesel	74.6	64.2	63.1	-1.2	53.9
Jet kerosene	16.4	15.2	14.4	-0.8	13.7
Total products	**143.4**	**131.2**	**133.7**	**2.5**	**123.1**
Total	**401.8**	**378.2**	**378.9**	**0.7**	**383.4**

Source: OPEC Secretariat analysis.

Total **product stocks** in China rose by 2.5 mb, reversing the stock draw of the previous three months to stand at 133.7 mb. With this stock build, product stocks were 10.6 mb higher than a year ago at the same time. Within products the picture was mixed; gasoline stocks went up, while diesel and kerosene witnessed stock draws.

Gasoline inventories rose by 4.5 mb in November to stand at 56.3 mb, leaving them 0.7 mb higher than a year ago at the same time. The build in gasoline stocks was driven mainly by lower demand as cold weather and rains dampened vehicle usage. In contrast, **diesel** and **kerosene stocks** fell by 1.2 mb and 0.8 mb, ending the month of November at 63.1 mb and 14.4 mb, respectively. This fall came on the back on high demand.

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

At the end of November, **product stocks in Singapore** rose by 1.7 mb, reversing the drop of 3.1 mb in October. At 52.0 mb, product stocks in Singapore were 12.3 mb or 31.1% above the same period a year ago. Within products, the picture was mixed.

Light distillate stocks rose by 2.7 mb to stand at 13.2 mb, which was 1.9 mb, or 16.8%, below the previous year at the same time. Residual fuel oil stocks also rose by 0.4 mb in November to end the month at 26.9 mb, which was 8.8 mb, or 48.5%, higher than at the same time a year ago. The build in fuel oil stocks could be attributed to higher imports. In contrast, middle distillate stocks fell by 1.3 mb, finishing the month of November at 11.9 mb, which was 1.7 mb, or 16.3%, above the same time a year ago. The drop was mainly driven by high demand.

Product stocks in Amsterdam-Rotterdam-Antwerp (ARA) rose by 1.2 mb in November, following a stock draw of 2.4 mb in October to stand at 48.5 mb. At this level, product stocks are 15.0 mb, or 44.1%, higher than at the same time a year ago. With the exception of a stock draw in gasoline, all other products witnessed builds.

Gasoline fell by 1.0 mb for the third consecutive month, ending November at 26.9 mb, which was 2.3 mb, or 63%, higher than the same month one year ago. In contrast, gasoil and fuel oil stocks rose by 1.0 mb and 0.9 mb, respectively. At 26.9 mb, gasoil stocks remained 8.1 mb, or 43.4%, above the previous year at the same time. Fuel oil stocks stood at 7.8 mb, indicating a surplus of 3.3 mb, or 75%, above a year ago.

Balance of Supply and Demand

Demand for OPEC crude in 2015 is estimated at 29.9 mb/d, which is 0.2 mb/d higher than the 2014 level. In 2016, demand for OPEC crude is projected at 31.6 mb/d, which is around 1.7 mb/d higher than this year.

Estimate for 2015

Demand for OPEC crude in 2015 is estimated at 29.9 mb/d, representing an increase of 0.2 mb/d higher than the 2014 level. Within the quarters, the first quarter fell by 0.7 mb/d, while the second quarter grew by 0.2 mb/d. The third and fourth quarters are expected to see growth of 0.1 mb/d and 1.0 mb/d, respectively, compared to 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	**91.38**	**92.01**	**92.00**	**93.68**	**93.95**	**92.92**
Non-OPEC supply	55.64	57.05	56.68	56.95	56.78	56.87
OPEC NGLs and non-conventionals	6.00	6.02	6.11	6.18	6.29	6.15
(b) Total non-OPEC supply and OPEC NGLs	**61.64**	**63.07**	**62.79**	**63.13**	**63.07**	**63.01**
Difference (a-b)	**29.74**	**28.94**	**29.21**	**30.55**	**30.88**	**29.90**
OPEC crude oil production	30.77	31.01	31.90	32.24	32.21	31.85
Balance	1.03	2.07	2.69	1.69	1.34	1.94

Totals may not add up due to independent rounding.

Forecast for 2016

Demand for OPEC crude in 2016 is projected to increase by 1.7 mb/d to average 31.6 mb/d. The first and the second quarters are expected to increase by 1.6 mb/d and 1.8 mb/d, respectively, while the third and fourth quarters are projected to increase by 2.1 mb/d and 1.5 mb/d, respectively.

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

	2015	1Q16	2Q16	3Q16	4Q16	2016
(a) World oil demand	**92.92**	**93.30**	**93.29**	**94.91**	**95.17**	**94.17**
Non-OPEC supply	56.87	56.46	56.01	55.93	56.43	56.21
OPEC NGLs and non-conventionals	6.15	6.30	6.30	6.33	6.37	6.32
(b) Total non-OPEC supply and OPEC NGLs	**63.01**	**62.76**	**62.31**	**62.25**	**62.80**	**62.53**
Difference (a-b)	**29.90**	**30.54**	**30.98**	**32.66**	**32.37**	**31.65**
OPEC crude oil production	31.85					
Balance	1.94					

Totals may not add up due to independent rounding.

Graph 10.1: Balance of supply and demand

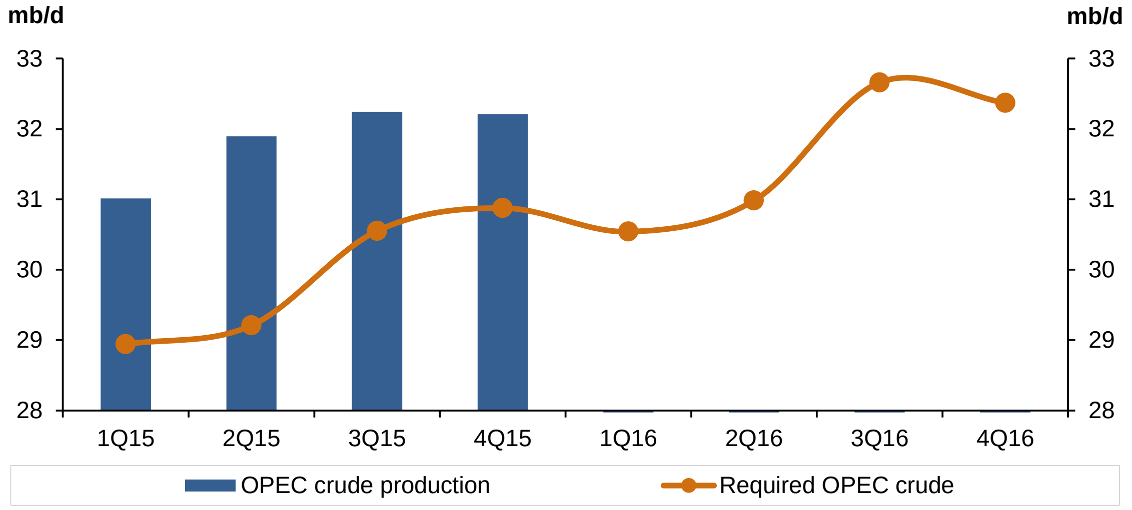


Table 10.3: World oil demand and supply balance, mb/d

	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	46.4	46.6	46.2	46.7	45.6	46.5	46.7	46.4
Americas	23.6	24.1	24.2	24.2	24.1	24.8	24.9	24.5	24.5	24.4	25.1	25.2	24.8
Europe	13.8	13.6	13.4	13.5	13.5	14.0	13.5	13.6	13.5	13.5	14.0	13.4	13.6
Asia Pacific	8.5	8.4	8.2	8.8	7.7	7.6	8.3	8.1	8.6	7.6	7.5	8.2	8.0
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	4.6	4.4	4.3	4.7	5.0	4.6	4.5	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	11.1	10.8	10.7	11.4	11.0	11.4	11.1
(a) Total world demand	**89.1**	**90.4**	**91.4**	**92.0**	**92.0**	**93.7**	**93.9**	**92.9**	**93.3**	**93.3**	**94.9**	**95.2**	**94.2**
Non-OPEC supply													
OECD	21.1	22.2	24.2	25.1	24.9	25.2	25.0	25.1	24.8	24.4	24.4	24.6	24.5
Americas	16.7	18.2	20.1	21.0	20.6	21.1	20.8	20.9	20.6	20.3	20.3	20.5	20.4
Europe	3.8	3.6	3.6	3.7	3.8	3.7	3.8	3.7	3.7	3.6	3.6	3.7	3.7
Asia Pacific	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
DCs	11.0	11.1	11.3	11.6	11.5	11.4	11.4	11.5	11.4	11.5	11.5	11.6	11.5
FSU	13.4	13.6	13.5	13.7	13.6	13.6	13.7	13.6	13.6	13.4	13.4	13.5	13.5
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	51.9	53.4	55.6	57.1	56.7	57.0	56.8	56.9	56.5	56.0	55.9	56.4	56.2
OPEC NGLs + non-conventional oils	5.7	5.8	6.0	6.0	6.1	6.2	6.3	6.1	6.3	6.3	6.3	6.4	6.3
(b) Total non-OPEC supply and OPEC NGLs	**57.6**	**59.2**	**61.6**	**63.1**	**62.8**	**63.1**	**63.1**	**63.0**	**62.8**	**62.3**	**62.3**	**62.8**	**62.5**
OPEC crude oil production (secondary sources)	31.9	31.0	30.8	31.0	31.9	32.2	32.2	31.8					
Total supply	89.6	90.1	92.4	94.1	94.7	95.4	95.3	94.9					
Balance (stock change and miscellaneous)	0.5	-0.3	1.0	2.1	2.7	1.7	1.3	1.9					
OECD closing stock levels (mb)													
Commercial	2,683	2,589	2,737	2,815	2,906	2,979							
SPR	1,547	1,584	1,579	1,582	1,584	1,578							
Total	4,230	4,174	4,316	4,397	4,490	4,558							
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	8.9	9.0	9.0	9.2	9.3	8.9	8.7	9.1	9.1	9.1	8.7	8.4	8.8
(a) - (b)	**31.4**	**31.2**	**29.7**	**28.9**	**29.2**	**30.5**	**30.9**	**29.9**	**30.5**	**31.0**	**32.7**	**32.4**	**31.6**

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

Table 10.4: 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**	**2,737**	**2,589**	**2,611**	**2,681**	**2,749**	**2,737**	**2,815**	**2,906**	**2,979**
	Americas	1,308	1,365	1,316	1,446	1,316	1,317	1,387	1,416	1,446	1,483	1,537	1,570
	Europe	914	912	881	886	881	885	889	897	886	939	939	965
	Asia Pacific	395	405	392	405	392	409	405	436	405	392	430	445
OECD SPR		**1,536**	**1,547**	**1,584**	**1,579**	**1,584**	**1,585**	**1,580**	**1,577**	**1,579**	**1,582**	**1,584**	**1,578**
	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	467
	Asia Pacific	414	415	417	417	417	418	419	417	417	420	418	415
OECD total		**4,154**	**4,230**	**4,174**	**4,316**	**4,174**	**4,196**	**4,260**	**4,326**	**4,316**	**4,397**	**4,490**	**4,558**
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	64	67	66	69	68	72
	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 10.5: 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	14.0	13.8	13.9	0.9	13.6	13.5	13.4	13.5	13.5	-0.4
Canada	3.8	4.0	4.3	4.5	4.4	4.4	0.1	4.5	4.4	4.5	4.5	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**	**21.1**	**20.8**	**20.9**	**0.8**	**20.6**	**20.3**	**20.3**	**20.5**	**20.4**	**-0.4**
Norway	1.9	1.8	1.9	1.9	2.0	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	1.0	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	0.7	0.7	0.0	0.7	0.7	0.6	0.6	0.7	0.0
OECD Europe	**3.8**	**3.6**	**3.6**	**3.7**	**3.8**	**3.7**	**0.1**	**3.7**	**3.6**	**3.6**	**3.7**	**3.7**	**-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**	**0.4**	**0.5**	**0.0**
Total OECD	**21.1**	**22.2**	**24.2**	**25.2**	**25.0**	**25.1**	**0.9**	**24.8**	**24.4**	**24.4**	**24.6**	**24.5**	**-0.5**
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	0.9	0.9	0.0	0.8	0.9	0.9	0.9	0.9	0.0
Malaysia	0.7	0.6	0.7	0.7	0.7	0.7	0.0	0.7	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	0.4	0.4	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	0.2	0.2	0.3	0.2	0.0
Other Asia	**2.6**	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	**0.1**	**2.7**	**2.7**	**2.7**	**2.8**	**2.7**	**0.0**
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Brazil	2.6	2.6	2.9	3.1	3.0	3.0	0.2	3.1	3.1	3.2	3.2	3.1	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
Latin America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Latin America	**4.7**	**4.8**	**5.0**	**5.2**	**5.1**	**5.2**	**0.2**	**5.2**	**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	0.3	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**	**2.4**	**0.0**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**0.0**
Total DCs	**11.0**	**11.1**	**11.3**	**11.4**	**11.4**	**11.5**	**0.2**	**11.4**	**11.5**	**11.5**	**11.6**	**11.5**	**0.0**
FSU	**13.4**	**13.6**	**13.5**	**13.6**	**13.7**	**13.6**	**0.1**	**13.6**	**13.4**	**13.4**	**13.5**	**13.5**	**-0.2**
Russia	10.5	10.6	10.7	10.8	10.9	10.8	0.1	10.8	10.7	10.7	10.8	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	0.9	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	0.4	0.4	0.0
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
China	4.2	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	**49.8**	**51.2**	**53.5**	**54.8**	**54.6**	**54.7**	**1.2**	**54.3**	**53.8**	**53.7**	**54.2**	**54.0**	**-0.7**
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	**51.9**	**53.4**	**55.6**	**57.0**	**56.8**	**56.9**	**1.2**	**56.5**	**56.0**	**55.9**	**56.4**	**56.2**	**-0.7**
OPEC NGL	5.5	5.6	5.7	5.9	6.0	5.9	0.2	6.0	6.0	6.0	6.1	6.0	0.2
OPEC non-conventional	0.2	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
OPEC (NGL+NCF)	**5.7**	**5.8**	**6.0**	**6.2**	**6.3**	**6.1**	**0.2**	**6.3**	**6.3**	**6.3**	**6.4**	**6.3**	**0.2**
Non-OPEC & OPEC (NGL+NCF)	**57.6**	**59.2**	**61.6**	**63.1**	**63.1**	**63.0**	**1.4**	**62.8**	**62.3**	**62.3**	**62.8**	**62.5**	**-0.5**

** Chile has been included in OECD Americas.*

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

Table 10.6: World Rig Count

	2011	2012	2013	2014	*Change* 14/13	1Q15	2Q15	3Q15	4Q15	Nov 15	Dec 15	*Change* Dec/Nov
US	1,880	1,919	1,761	1,862	101	1,380	909	866	754	760	711	-49
Canada	423	364	354	380	26	309	99	191	169	178	144	-34
Mexico	94	106	106	86	-20	67	59	42	39	38	42	4
Americas	2,398	2,390	2,221	2,327	106	1,755	1,067	1,098	962	976	897	-79
Norway	17	17	20	17	-3	17	18	18	15	14	17	3
UK	16	18	17	16	-1	18	14	13	12	12	9	-3
Europe	118	119	135	145	10	132	116	109	110	108	114	6
Asia Pacific	17	24	27	26	-1	21	17	16	15	14	16	2
Total OECD	**2,532**	**2,533**	**2,383**	**2,499**	**116**	**1,908**	**1,200**	**1,222**	**1,087**	**1,098**	**1,027**	**-71**
Other Asia	239	217	219	228	9	214	203	201	191	194	182	-12
Latin America	195	180	166	172	6	161	143	149	128	130	116	-14
Middle East	129	136	102	108	6	103	98	100	106	108	110	2
Africa	2	7	16	28	12	22	12	8	3	4	3	-1
Total DCs	**565**	**539**	**503**	**536**	**33**	**499**	**456**	**458**	**428**	**436**	**411**	**-25**
Non-OPEC rig count	**3,097**	**3,071**	**2,886**	**3,034**	**149**	**2,408**	**1,656**	**1,681**	**1,516**	**1,534**	**1,438**	**-96**
Algeria	31	36	47	48	1	52	52	51	49	48	49	1
Angola	7	9	11	15	4	15	12	8	11	9	11	2
Ecuador	13	20	26	24	-2	17	15	12	4	4	2	-2
Iran**	54	54	54	54	0	54	54	54	54	54	54	0
Iraq**	36	58	83	79	-4	57	53	47	51	51	51	0
Kuwait**	32	31	32	38	6	51	49	44	42	43	43	0
Libya**	3	9	15	10	-4	6	3	1	1	1	1	0
Nigeria	36	36	37	34	-3	35	29	28	28	28	27	-1
Qatar	8	8	9	10	2	9	8	7	6	5	7	2
Saudi Arabia	100	112	114	134	20	154	155	154	158	158	160	2
UAE	21	24	28	34	6	38	39	41	52	54	51	-3
Venezuela	122	117	121	116	-5	108	105	114	112	112	110	-2
OPEC rig count	**461**	**513**	**576**	**596**	**20**	**595**	**575**	**561**	**566**	**567**	**566**	**-1**
Worldwide rig count*	**3,559**	**3,584**	**3,462**	**3,631**	**169**	**3,002**	**2,231**	**2,242**	**2,082**	**2,101**	**2,004**	**-97**
of which:												
Oil	2,195	2,594	2,611	2,795	184	2,214	1,616	1,606	1,471	1,479	1,404	-75
Gas	1,257	886	746	743	-3	690	516	536	509	521	494	-27
Others	103	106	109	95	-14	100	98	99	102	101	106	5

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 6.86 in December

December 2015	33.64
November 2015	40.50
2015	**49.49**

December OPEC crude production

mb/d, according to secondary sources

down 0.21 in December

December 2015	32.18
November 2015	32.39

Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
2015	3.0	2.0	2.5	0.7	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	94.2	1.3
Non-OPEC supply	56.9	1.2	Non-OPEC supply	56.2	–0.7
OPEC NGLs	6.1	0.2	OPEC NGLs	6.3	0.2
Difference	**29.9**	**0.2**	**Difference**	**31.6**	**1.7**

OECD commercial stocks

mb

	Sep 15	Oct 15	Nov 15	Nov 15/Oct 15	Nov 14
Crude oil	1,485	1,506	1,507	0.7	1,338
Products	1,495	1,465	1,460	–5.5	1,397
Total	**2,979**	**2,971**	**2,966**	**–4.7**	**2,735**
Days of forward cover	64.4	64.3	63.7	–0.6	58.4

Next report to be issued on 10 February 2016.