

# Organization of the Petroleum Exporting Countries

# Monthly Oil Market Report

*April 2011*

*Feature Article:*  
*The impact of recent events on the oil market*

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# Oil Market Highlights

- The **OPEC Reference Basket** increased for the sixth month in a row to average almost \$110/b in March, up \$9.55/b from the previous month. That was the highest monthly level since the onset of the financial crisis. The crisis in Libya and fears that supply disruptions might spread to other countries in the MENA region lifted the fear premium, pushing futures prices higher. This was somewhat capped by market uncertainty following the tragic events in Japan. The Nymex WTI front-month rose to average almost \$103/b despite a continued build in US crude oil inventories and ICE Brent averaged \$114.67/b. The Basket moved higher in April to reach \$120.30/b on 11 April.
- The **world economy** is expected to grow by 3.9% in 2011. This represents a downward revision of 0.1% from the previous report due to the impact of the tragic events in Japan, which is now forecast to decline by 0.1%, compared to growth of 1.5% in the previous report. The uncertainty for the forecast is high as the final economic consequences and the details of governmental countermeasures are not yet known. The recovery in the rest of the world seems to continue. While second round effects from Japan have not been incorporated due to the lack of visibility, forecasts for other economies remain unchanged from the previous report. Risks seem skewed to the downside with additional challenges coming from the continued sovereign debt crisis in the Euro-zone, increasing inflation across the globe and a potential overheating in developing Asia.
- **World oil demand** is forecast to grow by 1.4 mb/d in 2011, following an increase of 2.0 mb/d in the previous year. Japan's disaster led to a sudden decline in the country's use of oil. However, this should be offset by fuel substitution from nuclear to crude-burning and rebuilding operations later in the year. With the start of the second quarter, world oil demand has eased according to the seasonal norm. Risks to the forecast remain, particularly from higher oil prices which are likely to have a slightly negative impact on transport fuel demand worldwide. Early signs indicated winter product use was more than anticipated in the fourth quarter of last year, which led to an upward revision to the 2010 forecast.
- **Non-OPEC oil supply** is expected to increase by 0.6 mb/d in 2011, an upward revision of 0.1 mb/d from the previous month. The adjustment was supported mainly by healthy production during the first few months of the year. Anticipated growth continues to be driven by Brazil, US, Canada, Colombia and China, partially offset by declines in Norway, and UK. OPEC natural gas liquids (NGLs) and non-conventional oils are forecast to increase by 0.5 mb/d in 2011 to average 5.2 mb/d. According to preliminary data, total OPEC crude production in March averaged 29.31 mb/d, a decline of 627 tb/d from the previous month.
- **Product markets** have been affected by the tragic events in Japan, which has had a bearish impact on the top of the barrel as almost 25% of Japan's ethylene production capacity is offline. In contrast, middle distillates and low sulphur fuel oil have seen support from stringent Japanese product specifications as well as strong US demand. Expectations of stronger diesel demand could lend some support to refinery margins in the coming months, offsetting weakness at the top of the barrel.
- OPEC spot fixtures increased in March by 4.3 mb/d to average 15.4 mb/d. Sailings from OPEC declined in March by 0.5 mb/d. The **tanker market** for crude oil showed positive momentum with spot freight rates increasing on most reported routes in March. Higher activities, risk premiums and higher bunker fuel prices all supported freight rates in March. In the clean market, freight rates increased on most reported routes due to higher tonnage demand.
- **US commercial inventories** fell around 9 mb in March. This draw was driven by products which fell strongly by 18.3 mb, while crude stocks offset some of the decline, increasing by 9.3 mb. However, US commercial oil inventories still remain 24 mb above the historical average. The most recent data for February shows that commercial oil inventories in Japan declined by 8.3 mb, with crude and products showing a draw of 6.5 mb and 1.8 mb respectively. Japanese oil inventories remained at 3.4% above a year ago, while the deficit with historical trend stood at 6.2%
- The **demand for OPEC crude** in 2010 is estimated at 29.5 mb/d, around 0.2 mb/d higher than in the previous report. With this adjustment, the demand for OPEC crude stood at about 0.4 mb/d higher than the year before. In 2011, demand from OPEC crude is expected to average 29.9 mb/d, about 0.4 mb/d higher than a year ago and 0.1 mb/d over the previous assessment.



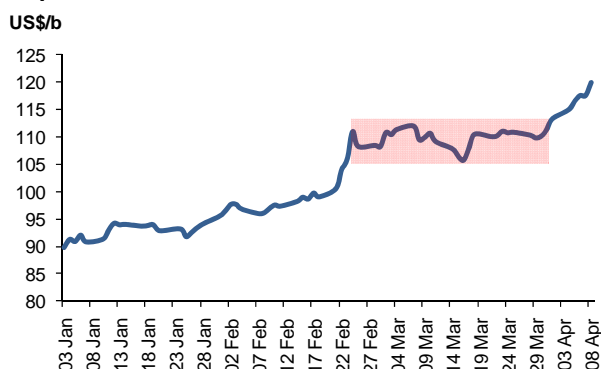
## The impact of recent events on the oil market

Up until recently, crude oil prices had been trading in a higher but relatively narrow range, with the OPEC Reference Basket fluctuating between \$106-\$112/b (**Graph 1**). However, at the beginning of April, prices have moved sharply higher to currently stand at \$120/b. In light of the recent upswing in prices, it is worth taking a moment to review the factors driving recent oil price movements.

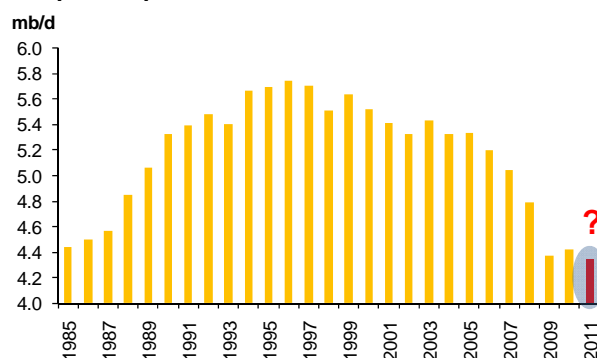
Prices initially spiked in February with the onset of the supply disruption in Libya and concerns that supply outages could spread to other producers in the Mideast and North Africa. Indeed, Libyan unrest has cut output by almost 80% from normal levels of 1.6 mb/d to around 250-300 tb/d, all of which is said to be consumed domestically. Given the quality of Libyan crude, this has widened the premium of light sweet grades. The bulk of these losses has been compensated by higher output from some Member Countries. As a result, estimated OPEC production in March stood at 29.3 mb/d, down slightly from the levels seen in December prior to the onset of unrest in the MENA region.

Supply concerns, and the associated risk premium, were later dampened to some degree by the triple catastrophe in Japan of the earthquake, tsunami and nuclear problems, which has led to a persistent disruption in the Japanese energy complex. The overall impact of the tragic events in Japan on oil consumption is far from clear. While the devastating earthquake caused a sudden decline in the country's use of oil, this is likely to be broadly offset by the need to substitute some of its shut-in nuclear power capacity with oil-based generation. Moreover, with the start of reconstruction efforts — currently estimated at \$300 billion — this is expected to require even higher energy use.

**Graph 1: OPEC Reference Basket**



**Graph 2: Japanese oil demand**



In the immediate aftermath of the earthquake, Japan has responded to product shortages by maximizing refinery runs at unaffected plants to deliver more products. At the same time, Japan has released around 66 mb from its strategic petroleum reserve (SPR) to ease fuel shortages. The country is also seeking a large inflow of crude oil to meet refinery demand and its need for crude-burning power generation.

Even before, the disaster, Japan's oil consumption was estimated to shrink by 1.5%. With the exception of 2010, this decline is a continuation of the trend of the past few years (**Graph 2**). Japan's efficiency efforts along with the reduced consumption needs of its aging population are the main factors behind this trend.

The recent tragic events in Japan are having a strong impact on the country's economic growth. The projection for Japan's growth for this year has been lowered to minus 0.1% from a previous 1.5%. The heavily affected areas in Japan produce around 6% of GDP and another 1% might be impacted due to associated factors, such as power shortages. While this 7% shortfall is expected to have some impact on the first quarter, the major effects will be seen in the second quarter of this year. However, countermeasures by the administration and catch-up effects in the second half of 2011 should partially compensate some of the earlier decline. The negative impact on Japan's trade partners in the Asian region is expected to be low and the shortfall for global economic growth is currently forecast at only 0.1%. As a result, the forecast for global growth in 2011 now stands at 3.9%.

While events in the MENA region and Japan continue to set the background for the market, more recently, crude oil prices have moved higher on concerns about potential unrest in some West African producing countries. Although global inventories have gradually been declining, they still remain above the historical trend, especially in terms of days of forward cover. Moreover, the current supply/demand balance shows that demand for OPEC crude is expected to average 29.0 mb/d in the second quarter, still below estimated OPEC production for March, indicating sufficient supply in the market. Despite this, crude oil prices still remain at high levels — out of step with the realities of supply and demand.

In terms of fundamentals, the recent events alone do not justify the current high price levels. Instead, these represent a sharp increase in the risk premium, reflecting fears of a shortage in the market in the coming quarters. Since the supply disruption in Libya, OPEC Members have accommodated most of the shortfall in production, ensuring that the market is well supplied. The market can be assured that in the months ahead, the Organization will continue its longstanding role of supporting oil market stability.



# Crude Oil Price Movements

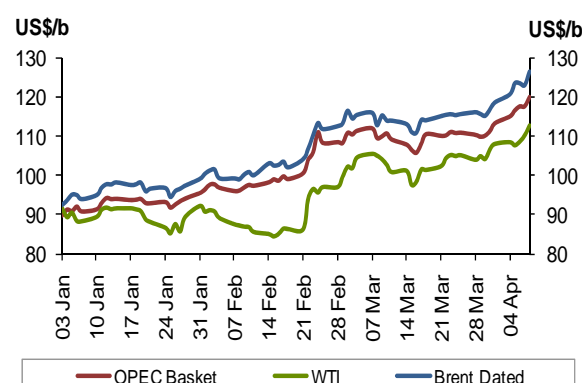
*OPEC Basket averaged close to \$110/b in March, up \$9.55/b from the previous month*

## OPEC Reference Basket

The OPEC Reference Basket, moved above \$100/b on 21 February and continued its upward trend in March to average \$109.84/b, the highest monthly level since the \$112.41/b at the onset of the financial crisis in 2008.

The increase of \$9.55 in March was the sixth in a row and the largest since the \$11.38 of June 2009. With this increase, the OPEC Reference Basket averaged \$101.27/b in the first quarter 2011, up \$17.39 or 21% from the previous quarter and \$25.78 or 34% from a year earlier.

Graph 1.1: Crude oil price movement



The strong increase in the OPEC Reference Basket over the previous three months, particularly in March, was attributed to the bullish sentiment in the futures market as prices jumped amid worries about supply shortages following the crisis in Libya and unrest in some countries in Middle East and North Africa (MENA) region.

All Basket components increased, particularly Ecuador's Oriente, which jumped by almost \$15 or 16.5% to average more than \$105/b. Oriente benefited from a bullish sentiment in the US Gulf Coast market as the Brent premium remained around \$12/b. A wide transatlantic spread tends to strengthen local grades that compete with import prices against Brent. Even some heavy and sour grades such as Mars have been trading at a premium to WTI on the spot market. Refiner optimism due to strong gasoline spreads and declining gasoline stocks has also encouraged interest in local grades and therefore lifted prices higher.

Brent-related African crudes strengthened further in March, rising by around 10.5% each, supported by increased buying from refiners to replace lost Libyan crude. Nigerian Bonny Light stood at the top of list with \$116.75/b, followed by Saharan Blend with \$115.95/b and Girassol with \$115.35/b. However, premiums for Nigerian grades Bonny Light and Qua Iboe against Dated Brent moved to 32-month highs. Qua Iboe's premium over Dated Brent has almost doubled since the start of the unrest in Libya to reach around \$4.4/b, the highest since July 2008. The strong premium was not limited to African crudes but spread to other grades such as Russian Urals and Azeri Light or Kazakh Kumkol.

Middle Eastern crudes followed the trend, but showed lower gains as the tragic events in Japan dampened demand following the shutdown of some refineries, but profitable gasoil cracks offset, to some extent, the slowdown in Japanese oil demand. All Middle Eastern grades showed lower gains compared with the Basket, except Basrah Light. However, among Middle Eastern crudes, Basrah Light and Arab Light rose by more than 9%, supported by bullish sentiment, particularly in Europe. Murban rose by \$9.18 or nearly 9% on the back of robust gasoil cracks and strong rival Russian Sokol crude, which sold at the highest premiums in more than two years in the first week of March. Murban was also lifted by lower volumes as ADNOC announced that it will supply Murban crude at 10% below contracted volumes in April, the same as in March. Kuwait Exports gained \$8.91 or 9% while Iran Heavy and Qatar Marine showed the lowest gains of around \$8.70 or 8.8% among Middle Eastern crudes.

Venezuela's Merey firmed further, adding \$8.71/b or 10% to average \$96.22/b, supported by strong transatlantic arbitrage and improving refinery margins in the region.

Driven by continued bullish sentiment in the futures market, the OPEC Reference

Basket increased further in early April to stand at \$120.30/b on 11 April.

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

	Feb 11	Mar 11	Change Mar/Feb	Year-to-Date 2010	2011
<b>OPEC Reference Basket</b>	<b>100.29</b>	<b>109.84</b>	<b>9.55</b>	<b>75.49</b>	<b>101.27</b>
Arab Light	101.21	110.37	9.16	75.75	102.00
Basrah Light	99.52	109.16	9.64	75.16	100.62
Bonny Light	105.66	116.75	11.09	77.74	107.17
Es Sider	103.51	114.35	10.84	76.32	104.98
Girassol	104.42	115.35	10.93	76.86	105.65
Iran Heavy	99.29	108.05	8.76	75.15	100.12
Kuwait Export	98.75	107.66	8.91	74.82	99.56
Marine	100.18	108.87	8.69	76.17	100.84
Merey	87.51	96.22	8.71	70.16	88.20
Murban	102.75	111.93	9.18	77.61	103.52
Oriente	90.14	105.04	14.90	71.51	93.74
Saharan Blend	105.01	115.95	10.94	77.14	106.48
<b>Other Crudes</b>					
Minas	105.29	114.62	9.33	79.30	106.82
Dubai	99.93	108.71	8.78	75.87	100.59
Isthmus	94.56	107.97	13.41	76.51	98.03
T.J. Light	92.85	105.60	12.75	75.13	95.96
Brent	103.76	114.60	10.84	76.37	105.23
West Texas Intermediate	89.40	102.99	13.59	78.76	94.31
Urals	101.49	111.50	10.01	75.41	102.48
<b>Differentials</b>					
WTI/Brent	-14.36	-11.61	2.75	2.39	-10.92
Brent/Dubai	3.83	5.89	2.06	0.49	4.64

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

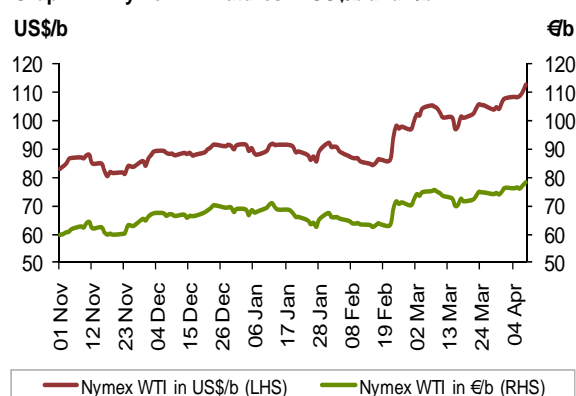
*Source: Platt's, Direct Communication and Secretariat's assessments*

## The oil futures market

*US crude oil futures jumped \$13.24 in March to average close to \$103/b*

Crude oil market sentiment strengthened further in March. Despite the fact that demand outside Japan remained supportive, the rally in prices was not driven by a lack of supply but rather by worries about future supply because of ongoing unrest in some MENA countries. However, prices were also supported by some positive macroeconomic data from the US.

**Graph 1.2: Nymex WTI futures in US\$/b and €/b**

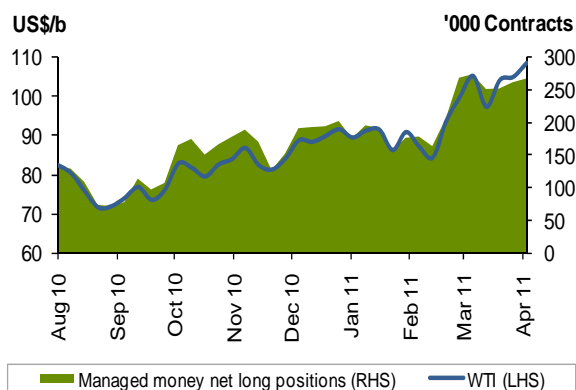


On the Nymex, the WTI front-month settled at more than \$102/b on 2 March. That was the first time that WTI front-month delivery closed beyond \$100/b since end September 2008. Prices kept their momentum in the following two weeks before they tumbled on 15 March when the WTI front-month closed down by almost 4%, the largest daily loss in nearly five months, pressured by sell-offs, to close at \$97.18/b. Other commodity prices saw the same phenomenon amid bearish macroeconomic sentiment due to the impact of Japan's nuclear crisis on the world economy. The drop was short-lived after prices moved back above \$101/b on 17 March, driven by unrest in the MENA region and improving sentiment for the US economy, as positive macroeconomic data on initial jobless claims and factory activity provided more evidence that the recovery was on firmer footing. Bullish sentiment pushed prices higher in the following days to end the month beyond \$106.7/b, the highest level in two and a half years. Overall, the WTI front-month averaged \$102.98/b in March. That was \$13.24 or 14.8% higher than February's level and \$26.53 higher than a year earlier. It is worth mentioning that crude oil futures prices jumped despite US crude oil stocks having increased over five consecutive weeks.



ICE Brent continued to trade higher than Nymex WTI, although at a slower pace. The ICE Brent front-month jumped by more than \$3.6 or 3.2% on the first day of March to settle at \$115.42/b. That was the highest settlement since 27 August 2008. The sharp increase was attributed to the bullish sentiment for light sweet crude oil because of the lack of supply from Libya. In contrast to Nymex WTI, ICE Brent stayed the whole month of March above \$110/b and reached \$117/b on the last trading day, as positive macroeconomic data added more bullishness to the market. For the whole month of March, ICE Brent averaged \$114.67/b.

Graph 1.3: Nymex WTI price vs. Speculative activity



Both Nymex WTI and ICE Brent strengthened further in April. Nymex WTI May delivery settled at a 30-month high of \$112.79/b on 8 April after having increased during six trading sessions in a row. In London, ICE Brent crude for May delivery jumped to \$126.65/b on the same day. That was the highest since end-July 2008. In addition to fears of prolonged losses of Libyan exports, crude oil, like other commodities, was lifted by a weaker US dollar which fell against the euro to a 15-month low, pressured by the prospect of a US government shutdown.

The lower increase in ICE Brent relative to Nymex WTI resulted in a narrow Brent-WTI spread in March. Brent's premium to WTI narrowed to \$10.64/b from \$13.24/b in the previous month. It is worth noting that the Brent-WTI spread hit almost \$18/b in mid-February.

Crude oil futures prices increased in March while trading volume declined. On the Nymex, around 680,000 contracts of WTI were traded per day in March compared with some 935,000 contracts in February. Similarly, ICE Brent trading volume dropped from 533,000 contracts to 467,000 contracts per day, implying a drop of 12% compared with a decline of 27% for Nymex WTI. This reflects the uncertainties about future developments, particularly in terms of supply. However, trading volume for just the front month showed that Nymex WTI contracts fell by just 7% and ICE Brent front-month contracts dropped by 11%, implying that the decline in trading volume was much higher in the farther out months.

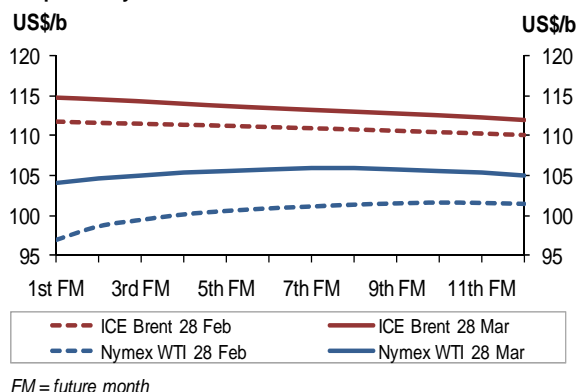
Speculator activity and the movement in crude oil prices continued to follow the same trend in March. Money managers pushed net long crude oil futures on Nymex to a new record high of more than 274,000 contracts in the week through 8 March. At the same time, the WTI front-month moved above \$105/b. In the following week, money managers cut net long positions to around 251,000 contracts, again WTI front-month price followed the same trend and fell below 98/b. In the last two weeks of March, money managers increased net long positions and at the same time, WTI recovered to approach \$105/b again.

*WTI shifted to backwardation along further months of the curve*

### The futures market structure

The WTI futures curve shifted up, but flattened significantly in March. However, WTI remained in contango for the first 9 months; albeit at very narrow levels, while the forward months shifted to backwardation, suggesting that the focus is more on the prompt and the shortly following months, while investors are less bullish on the more forward months. The WTI spread between the second and the first month moved from an average of \$2.73/b in February to around 90¢/b in March and the spread between the 10<sup>th</sup> and 9<sup>th</sup> month moved from 30¢/b to minus 15¢/b.

Graph 1.4: Nymex WTI and ICE Brent forward curve



FM = future month

ICE Brent shifted again to backwardation in March as the prompt price increased sharply because of uncertainties about supply, particularly for light sweet grades. The spread between the second and the first month fell from 19¢/b in February to minus 7¢/b. The spread between the following months was much higher at around minus 20¢/b to minus 40¢/b.

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

#### Nymex WTI

	<u>1st FM</u>	<u>2nd FM</u>	<u>3rd FM</u>	<u>6th FM</u>	<u>12th FM</u>
28 Feb 2011	96.97	98.64	99.44	100.85	101.41
28 Mar 2011	103.98	104.56	105.06	105.76	105.09

#### ICE Brent

	<u>1st FM</u>	<u>2nd FM</u>	<u>3rd FM</u>	<u>6th FM</u>	<u>12th FM</u>
28 Feb 2011	111.80	111.63	111.52	111.10	110.09
28 Mar 2011	114.80	114.58	114.32	113.49	111.98

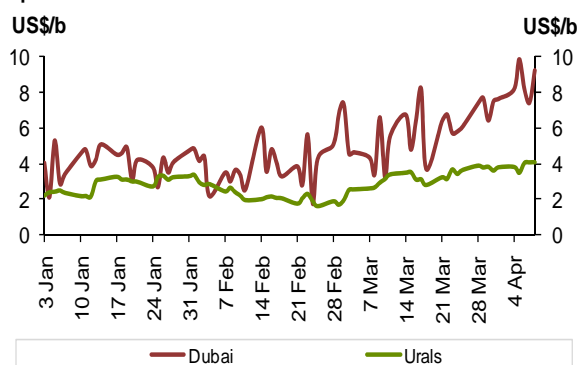
FM = future month

*Light sweet-heavy sour spread widened in Europe and Asia with Brent-Dubai differential hitting its highest level since October 2004*

### The sour/sweet crude spread

Differentials between light sweet and heavy sour crudes widened significantly in March in Asia and Europe because of increasing demand by refiners and electric power utilities in Japan at the time when Libyan exports were almost absent from the market. Additionally, increasing production of mostly sour grades from Middle Eastern countries to replace Libyan crude added more pressure on sour grades. However, in the US, the sweet-sour spread did not follow the same trend, narrowing slightly as sour grades strengthened and light sweet crude remained pressured by the weak WTI benchmark.

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



In Europe, the Brent-Urals spread widened to \$3.1/b in March despite the fact that some refineries were undergoing maintenance. A year earlier, the spread stood at \$1.86/b and in March 2009 it was less than \$1/b.

The spread was much higher in Asia Pacific where the Brent-Dubai spread jumped to almost \$5.9/b in March. On a daily basis, the differential was even higher, reaching nearly \$7.7/b at end-March before widening further in the following days to hit \$9.83/b

on 5 April. That was the highest since October 2004 when the market was flooded with heavy sour crude. The huge differential between Brent and Dubai was exacerbated by brisk demand for sweet grades from Japan for power generation following the shutdown of nuclear plants due to the triple catastrophe in Japan. It is worth noting that in addition to the absence of Libyan exports, Brent benefited from the disruption of output from Gabon in early April because of a strike. The widening Brent-Dubai spread reduced arbitrage opportunities for Russian and West African grades to the Asia-Pacific region and made Middle Eastern crudes more attractive to eastern refiners.

In contrast, in the US, the spread between the US benchmark and Light Louisiana Sweet as well as Mars sour almost halved to around \$5.9/b in March as WTI remained pressured by growing stocks in Cushing, Oklahoma.

# Commodity Markets

*Except for crude oil and precious metals, commodities markets were bearish in March*

## Trends in selected commodity markets

**The World Bank (WB) energy index** increased by 9.6% m-o-m in March compared to a 4.4% gain in February on the back of events in Japan and political unrest in the MENA region. By contrast, a 4.8% m-o-m drop took place in the non-energy commodity price index. Except for gold and silver, most of non-energy commodities reported a price fall in March due to the uncertain economic situation.

**Table 2.1: Commodity price data, 2011**

Commodity	Monthly averages			% Change		
	Jan 11	Feb 11	Mar 11	Jan/Dec	Feb/Jan	Mar/Feb
<b>World Bank commodity price indices for low and middle income countries (2000 = 100)</b>						
<b>Energy</b>	319.5	333.6	365.6	3.8	4.4	9.6
Coal, Australia	132.5	128.4	128.0	12.0	-3.1	-0.3
Crude oil, average	92.7	97.9	108.6	3.0	5.6	11.0
Crude oil, Brent	96.3	104.0	114.4	4.9	8.0	10.1
Crude oil, WTI	89.4	89.5	102.9	0.3	0.1	14.9
Natural gas index	170.2	162.8	163.7	7.2	-4.3	0.5
Natural gas, US	4.5	4.1	4.0	6.0	-9.3	-2.5
<b>Non Energy</b>	334.6	350.7	333.9	5.8	4.8	-4.8
<b>Agriculture</b>	294.6	310.9	295.7	5.8	5.5	-4.9
<b>Beverages</b>	289.6	312.7	312.6	4.4	8.0	0.0
<b>Food</b>	284.6	292.6	277.4	4.2	2.8	-5.2
Soybean meal	451.0	442.0	418.0	4.2	-2.0	-5.4
Soybean oil	1374.0	1365.0	1307.0	3.9	-0.7	-4.2
Soybeans	572.0	570.0	553.0	4.6	-0.3	-3.0
<b>Grains</b>	281.0	299.8	287.4	3.4	6.7	-4.1
Maize	264.9	292.9	290.5	5.8	10.5	-0.8
Sorghum	246.3	253.2	266.1	11.2	2.8	5.1
Wheat, Canada	440.5	474.1	432.5	7.7	7.6	-8.8
Wheat, US, HRW	326.6	348.1	316.7	6.5	6.6	-9.0
Wheat, US, SRW	320.4	338.8	303.1	3.8	5.7	-10.5
Sugar US	84.8	87.4	87.5	0.1	3.1	0.1
<b>Raw Materials</b>	321.3	354.5	331.6	10.1	10.3	-6.5
<b>Fertilizers</b>	347.8	346.8	335.9	2.4	-0.3	-3.2
<b>Base Metals</b>	367.2	382.0	370.9	4.6	4.1	-2.9
Aluminum	2439.5	2508.2	2555.5	3.8	2.8	1.9
Copper	9555.7	9867.6	9503.4	4.5	3.3	-3.7
Iron ore, spot, cfr China	179.2	187.2	169.4	9.9	4.5	-9.5
Lead	260.2	258.7	262.4	7.8	-0.6	1.4
Nickel	25646.3	28252.3	26710.0	6.4	10.2	-5.5
Steel products index	240.9	245.5	265.1	3.2	1.9	8.0
Tin	2746.5	3152.6	3059.1	5.0	14.8	-3.0
Zinc	237.2	246.5	234.1	4.0	3.9	-5.0
<b>Precious Metals</b>						
Gold	1356.4	1372.7	1424.0	-2.5	1.2	3.7
Silver	2855.2	3085.8	3594.6	-2.8	8.1	16.5

Source: World Bank, Commodity price data

Commodity markets were greatly impacted in March by the crisis in Libya and the tragic events in Japan. There has been a risk reduction in many industrial metals because of concerns on the potential risk posed by higher oil prices for the global economy if sustained over a longer period. A drop in demand for commodities by the third largest economy in the world has taken place and it has been estimated that 20% of the power generation in Japan was lost. Energy prices increased in an extremely volatile market, following the Fukushima nuclear accident which prompted demand for crude oil and other energy resources such as coal and gas.

These events reshaped the risk profile across commodities. The risk is shifting away from industrial metals to tighter oil and causing a further upside risk to gold and agriculture. There has been a considerable decline in traded volumes across major commodities, which may be reflecting caution from participants in commodity markets while assessing the government response to recent events. This has created further market uncertainties.

The **WB energy commodity price index** (crude oil, natural gas and coal) increased slightly by 9.6% m-o-m in March. Australian coal dropped by 0.3% m-o-m in March compared to 5.3% in February.

**Henry Hub (HH) natural gas prices** declined by 2.5% m-o-m to \$3.97/MMbtu in March, compared to a 4.3% fall a month earlier. US natural gas prices rebounded during the second half of the month, triggered by the stronger-than-expected draw reported by the EIA on 17 March caused by the colder weather forecast for the end of March and short covering. The impact of the Japanese earthquake on the HH natural gas market has already been reflected on the curve and it looks small. Although natural gas prices increased across the curve, the major movement took place in the near term. The prompt contract added 21¢ to \$4.37/MMBtu. Nevertheless, a sustained upward trend in HH natural gas prices may appear if there is a radical change in the US energy policy regarding nuclear production, which seems unlikely at present. According to Barclays, in order to rebalance the US natural gas market via higher demand, it would be necessary to shutter a large amount (13-26%) of total North American nuclear capacity.

Finally, it is expected that the warmer weather over the short-term will bring robust injections implying weak fundamentals.

The **WB non-energy commodity price index** declined by 4.8% in March. Industrial metals declined while agricultural goods reported a mixed performance with corn, soybean and rice being the most affected by the Japanese crisis. Precious metals was the only bullish non-energy commodity complex due to its role as safe heaven.

*Industrial metal prices were bearish and volatile in March driven by events in Japan and the MENA region*

**Industrial metal** prices fell by 2.9% m-o-m in March compared to a 4% rise in February dragged down by the political turmoil in the MENA region, macroeconomic uncertainty and the Japanese earthquake. A characteristic of the industrial metal markets was also extremely high volatility. Weaker industrial metal imports from China also contributed to the bearish mood in the market complex. Except for aluminium and lead, all industrial metals saw a price decrease in March.

**Aluminium** prices grew by 1.9% m-o-m to around \$2,556/t in March. The metal price was resilient to the earthquake in Japan and Chinese interest rate increase. Aluminium prices went up as a result of rising crude oil prices, which pushed production costs and concerns over the nuclear sector as well as supply disruptions as MENA's share of aluminium production (8% of global supply) is the largest within the industrial metal complex. Aluminium also benefited from the substitution effect from copper which is still at high levels and it is expected that the reconstruction in Japan will be a bullish factor. Nevertheless, aluminium inventories at the London Metal Exchange (LME) increased by 0.2% m-o-m to 4,603,301 tonnes standing above the year-ago level, indicating that the market remains well supplied.

**Lead** prices increased, reversing the losses in February, up by 1.4% m-o-m to \$2.62/kg in March. Contrary to most other industrial metals, lead has benefited from the Japanese crisis as power shortages represent the most current problem in Japan. It is estimated that 20% of Japan electricity supply was cut, which left primary and emergency services relying on battery supplied electricity; a situation which is expected to last for some time. However, there are no reasons to expect an increase in lead prices once the electricity problem has been sorted out in Japan because the market is well supplied. Lead inventories on the LME dropped by 2% m-o-m to 287,507 tonnes in March but remained very high, having increased by 36% since the beginning of the year.

**Nickel** prices received the major negative effect of the Japanese crisis among the industrial metal complex in the current month. This metal price declined by 5.5% m-o-m to \$26,710/mt in March along with the closure of several steel mills due to power

shortness in Japan which led to the delay of several shipments to Japan due to force majeure in a couple of steel mills. Nickel inventories declined by 3.5% m-o-m to 126,477 tonnes in March and nickel market are supposed to remain in deficit for 2011. However, several projects are slated to come on line later in 2011-2012.

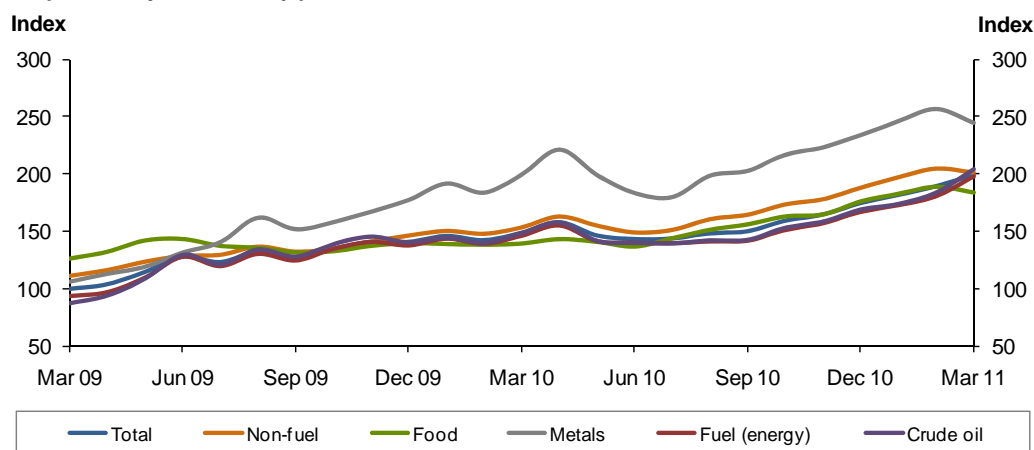
**Zinc** prices fell by 5% m-o-m to \$2.34/kg in March compared to a 3.9% gain in the earlier month on weak fundamentals, as the market is expected to be in surplus for 2011. Zinc inventories at the LME rose by 3.2% m-o-m to 731,721 tonnes in March, a record level not seen in more than 15 years. The oversupplied market of zinc was only slightly affected by the events in Japan as the country accounts for only 4% of global demand in line with production, so the power supply issue, which has diminished production, is not likely to greatly affect the global balance.

**Copper** prices declined 3.3% m-o-m to around \$9,364/t in March, continuing the slowing trend since January. Copper prices received the negative impact of both the MENA region and Japanese crisis. A bearish mood prevailed in the market since the first week of March in the mid of concerns on the impact of surging oil prices on global growth and lower Chinese imports. Copper imports from China declined to their lowest level since late 2008 at 158,000 tonnes, which was caused by the negative arbitrage between Shanghai Futures Exchange (SHFE) and LME prices, soft cyclical premium and growing exchange-held inventories, which rose by 6.6% m-o-m to 430,945 tonnes in March.

**Gold** prices increased further by 3.7% m-o-m to \$1,424/oz in March, supported by a second round of quantitative easing conducted by the US Federal Reserve. Gold prices were also sustained by ongoing events in the MENA region and the earthquake in Japan, which enhanced the role of the metal as a safe haven in the midst of inflationary fears and the weaker dollar. Global market uncertainties are likely to support investor interest with gold ETP flows having been positive in March.

**Silver** prices jumped by 16.5% m-o-m to \$35.60/oz in March tracking the path of gold as a safe haven.

**Graph 2.1: Major commodity price indexes, 2009-2011**



**Commodity price index, 2005 = 100**

*Total:* Includes both fuel and non-fuel

*Non-fuel:* Includes food and beverages and industrial inputs

*Food:* Includes cereal, vegetable oils, meat, seafood, sugar, bananas and oranges

*Metals:* Includes copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium

*Fuel (energy):* Includes crude oil (petroleum), natural gas and coal

*Crude oil:* Is the simple average of three spot prices: Dated Brent, West Texas Intermediate and Dubai Fateh

Source: IMF

**Agriculture** prices fell by 4.9% m-o-m in March reversing the 5.6% gain in February, mainly on Japanese earthquake.

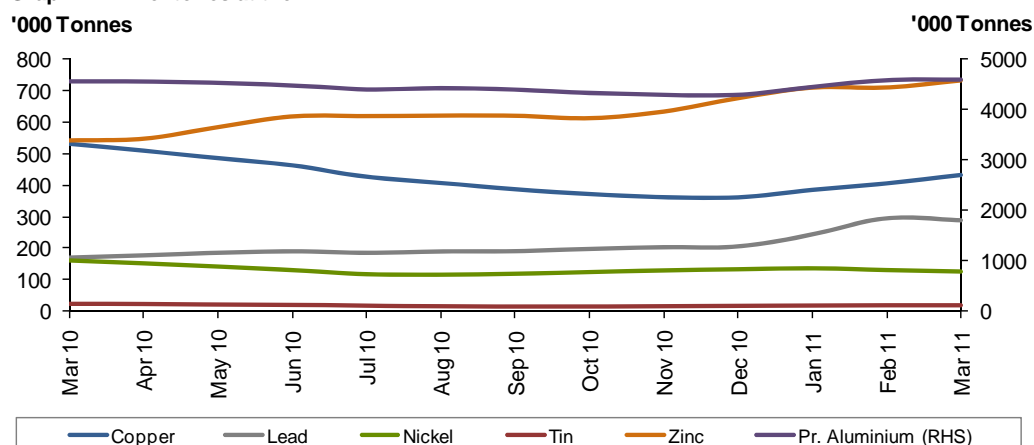
**Corn** prices fell by 0.8% m-o-m to \$290.50/mt in March, mainly on damaged processing facilities in Japan and concerning the fact that Japan – the world greatest importer of corn- may replace corn imports with processed products. Despite the bearish mood among investors in March, the corn market remains in deficit as global production is unchanged and global demand is expected to rise. Although according to the USDA report, farmers are expected to increase the production of corn and wheat to the detriment of soybean, which may lead to a retreat in corn prices in the short term, fundamentals are still strong. US inventories are at the lowest level in 15 years. This was related to strong ethanol production and export sales in March that led to a tighter 2010/11 US corn balance according to the USDA. This situation, as well as limited acreage grains, suggests an important upside risk to prices, related to unexpected bad weather during the planting and growing months and, if Chinese imports continue increasing, the outlook for corn markets is still bullish.

**Sugar** prices at the US markets slightly rose by at a slower pace of 0.1% m-o-m to 87.51¢/kg in March compared to a 3% rise in the previous month as a result of positive expectations on the supply side in major producers and the thought that this is the time for Indian sugar exports. Furthermore, Japan being the eighth larger sugar importer, the tragedy also added to the bearish mood in the market.

**Wheat** prices in the US plummeted by 10.5% m-o-m to \$303.10/mt, more than reversing the 5.7% increase in the earlier month on lower EM stockpiling and, as in March, the USDA reported larger-than-expected inventories. The decline in wheat prices was reinforced by the fear of a decrease in Japanese wheat imports or the possible postponement of purchases. Despite some risks for the new crop, inventories for 2011/12 are still elevated.

**Soybean** prices further declined by 3% m-o-m to \$553/mt in March as a result of a prospect for a looser 2010-2011 global balance due to an improved South American production outlook and softer Chinese imports. However, according to the USDA report of 31 March, soybean old stocks were lower than expected at 1,249 million bushels and farmers were expected to increase corn and wheat acreages to the detriment of soybean.

**Graph 2.2: Inventories at the LME**





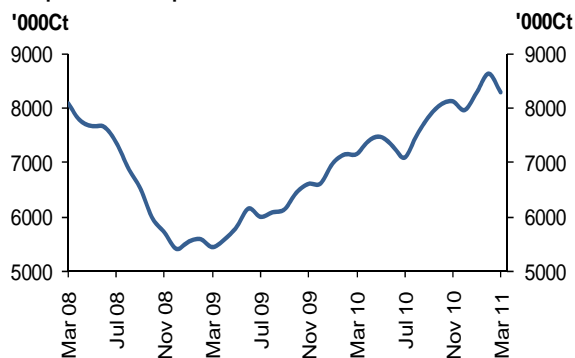
*OIV decreased by 3.9% m-o-m in March reflecting the bearish mood across many commodities*

### Investment flows into commodities

For March, the CFTC reported a 3.9% m-o-m drop to 8,427,648 contracts in the total open interest volume (OIV) for major commodity markets in the US. Nevertheless, once more the performance was mixed across markets with precious metals being the best performers, while the energy complex showed a milder rise in OIV compared to the previous month.

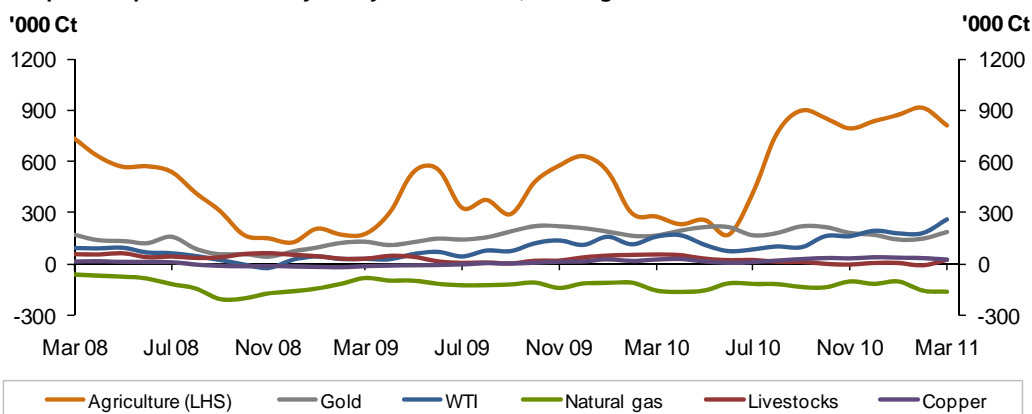
A decline of 8.1% m-o-m took place in short positions of money managers in March while longs declined by 2.8% m-o-m. This led to the net length of speculative positions to decline by 0.3% m-o-m to stand at 1,297 contracts in March. A bearish mood has prevailed since the tragic events in Japan.

Graph 2.3: Total open interest volume



Source: CFTC

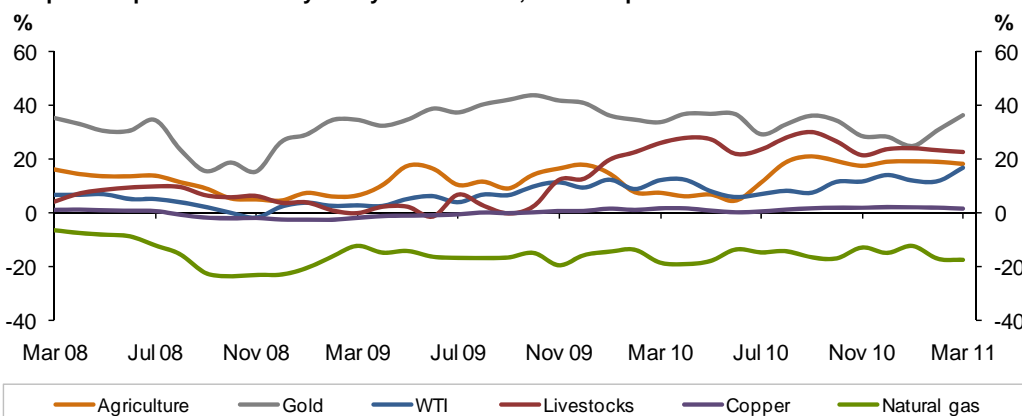
Graph 2.4: Speculative activity in key commodities, net length



Source: CFTC

**Agricultural** OIV declined by 7.5% m-o-m to 8,427,648 contracts in March. Strategic investor moved out from the agricultural markets towards safe haven assets. Money manager long positions fell by 8.2% m-o-m while shorts also declined by 5%. As a result the speculative net length declined sharply by 11.3% m-o-m to 1,297,380 contracts, while speculative net length as percentage of OIV retreated from 18.7% in February to 17.9% in March.

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



Source: CFTC



**Precious metals** OIV recovered from the losses in February, increasing by 4.6% m-o-m to 643,730 contracts in March. Money manager long positions jumped by 15.4% m-o-m in March while short positions plummeted by 42.7%. As a consequence, speculative net length reported a sharp increase of 22% m-o-m to 216,515 contracts.

Gold and silver have been used as safe-heaven in response to recent international events and some unfavourable macroeconomic developments such as the Euro debt and inflation concerns.

**Nymex natural gas** OIV retreated from 11% m-o-m in February to 1.9% m-o-m in March to stand at 925,653,710 contracts. Money manager long positions declined by 3.5% m-o-m which combined with a 1% m-o-m rise in shorts, bringing speculative net length as percentage of OIV from minus 17.2% in February to minus 17.6% in March. The NYMEX natural gas market remains under looming supply pressure due to high inventories. Indeed, the more modest increase in the growth of OIV suggests that short-covering rather than new buying has accounted for most of the upside this month.

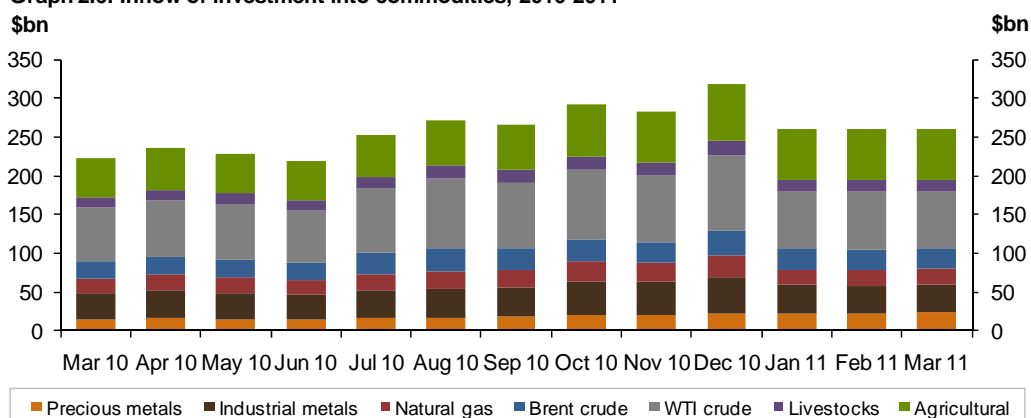
**Copper** OIV plummeted by 12.5% m-o-m to 138,738 contracts in March, in a continuation of the downward trend seen from the beginning of the current year. A huge decline in both speculative long and short positions of 20.3% and 9.8% respectively. As a result, net speculative length retreated from 20 percentage points (pp) of OIV in February to 16.8 pp in March.

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

	Open interest		Net length			
	Feb 11	Mar 11	Feb 11	% OIV	Mar 11	% OIV
Crude Oil	1534	1548	181	12	262	17
Natural Gas	909	926	-156	-17	-163	-18
Agriculture	4891	4522	915	19	811	18
Precious Metals	615	644	177	29	217	34
Copper	158	139	32	20	23	17
Livestock	664	649	156	23	148	23
<b>Total</b>	<b>8,771</b>	<b>8,428</b>	<b>1,304</b>	<b>15</b>	<b>1,297</b>	<b>15</b>

The dollar inflow of investment into the major commodity indices only increased by 0.3% m-o-m in March with the major gainer being precious metals.

**Graph 2.6: Inflow of investment into commodities, 2010-2011**



Source: CFTC

# World Economy

**Table 3.1: Economic growth rates 2010-2011, %**

	World	OECD	US	Japan	Euro-zone	China	India
2010	4.6	2.8	2.9	3.9	1.7	10.3	8.5
2011	3.9	2.2	2.9	-0.1	1.5	9.0	8.1

## Industrialised countries

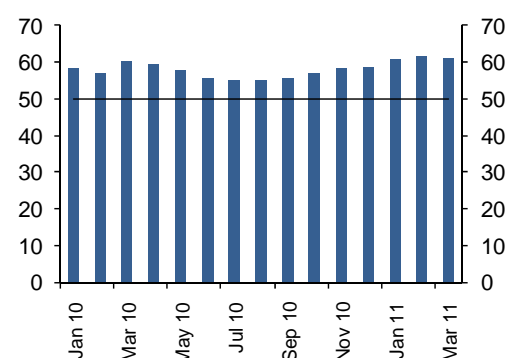
### US

*The US economy continues to enjoy solid momentum with 4Q10 GDP of 3.1%, although falling consumer confidence is a concern*

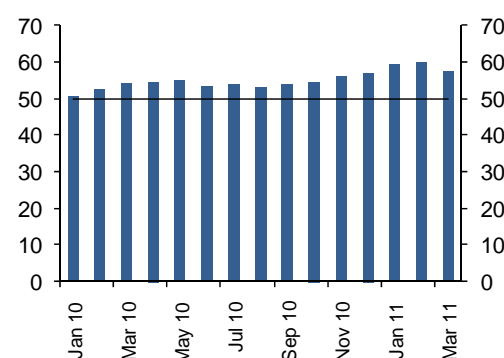
The US economy so far seems to be relatively unaffected by the many issues that are challenging other economies. So far, it has been relative resilient to concerns over sovereign debt, inflation – while increasing – is still at reasonable levels, the natural disaster in Japan seems to have had a negligible effect so far and the unemployment rate is even falling.

Furthermore, the 4Q10 GDP number has been revised up again from 2.8% quarterly growth to 3.1%, only slightly below the number of the first estimate of 3.2%. Personal consumption has again been the main contributor at 2.8 percentage points (pp), while governmental consumption negatively contributed minus 0.3 pp and the change in private inventories was even at minus 3.4 pp, all indicating that the recovery in the 4Q10 was mainly consumer led and had only limited support from an inventory built up or from direct government spending.

**Graph 3.1: ISM manufacturing index**



**Graph 3.2: ISM non-manufacturing index**



Source: Institute for Supply Management

While it is no secret that the newly installed fiscal stimulus package in the 4Q10 in combination with the quantitative easing efforts of the Federal Reserve Board (Fed) might have had some positive impact on this consumption pattern, it is a positive development as long as the debt situation does not get out of control and the Fed is in the position to manage the monetary expansion. Addressing the first, it seems that the market is satisfied so far with the debt management of the administration at 10-year Treasury yields of 3.4%, higher than the low in October 2010, when 10-year Treasuries yielded 2.5%, but basically only reflecting the higher inflation, which increased precisely 0.9% from October, when it was at 1.2% y-o-y to now stand at 2.1% y-o-y in March.

Referring to the ability of the Fed to manage the monetary expansion, this might become more of an issue in the near future as M2, the broadest monetary aggregate that the Fed publishes, has expanded by 4.1% y-o-y in February, only slightly lower than in January at 4.3% y-o-y and considerably higher than in the previous months. While the positive aspect is that, throughout 2010, the Fed had difficulty supplying cheap money to the market, when banks seem to not be willing to provide Fed money to their customers. This attitude seems to have changed and if this momentum further accelerates, it might lead to an unwanted inflationary development that would push the Fed to raise interest rates at a relatively early stage, when the economy still seems to be fragile and dependent on the government-led support. This change in attitude by the banks on the one hand to provide customers with money and on the other the willingness by consumers to again get engaged in consumer debt, can be seen in the trend of consumer credit outstanding, which has picked up every month since October 2010. And at an additional credit of \$7.6 bn has

reached the highest level of an increase since June 2008. On the other side, commercial bank credits to the private sector turned sharply negative in February at minus \$44.4 bn. This is the third consecutive month of decline and it remains to be seen if it turns again to the positive side, but it might as well be a reflection of the private sector, which still has sufficient cash levels to expand out of its own strength and does not like to get engaged in commercial credits at this stage of rising interest rates.

Consumer confidence has been relatively volatile over the last two years, but has picked up considerably since the low levels in 2009. The consumer index of the conference board has moved up from 25.3 in February 2009 to 72 in February 2011, but it should be highlighted that it has just now experienced a sharp decline in March of 8.6 index-points back to 63.4, which is the most significant drop since more than one year. The same can be said for the well established University of Michigan index too, which dropped by 10 index points in March, as well as its steepest decline since even October 2008. Both numbers indicate that consumers might be concerned about the near future. This is a surprise to a certain extent as unemployment numbers continue declining, reaching now 8.8% in March, the second consecutive month below 9%.

The most recent ISM numbers were still on the positive side. While the ISM for the manufacturing sector declined marginally it is still at a significant level that indicates an expansion. It moved from 61.4 in February to 61.2 in March. The ISM for the services sector also declined slightly from 59.7 to 57.3, but remained at a high level.

This economic situation that is still geared towards a solid momentum has not changed from the last month, but needs careful monitoring, particularly, when it comes to the development of consumption. Therefore, the 2011 GDP forecast has been left unchanged at 2.9%.

### **Japan**

The most recent events in Japan continue to weigh on that country's economy with the full extent of the impact not yet known. Certainly, the economy of Japan will be significantly negatively impacted. Furthermore supply chain disruptions of its key-trading partners might be affected at least in the short-term. Potential second-round effects might have some impact on the global economy, although this is expected to be limited.

Uncertainty for the forecast comes from the fact that the government has so far not announced in great detail what countermeasures will be undertaken to mitigate or compensate the obviously negative effects for the economy. The impact of the natural disaster has been estimated at ¥10,000-25,000 bn by governmental sources (around \$120-300 bn). Therefore, at least a governmental support package of this magnitude should be expected. On top of this, there are the consequences and the cost of the nuclear accident, which has been not accounted for in these estimates.

To establish a forecast for the Japanese economy is still very challenging. The magnitude of the GDP impact for the three affected provinces is estimated at 6% GDP. In addition to that, a 1% GDP impact has been considered, due to interaction of the rest of the economy with the three provinces mostly affected by the earthquake. Countermeasures of the government in the range of \$200 bn were accounted for in the current forecast, starting in the 2Q and spread almost equally over the remainder of the year with fading slightly in the 4Q.

The first half of this year is considered to be mostly impacted by the recent events, while the second half should see considerable growth, due to catch-up effects and the expected governmental support. The first two months of the 1Q10 has been relatively resilient and the effect for the quarter is considered to turn out in only limited negative growth. The mostly affected quarter is forecast to be the 2Q10, when the prolongation of the capacity shortfall from the end of 1Q10 events is expected and government-led stimulus is not forecast to be able to compensate for this shortfall entirely.

Most of the current indicators are distorted as they reflect a situation of before the 11 March events. Even the latest indicators that were surveyed shortly after the events in March seem to not consider the full impact of the nuclear accident. But the reading of the April PMI number provides some sense for the challenges the economy will have to deal

*The forecast for Japanese growth in 2011 revised down to minus 0.1% following the recent tragic events*

*The Euro-zone economy continues its low growth momentum and sovereign debt remains a major challenge*

with in the near future. The composite PMI fell sharply to 36.0 in March from 51.0 in February.

Given this situation and considering the scenario that the government will soon start to invest, the forecast for 2011 now stands at minus 0.1%. This compares with a forecast of 1.5% in the previous month. Still the uncertainty is high and currently skewed to the downside.

### **Euro-zone**

The main focus for the Euro-zone continues to be the sovereign debt situation. Portugal's most recent announcement to request the financial support of the European Stability Fund – although to a certain extent expected – highlighted again the fragility of the sovereign debt situation in the peripheral countries. Although the underlying growth momentum is still satisfactory, the challenges from the debt situation could have a serious impact if it unfolds at a bigger scale and while Spain is being highlighted to be save by most Brussels officials and the European Central Bank (ECB), it has to be carefully monitored in the light of the most recent interest rate hikes and the expectation that more interest rate moves may follow soon.

Inflation is currently a key theme for the ECB as the rising prices seems to leave no other choice than to raise rates, while some observers – including the International Monetary Fund (IMF) – urge central banks not to raise interest rates to soon. The current price pressure is coming from the commodities area, mainly from food and energy. On the other side a consideration to exclude these two price-drivers seems hard for the ECB as inflation has been rising now since many months and is above the crucial benchmark of 2% – which the ECB considers as a healthy level – since January 2011. The most recent flash estimate for the March inflation stands now at 2.6% y-o-y, considerably higher than the 2% benchmark. When excluding the sensitive areas of food, energy and tobacco, inflation is still at only around 1.0% y-o-y. So the rate increase of only 25 basis points might turn out as a smart maneuver – as long as the sovereign debt crisis not again pushes the euro related concerns to the forefront – for the following reasons. A move of only 25 basis points is limited, when it comes to its dampening effect on the economy, an outcome no central banker wants to currently risk as growth is still fragile. Such a soft move therefore considers the concerns of the IMF on one side, but it so far supported the value of the euro compared to the US dollar and pushed the Euro significantly above the \$1.40/euro level. This high rate of the euro on the other side positively dampens the import prices for most of the commodities that are quoted in mainly US dollars. The main challenge for the ECB remains if it can avoid further rate hikes, but currently there is a consensus that the key interest rate of the ECB will move this year from 1.0% at the beginning of the year – and now at 1.25% – to 1.75% at the end of the year. This then might have a supportive effect not only on the euro, but also a negative impact on the economy, when debt will be harder to be financed. In addition to this it could turn out as the wrong strategy in the case of again upcoming sovereign debt worries which could weaken the euro and imports in such a scenario again become more expensive, while on the other side the economy has to bear the higher interest rates.

This is then the scenario where Spain might be significantly challenged as the real estate market still has a significant weight on the economy and with falling house prices and rising interest rates for the debt services might constitute the base for some challenges in the Spanish banking sector, particularly then saving banks, the cajas.

Spain currently has a relatively solid public debt situation at around 60% debt to GDP ratio, but this might change fast, when there is further need to support the ailing private sector that according to latest findings from Ernst and Young stays at a level of 170%. This is even more challenging in an economy that has recorded an unemployment rate of 20.5% the highest of the Euro-zone nations in February and youth unemployment of 43.5%, as well the record level in the Euro-zone and both constitute peak-levels since it has joined the Euro-zone. The unemployment rate for the total Euro-zone stood at 9.9% in February and therefore below the psychologically important 10% level. After revision for the previous months, this has been the first time since January 2009.

Besides these financial market related issues, the Euro-zone's manufacturing sector has developed nicely, but again seems to return to some fragility. The forward looking industrial

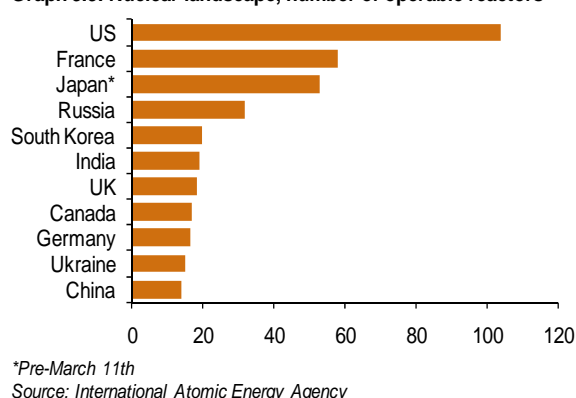
orders have risen by 0.1% m-o-m in January only, a steep fall from the December and the November levels at 2.7% m-o-m and 2.1% m-o-m rise respectively. Particularly the domestic orders have declined by 0.3% m-o-m, while – again – it has been the foreign orders at a growth of 2.8% m-o-m that were keeping the total order number in positive territory. Industrial production remained almost flat in January and stood at 0.2% m-o-m again, at the same level as in December. The composite PMI for March stood at 57.6, after 58.2 in February, and the manufacturing sector recorded a level of 57.5, after 59.0 previously. Both numbers are still well above the growth indicating 50-level.

Given the fact that the Euro-zone's low growth dynamic has not changed in the past month and the interest rate situation so far is in line with expectations, the growth forecast for 2011 remains unchanged at 1.5%.

### Emerging Markets

The disaster on 11 March at the Fukushima Daiichi nuclear power plant in Northeast Japan has brought nuclear energy safety, in both developed and developing countries, to the spotlight again. Nuclear energy accounts for 14% of global electricity generation (27% in Japan in 2010) and before the Japanese nuclear plant disaster it had looked set to a cautious renaissance. Countries with high dependency on imported hydrocarbons have been in favor of a larger share of nuclear energy in their energy mix. It seems that despite the recent catastrophic events, because of its features, nuclear is likely to remain a significant part of global energy mix particularly in fast growing developing countries. Its main advantages are their low operational marginal costs (despite very high start-up costs) and the lack of carbon emissions. According to the IAEA, of the BRIC countries, Russia, India and China are amongst the world top 11 countries when it comes to the number of operable nuclear reactors.

Graph 3.3: Nuclear landscape, number of operable reactors



Nuclear energy has obvious appeals to fast-growing developing economies such as China and India. In these countries a combination of massive populations, rapid economic growth and a heavy reliance on coal make nuclear power an alternative energy source with the favorable features of improving energy security and combating severe air pollution. China, in particular, is poised to expand its nuclear industry massively in the next decade.

By some accounts, China aims to increase its nuclear generating capacity by seven-fold by 2020, although in the wake of the recent Japanese nuclear disaster this ambitious target may be modified by some extent. Currently some 27 new reactors are under construction according to IAEA, and by 2020 the country may have as many as 75 reactors operating, up from 13 at present. India, meanwhile, plans to increase nuclear capacity from 4.6 gw in 2009 to 40 gw by 2030. India already has 20 nuclear reactors in operation. Russia also seems reluctant to change its plans for more nuclear plants being built inside and outside the country. The country plans to build at least 14 new plants in the next 20 years despite the fact that Russia is endowed with massive oil and gas reserves. However, increasing the share of nuclear generation from 16% of the total to nearly 20% would free up more Russian fossil fuels for export.

In sum, opposition to nuclear power is certain to increase in many countries particularly in OECD. However, in emerging markets growing need for energy would rule out a drastic change in nuclear energy plans. Should political and public resistance to the construction of new plants, or to the extension of operating existing plants, prove significantly stronger in developed world, the partial rebalancing of world nuclear capacity towards developing countries could accelerate. According to the Economist Intelligent Unit (EIU, April, 2011) in 2010 China and India accounted for a combined 3.5% of global nuclear electricity generation. That share could rise to 13.6% in 2020.

*Asia grew a strong 8.2% in 2010 and is expected to remain the world's fastest-growing region in 2011*



In addition to the tragic events in Japan, the political crises in the Middle East and North Africa also could exert some negative impact on global economy and emerging markets, mainly through a rising oil prices. However, the increase in oil prices appears to mainly be driven by speculations and negative expectations rather than market essentials considering the higher than average level of commercial inventory. The following table shows that the recent events in MENA region, at most, could have reduced less than 3% of total oil export which is compensated by proper increase in other OPEC Member Countries production.

**Table 3.2: Top oil exports, 2009, % of global exports**

Saudi Arabia	15.4	Kuwait	3.3
Russia	13.2	Mexico	3.2
Iran	5.4	Venezuela	3.1
Nigeria	5.1	Algeria	3.1
UAE	4.7	Libya	3.0
Iraq	4.5	Qatar	2.4
Angola	4.4	UK	1.9
Norway	4.3	Azerbaijan	1.4
Canada	3.6	Oman	1.4
Kazakhstan	3.4	Brazil	1.2

Sources: EIA, Economist Intelligence Unit

Against this background, there is consensus that Asia will remain the world's fastest-growing region this year. Asia and Australasia (excluding Japan) grew strongly in 2010, at an average of 8.2%, which was well above its trend growth rate. Two factors contribute to this: The first is that Asia's economic fundamentals remain in good shape. The second important factor is the emergence of China as an independent engine of regional growth. However, this rapid GDP growth, coupled with rising commodity, is fuelling inflation in many emerging markets, including China, India and Brazil. Food price inflation is particularly noticeable as for most developing Asia food accounts for 30-40% of household spending. In the circumstances, concerns over GDP growth and employment opportunities prevent the authorities to increase interest rate higher than what warranted and in most emerging markets real interest rate still remain in positive territory.

In Latin America, growth is expected to slow in 2011 as monetary tightening is underway to curb the surging inflation. Renewed inflation pressures in recent months, in a context of rising global commodity prices and booming domestic demand, have produced a monetary policy dilemma, as they have been accompanied by persistent currency appreciation pressures stemming from capital inflows into the region. Wide interest rate differentials, combined with strong growth prospects, have made Brazil particularly attractive to speculative investment inflows, and appreciation pressures have prompted authorities to commit to capital controls. Colombia, Chile, Peru and Argentina are experiencing similar trends and have all also resorted to direct intervention in the foreign-exchange market to contain currency appreciation in recent months.

Currently there are two further issues that concern major emerging markets over their relation with the developed economies namely the impact of monetary stimulus in the West on their real estate sector and the sovereign debt crisis effect on their export as Europe is an important export market.

Table below summarizes our estimate of the BRICs GDP growth in 2010-2012 and likely values of other important macroeconomic variables in 2010-2012.

**Table 3.3: Summary of macro-economic performance of the BRICs countries**

	GDP growth rate		CPI,* % y-o-y change		2012	Current account balance, US\$ bn		PSBR,* % of GDP	
	2010	2011	2010	2011		2011	2012	2011	2012
Brazil	7.2	4.1	5.9	5.5	4.8	-63.4	-75.6	2.5	2.3
China	10.3	9.0	3.3	4.6	3.7	302.3	312.9	-1.9	-1.4
India	8.5	8.1	10.3	7.2	7.6	-51.4	-62.3	-5.1	-5.2
Russia	3.9	4.1	8.8	8.4	7.4	73.7	53.4	-1.9	-1.2

CPI = Consumer price index

PSBR = Public sector borrowing requirement

\*Source: Consensus forecast, February 2011, figures for India are from the fiscal year 2010-2011 and 2011-2012

As is apparent from the table, inflation poses a real challenge for economic stability of all members of the group although in general a lower rate of inflation is expected for the BRICs in 2012, meaning that tightening policies are seen effective in curbing inflation. Fiscal stance of the BRICs is also expected to improve in 2011 and 2012 compared to 2010 although India still faces a huge public sector borrowing requirement that considering its growing current account deficit cannot be reduced without negatively affecting private spending, that might in turn jeopardize India's economic growth in medium term.

### **Brazil**

Brazil has pursued two economic policy targets in recent months above other economic targets, although these targets seem contradictory to some extent. One important target of the Brazil economic policies has been curbing inflationary pressures. The next target has been controlling appreciation of the Brazilian *real* against the international reserve currency, US dollar. The latest trends in inflation, with the mid-month IPCA consumer prices index rising to 6.08% in mid-February, continue to highlight the need for policy tightening, although March inflation slowing only moderately. In the battle to slow the appreciation of its currency and protect local manufacturers in an attempt to limit the amount of dollars flooding into the country and boosting the Brazilian real, the government tries to make companies in Brazil pay more tax on the money they raise abroad through loans or bond sales. Some observers believe that first quarter capital inflows should trigger further foreign exchange measures. There has been around \$ 35 bn inflow to the economy since last March. Government officials have stated that these measures are consistent with curbing credit expansion in the economy in order to help control inflation.

Although GDP growth is expected to moderate this year compared to 2010, February industrial production (IP) has been surprisingly higher than expected, growing by 1.9% compared to January. However, consumer durable goods showed a sequential contraction. Despite the February lift, production remained slightly below the peak reached in March 2010. In fact the March purchasing managers index (PMI) receded to 53.2 from 54.6 in February and business confidence in the manufacturing sector continues to drift lower. Labor market remains tight as unemployment is low, but wages are slowing. Still this will be a manufacturing growth compared to fourth quarter 2010, because even a 1.2% fall in industrial production in March would mean, on quarterly basis, a 2.5% growth compared to the last quarter.

Brazil's trade surplus widened in March to its highest level in three months as commodity-price increases sent the value of exports surging. The trade balance registered a surplus of \$1.6 bn in March, up 23.3% from \$1.2 bn in February. The value of exports rose by 9.8% month on month to \$19.3 bn in March. Imports grew by 8.7% to \$17.7 bn. It is expected that the trade surplus to narrow as imports become cheaper and exports less competitive owing to the appreciation of the real. Healthy domestic demand will make imports grow more quickly than exports. Trade balance is expected to fall this year, to \$14.2 bn from \$20.3 bn in 2010.

*Brazil continues to pursue twin goals: curbing inflationary pressures while controlling appreciation of its currency*

*Inflation, expected to average 5% in 2011, remains a top concern in China; government also shifts emphasis from infrastructure to social spending*

### **China**

Despite the disruption of the catastrophic events in Japan, economic growth in China is expected to remain robust as demand for investment is picking up and consumer spending rising. In 2010 economic activities accelerated in all parts of the economy and the GDP growth rate reached 10.3%. A loose credit policy accommodated economic growth surge. For this year, although the Chinese authorities have stated they would moderate the pace of economic growth to prevent overheating and inflationary pressures and to promote quality of economic expansion by reducing its negative environmental and social impacts, 9% GDP growth in 2011 looks reasonable. It is worth noting that China's March manufacturing PMIs rose moderately, suggesting steady growth in industrial production. In particular, the PMI components on finished goods inventory and overstock orders each rose by more than 4 bp. In addition, the Markit PMI turned up moderately to reach 51.8 in March, compared to the seven month low of 51.7 in February.

However, rising inflation is a major concern, as it is expected to reach around 5% on average in 2011. In March the consumer price index (CPI) reached 5% and it is expected that inflation rate to remain elevated through the year. For this reason more increase in the benchmark interest rate as well as reserve requirement ratio is expected. Despite the fact that in recent years China's economy has usually exceeded the expected growth rate, still we believe that a binding monetary tightening could slow economic growth to some extent. This week the People Bank of China (the Central Bank) increased its benchmark interest rate as much as 25 basis points (bp). This is second increase in this year so far and fourth increase since October 2010 that brings the one-year deposit and lending rates to 3.25% and 6.31% respectively. Nevertheless, it is worth noting that raising interest rates, curbing loan expansion and tightening up on mortgages all may not be able to curb rapid economic expansion as firms have been active in the corporate bond market and have issued large amount of equity.

On fiscal policies, China is turning its emphasis on social welfare spending rather than investing on infrastructure. Although a fiscal deficit of 2% of GDP is envisaged for 2011 it is important to note that the real public sector borrowing requirement might be much higher as local governments and state owned enterprises also run budget deficit. In general terms there seems to be a rebalancing from investment in physical infrastructure towards more spending on social welfare spending. Overall spending on social welfare, including education and health care, is to increase by 14% in 2011

### **India**

*India aims to reduce the budget deficit to 4.6% of GDP, down from 5.1% in 2010, an ambition target*

India's economy rebounded more strongly from the 2008-09 global economic crises than previously thought. Real GDP growth was estimated to be 8.5% in 2010. For 2011 GDP growth rate estimated by different organizations and institutions differ significantly. While the Central Statistical Office has estimated that economic growth in the second half of 2010/11 will slow to 8.3%, the latest survey of professional forecasters by Reserve Bank of India, the country's central bank, indicates that the economy is expected to grow by 8.5% in fiscal year 2011. The consensus on average predicts an 8.2% expansion in Indian economy in 2011. We believe that 8.1% GDP growth is more realistic as various economic indicators point to moderation of GDP growth. Industrial output for example grew at its slowest pace for 20 month in late 2010. Manufacturing output which account for 80% of the industrial production index was up by only 1% in December 2010, compared to 20% a year earlier. However, in March, new orders for manufacturing products rose for a third consecutive month.

Investment growth also expected to slow down. The moderation in investment is consistent with other economic indicators, such as a slowdown in import growth. The latest OECD leading indicators for India also points to a further slowdown in economic growth, although, the agricultural, financial, insurance and property sectors are all expected to show stronger growth in the second half of 2010/11 than in the first. Export growth in the year as a whole should be higher too, thanks to a pick-up in overseas demand. In fact export continued to grow rapidly in February compared to imports narrowing the monthly trade deficit at a lower level. FDI reduced in first quarter of the year and net inflows was US\$ 2.1 bn almost 20% lower than the previous quarter and 50% lower than the corresponding quarter in the previous year. India's information technology (IT) sector is set to grow strongly. According to National Association of Software and Services Companies, export revenue is expected



to rise to \$68 bn in 2011 fiscal year. It is expected that the sector's export revenue to grow by 19% in 2011.

The Indian government has set ambitious fiscal targets in its public sector borrowing requirement of fiscal year of 2011. The emphasis on fiscal consolidation has been to reduce the budget deficit to 4.6% of GDP, down from 5.1% in 2010. Although the economy has reacted positively to this announcement but considering the economic performance of recent years this target seems ambitious. For example, with growing food, commodity and energy prices the government subsidies will increase putting more pressure on its budgetary position.

### **Russia**

*Russia grew by a faster than expected 4% in 2010; this year sees a tightening of monetary policy*

Russian economy grew by 4% in 2010, faster than expected. The greatest contribution to GDP growth came from buildup in stocks, as these were run down in 2009. Growth in external demand also contributed in GDP growth as export grew by 11% in 2010. In addition to these two components of aggregate demand, domestic consumption and investment also recovered in 2010. Budget deficit shrank in 2010 to around 4% of GDP from 5.9% in 2009. Russia's growth will remain below pre-crisis standards. In Russia, growth was dampened in the third quarter 2010 by the severe summer drought and wildfires, but rebounded in the fourth quarter, driven by manufacturing and energy production gains. Russian growth prospects will continue to be dependent on world commodity prices, especially for oil and gas, but higher inflation is weighing on consumer demand, and economic growth is expected to remain close to 4.1% in 2011, although the Economy Ministry estimates that in unadjusted terms real GDP will grow by 4.3% year on year in January 2011. In January, there has been a sharp reduction in investment, 17.1%, month-on-month drop in seasonally adjusted investment spending. However, poor investment data are offset by industrial recovery. Retail sales also eased, by 0.5% m-o-m in adjusted terms.

Latest PMI appears to confirm a positive outlook for the manufacturing sector. In February PMI rose to its highest level since January 2008, reflecting accelerating in new orders. However, retail sales point to slowing household demand. Consumer demand has been affected by rising inflation-driven by higher food prices. Data released by RosStat indicates a slowing growth in y-o-y disposable income expansion. Income growth rate dropped in to negative territory by 5.5% on the annual basis. This has been first decline since August 2009. Nevertheless, real wages were up by just 0.6% in January compare to last year following 4.2% growth in 2010. Consumer price inflation moderated in February for the first time since July 2010. It reached 9.5% that was far above the 5.5% inflation in July 2010. Increase in food prices has been the main driver of prices inflation. In February food prices increased around 14.1% compared to 14.2% in January. Non-food inflation was 5.6% in February on annual basis. Controlling inflation has been one of the main concerns of Russian policy maker. The Russian central Bank has tightened monetary policy in 2011 by increasing reserve requirement twice raising the key refinancing rate. In late January, the Central Bank raised the rate from 2.5-3.5% and in late February there was another increase in reserve requirement to 3.5-4%.

### **OPEC Member Countries**

OPEC member countries economic performance has been mixed in first quarter of 2011. Considering the continuation of global economic recovery and rising oil prices, most MCs are believed to experience higher economic growth compared to last year. However, the MENA region conflicts will obviously have an impact on economic performance of OPEC countries. Uncertainties stemming from the MENA region events make it difficult to predict the economic expansion of OPEC countries as a whole. Nevertheless, as the global economy expands, we expect a steady economic growth for most OPEC MCs in 2011. In fact the rates of economic growth for eight out of twelve MCs are estimated to be higher in 2011 compared to last year. On average, the economies of OPEC member countries as a whole are expected to grow around 4% in 2011 compared to 3.5% in 2010 that indicates a positive increase of economic activities in MCs.

### Oil prices, US dollar and inflation

*The US dollar weakened against all major currencies in March for a third consecutive month. It traded at an average rate of \$1.3998/€ compared to \$1.3647/€ in February.*

The US dollar continued weakening against all major currencies in March for a third consecutive month. It fell by 2.6% against the euro, after it had recorded already a decline of 2.2% in February. Versus the Swiss franc it even lost 3.4%, while against the yen the decline was only at 0.9% and versus the pound sterling only 0.3%. The euro continued to trade in its new trading range of above \$1.40/€ and even closed at \$1.4434/€ on 11 April, marking the highest level since January 2010. The average level for March was at \$1.3998/€ compared to the February level of \$1.3647/€. While the euro continues being carried by expectations of further interest rate rises in the Euro-zone, the debt worries about the peripheral countries in the Euro-zone might act as a counterforce soon and in the case of a serious re-emergence of those challenges could again put the euro under considerable pressure. The most recent aid-request from Portugal to the European authorities has highlighted this challenge.

*The OPEC Reference basket price rose by 9.5% in March.*

In nominal terms, the OPEC Reference Basket increased by 9.5% or \$9.55/b from \$100.29/b in February to \$109.84/b in March. In real terms, after accounting for inflation and currency fluctuations, the Basket price increased by 8.1% or \$5.03/b to \$66.81/b from \$61.77/b (base June 2001=100). Over the same period, the US dollar fell by 1.4% against the import-weighted modified Geneva I + US dollar basket, while inflation remained almost unchanged.\*

\* 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.

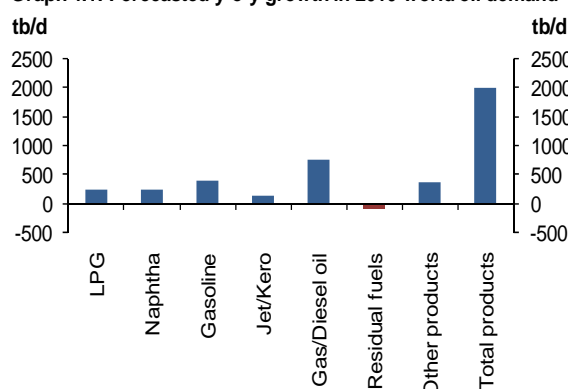
# World Oil Demand

*World oil demand forecast to grow by 2.0 mb/d in 2010 and 1.4 mb/d in 2011*

## World oil demand

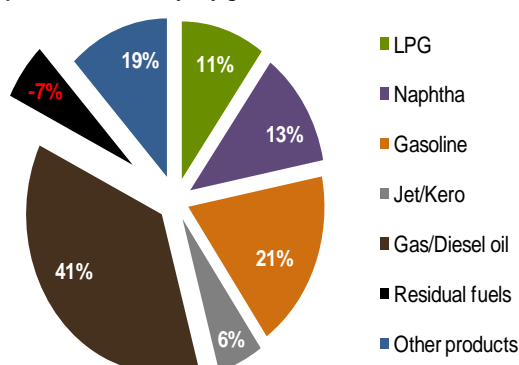
Many changes have happened in the world subsequent to our last MOMR. The most important incident is the Japanese earthquake, which is expected to affect oil demand only marginally. Japan's disaster led to a sudden decline in the country's use of oil as areas of the economy halted and the transportation sector experienced a decline; however, this is likely to be offset later in the year as the country substitutes some of its shut-in nuclear power capacity with crude-burning power generation. Furthermore, rebuilding operations later on will call for increased energy use. As the world is approaching the second quarter, oil demand has already eased; this normally takes place at this time of the year. Early signs indicated higher-than-expected winter product use for the fourth quarter of last year, which led to an upward revision. March data indicated less growth in US oil demand than expected; however, for the entire OECD, the picture is the opposite of that in the US, leaving the region's total oil demand in the negative.

Graph 4.1: Forecasted y-o-y growth in 2010 world oil demand



An upward/downward risk to the oil demand forecast still exists. International oil prices will have a slightly negative impact on transport fuel demand worldwide. Furthermore, the future rebuilding of Japan will have an upward impact on total oil use, not to mention on the future fate of the country's ailing nuclear plants.

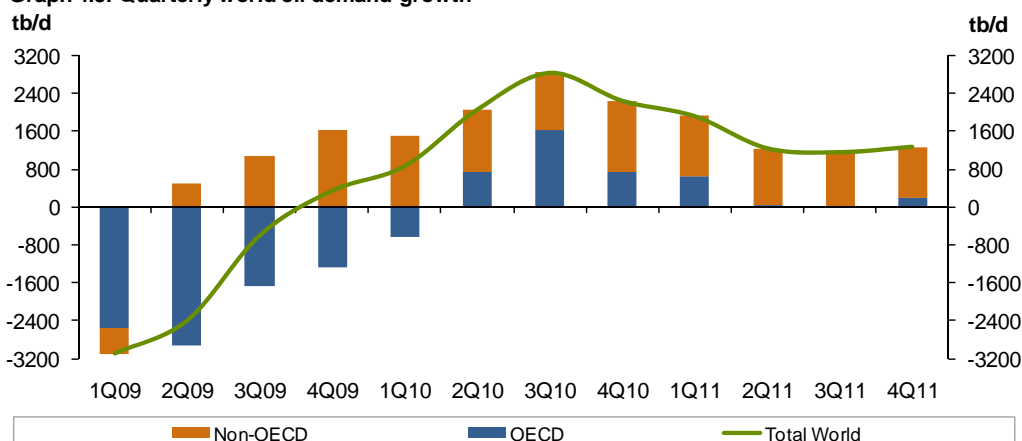
Graph 4.2: Forecasted y-o-y growth in 2011 world oil demand



World oil demand is forecast to grow by 2.0 mb/d in 2010 and 1.4 mb/d in 2011, averaging 87.9 mb/d.

The extreme winter affected oil demand more than anticipated, both directly and indirectly. Hence, last year's fourth quarter oil demand was revised up by 0.15 mb/d. Some of this growth was related to fuel switching in some parts of the world as natural gas prices went up, forcing some industries to use fuel oil instead.

Graph 4.3: Quarterly world oil demand growth



**Table 4.1: World oil demand forecast for 2010, mb/d**

	<u>2009</u>	<u>1Q10</u>	<u>2Q10</u>	<u>3Q10</u>	<u>4Q10</u>	<u>2010</u>	Change 2010/09	
							<u>Growth</u>	<u>%</u>
North America	23.30	23.45	23.78	24.23	24.01	23.87	0.57	2.45
Western Europe	14.52	14.17	14.12	14.79	14.69	14.44	-0.08	-0.52
OECD Pacific	7.66	8.19	7.32	7.60	8.04	7.79	0.13	1.70
<b>Total OECD</b>	<b>45.47</b>	<b>45.81</b>	<b>45.21</b>	<b>46.62</b>	<b>46.75</b>	<b>46.10</b>	<b>0.63</b>	<b>1.38</b>
Other Asia	9.85	9.97	10.15	9.95	10.17	10.06	0.21	2.14
Latin America	5.93	5.87	6.09	6.31	6.24	6.13	0.20	3.30
Middle East	7.09	7.18	7.16	7.48	7.25	7.27	0.18	2.57
Africa	3.25	3.30	3.29	3.16	3.31	3.26	0.02	0.54
<b>Total DCs</b>	<b>26.12</b>	<b>26.32</b>	<b>26.69</b>	<b>26.90</b>	<b>26.97</b>	<b>26.72</b>	<b>0.61</b>	<b>2.32</b>
FSU	3.97	3.96	3.80	4.24	4.32	4.08	0.11	2.72
Other Europe	0.73	0.69	0.64	0.68	0.76	0.69	-0.03	-4.45
China	8.25	8.37	9.09	9.23	9.10	8.95	0.70	8.45
<b>Total "Other regions"</b>	<b>12.95</b>	<b>13.02</b>	<b>13.54</b>	<b>14.15</b>	<b>14.18</b>	<b>13.73</b>	<b>0.77</b>	<b>5.97</b>
<b>Total world</b>	<b>84.54</b>	<b>85.15</b>	<b>85.43</b>	<b>87.67</b>	<b>87.90</b>	<b>86.55</b>	<b>2.00</b>	<b>2.37</b>
Previous estimate	84.54	85.09	85.34	87.51	87.58	86.39	1.85	2.18
Revision	0.00	0.06	0.10	0.16	0.32	0.16	0.16	0.19

Totals may not add due to independent rounding

**Table 4.2: First and second quarter world oil demand comparison for 2010, mb/d**

	<u>1Q09</u>	<u>1Q10</u>	Change 2010/09		<u>2Q09</u>	<u>2Q10</u>	Change 2010/09	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	23.43	23.45	0.02	0.09	22.94	23.78	0.83	3.64
Western Europe	14.89	14.17	-0.73	-4.88	14.26	14.12	-0.15	-1.02
OECD Pacific	8.12	8.19	0.07	0.84	7.27	7.32	0.04	0.56
<b>Total OECD</b>	<b>46.44</b>	<b>45.81</b>	<b>-0.64</b>	<b>-1.37</b>	<b>44.48</b>	<b>45.21</b>	<b>0.73</b>	<b>1.64</b>
Other Asia	9.73	9.97	0.24	2.47	9.92	10.15	0.23	2.33
Latin America	5.68	5.87	0.19	3.38	5.88	6.09	0.21	3.54
Middle East	6.95	7.18	0.23	3.28	7.07	7.16	0.09	1.27
Africa	3.27	3.30	0.03	0.92	3.25	3.29	0.04	1.21
<b>Total DCs</b>	<b>25.63</b>	<b>26.32</b>	<b>0.69</b>	<b>2.69</b>	<b>26.12</b>	<b>26.69</b>	<b>0.57</b>	<b>2.18</b>
FSU	3.87	3.96	0.09	2.42	3.70	3.80	0.10	2.70
Other Europe	0.74	0.69	-0.05	-6.77	0.69	0.64	-0.05	-7.37
China	7.61	8.37	0.76	10.03	8.38	9.09	0.71	8.46
<b>Total "Other regions"</b>	<b>12.22</b>	<b>13.02</b>	<b>0.81</b>	<b>6.60</b>	<b>12.78</b>	<b>13.54</b>	<b>0.76</b>	<b>5.93</b>
<b>Total world</b>	<b>84.29</b>	<b>85.15</b>	<b>0.86</b>	<b>1.02</b>	<b>83.37</b>	<b>85.43</b>	<b>2.06</b>	<b>2.47</b>

Totals may not add due to independent rounding

**Table 4.3: Third and fourth quarter world oil demand comparison for 2010, mb/d**

	<u>3Q09</u>	<u>3Q10</u>	Change 2010/09		<u>4Q09</u>	<u>4Q10</u>	Change 2010/09	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	23.28	24.23	0.96	4.11	23.55	24.01	0.46	1.95
Western Europe	14.47	14.79	0.32	2.22	14.46	14.69	0.24	1.63
OECD Pacific	7.25	7.60	0.35	4.86	7.99	8.04	0.06	0.71
<b>Total OECD</b>	<b>44.99</b>	<b>46.62</b>	<b>1.63</b>	<b>3.62</b>	<b>46.00</b>	<b>46.75</b>	<b>0.75</b>	<b>1.63</b>
Other Asia	9.79	9.95	0.16	1.65	9.96	10.17	0.21	2.10
Latin America	6.09	6.31	0.22	3.55	6.07	6.24	0.17	2.76
Middle East	7.30	7.48	0.19	2.55	7.03	7.25	0.23	3.21
Africa	3.16	3.16	0.00	-0.06	3.31	3.31	0.00	0.11
<b>Total DCs</b>	<b>26.34</b>	<b>26.90</b>	<b>0.56</b>	<b>2.13</b>	<b>26.37</b>	<b>26.97</b>	<b>0.61</b>	<b>2.30</b>
FSU	4.14	4.24	0.10	2.42	4.18	4.32	0.14	3.31
Other Europe	0.71	0.68	-0.03	-4.34	0.76	0.76	0.00	0.28
China	8.66	9.23	0.58	6.64	8.36	9.10	0.74	8.90
<b>Total "Other regions"</b>	<b>13.51</b>	<b>14.15</b>	<b>0.64</b>	<b>4.77</b>	<b>13.29</b>	<b>14.18</b>	<b>0.88</b>	<b>6.65</b>
<b>Total world</b>	<b>84.84</b>	<b>87.67</b>	<b>2.84</b>	<b>3.34</b>	<b>85.66</b>	<b>87.90</b>	<b>2.24</b>	<b>2.62</b>

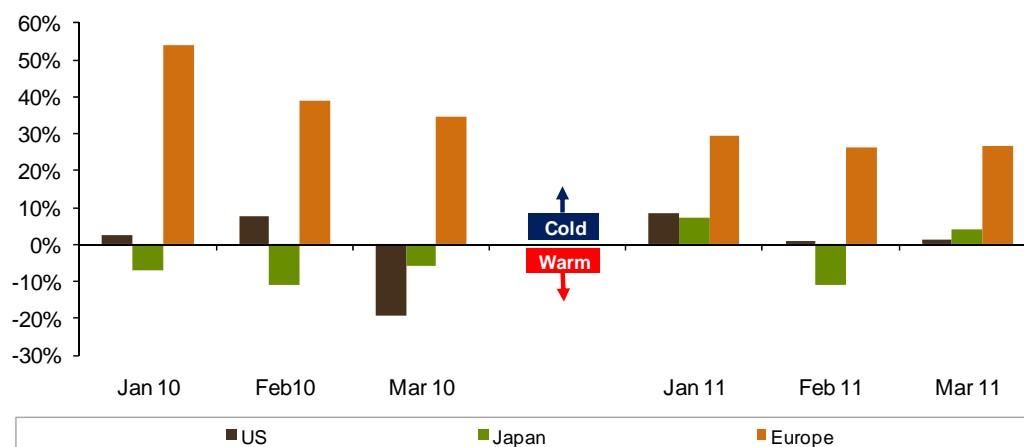
Totals may not add due to independent rounding

North American oil demand grew by 0.6 mb/d in 2010 and by 0.3 mb/d in 2011

## OECD - North America

The latest monthly US oil consumption data showed yearly growth of 3.2% for January 2011. While distillates exhibited high growth due to the cold weather and improved industrial activity, motor gasoline consumption fell by almost 1.3%. This was the largest decline since March 2010, a fact that is mostly attributed to high fuel prices and thus lower mileage. Nevertheless, preliminary weekly data for February and March 2011 displayed increases in transportation fuels. March weekly data showed a weak y-o-y demand growth compared to previous months. Furthermore, US sales of light vehicles jumped by 17% compared to last year, despite lower incentives and consumer unease over rising fuel prices – small cars being the leading sectors in sales. The first complete set of US data for the first quarter demonstrated a yearly increase of 2.5%, which is mainly driven by transportation and industrial fuels, while jet fuel/kerosene, residual fuel oil and propane/propylene were on the decline.

Graph 4.4: Heating degree days, % of normal



Industrial activity during February pushed Mexican oil consumption up by 2.4% compared to last year. Consumption of transportation fuels in Mexico remained on the negative side in February, a fact which is basically due to the struggling Mexican economy.

Driven by a low baseline and continuous cold weather, Canadian oil demand continued its high growth rates during January with sharp increases in distillates and gasoline. Following remarkably strong oil demand in the fourth quarter of last year – the highest ever reported – Canadian oil consumption grew again in January by 0.36 mb/d. It is expected to continue at a similar level in February and March, mainly due to the low baseline and colder-than-normal weather.

Cold weather in North America pushed up oil consumption more than expected; hence, fourth quarter oil demand was revised up slightly. For the whole of 2010, North American oil demand grew by 0.6 mb/d, while in 2011, North America is expected to grow by only 0.3 mb/d.

Given the anticipated moderate economic growth, US oil demand is forecast to grow by 0.26 mb/d in 2011.

Despite a 17% increase, US auto sales were lower than those of February and January. The sectors with the largest increases were smaller, more efficient cars and crossovers. In Canada, car sales increased during March by 6% compared to the same month last year with light truck sales increasing and passenger cars slightly decreasing. According to the Mexican Automobile Industry Association, Mexico's auto industry continued to grow strongly in February, with production of cars and light trucks rising by 16% y-o-y.

**Table 4.4: World oil demand forecast for 2011, mb/d**

	2010	1Q11	2Q11	3Q11	4Q11	2011	Change 2011/10	
							Growth	%
North America	23.87	24.04	23.94	24.39	24.31	24.17	0.30	1.26
Western Europe	14.44	14.27	14.09	14.72	14.61	14.43	-0.02	-0.12
OECD Pacific	7.79	8.14	7.22	7.51	8.00	7.72	-0.07	-0.87
<b>Total OECD</b>	<b>46.10</b>	<b>46.45</b>	<b>45.26</b>	<b>46.61</b>	<b>46.93</b>	<b>46.32</b>	<b>0.22</b>	<b>0.47</b>
Other Asia	10.06	10.17	10.37	10.16	10.38	10.27	0.21	2.10
Latin America	6.13	6.06	6.27	6.49	6.39	6.30	0.17	2.85
Middle East	7.27	7.40	7.33	7.67	7.45	7.46	0.20	2.69
Africa	3.26	3.32	3.31	3.19	3.34	3.29	0.02	0.73
<b>Total DCs</b>	<b>26.72</b>	<b>26.96</b>	<b>27.28</b>	<b>27.51</b>	<b>27.56</b>	<b>27.33</b>	<b>0.61</b>	<b>2.27</b>
FSU	4.08	4.05	3.87	4.32	4.40	4.16	0.08	1.87
Other Europe	0.69	0.68	0.62	0.67	0.73	0.67	-0.02	-2.68
China	8.95	8.93	9.64	9.72	9.55	9.46	0.51	5.74
<b>Total "Other regions"</b>	<b>13.73</b>	<b>13.66</b>	<b>14.13</b>	<b>14.71</b>	<b>14.68</b>	<b>14.30</b>	<b>0.57</b>	<b>4.16</b>
<b>Total world</b>	<b>86.55</b>	<b>87.07</b>	<b>86.67</b>	<b>88.83</b>	<b>89.17</b>	<b>87.94</b>	<b>1.39</b>	<b>1.61</b>
Previous estimate	86.39	87.03	86.77	88.67	88.82	87.83	1.44	1.67
Revision	0.16	0.04	-0.11	0.16	0.35	0.11	-0.05	-0.06

Totals may not add due to independent rounding

### OECD - Europe

*OECD Europe consumption expected to shrink again in 2011, but by a marginal 10 tb/d*

European February oil consumption grew by 0.1 mb/d, with Germany and Italy being its largest contributors. The increases were mainly due to exceptionally cold weather and are indicated in significantly higher consumption of all heating oil product categories, especially middle distillates. The short term perspective of European oil consumption during 2011 is most certainly a decreasing trend, as continuing debts in several European economies, in particular Greece, Ireland and Portugal, are putting strong downward pressure on oil demand. The European Big Four's y-o-y oil demand increased by 82 tb/d in February compared to 65 tb/d in January. Stronger distillate consumption during February in all four countries was the main driver of that growth, while during the same period transportation fuels remained on the decline in Italy and France, despite the low baseline of 2010. During February, the German, Italian and UK oil consumption was up by 4%, 2% and 1% respectively, while oil consumption in France decreased by 2%.

The region's total contraction in oil demand stood at 0.1 mb/d in 2010. OECD Europe oil consumption is expected to shrink again in 2011; however at a lower magnitude of 10 tb/d.

According to the latest information by ACEA, European demand for new passenger cars in February increased by 0.9% compared to 2010. Auto markets in most countries grew with the exception of some major markets such as the UK, Italy and Spain, which recorded yearly decreases of 8%, 22% and 28% respectively. During the same month, French and German new passenger car registrations increased significantly by 13% and 15% correspondingly.

**Table 4.5: Europe Big 4\* oil demand, tb/d**

	Feb 11	Feb 10	Change from Feb 10	Change from Feb 10, %
LPG	501	520	-19	-3.7
Gasoline	1,197	1,188	9	0.8
Jet/Kerosene	724	763	-39	-5.1
Gas/Diesel oil	3,619	3,467	153	4.4
Fuel oil	477	474	4	0.8
Other products	974	999	-25	-2.5
<b>Total</b>	<b>7,492</b>	<b>7,410</b>	<b>82</b>	<b>1.1</b>

\* Germany, France, Italy and the UK



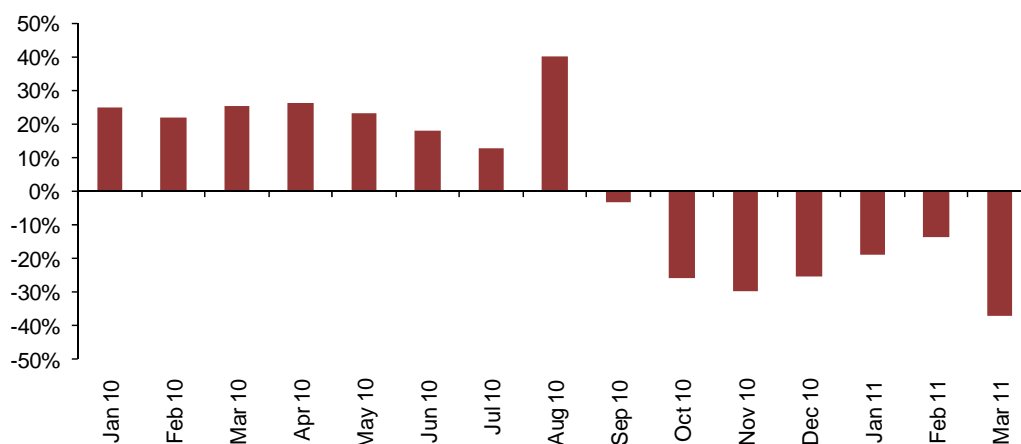
*OECD Pacific oil consumption in 2011 is expected to fall by 60 tb/d, with projections heavily dependent upon the speed of recovery in Japan*

## OECD - Pacific

Japan's triple catastrophe is taking the country in two directions as far as oil consumption is concerned. The first one is leading to less oil consumption as large segments of the country's economy have come to a halt after the earthquake, at least for a while. The second situation will yield more oil usage. The loss of the country's 13% of nuclear power-generation capacity and the re-building efforts, which are estimated to cost more than \$300 billion, will demand more energy use. As a result of the Tohoku Pacific Earthquake, all six reactors at the Fukushima Dai-ichi (I) Nuclear Power Station (NPS) of Tokyo Electric Power Co. Inc. (TEPCO) with a capacity of 4,696 Megawatts (MWe) – equivalent to approximately 90 tb/d of direct crude burning – have been severely damaged. Furthermore another 8 reactors, units 1, 2 and 3 at Onagawa NPS of Tohoku Electric Power Co. Ltd. with a capacity of 2,174 MWe; units 1, 2, 3 and 4 of Fukushima-Dai-ni (II) NPS of TEPCO with a capacity of 4400 MWe; and a unit of Tokai Dai-ni (II) NPS with a capacity of 1100 MWe of Japan Atomic Power Co. Ltd. were automatically shut-down. Furthermore the supply of oil products, including gasoline, diesel oil and kerosene, in the Tohoku and Kanto regions faces shortages due to the damaged distribution network.

Japan consumption was 4.7 mb/d in January; however, the new post-earthquake estimates expected a temporary drop before picking up later in the year when the country starts its rebuilding process. Japan's pre-disaster oil consumption was estimated to shrink by 1.5%. This decline is a continuation of the trend of the past few years, excluding 2010. Japan's efficiency efforts along with an aging population have led to this trend. The country's nuclear problem will of course have a negative impact on the economy. The collapsed nuclear power plant is estimated at 90 tb/d of equivalent oil consumption. Any slowdown in economic growth could lead to a further contraction in the country's oil demand. However, the magnitude of this is pending the result of the nuclear problem. Should the country substitute its lost nuclear power plants with crude burning power generation, this will offset the decline in other parts of the economy.

**Graph 4.5: Japanese new passenger car registrations, y-o-y % changes**



Latest monthly data for February shows increasing oil consumption y-o-y, mainly due to fuel switching, and thus higher residual fuel oil usage. Moreover, Japanese consumption of transportation fuels showed a slight increase compared to last year, while in January, direct crude-burning marked the highest increase in any product category. This was a result of unusually cold weather. The direction of Japanese oil consumption for the rest of 2011 is heavily dependent upon the speed of resolving the ongoing nuclear crisis in the Fukushima plant. Latest March data reported a huge drop of 37% in Japanese auto sales last month as a result of the catastrophes. It is also very likely that the Japanese auto industry will not recover in 2011, as several factories have been closed down and consumer confidence is understandably shaken.

In South Korea, January marked sharp increases in the consumption of all products, especially in industrial and transportation fuels. In a measure to reduce the growing public pressure to reduce energy taxes and inflation, South Korean refiners yielded to a governmental order to reduce petroleum product retail prices by 5% for three months. Half of South Korea's retail prices are taxed and total 13% of total levied tax within the country.

OECD Pacific oil demand showed minor growth of 0.1 mb/d in 2010, averaging 7.8 mb/d. During 2011, however, OECD Pacific oil consumption is expected to fall by 60 tb/d, while projections are heavily dependent upon the speed of recovery in Japan.

**Table 4.6: First and second quarter world oil demand comparison for 2011, mb/d**

	Change 2011/10				Change 2011/10			
	1Q10	1Q11	Volume	%	2Q10	2Q11	Volume	%
North America	23.45	24.04	0.59	2.52	23.78	23.94	0.17	0.70
Western Europe	14.17	14.27	0.10	0.73	14.12	14.09	-0.02	-0.17
OECD Pacific	8.19	8.14	-0.05	-0.58	7.32	7.22	-0.09	-1.25
<b>Total OECD</b>	<b>45.81</b>	<b>46.45</b>	<b>0.65</b>	<b>1.41</b>	<b>45.21</b>	<b>45.26</b>	<b>0.05</b>	<b>0.12</b>
Other Asia	9.97	10.17	0.21	2.10	10.15	10.37	0.22	2.14
Latin America	5.87	6.06	0.19	3.22	6.09	6.27	0.18	2.87
Middle East	7.18	7.40	0.22	2.99	7.16	7.33	0.17	2.43
Africa	3.30	3.32	0.02	0.61	3.29	3.31	0.02	0.73
<b>Total DCs</b>	<b>26.32</b>	<b>26.96</b>	<b>0.63</b>	<b>2.41</b>	<b>26.69</b>	<b>27.28</b>	<b>0.59</b>	<b>2.21</b>
FSU	3.96	4.05	0.09	2.15	3.80	3.87	0.07	1.84
Other Europe	0.69	0.68	-0.01	-0.73	0.64	0.62	-0.03	-3.90
China	8.37	8.93	0.56	6.68	9.09	9.64	0.55	6.06
<b>Total "Other regions"</b>	<b>13.02</b>	<b>13.66</b>	<b>0.64</b>	<b>4.91</b>	<b>13.54</b>	<b>14.13</b>	<b>0.60</b>	<b>4.40</b>
<b>Total world</b>	<b>85.15</b>	<b>87.07</b>	<b>1.92</b>	<b>2.25</b>	<b>85.43</b>	<b>86.67</b>	<b>1.24</b>	<b>1.45</b>

Totals may not add due to independent rounding

**Table 4.7: Third and fourth quarter world oil demand comparison for 2011, mb/d**

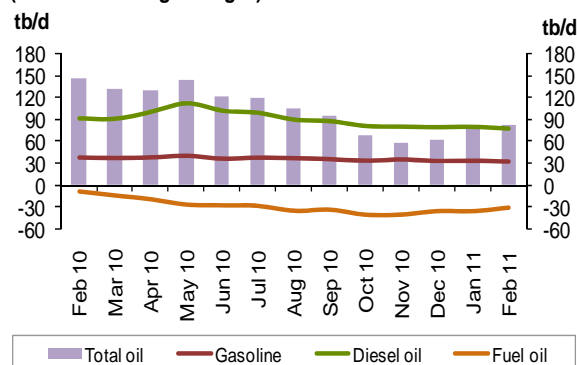
	Change 2011/10				Change 2011/10			
	3Q10	3Q11	Volume	%	4Q10	4Q11	Volume	%
North America	24.23	24.39	0.15	0.64	24.01	24.31	0.30	1.25
Western Europe	14.79	14.72	-0.07	-0.47	14.69	14.61	-0.08	-0.53
OECD Pacific	7.60	7.51	-0.09	-1.20	8.04	8.00	-0.04	-0.53
<b>Total OECD</b>	<b>46.62</b>	<b>46.61</b>	<b>-0.01</b>	<b>-0.01</b>	<b>46.75</b>	<b>46.93</b>	<b>0.18</b>	<b>0.38</b>
Other Asia	9.95	10.16	0.21	2.08	10.17	10.38	0.21	2.10
Latin America	6.31	6.49	0.18	2.90	6.24	6.39	0.15	2.44
Middle East	7.48	7.67	0.19	2.57	7.25	7.45	0.20	2.76
Africa	3.16	3.19	0.03	0.82	3.31	3.34	0.02	0.76
<b>Total DCs</b>	<b>26.90</b>	<b>27.51</b>	<b>0.61</b>	<b>2.26</b>	<b>26.97</b>	<b>27.56</b>	<b>0.59</b>	<b>2.19</b>
FSU	4.24	4.32	0.08	1.77	4.32	4.40	0.08	1.77
Other Europe	0.68	0.67	-0.02	-2.20	0.76	0.73	-0.03	-3.82
China	9.23	9.72	0.49	5.34	9.10	9.55	0.45	4.97
<b>Total "Other regions"</b>	<b>14.15</b>	<b>14.71</b>	<b>0.55</b>	<b>3.91</b>	<b>14.18</b>	<b>14.68</b>	<b>0.50</b>	<b>3.52</b>
<b>Total world</b>	<b>87.67</b>	<b>88.83</b>	<b>1.16</b>	<b>1.32</b>	<b>87.90</b>	<b>89.17</b>	<b>1.27</b>	<b>1.44</b>

Totals may not add due to independent rounding

### Developing Countries

Indian February oil demand registered growth, despite the decline in industrial fuel usage. Strong transport fuel demand boosted the country's total oil consumption by 2.5% y-o-y. Gasoline demand was pushed up by both the increase in driven mileage and strong growth in new car registration. The growth in gasoline demand in February reached 7% y-o-y and diesel was up by 5.6%. Indian oil demand is forecast to grow by more than 0.1 mb/d this year; however, the switching of the country's power plants to gas might reduce this estimate sharply. As was seen last year, Indian oil consumption is always affected by the final natural gas prices. It is forecast that India oil demand will increase by 3.5% this year compared to last year.

**Graph 4.6: Yearly changes in Indian oil demand (12 month moving averages)**



DC demand  
forecast at  
0.60 mb/d

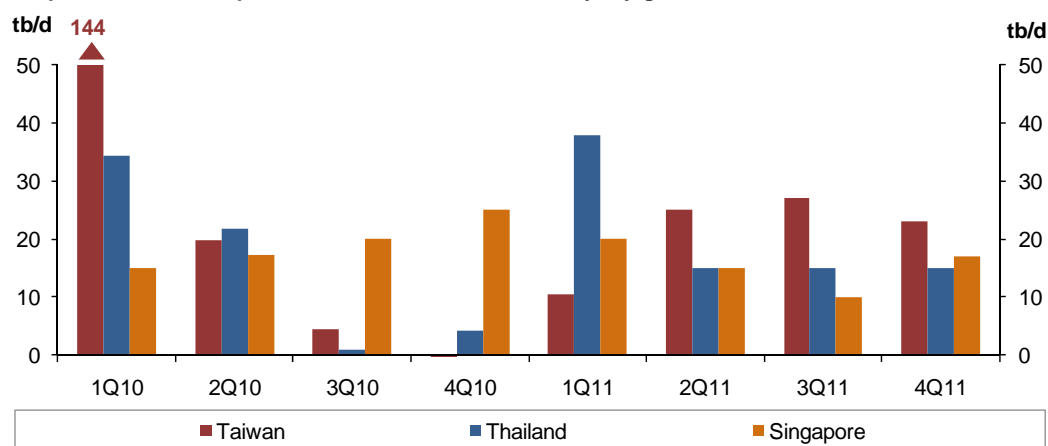


India oil demand to increase by 3.5% this year

India auto sales were up by 23% in February from a year ago according to the latest data released by the Society of Indian Automobile Manufacturers (SIAM). The reasons behind this large increase are governmental incentives, easy availability of loans, and a pickup in new product launches.

Industrial fuel, especially naphtha, experienced some decline in February reaching 6.3% as demand by the petrochemical, fertilizer, and power plant sectors shrunk.

Graph 4.7: Oil consumption in selected Asian countries, y-o-y growth



Given the recent strength in India's oil demand, Other Asia oil demand growth is forecast at 0.2 mb/d in 2011

Pakistan is planning to cut sulfur content in diesel by half starting in July 2012. Currently, diesel sold in the country has a limit of 1% sulfur content. This will of course put pressure on the country's refining industry and consequently will raise the production cost of diesel. This new move is not expected to dent the country's local demand. Industrial, agricultural, and segments of the transport sectors are the main consumers of diesel. Pakistan's oil demand grew by 2.8% last year to average 435 tb/d.

Taiwan oil demand grew marginally last year achieving y-o-y growth of 2.3% or 23 tb/d, putting the country's oil consumption above 1.0 mb/d. Although the country's oil demand is expected to grow this year, January data indicated a minor decline of 0.8%. A massive decline in industrial use of fuel oil caused the country's total oil use to decline in January.

Given the recent strength in India's oil demand, Other Asia oil demand growth is forecast at 0.2 mb/d in 2011, averaging 10.3 mb/d.

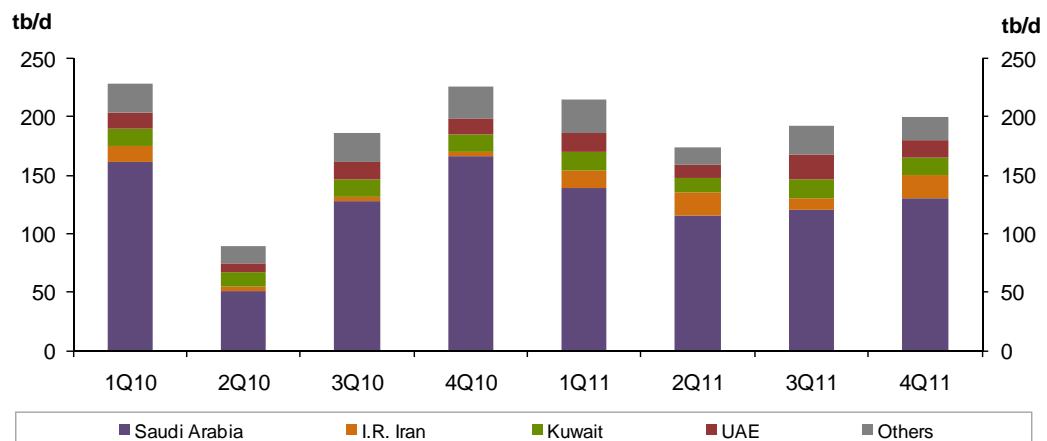
Middle East oil demand growth forecast at 0.2 mb/d

Middle East oil demand continued its robust growth despite the negative performance of Iran's oil demand. The region's oil demand in the first quarter grew sharply, exceeding the threshold of 200 tb/d. Economic activities are estimated to push the region's GDP up to 4.3% this year. Long-term energy-intensive projects are also keeping the Middle East oil demand on the sturdy side. Being the strongest economy in the region, Saudi Arabia's oil demand is registering the highest figure this year. Middle East oil demand growth is forecast at 0.2 mb/d, averaging 7.5 mb/d.

Table 4.8: Consumption of petroleum products in Saudi Arabia, kb/d

	Feb 11	Feb 10	Change, tb/d	Change, %
LPG	44	41	3	7.3
Gasoline	436	428	8	1.9
Jet/Kerosene	58	53	5	9.4
Gas/Diesel oil	562	561	1	0.2
Fuel oil	218	191	27	14.1
Other products	68	62	6	9.7
Direct crude burning	400	278	122	43.9
<b>Total</b>	<b>1,786</b>	<b>1,614</b>	<b>172</b>	<b>10.7</b>

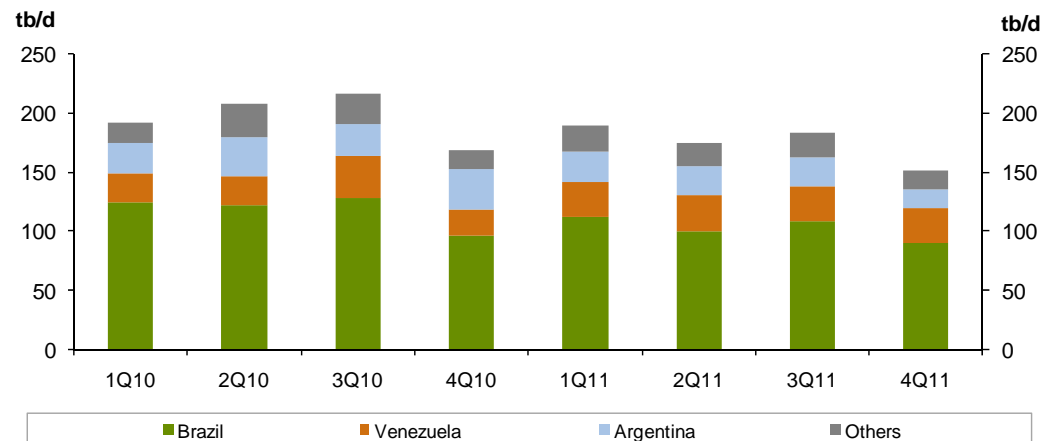
Source: Direct communication

**Graph 4.8: Yearly oil demand growth in the Middle East**

Argentina's oil demand is estimated to show y-o-y growth of 40 tb/d in the first quarter. Transport fuel demand, especially gasoline, has been on the rise with the help of regulated retail prices. Due to the anticipation of marginal de-regulation of the country's domestic retail prices, Argentina's oil demand is forecast to be half of what was seen last year.

Brazil oil demand is expected to sustain its strong upward move this year. The alcohol-based energy sector is expected to show the highest growth. Brazil oil demand is forecast to grow by 90 tb/d in the first quarter and is expected to keep the same rhythm for the rest of the year.

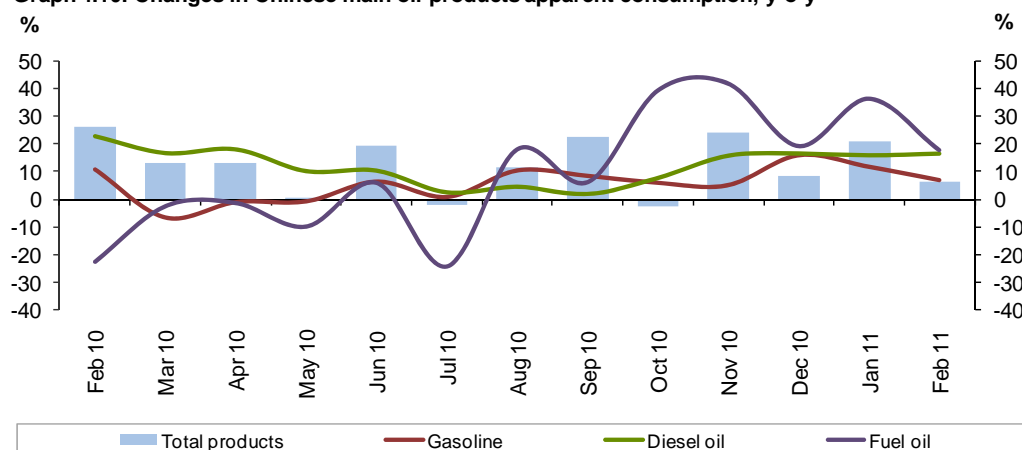
Developing Countries' oil demand growth is forecast at 0.60 mb/d y-o-y, averaging 27.3 mb/d.

**Graph 4.9: Yearly oil demand growth in Latin America**

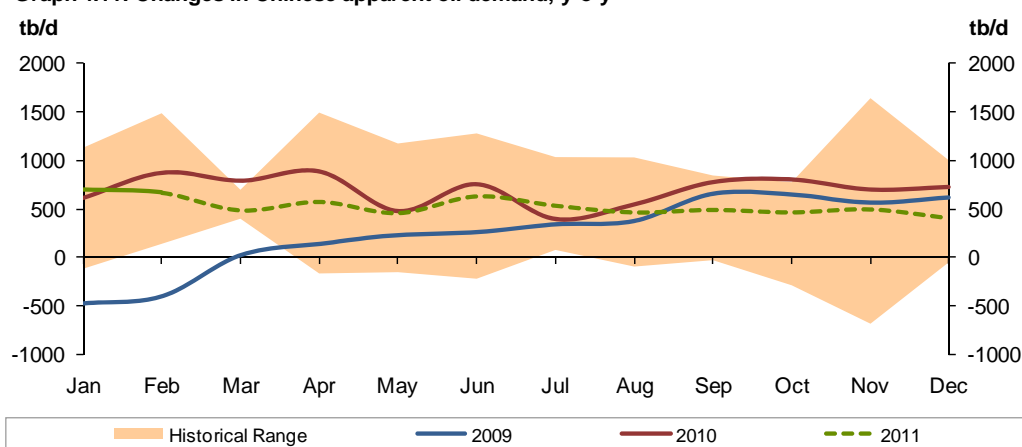
### Other regions

As expected, the 5% increase in Chinese domestic petroleum product retail prices last month, to partly reflect higher crude prices, did not strongly affect total oil consumption. China has been adopting a pricing system which follows international prices if they swing by more than 4% and are sustained for more than 22 days.

*China's oil demand expected to grow by 0.51 mb/d in 2011*

**Graph 4.10: Changes in Chinese main oil products apparent consumption, y-o-y**

China's February net oil imports grew by 4.5% y-o-y; however, this was down drastically from last month's growth of 35%. Some of the country's February oil imports were diverted to stocks, leaving the monthly demand to grow by 8% adding 665 tb/d y-o-y. According to China's latest OGP publication, the country's net commercial stocks increased by 0.62 mb/d in February. This is excluding any stock movement in the country's SPR. Almost all of the commercial stock increase was related to petroleum products, mainly diesel. February Chinese data indicated growth of over 0.5 mb/d in diesel usage, or more than 16% growth. China's oil demand is forecast to keep its sturdy pace throughout the year. Chinese oil demand will add another 0.5 mb/d to its total demand in the second quarter. Unlike other forecasters, this Chinese demand growth forecast assessment excludes any petroleum oil and product stock additions. All reported stock data is taken into consideration and treated as in the OECD stock assessment.

**Graph 4.11: Changes in Chinese apparent oil demand, y-o-y**

Despite government efforts to slow down the country's energy demand, China's oil demand is expected to grow by 0.51 mb/d in 2011 to average 9.5 mb/d.

Sales of China's passenger vehicles including cars, multi-purpose vehicles (MPVs), sport utility vehicles (SUVs) and minivans rose 3% in February compared to 2010 according to the China Passenger Car Association. The slowdown in sales growth was attributed to the removal of government incentives, the ending of a car scrappage scheme and the increase of car sales taxes.

# World Oil Supply

*Non-OPEC supply grew by 1.13 mb/d in 2010*

## Non-OPEC Estimate for 2010

**Non-OPEC oil supply** is estimated to have averaged 52.26 mb/d in 2010, representing growth of 1.13 mb/d over the previous year. The estimate for 2010 remained steady from the previous report with a minor downward revision of 10 tb/d to growth. There were minor upward and downward revisions to all the quarters of 2010; however, annual supply estimates continued at the same level from the previous MOMR as revisions offset each other. Non-OPEC supply growth in 2010 was the highest since 2002.

North America oil supply growth in 2010 was the highest in the past ten years, while the decline in OECD Western Europe was the largest since 2006. Similarly, China oil supply growth in 2010 reached a record high of 0.28 mb/d. Total DC oil supply in 2010 experienced the highest growth since 2005. On a quarterly basis, non-OPEC supply in 2010 is estimated at 52.13 mb/d, 52.11 mb/d, 51.93 mb/d and 52.86 mb/d respectively.

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

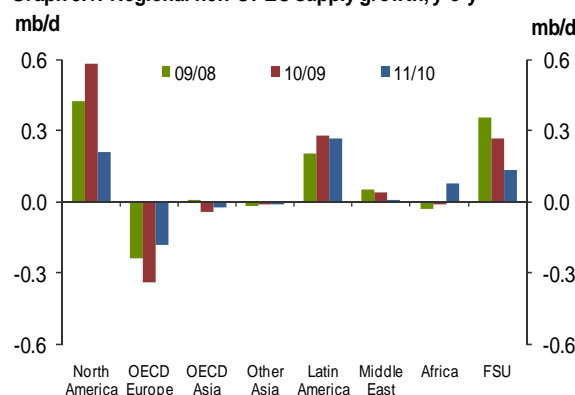


Table 5.1: Non-OPEC oil supply in 2010, mb/d

	2009	1Q10	2Q10	3Q10	4Q10	2010	Change 10/09
North America	14.36	14.71	14.86	14.92	15.31	14.95	0.59
Western Europe	4.73	4.71	4.41	4.03	4.41	4.39	-0.34
OECD Pacific	0.64	0.61	0.60	0.60	0.57	0.60	-0.04
<b>Total OECD</b>	<b>19.73</b>	<b>20.03</b>	<b>19.87</b>	<b>19.54</b>	<b>20.29</b>	<b>19.93</b>	<b>0.21</b>
Other Asia	3.70	3.68	3.67	3.71	3.71	3.69	-0.01
Latin America	4.41	4.63	4.70	4.70	4.71	4.69	0.28
Middle East	1.73	1.77	1.77	1.77	1.78	1.77	0.04
Africa	2.61	2.62	2.59	2.61	2.59	2.60	-0.01
<b>Total DCs</b>	<b>12.46</b>	<b>12.70</b>	<b>12.73</b>	<b>12.79</b>	<b>12.79</b>	<b>12.75</b>	<b>0.30</b>
FSU	12.96	13.16	13.20	13.21	13.33	13.22	0.27
Other Europe	0.14	0.14	0.14	0.14	0.13	0.14	0.00
China	3.85	4.03	4.10	4.18	4.25	4.14	0.29
<b>Total "Other regions"</b>	<b>16.95</b>	<b>17.32</b>	<b>17.43</b>	<b>17.52</b>	<b>17.71</b>	<b>17.50</b>	<b>0.55</b>
<b>Total Non-OPEC production</b>	<b>49.13</b>	<b>50.05</b>	<b>50.03</b>	<b>49.86</b>	<b>50.79</b>	<b>50.18</b>	<b>1.06</b>
Processing gains	2.00	2.08	2.08	2.08	2.08	2.08	0.08
<b>Total Non-OPEC supply</b>	<b>51.13</b>	<b>52.13</b>	<b>52.11</b>	<b>51.93</b>	<b>52.86</b>	<b>52.26</b>	<b>1.13</b>
Previous estimate	51.13	52.14	52.11	51.94	52.86	52.26	1.14
Revision	0.00	-0.01	-0.01	-0.01	0.01	0.00	0.00

## Revisions to the 2010 estimate

There were a few revisions to non-OPEC supply estimates in 2010 in both directions compared to the previous report, with the bulk affecting the fourth quarter. Supply estimates for the US, Other Western Europe and Brazil experienced the largest revisions. The revisions were introduced to adjust for updated production data. US oil supply in the fourth quarter 2010 experienced an upward revision as new data required an adjustment. In Brazil, a downward revision affected the whole year, due to revised production data. There were a few other revisions that affected the fourth quarter 2010; however, they did not change the annual figure.

*Non-OPEC supply growth in 2011 saw an upward revision of 0.58 mb/d*

## Forecast for 2011

**Non-OPEC supply** is forecast to average 52.84 mb/d in 2011, representing an increase of 0.58 mb/d over 2010 and an upward revision of 60 tb/d from last month. Compared to the previous month, the upward revisions were in the first, third and fourth quarters of 2011, with the second quarter encountering a downward adjustment. The first quarter 2011 projection experienced the largest upward revision, driven mainly by adjustments to actual production data as well as changes to some countries' supply profiles. OECD supply forecast encountered the highest upward revision, while Developing Countries experienced the largest downward adjustment compared to the previous month. On a regional basis, Latin America supply is expected to achieve the highest growth among all non-OPEC regions in 2011, while OECD Western Europe supply is expected to see the largest decline. On a quarterly basis, non-OPEC supply is expected to average 52.89 mb/d, 52.65 mb/d, 52.60 mb/d and 53.22 respectively.

**Table 5.2: Non-OPEC oil supply in 2011, mb/d**

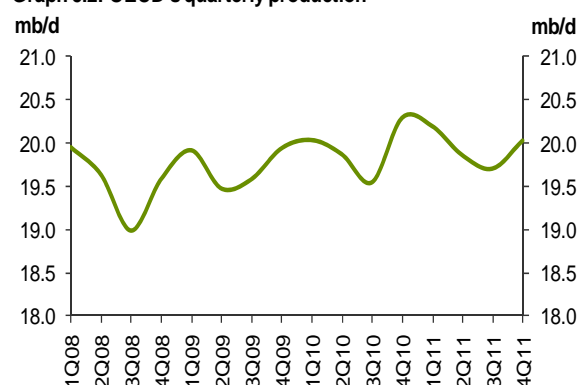
	2010	1Q11	2Q11	3Q11	4Q11	2011	Change 11/10
North America	14.95	15.26	15.11	15.04	15.23	15.16	0.21
Western Europe	4.39	4.42	4.15	4.06	4.21	4.21	-0.18
OECD Pacific	0.60	0.52	0.60	0.60	0.58	0.57	-0.02
<b>Total OECD</b>	<b>19.93</b>	<b>20.19</b>	<b>19.86</b>	<b>19.70</b>	<b>20.03</b>	<b>19.94</b>	<b>0.01</b>
Other Asia	3.69	3.66	3.67	3.69	3.71	3.68	-0.01
Latin America	4.69	4.82	4.92	4.98	5.09	4.95	0.27
Middle East	1.77	1.76	1.77	1.79	1.81	1.78	0.01
Africa	2.60	2.63	2.65	2.69	2.74	2.68	0.08
<b>Total DCs</b>	<b>12.75</b>	<b>12.86</b>	<b>13.01</b>	<b>13.15</b>	<b>13.35</b>	<b>13.09</b>	<b>0.34</b>
FSU	13.22	13.38	13.37	13.31	13.38	13.36	0.14
Other Europe	0.14	0.14	0.14	0.14	0.14	0.14	0.00
China	4.14	4.24	4.21	4.22	4.24	4.23	0.09
<b>Total "Other regions"</b>	<b>17.50</b>	<b>17.76</b>	<b>17.71</b>	<b>17.67</b>	<b>17.77</b>	<b>17.73</b>	<b>0.23</b>
<b>Total Non-OPEC production</b>	<b>50.18</b>	<b>50.81</b>	<b>50.58</b>	<b>50.52</b>	<b>51.14</b>	<b>50.76</b>	<b>0.58</b>
Processing gains	2.08	2.08	2.08	2.08	2.08	2.08	0.00
<b>Total Non-OPEC supply</b>	<b>52.26</b>	<b>52.89</b>	<b>52.65</b>	<b>52.60</b>	<b>53.22</b>	<b>52.84</b>	<b>0.58</b>
Previous estimate	52.26	52.80	52.67	52.53	53.14	52.79	0.52
Revision	0.00	0.09	-0.02	0.07	0.08	0.05	0.06

## OECD

*OECD supply to remain flat in 2011 at 19.94 mb/d*

**Total OECD** oil supply is anticipated to remain steady in 2011 compared to the previous year, with a minor increase of 10 tb/d to average 19.94 mb/d. This growth represented an upward revision of 50 tb/d compared to the previous report. Despite the relatively steady state, OECD oil supply forecast for 2011 stands higher by 190 tb/d over the average of the previous ten years and 100 tb/d higher than the average of the previous five years. North America is expected to be the only contributor to growth in 2011, supported by projected growth in the US and Canada. The upward revision to the OECD supply forecast came from North America and OECD Western Europe, while the OECD Pacific forecast encountered a minor downward revision. Compared to the previous month, supply forecasts from the US, Mexico, Norway, the UK and Denmark experienced upward revisions, with the US experiencing the largest, while supply predictions for Canada and Australia saw downward revisions. The upward revisions to individual countries' supply profiles more than offset the downward revisions. The first quarter supply forecast saw the highest upward revision while other quarters encountered lower upward revisions. On a quarterly basis, OECD oil supply is seen to average 20.19 mb/d, 19.86 mb/d, 19.70 mb/d and 20.03 mb/d

**Graph 5.2: OECD's quarterly production**



respectively. According to preliminary data, total OECD actual supply averaged 20.18 mb/d in January and February.

### **North America**

**North America** oil supply is forecast to increase by 0.21 mb/d over 2010 to average 15.16 mb/d in 2011, indicating an upward revision of 46 tb/d from last month. The expected supply growth for the US and Canada is seen to more than offset the reduced decline in Mexico. On a quarterly basis, North America oil supply in 2011 is expected to stand at 15.26 mb/d, 15.11 mb/d, 15.04 mb/d, and 15.23 mb/d respectively.

### **US**

*US oil supply to grow by 120 tb/d in 2011*

**US oil production** is expected to increase by 120 tb/d to average 8.72 mb/d in 2011, representing an upward revision of 40 tb/d from the previous report. The revision came mainly in the first quarter and was partially carried over to the rest of the year. Preliminary actual production data required the upward revision in the first quarter, where output came in higher than previously anticipated. Furthermore, the approval of various Gulf of Mexico deepwater wells in March that were delayed after the Macondo spill, supported the upward revision. On a quarterly basis, US oil supply is expected to average 8.77 mb/d, 8.72 mb/d, 8.67 mb/d and 8.74 mb/d respectively.

The final approval for the floating production, storage and offloading (FPSO) unit that will be used at the Cascade & Chinook development, the first permanent FPSO in the Gulf of Mexico, was granted in March, despite an equipment malfunction setback. The development is expected to support US output with its designed capacity of 80 tb/d; however, it is still not clear whether the technical setback will cause a startup delay. The project is expected to start up in the second half of 2011. Moreover, oil shale and NGLs as well as biofuel production are seen to further increase US oil supply in 2011. According to preliminary data, US oil supply is estimated to have averaged 8.77 mb/d in first quarter of 2011, a decline from the fourth quarter of 2010.

### **Canada and Mexico**

*Canada oil supply to increase by 120 tb/d in 2011*

Oil supply from **Canada** is projected to average 3.51 mb/d in 2011, representing growth of 120 tb/d from the 2010 estimate and a downward revision of 15 tb/d from last month. The downward revision came despite positive indicators supporting growth in Canada, such as the record-high utilization of the oil and gas rigs fleet. Royalty incentives supported horizontal drilling, which surged for unconventional oil such as in the Cardium play in Alberta. Additionally, work is reported to be at the final stage for the expansion at the Jackpine development with anticipated new volume coming by the beginning of the second half of 2011. First quarter oil supply encountered an upward revision due to updated production data for the early part of the year. However, the downward revision for the rest of the quarters, especially the second quarter, more than offset the upward revision. The downward revision came due to the expected maintenance effect on the output in the coming period. On a quarterly basis, Canada's oil supply is foreseen to average 3.52 mb/d, 3.46 mb/d, 3.48 mb/d and 3.57 mb/d respectively.

*Mexico supply to average 2.93 mb/d in 2011, a decline of 30 tb/d*

**Mexican** oil supply is expected to decline by 30 tb/d in 2011 to average 2.93 mb/d, following an upward revision of 20 tb/d compared to the previous MOMR. The relatively healthy production level during the first quarter of 2011, with data covering more than half of March, indicated growth compared to the fourth quarter 2010. The strong production necessitated the upward revision. Additionally, the opening of bidding for a performance-based contract is further supporting the confidence of Mexico's ability to arrest the decline that struck output in the past year, which was largely controlled in 2010. On a quarterly basis, Mexican oil supply is expected to average 2.97 mb/d, 2.93 mb/d, 2.89 mb/d and 2.92 mb/d respectively.

### **Western Europe**

Oil supply from OECD Western Europe is forecast to decline by 180 tb/d in 2011 from the previous year to average 4.21 mb/d, indicating an upward revision of 40 tb/d over the previous month. The bulk of the upward revision occurred in the first quarter 2011 due mainly to adjust for updated production data. All main producers in the region saw upward revisions to their supply projections. On a quarterly basis, OECD Western Europe supply in 2011 is anticipated to stand at 4.42 mb/d, 4.15 mb/d, 4.06 mb/d and 4.21 mb/d respectively.



*Norway supply to decline by 0.11 mb/d in 2011*

**Norway's** oil supply is expected to average 2.02 mb/d in 2011, a decline of 110 tb/d from the previous year, indicating a slight upward revision of 10 tb/d from the previous MOMR. The upward revision came despite the shutdown of the Troll C on the back of technical issues. The revision came mainly in the first quarter of 2011 as the forecast was assessed lower than the actual data in the first two months of the year. However, output is expected to decline in the second quarter as maintenance is anticipated to affect production. The loading programme suggests lower output in April than the previous month. On a quarterly basis, Norway's supply is expected to average 2.15 mb/d, 1.97 mb/d, 1.93 mb/d and 2.03 mb/d respectively. According to preliminary data, Norway oil supply averaged 2.14 mb/d in January and February 2011, a drop of around 0.2 mb/d compared to the same period of 2010.

*The UK government increased taxes on oil and gas producers*

**UK** oil supply is predicted to decrease by 50 tb/d over a year earlier to average 1.32 mb/d in 2011, an upward revision of 15 tb/d compared to the previous month. The upward revision came mainly in the first quarter where production data suggested higher-than-previously-expected output. Additionally, the startup of the Crestal development in the second half of 2011 further supported the upward revision. The recent tax hike by the government on oil and gas producers had irritated operators with expectations that some companies might reevaluate their investment choices. On a quarterly basis, UK oil supply is forecast at 1.38 mb/d, 1.30 mb/d, 1.27 mb/d and 1.31 mb/d respectively.

### Asia Pacific

**OECD Asia Pacific** oil supply is forecast to average 0.57 mb/d in 2011, a minor decrease of 20 tb/d over the previous year and a slight downward revision of 10 tb/d from the previous evaluation. The bulk of the revision occurred in the first quarter of 2011. Australia saw a downward revision of 15 tb/d, while New Zealand experienced a minor upward revision of 6 tb/d. On a quarterly basis, OECD Asia Pacific supply is expected to average 0.52 mb/d, 0.60 mb/d, 0.60 mb/d and 0.58 mb/d respectively.

*Australia supply to recover in the second quarter 2011*

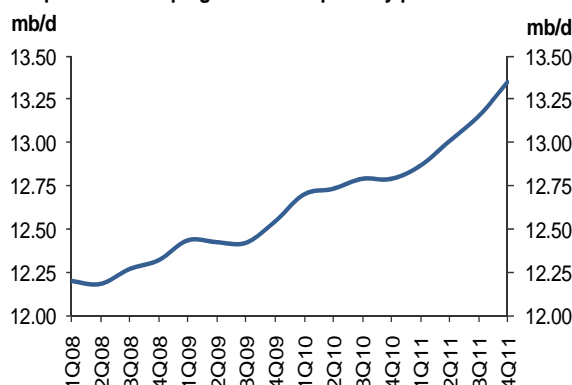
**Australia's** oil supply is anticipated to experience a minor decline of 20 tb/d in 2011 to average 0.48 mb/d, following a downward revision of 15 tb/d from the previous month. The downward revision affected only the first quarter, where production data required the undertaken adjustment. According to preliminary estimated data, Australia oil supply averaged 0.42 mb/d in first quarter 2011, down by 100 tb/d from the same period a year ago. The adverse weather conditions during the first quarter forced many producers to shut down their operations and hence strongly affected production. The Cossack field was shut for FPSO change. However, output is expected to recover in the second quarter. Furthermore, the Cliff Head field has resumed production in the second half of March after a one-month shutdown due to contamination. On a quarterly basis, Australian supply is seen to average 0.42 mb/d, 0.50 mb/d, 0.51 mb/d and 0.50 mb/d respectively.

### Developing Countries

*DC supply to average 13.09 mb/d in 2011, representing growth of 0.34 mb/d*

**Total Developing Countries (DCs)** oil supply is expected to increase by 0.34 mb/d over 2010 to average 13.09 mb/d in 2011, indicating a downward revision of 60 tb/d from the previous report. The downward revision came from the Middle East, Other Asia and Africa oil supply forecast while Latin America supply encountered an upward revision. Latin America remains the region with the highest projected growth among all non-OPEC regions. The revision came mainly in the first half of 2011 while the second half experienced smaller revisions. The downward revision was introduced to adjust for preliminary actual production data as well as changes to various countries' supply elements as well as political factors. On a quarterly basis, DC's total oil supply is

Graph 5.3: Developing Countries' quarterly production



*Other Asia supply  
to remain steady in  
2011*

estimated to stand at 12.86 mb/d, 13.01 mb/d, 13.15 mb/d and 13.35 mb/d respectively.

**Other Asia** oil supply is foreseen to remain steady in 2011 compared to the previous year with a minor decline of 10 tb/d, representing a downward revision of 30 tb/d compared to the previous month. The downward revision came mainly from India, Indonesia and Malaysia supply forecasts. Partial first quarter oil output data as well as minor changes to the supply forecast elements required the downward revision. India oil supply is expected to average 0.90 mb/d in 2011, representing growth of 40 tb/d and a downward revision of 10 tb/d compared to the previous report. The adjustment came as reports suggested an output drop from the MA field in the Krishna Basin on geological grounds. On a quarterly basis, Other Asia supply is expected to stand at 3.66 mb/d, 3.67 mb/d, 3.69 mb/d and 3.71 mb/d respectively.

Indonesia oil supply is forecast to decline by 40 tb/d in 2011 to average 0.98 mb/d, indicating a downward revision of 10 tb/d compared to the previous month's assessment. The downward revision was driven by lower output in the early part of the first quarter. Additionally, government consideration of lowering the production target for 2011 supported the downward revision. Despite that, government authorities are calling for the state-run company to redevelop old wells and idle fields. Malaysia oil supply is seen to drop 40 tb/d in 2011 to average 0.66 mb/d in 2011, indicating a downward revision of 10 tb/d from the previous month. The downward revision came mainly in the first quarter, which was partially carried over, to adjust for updated production figures. In Vietnam, the Te Giac Trang field's FPSO is expected to set sail in July, which is in line with our anticipation of the field startup in the third quarter.

*Colombia output in  
February reached  
a new record*

**Latin America** oil production is forecast to increase by 0.27 mb/d to average 4.95 mb/d in 2011, indicating an upward revision of 20 tb/d from last month. Argentina oil supply forecast experienced an upward revision of 10 tb/d due to healthy production figures during the early part of the first quarter, supported by strong biodiesel production. Colombia oil production is expected to grow by 100 tb/d to average 0.89 mb/d in 2011, with an upward revision of 10 tb/d compared to the previous month. The healthy production level during the first two months of the year supported the upward revision. Colombia oil output in February registered a new record high with a monthly increase of 30 tb/d. Additionally, some operators are planning to drill more wells in 2011, compared to the previous year, which is supporting the anticipated growth. Moreover, the return of the Cano Limon-Covenas pipeline, after the recent outage, as well as the agreement on the enhanced oil recovery (EOR) approach for the Quifa field, are all expected to support production. On a quarterly basis, Latin American supply is expected to average 4.82 mb/d, 4.92 mb/d, 4.98 mb/d and 5.09 mb/d respectively.

Brazil oil supply is projected to increase by 0.18 mb/d in 2011 to average 2.85 mb/d, unchanged from the previous report. Despite the steady state, Brazil oil supply forecast encountered upward and downward revisions that offset each other. The lower output in February compared to January required a downward adjustment to the first quarter. The decline in February was mainly due to maintenance on several offshore platforms. Despite the monthly decline, the February production figure indicated annual growth of 80 tb/d or 3%. The Brazil supply forecast experienced upward revisions in the second half of the year, as the production of the Lula field will increase gradually. Additionally, the increasing confidence of the operators – with reports suggesting that the state-controlled operator might exceed the production target – supported the upward revision in the second half. On a quarterly basis, Brazil supply is seen to stand at 2.75 mb/d, 2.85 mb/d, 2.87 mb/d and 2.94 mb/d respectively.



*Yemen's damaged pipeline halts production at various fields*

**Middle East** oil production is estimated to remain steady in 2011 with a minor increase of 10 tb/d to average 1.78 mb/d, indicating a downward revision of 35 tb/d compared to the previous month. The downward adjustment came from Oman, Syria, and Yemen as political turmoil and demonstrations affected production. In Yemen, the damage to the pipeline that connects some producers to Ras Issa export terminal have caused several shutdowns with reports suggesting that output was cut by 70 tb/d. Similarly, Oman oil production is seen to have been affected by the demonstrations of some oil industry workers. Despite the minor downward revision to Oman supply forecast, it is still expected that production will grow by 50 tb/d in 2011 to average 0.92 mb/d. On a quarterly basis, Middle East supply is expected to average 1.76 mb/d, 1.77 mb/d, 1.79 mb/d, and 1.81 mb/d respectively.

*Gabon strike ended after 4 days*

**Africa** oil supply is seen to increase by 80 tb/d to average 2.68 mb/d in 2011, indicating a downward revision of 20 tb/d from last month. The downward revision came on the back of adjustments to updated production data from Sudan. The estimated lower output in the first quarter was partially carried over to other quarters. Additionally, the relatively short strike action by oil workers in Gabon halted almost all production on 1 April. However, it was reported that operators began restarting production after the strike was halted on 4 April. In Tunisia, the Hasdrubal field resumed operation after having been disrupted for five months on the back of technical issues at the processing plant. On a quarterly basis, Africa supply is expected to average 2.63 mb/d, 2.65 mb/d, 2.69 mb/d and 2.74 mb/d respectively.

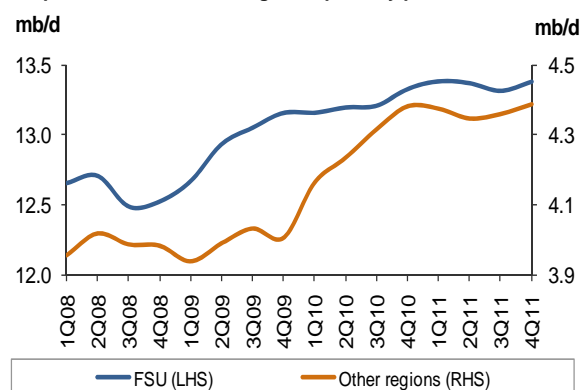
*FSU supply to grow by 140 tb/d in 2011 to average 13.36 mb/d*

### FSU, Other Regions

**Total FSU** oil supply is projected to increase by 140 tb/d over the previous year to average 13.36 mb/d in 2011, indicating a minor upward revision of 10 tb/d from the previous month. The minor upward revision came from Kazakhstan and Other FSU, while Azerbaijan oil supply forecast experienced a minor downward revision. Updated production data during the first quarter was the main driver to this month's revisions. However, high levels of risk and uncertainty remain

associated with the FSU supply forecast. The expected growth in FSU supply remains limited compared to the 500 tb/d average growth over the past ten years. All FSU major producers are still expected to experience supply growth in 2011, although lower in terms of volume compared to the previous years. On a quarterly basis, total oil supply in the FSU is expected to stand at 13.38 mb/d, 13.37 mb/d, 13.31 mb/d and 13.38 mb/d respectively. Other Europe is seen to remain flat in 2011 compared to the previous year at an average of 0.14 mb/d. China's oil supply is anticipated to grow by 90 tb/d over the previous year to average 4.23 mb/d in 2011.

Graph 5.4: FSU and other region's quarterly production



*Russia supply is expected to increase by 50 tb/d in 2011 to average 10.19 mb/d*

### Russia

**Russia oil** production is forecast to increase by 50 tb/d over 2010 to average 10.19 mb/d in 2011, unchanged from the previous report. Despite the steady state, the supply outlook experienced a minor downward revision in the first quarter that did not influence the annual figure. According to the preliminary data, Russia oil supply in March experienced a minor decline compared to the previous month; however, on an annual basis, output in March indicated an increase of 70 tb/d. Russian oil supply is expected to remain within the first quarter level until the second half of the year, where production is foreseen to slightly decrease. The current high price level is supporting companies to maintain the production levels in brown fields by controlling the decline in mature producing areas. Moreover, reports are suggesting that it is likely that the export duty for the Vankor field will rise in May to a standard level, a move that the field's operator has voiced concerns, citing that it will affect field expansion to reach targeted output. On a quarterly basis, Russian oil supply is anticipated to average 10.21 mb/d,

10.21 mb/d, 10.17 mb/d and 10.18 mb/d respectively. March preliminary data indicates that Russia's production stood at 10.20 mb/d, down 20 tb/d from the previous month.

### **Caspian**

*Kazakh supply to average 1.65 mb/d in 2011*

Kazakhstan oil production is predicted to increase by 60 tb/d to average 1.65 mb/d in 2011, indicating a minor upward revision of 10 tb/d from last month. The upward revision reflected the updated production data in the early part of the first quarter, which was partially carried over throughout the year. On the other hand, reports are suggesting that some changes to the taxation system might occur, with a possibility of ending the tax exemption. On a quarterly basis, Kazakhstan supply is seen to stand at 1.67 mb/d, 1.64 mb/d, 1.63 mb/d, and 1.68 mb/d respectively.

*Azerbaijan production to average 1.09 mb/d in 2011*

**Azeri oil supply** is anticipated to increase by 20 tb/d to average 1.09 mb/d in 2011, representing a downward revision of 10 tb/d compared to the previous report. The revision was experienced due to adjustment to updated production data in the first quarter that came lower than expected. However, production is expected to increase slightly in the second quarter. On a quarterly basis, Azerbaijan oil supply is estimated to average 1.07 mb/d, 1.09 mb/d, 1.09 mb/d, and 1.10 mb/d respectively.

### **China**

*China supply to grow by 90 tb/d in 2011*

**China's** oil production is estimated to average 4.23 mb/d in 2011, an increase of 90 tb/d over the previous year and an upward revision of 30 tb/d from the previous month. The strong production figures from the first two months required the upward revision, which was partially carried over to the rest of the year. In February, China oil production averaged 4.21 mb/d, slightly lower than the previous month but still representing y-o-y growth of 200 tb/d or 5%. The expected strong growth from relatively new projects is seen to support the increase in 2011. On a quarterly basis, China's oil supply is seen averaging 4.24 mb/d, 4.21 mb/d, 4.22 mb/d, and 4.24 mb/d respectively.

## **OPEC natural gas liquids and non-conventional oils**

**OPEC NGLs and non-conventional** oils are estimated to have averaged 4.79 mb/d in 2010, representing growth of 0.44 mb/d over the previous year. In 2011, OPEC NGLs and nonconventional oils are forecast to increase by 0.46 mb/d over the previous year to average 5.25 mb/d.

**Table 5.3: OPEC NGLs + non-conventional oils, 2008-2011**

	Change				Change				Change	
	2008	2009	09/08	1Q10	2Q10	3Q10	4Q10	2010	10/09	2011
<b>Total OPEC</b>	<b>4.14</b>	<b>4.35</b>	0.21	4.60	4.77	4.81	4.96	<b>4.79</b>	0.44	<b>5.25</b>
										11/10
										0.46

## **OPEC crude oil production**

*OPEC crude oil production averaged 29.31 mb/d in March*

Total OPEC crude oil production averaged 29.31 mb/d in March, according to secondary sources, a drop of 627 tb/d from last month. The crude oil output increases from Angola, Iraq, Saudi Arabia, Venezuela, Kuwait and the UAE partially offset the disruption in Libyan oil production in March. OPEC crude oil output, not including Iraq, averaged 26.56 mb/d in March, a drop of 690 tb/d from the previous month.

**Table 5.4: OPEC crude oil production based on secondary sources, 1,000 b/d**

	2009	2010	3Q10	4Q10	1Q11	Jan 11	Feb 11	Mar 11	Mar/Feb
Algeria	1,270	1,269	1,268	1,267	1,264	1,265	1,266	1,262	-3.3
Angola	1,786	1,792	1,749	1,661	1,690	1,656	1,670	1,742	71.7
Ecuador	477	475	475	479	484	479	485	487	2.0
Iran, I.R.	3,725	3,707	3,682	3,673	3,670	3,656	3,668	3,686	18.4
Iraq	2,422	2,399	2,355	2,423	2,675	2,658	2,652	2,715	63.4
Kuwait	2,263	2,304	2,313	2,310	2,370	2,338	2,363	2,409	45.8
Libya, S.P.A.J.	1,557	1,560	1,567	1,569	1,093	1,583	1,355	366	-989.6
Nigeria	1,812	2,063	2,115	2,175	2,129	2,187	2,083	2,112	29.3
Qatar	781	803	805	805	814	810	814	818	3.4
Saudi Arabia	8,051	8,219	8,248	8,337	8,839	8,659	8,904	8,961	57.2
UAE	2,256	2,306	2,318	2,315	2,407	2,383	2,405	2,433	27.7
Venezuela	2,309	2,284	2,285	2,264	2,310	2,335	2,272	2,319	47.3
<b>Total OPEC</b>	<b>28,708</b>	<b>29,179</b>	<b>29,180</b>	<b>29,277</b>	<b>29,745</b>	<b>30,008</b>	<b>29,937</b>	<b>29,310</b>	<b>-626.7</b>
<b>OPEC excl. Iraq</b>	<b>26,286</b>	<b>26,781</b>	<b>26,825</b>	<b>26,855</b>	<b>27,070</b>	<b>27,350</b>	<b>27,285</b>	<b>26,595</b>	<b>-690.1</b>

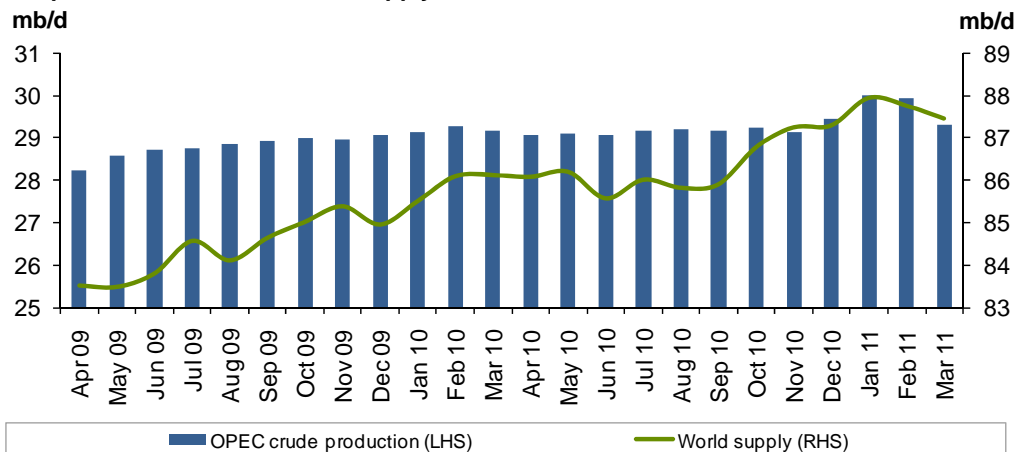
*Totals may not add due to independent rounding*

*Global oil supply  
fell 0.29 mb/d in  
March*

## World Oil Supply

Preliminary figures indicate that global oil supply fell 0.29 mb/d in March to average 87.46 mb/d. Non-OPEC supply experienced a healthy increase of 0.34 mb/d, while total OPEC crude supply dropped by 0.63 mb/d. The share of OPEC crude oil production saw a minor decline to 33.5% in March from 34.1% in the previous month. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production based on secondary sources.

**Graph 5.5: OPEC and world oil supply**  
mb/d



# Product Markets and Refinery Operations

*Middle distillates continue to drive margins*

The sustained momentum in the middle distillates market received further support from stronger diesel demand due to the rise in the container activity in the US industrial sector. Additional support came from the supply side due to the temporary European and Asian market tightness generated by the disruption in Libyan supplies and lower exports from Japan, which has allowed the gasoil crack to jump to a record level in Asia.

Product markets have been impacted by the tragic events in Japan, which triggered a bearish sentiment for the top of the barrel as almost 25% of the Japan's ethylene production capacity is currently offline. In contrast, middle distillates and low sulphur fuel oil cracks have been boosted not only in Asia, but also in the US and Europe because of the stringent Japanese product specifications.

Healthy middle distillate demand amid moderated refinery runs will continue to support refinery margins in the coming months and could offset the lower cracks in the top of the barrel.

US refining industry performance remained healthy in March on the back of gasoline and middle distillate cracks. The margin for WTI crude on the US Gulf Coast showed a slight drop to stand at \$17/b, down \$1.80/b from the previous month when the margin reached the highest level seen in years. However, these high margins have been artificially inflated by the relatively low benchmark WTI price, which has been disconnected from other benchmark grades over the last months, due to the build in inventories in Cushing, Oklahoma. The margin for Arab Heavy crude on the US Gulf Coast was around \$5/b, dropping \$1/b from the previous month.

In Europe, the improvement in middle distillate cracks due to stronger regional demand was not able to offset the weakness in the top of the barrel, where naphtha felt a very negative impact from the disruption in the petrochemical sector in Asia, but particularly Japan, and the margin for the stronger Brent crude in Rotterdam dropped 80¢/b.

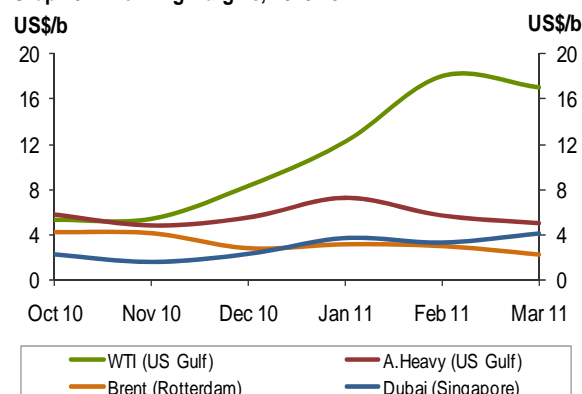
Refining margins for Dubai crude oil in Singapore gained support from the record-high middle distillate crack spread, which was able to more than offset the loss in the weaker naphtha and fuel oil cracks, allowed refinery margins to show a sharp rise of 80¢/b.

## Refinery operations

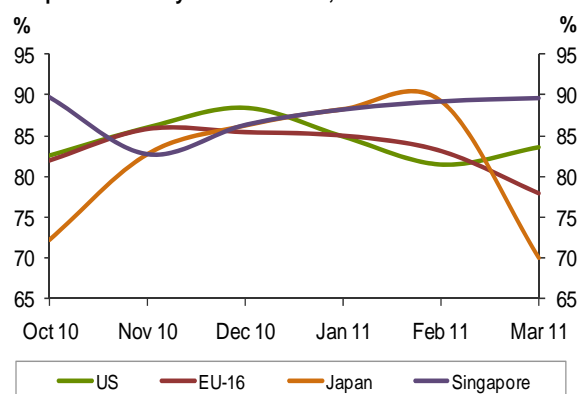
American refiners increased refinery runs by 2% in March as refiners returned from the turnaround season amid healthy refining margins. Refinery runs increased to an average of 83.6% in March from 81.6% a month earlier.

Gasoline demand increased in the US, despite the uptick in pump prices during March and inventories dropped on the back of fewer imports from Europe and several cracking units being in

Graph 6.1: Refining margins, 2010-2011



Graph 6.2: Refinery utilization rates, 2010-2011



*Refining runs impacted by the disaster in Japan*

maintenance in the Houston area. The bullish gasoline market situation, along with strong diesel demand and the relatively smaller increase in the price of WTI, has contributed to keeping refining margins healthy.

European refiners have reduced throughputs to below 80%, driven by low refinery margins and the maintenance season.

Asian refiners in China and India have started to reduce runs due to maintenance turnarounds. The natural disaster in Japan damaged some refineries and although other refineries have been running at higher throughputs since, preliminary figures estimated 70% of installed capacity as the average level in March.

Looking ahead, further improving demand for the middle of the barrel could offset the bearish situation in the top of the barrel, ahead of the driving season; however, refinery utilization rates are not expected to increase sharply, taking into account the maintenance season and more expensive crude oil, which is pressuring refinery margins.

### US market

*Bullish US gasoline market*

According to the EIA, US gasoline demand rose to 8.99 mb/d in March, a gain of 90 tb/d over the previous month and 204 tb/d above same month last year.

Despite higher US refinery runs, gasoline inventories dropped on the back of fewer imports from Europe due to higher maintenance and the refinery and trader destocking of winter-grade gasoline. Additionally, the supply side in the US lent support to the gasoline market due to the maintenance of several catalytic cracking units in the Houston area.

Higher export opportunities to Latin America, mainly to Mexico, Chile and Uruguay, further supported the US gasoline market.

Bullish factors in the 'transition tight' gasoline market and the relative weakness in WTI due to high stocks in Cushing, Oklahoma, allowed the gasoline crack spread at the US Gulf Coast to increase, surpassing \$28/b at the end of March, from an average of \$19.5/b in February.

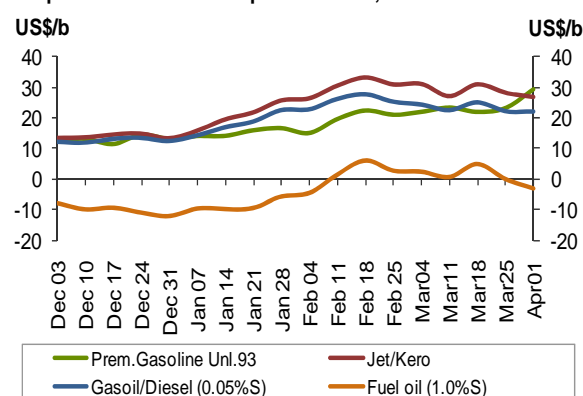
Middle distillate demand remained strong in the US at 3.88 mb/d in March, a gain of 128 tb/d over the previous month, and 39 tb/d above the y-o-y average.

Diesel demand received support from the stronger trucking activity associated with the container traffic industry sector, which, along with the tight jet fuel situation in the Atlantic, retained the positive sentiment in the US distillates market, which was reinforced by additional export opportunities of diesel to some countries in Latin America such as Mexico, Brazil and mainly Chile – where drought has limited hydroelectric power generation. Additional support came from the supply side due to the shutdown of the Sunoco refinery in Philadelphia.

The US gasoil crack on the Gulf Coast kept part of the higher level reached last month remaining over \$23/b.

Fuel oil demand remained firm on steady US demand and some export opportunities to Latin America. Additionally, arbitrage opened to Singapore at the end of March after being closed due to the earthquake and tsunami in Japan.

Graph 6.3: US Gulf crack spread vs. WTI, 2010-2011



*Tight middle distillates lent support to the European market*

The fuel oil crack slightly decreased to 80¢/b from a premium of \$1/b over WTI reached last month, when the huge increase in the crack level was due to the distortion in the WTI price.

### European market

**Product market sentiment in Europe continued to be mixed as light distillates remained weaker, while middle distillates and fuel oil maintained the momentum.**

The European gasoline market has kept losing ground since the start of the year because of low winter demand within the region, which became worse during the transition from winter to summer-grades due to the abrupt halt of Libyan imports and limited arbitrage to the US and Africa. The gasoline crack spread against Brent crude continued to drop sharply to less than \$2/b during mid-March, the lowest value seen in several weeks; however, gasoline started to recover at the end of the month, in the transition to the summer grades, to reach an average of \$6.8/b in March.

The European naphtha market kept losing ground due to the oversupply situation. In addition, bearish sentiment was fuelled by the earthquake in Japan — one of the major naphtha consuming countries for its huge petrochemicals and manufacturing industries.

Arbitrage from Europe to Northeast Asia has been closed and the naphtha crack dropped to minus \$8/b in mid-March, the lowest level seen in the year.

Stronger regional diesel demand, mainly in northern Germany, along with the supply side support coming from lower throughputs and refinery maintenance in Europe (Shell-Pernis and Total-Antwerp) and reduced arbitrage shipments from the US and Asia Pacific have tightened and supported the middle distillate market, thus offsetting poor heating oil demand resulting from the mild weather.

The gasoil crack spread against Brent crude at Rotterdam gained \$1.8/b to rise to an average of \$16.4/b in March from \$14.6/b a month earlier.

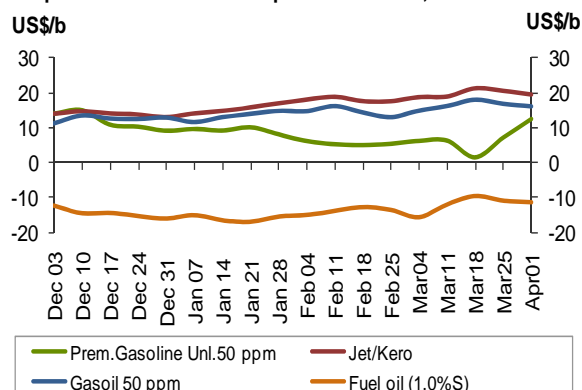
The European fuel oil market kept the ground gained last month on the back of tightened supply of low-sulphur fuel oil due to lower refinery runs – driven by poor margins – and the loss of Libyan supply. This tightened situation has widened the differential prices between low-sulphur and high-sulphur fuel oil in the region.

Additional support came from the expectation of rising demand in Japan to compensate for the loss in nuclear capacity for power generation.

High-sulphur fuel oil also received support from the supply side as ice in the Baltic caused shipping delays and the Northwest European bunker fuel market turned tight.

The fuel oil crack spread against Brent rose almost \$2/b during this month to reach minus \$12/b.

Graph 6.4: Rotterdam crack spreads vs. Brent, 2010-2011





*Asian naphtha market lost ground after Japan disaster*

### Asian market

Asian naphtha market sentiment continued to be bearish in March due to the earthquake in Japan causing disruptions at petrochemicals plants, with several naphtha crackers shut down. This has dramatically reduced demand in one of the main consumers in the region, exacerbating the impact of the typical regional cracker maintenance season.

Despite refinery maintenance, the Asian gasoline market recovery was tempered by lower regional buying interest caused by the increase in domestic retail prices.

Chinese and Vietnamese gasoline demand weakened following an increase in domestic retail prices.

The gasoline market was pressure by higher Singapore light distillate stocks, while some export opportunities were materialized from South Korea to the US West Coast.

The gasoline crack spread against Dubai crude oil in Singapore showed a gain of 80¢/b from an average of \$9.4/b in February to \$10.2/b in March.

The middle distillate market remained supported by strong regional demand, mainly for low-sulphur diesel, led by Japan, India, Vietnam and Australia. Additional support was lent by the tightened supply because of refinery turnarounds and less availability from Taiwan.

Political unrest and refinery maintenance in several countries have kept market supply tight for jet and gasoil; however, expectation of a jump in demand from Japan was cooled after the authorities permitted the release of product stocks.

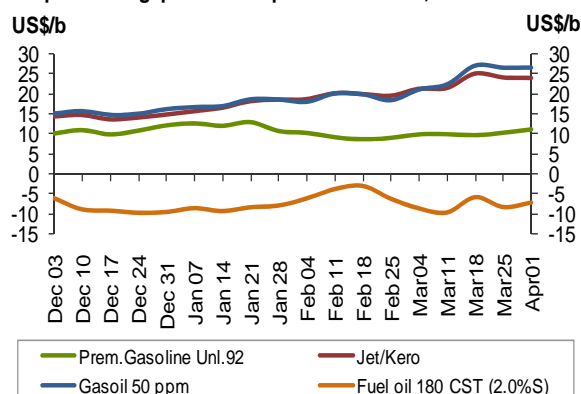
The gasoil crack spread in Singapore against Dubai strengthened, surpassing \$24/b in March – the highest level seen in 26 months. Support is expected to continue from stronger Asian demand boosted by the spring planting season and the additional Japanese requirements.

The Asian fuel oil market lost part of the recovery exhibited in February due to higher inflows from the West, attracted by higher prices, while low-sulphur fuel oil was boosted by expectations of higher demand from Japan for power generation.

Following these developments, the high sulphur fuel oil crack spread in Singapore against Dubai dropped from minus \$4.8/b on average in February to minus \$7.9/b in March.

The expectations of stronger regional demand for power generation could lend additional support to the market.

Graph 6.5: Singapore crack spreads vs. Dubai, 2010-2011



**Table 6.1: Refined product prices, US\$/b**

	<b>Jan 11</b>	<b>Feb 11</b>	<b>Mar 11</b>	<b>Change Mar/Feb</b>
<b>US Gulf (Cargoes):</b>				
Naphtha	99.02	105.80	118.80	13.00
Premium gasoline (unleaded 93)	104.41	109.47	126.79	17.32
Regular gasoline (unleaded 87)	101.07	105.87	121.94	16.07
Jet/Kerosene	110.16	119.59	131.66	12.07
Gasoil (0.05% S)	107.68	114.98	126.30	11.32
Fuel oil (1.0% S)	80.60	91.38	103.81	12.43
Fuel oil (3.0% S)	79.07	87.94	95.52	7.58
<b>Rotterdam (Barges FoB):</b>				
Naphtha	94.52	97.52	108.61	11.09
Premium gasoline (unleaded 10 ppm)	105.73	109.22	121.94	12.72
Premium gasoline (unleaded 95)	102.79	106.19	117.89	11.70
Jet/Kerosene	112.02	121.69	134.43	12.74
Gasoil/Diesel (10 ppm)	109.99	118.32	126.30	7.98
Fuel oil (1.0% S)	80.36	89.92	102.66	12.74
Fuel oil (3.5% S)	79.99	88.25	95.52	7.27
<b>Mediterranean</b>				
Naphtha	92.56	95.33	105.66	10.33
Premium gasoline (50 ppm)	109.09	112.69	125.47	12.77
Jet/Kerosene	110.24	125.95	131.78	5.82
Gasoil/Diesel (50 ppm)	107.00	115.10	119.47	4.37
Fuel oil (1.0% S)	80.05	99.37	103.15	3.78
Fuel oil (3.5% S)	79.01	97.23	99.57	2.34
<b>Singapore (Cargoes):</b>				
Naphtha	95.16	97.87	107.83	9.96
Premium gasoline (unleaded 95)	106.38	111.84	120.97	9.13
Regular gasoline (unleaded 92)	104.34	109.63	118.87	9.24
Jet/Kerosene	109.89	120.18	131.92	11.74
Gasoil/Diesel (50 ppm)	110.18	119.62	133.51	13.89
Fuel oil (180 cst 2.0% S)	83.71	95.15	100.70	5.55
Fuel oil (380 cst 3.5% S)	82.81	93.27	98.78	5.51

**Table 6.2: Refinery operations in selected OECD countries**

	Refinery throughput, mb/d			Refinery utilization, %		
	<b>Feb 11</b>	<b>Mar 11</b>	<b>Mar/Feb</b>	<b>Feb 11</b>	<b>Mar 11</b>	<b>Mar/Feb</b>
<b>US</b>	13.91	14.24	0.32	81.55	83.60	2.05
<b>France</b>	1.41	-	-	76.36	-	-
<b>Germany</b>	1.91	-	-	79.17	-	-
<b>Italy</b>	1.67	-	-	71.41	-	-
<b>UK</b>	1.33	-	-	75.30	-	-
<b>Euro-16</b>	10.89	10.22	-0.67	83.15	78.00	-5.15
<b>Japan</b>	4.03	3.20	-0.83	89.20	70.00	-19.20

Sources: OPEC statistics; Argus; Euroilstock Inventory Report; IEA; EIA/DoE; METI; PAJ

# Tanker Market

*OPEC spot fixtures rose on the back of increased activities*

OPEC spot fixtures increased by 4.33 mb/d or 40% in March compared to the previous month. The increase was supported by Middle East fixtures. In terms of volume, Middle East to East fixtures increased by 1.9 mb/d and Middle East to West increased by 1.0 mb/d. According to preliminary data, OPEC sailings decreased by 0.5 mb/d or 2% in March compared to the previous month mainly on supply reduction from North Africa. On an annual basis, OPEC sailings in March represented an increase of 1%. According to estimated data, arrivals at major regions in the world were mixed in March compared to the previous month as North America arrivals increased by 6%. Far East and Europe arrivals declined by 6% and 1% respectively in March compared to the previous month.

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

	<u>Jan 11</u>	<u>Feb 11</u>	<u>Mar 11</u>	<u>Change Mar/Feb</u>
<b>Spot Chartering</b>				
All areas	22.08	17.73	21.62	3.89
OPEC	15.67	11.08	15.41	4.33
Middle East/East	8.96	4.90	6.79	1.89
Middle East/West	2.04	1.30	2.32	1.02
Outside Middle East	4.67	4.88	6.30	1.42
<b>Sailings</b>				
OPEC	23.93	23.88	23.36	-0.52
Middle East	17.86	17.77	18.04	0.27
<b>Arrivals</b>				
North America	8.61	8.41	8.72	0.31
Europe	11.17	12.30	11.91	-0.39
Far East	8.84	9.09	8.03	-1.06
West Asia	4.34	4.37	4.66	0.29

Source: "Oil Movements" and Lloyd's Marine Intelligence Unit

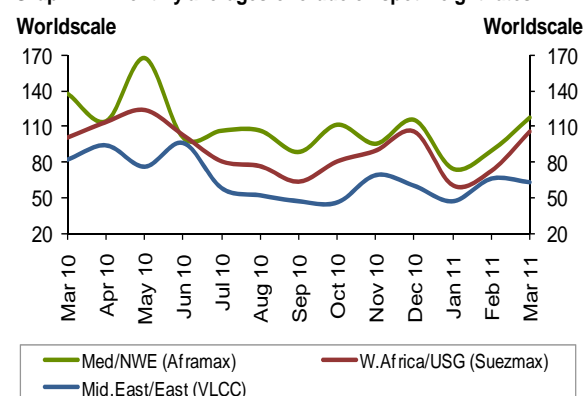
*Dirty tanker rates mostly increased in March*

Tanker market sentiment improved in all segments in March as spot freight rates increased on almost all reported routes. VLCC spot freight rates experienced a modest increase of 5% in March, while Suezmax and Aframax spot freight rates registered robust gains of 45% and 30% respectively, compared to last month.

The modest gain in VLCC spot freight rates was supported by the healthy increase in West Africa/East and Middle East/West

spot freight rates in March. The increase was partially offset by the slight decline of Middle East to East spot freight rates. Compared to February, VLCC spot freight rates for tankers operating the Middle East to East route declined 5% in March, the only decline in dirty spot freight rates in March out of the reported routes. However, VLCC spot freight rates delivering on the Middle East to West route edged up 5% in March compared to the previous month. Spot freight rates for VLCC operating the West Africa to East route encountered a strong increase of 17%. The decline of Middle East to East spot freight rates was partially attributed to the refusal of some ship-owners to deliver cargos to Japan because of radiation fears. Similarly, the release of oil reserves as well as the lower demand right after the earthquake further depressed tonnage demand to Japan. The healthy gains in spot freight rates for VLCC operating the West Africa to East route was supported mainly by higher tonnage demand from China, India and South Korea. For the Middle East to West route, the increase in VLCC spot freight rates in March compared to a month earlier was backed by higher tonnage demand from Europe as well as the possibility for owners to shorten their ballast time by loading

**Graph 7.1: Monthly averages of crude oil spot freight rates**



cargoes from West Africa to the East on their return voyage. VLCC spot freight rates were also affected by insurance premiums as political tension continues in the Middle East and North Africa as well as the rise in piracy activities.

The Suezmax sector experienced the strongest increase among the dirty market in terms of spot freight rates in March. Compared to the previous month, Suezmax average spot freight rates rose by 47% in March. Spot freight rates for Suezmax operating the West Africa to USG route increased by 45% and rates for vessels delivering from North West Europe to USG gained 48% in March compared to the previous month. The strong rate gains for vessels sailing from West Africa to the US was supported by higher tonnage demand as refineries returned to operation from the maintenance period. From Northwest Europe, the reduced output from North Africa, due to the geopolitical tension, whereby buyers had to source out their requirements from other suppliers, hence increasing the time where vessels are outside the trading pool and influencing tonnage demand. Additionally, the spillover from other sectors of the tanker market further supported the rates in March.

Aframax spot freight rates registered strong growth in March compared to the previous month, with Aframax average spot freight rates increasing 30%. Spot freight rates for Aframax operating on the Caribbean to the US East Coast routes achieved the highest increase of 39% among other routes in March, backed by higher demand in Latin America and weather conditions. Aframax spot freight rates for vessels delivering on the Mediterranean to Mediterranean route as well as on the Mediterranean to North-West Europe experienced strong growth. The growth in the Mediterranean was driven by the risk premium, delays, as well as healthier demand from Novorossiysk and Sidi Kirir ports. Compared to the previous month, spot freight rates for Aframax operating the Mediterranean to Mediterranean route increased 30.6% in March, while rates for vessels on the Mediterranean to Northwest Europe gained 31.1%. Aframax spot freight rates for vessels delivering on the Indonesia to East route increased 18% in March compared to last month, mainly on the back of increased insurance premiums relative to a rise in piracy activities.

**Table 7.2: Spot tanker crude freight rates, Worldscale**

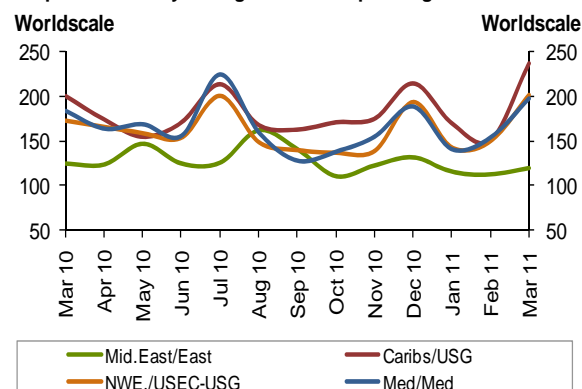
	Size 1,000 DWT	Jan 11	Feb 11	Mar 11	Change Mar/Feb
<b>Crude</b>					
Middle East/East	230-280	47	66	63	-3
Middle East/West	270-285	32	42	44	2
West Africa/East	260	51	59	69	10
West Africa/US Gulf Coast	130-135	61	73	106	33
NW Europe/USEC-USGC	130-135	61	69	102	33
Indonesia/US West Coast	80-85	87	90	106	16
Caribbean/US East Coast	80-85	118	93	129	36
Mediterranean/Mediterranean	80-85	74	98	128	30
Mediterranean/North-West Europe	80-85	75	90	118	28

Source: Galbraith's Tanker Market Report and Platt's

*Product spot freight rates increased on most reported routes*

In March, clean spot freight rates increased on most reported routes. West of Suez clean spot freight rates achieved the highest increase. East of Suez clean spot freight rates from the Middle East to East experienced a modest increase in March compared to the previous month on the back of higher tonnage demand for deliveries to Japan. The increase in tonnage demand from Japan was due to the loss of refining output owing to the effect of the earthquake and tsunami on the refining industry. Similarly, the lower naphtha demand from Japan negatively influenced

**Graph 7.2: Monthly averages of clean spot freight rates**



clean spot freight rates from Singapore to the East. Higher activities from the Caribbean and Northwest Europe to the US Gulf supported tonnage demand and mainly drove the increase in clean spot freight rates in March compared to a month earlier. Clean spot freight rates increased 56% on the Caribbean to the US Gulf route in March. While rates on the Northwest Europe to the US East Coast and US Gulf Coast increased by 35%. Improved US imports on the back of driving season requirements supported the clean spot freight rates in March, in addition to higher demand in South America and weather conditions. Clean spot freight rates gains on the Northwest Europe to US East Coast and US Gulf Coast was supported by the open arbitrage in both gasoline and diesel. Mediterranean to Mediterranean and Mediterranean to Northwest Europe clean spot freight rates exhibited robust gains in March of 29% and 27% respectively compared to the previous month. The healthy increases of spot freight rates from Mediterranean loading ports was supported by the increase in risk premium and the spillover of the increase in naphtha demand in the US for blending as the driving season approaches as well as the expectation of improved fuel oil demand generally in Asia and, particularly, from Japan.

**Table 7.3: Spot tanker product freight rates, Worldscale**

	Size 1,000 DWT	<u>Jan 11</u>	<u>Feb 11</u>	<u>Mar 11</u>	<u>Change Mar/Feb</u>
<b>Products</b>					
Middle East/East	30-35	116	113	120	7
Singapore/East	30-35	142	134	129	-5
Caribbean/US Gulf Coast	38-40	170	151	236	85
NW Europe/USEC-USGC	33-37	142	149	201	52
Mediterranean/Mediterranean	30-35	141	154	198	44
Mediterranean/North-West Europe	30-35	151	164	208	44

Source: Galbraith's Tanker Market Report and Platt's

# Oil Trade

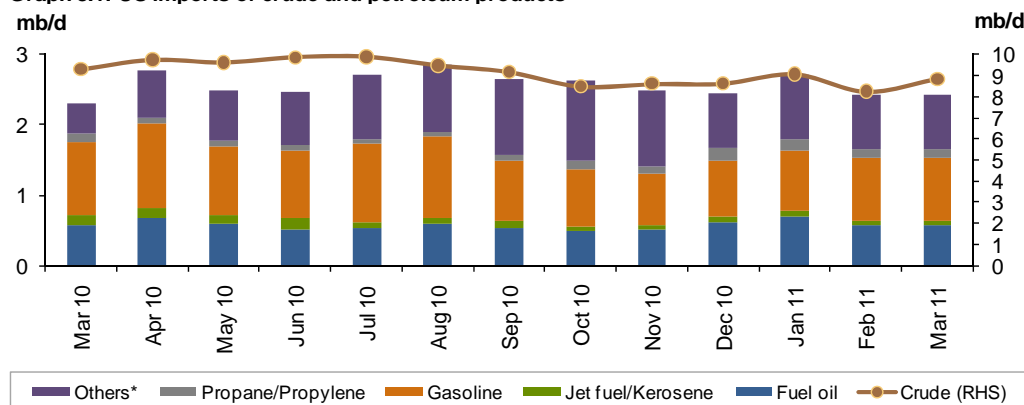
*US crude oil imports recovered in March to average almost 9 mb/d*

## US

According to preliminary data, US crude oil imports jumped by more than 0.6 mb/d or 7.3% in March to average nearly 8.9 mb/d. In the week ending 25 March, US crude oil imports averaged 9.1 mb/d. US crude oil imports fell to around 8.2 mb/d in the previous month, the lowest level since December 2009. The recovery in US crude oil imports can be seen in a strong build in crude inventories, which rose for four consecutive weeks in March. In addition, the jump in crude oil imports also translated into higher refinery throughputs, although they remain lower than seasonal levels. Compared to a year earlier, US crude oil imports still show a decline of 0.44 mb/d or 4.7%. In the first three quarters of 2011, US crude oil imports averaged more than 8.7 mb/d, some 70 tb/d or 0.8% lower than the level of the same period a year ago.

In contrast, product imports fell for the second month in a row, albeit at a marginal pace. Product imports stood at 2.4 mb/d in February, down 25 tb/d or 1% from the previous month, but were up 106 tb/d or 4.6% from a year earlier. Among products, the trend was mixed. Gasoline imports fell by 84 tb/d to average 0.81 mb/d in March. That reflects the decline in inventories which was observed during that month. Jet fuel dropped to average just 44 tb/d, compared with around 140 tb/d in the first half of 2010. In contrast, distillate fuel oil imports rose 6.6% to stand at more than 0.61 mb/d, up 6% from a year earlier.

**Graph 8.1: US imports of crude and petroleum products**



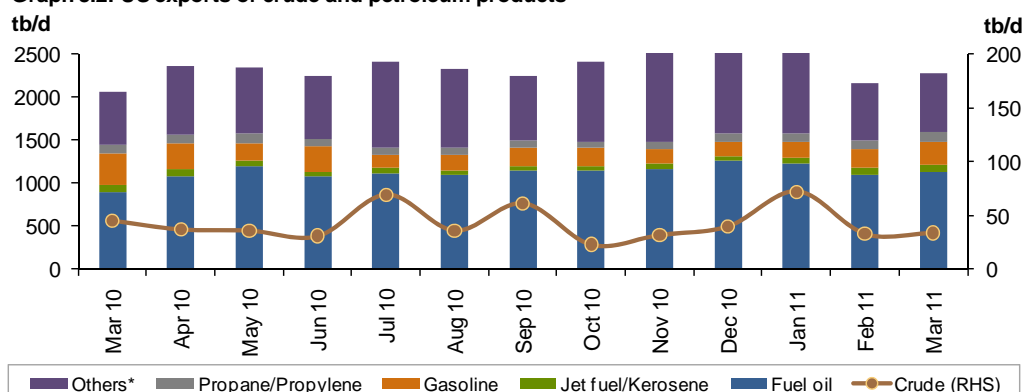
\*Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene

Combined together, total US crude oil and product imports rose to more than 11.2 mb/d, but remained some 0.33 mb/d lower than a year ago. For the first quarter, US oil imports were almost unchanged at 11.3 mb/d for 2010 and 2011. Distillate fuel oil exports increased by 35 tb/d or 3.2% to 1.1 mb/d, which corresponds to almost 50% of total US product exports.

On the export side, crude oil remained at the same level of 34 tb/d while products increased some 0.12 mb/d or 5.5% to average 2.27 mb/d in February. That was 0.21 mb/d or 10% higher than a year ago and for the whole first quarter, product exports were 0.4 mb/d or 20% higher this year.

Consequently, **US net oil imports jumped 0.46 mb/d or 5.4% to almost 9 mb/d in February.** However, despite this increase, US net oil imports during the first quarter 2011 remained below the level of a year ago when net imports averaged more than 9.3 mb/d.



**Graph 8.2: US exports of crude and petroleum products**

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

In January 2011, US imported 4.5 mb/d from OPEC Member Countries, which corresponds to 49.8% of total US crude oil imports. Canada was the main supplier with 2.1 mb/d or 23% followed by Mexico with 13.4% and Saudi Arabia with 12.1%. However, while imports from Canada and Saudi Arabia increased by around 14% from a year ago, imports from Mexico rose by almost 18%. A year earlier, in January 2010, the shares of Canada, Mexico and Saudi Arabia in total US crude oil imports were as follows: 22.2%, 12.2% and 11.3%.

On the product side, imports from OPEC Member Countries accounted for 0.4 mb/d or 12.4% in US product imports. In January 2010, US product imports from OPEC Member Countries corresponded to a share of almost 10.9%.

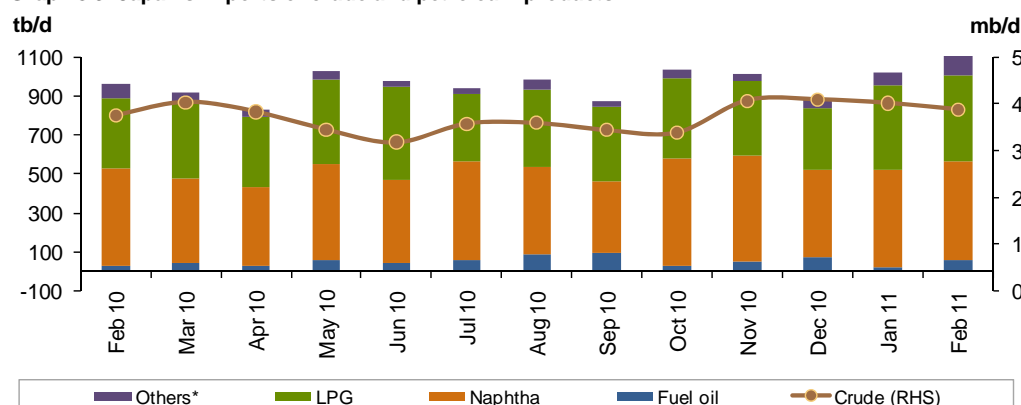
**Table 8.1: US crude and product net imports, tb/d**

	<u>Jan 11</u>	<u>Feb 11</u>	<u>Mar 11</u>	<u>Change</u> <u>Mar/Feb</u>
Crude oil	8,997	8,219	8,820	-821
Total products	269	273	129	-229
<b>Total crude and products</b>	<b>9,266</b>	<b>8,493</b>	<b>8,949</b>	<b>-1050</b>

## Japan

*Japan's net oil imports fell a marginal 1% in February; the decline will be likely higher in March*

Japan's crude oil imports fell below 4 mb/d in February for the first time since the 3.4 mb/d of October 2010. At 3.9 mb/d, Japan's crude oil imports were 0.13 mb/d or 3.3% lower than in January, but they show y-o-y growth of 0.13 mb/d or 3.4%. Despite this decline, Japan's crude oil imports during the first two months of this year remained higher than a year ago. However, Japan's crude imports are expected to be lower in March because of the recent catastrophic events in which many facilities were damaged.

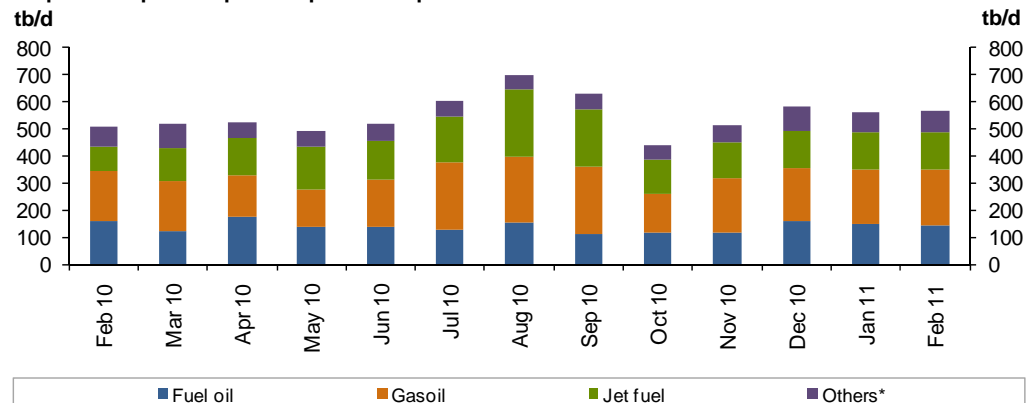
**Graph 8.3: Japan's imports of crude and petroleum products**

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

Product imports, including LPG, in contrast, jumped by more than 0.1 mb/d or 10% to average 1.13 mb/d, the highest since June 2007. The main imported products, naphtha and LPG, remained almost stable at 0.5 mb/d and 0.4 mb/d, respectively, as demand declined. Imports of naphtha, the main in the imports mix, remained almost stable at 0.5 mb/d. Kerosene imports almost doubled to 92 tb/d and fuel oil more than doubled to average 0.62 tb/d.

Japan's total oil imports amounted to 5.0 mb/d in February, almost the same level as a month ago. At the same time, Japan exported almost 0.57 mb/d of products in February, up 2.4% from a month earlier and 11% more than a year ago. **That results in a net oil import of 4.4 mb/d**, slightly lower than January's level. However, a y-o-y comparison shows that Japan's net oil imports in February 2011 were 0.23 mb/d or 5.6% higher than a year earlier.

**Graph 8.4: Japan's exports of petroleum products**



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

Crude oil imports from Saudi Arabia rose by 80 tb/d in February to average almost 1.2 mb/d, corresponding to a share of 30.5% of total crude oil imports compared with 25.6% a year ago. That left Saudi Arabia on top of the main suppliers of Japan. The United Arab Emirates with around 20% was the second main supplier followed by Iran with 12.1% and Qatar with 11%.

For products, Saudi Arabia remained the main supplier with 0.26 mb/d or 23.3% followed by the FSU with 0.22 mb/d or 20%. The UAE came in third (18.3%) followed by Iran (11%), Iraq (8.2%) and Kuwait (8%).

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

	<u>Dec 10</u>	<u>Jan 11</u>	<u>Feb 11</u>	<u>Change Feb/Jan</u>
Crude oil	4,091	4,015	3,884	-131
Total products	298	465	557	92
<b>Total crude and products</b>	<b>4,389</b>	<b>4,480</b>	<b>4,441</b>	<b>-39</b>

### China

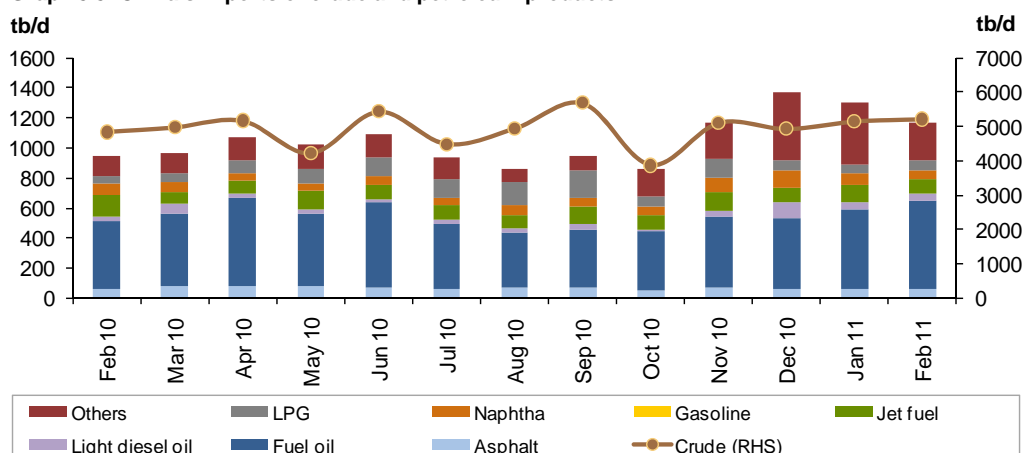
China's crude oil imports increased further in February by 68 tb/d or 1.3% to average 5.22 mb/d, the third highest level after the 5.7 mb/d of last September and the 5.4 mb/d of June 2010. The increase in imports over January and February can be seen in the rise of refinery throughputs and the level of inventories. Chinese refiners increased imports on expectations of an increase in retail ceiling prices of gasoline and diesel to fresh highs by the Chinese government. The growth in imports was much higher compared to a year earlier. On a y-o-y basis, Chinese crude oil imports showed growth of 0.38 mb/d or 7.7% this year. So far, China's imports averaged almost 5.2 mb/d this year, up 0.76 mb/d or 17.2% from a year earlier. The jump over a year ago reflects the upward trend in demand. However, crude oil imports are expected to decline in March as some refineries started their seasonal maintenance.

In contrast to crude oil, product imports fell again to average 1.16 mb/d, down 0.14 mb/d or 10.8% from January's level. The drop in product imports was compensated by the increase in local production and to some extent in level of

*China's net oil imports hit a record high in February, reflecting the rise of oil demand to its second-highest level*

inventories, which would have declined according to preliminary data. Gasoline exports fell by 30 tb/d or 20% to nearly 123 tb/d as refiners expected a hike in domestic prices. Jet fuel exports fell by 36 tb/d or 30% to average 84 tb/d. Nevertheless, when compared to a year ago, Chinese product imports showed a strong growth of 0.22 mb/d or 23% in February 2011. Again, this reflects the sustained growth in oil demand.

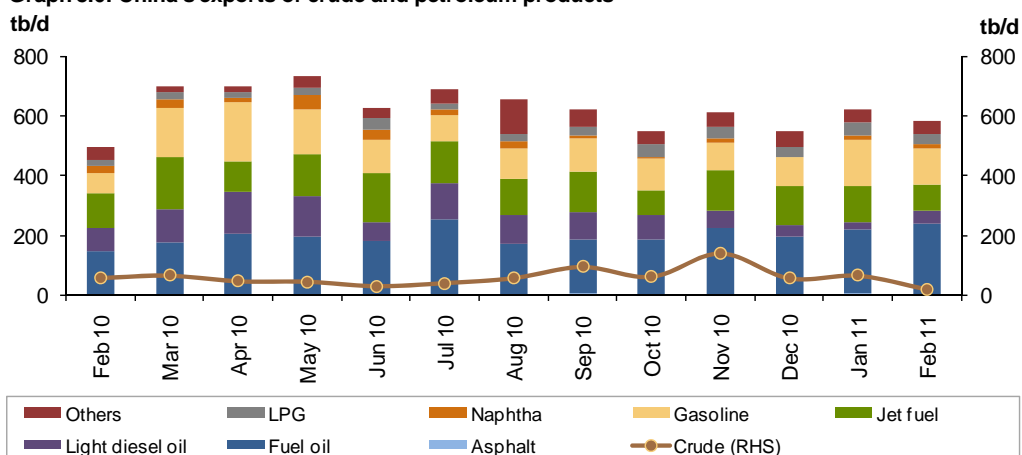
**Graph 8.5: China's imports of crude and petroleum products**



Stronger demand pushed also China to reduce exports in February. Crude oil exports stood at 20 tb/d, down from the 66 tb/d in January and petroleum product exports averaged 0.58 mb/d, 35 tb/d less than in the previous month. The drop in product exports was seen over all the components except in fuel oil and LPG which rose by 60 tb/d and 10 tb/d, respectively.

As a result, **Chinese net oil imports rose for the third consecutive month to hit a record of 5.78 mb/d**, although the growth of February was marginal. However, when considering the period January-February, China's net oil imports averaged 5.8 mb/d, some 1.15 mb/d or 25% higher than a year earlier.

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



Saudi Arabia remained the main source of imports of crude oil for China in February with more than 1.0 mb/d or a share of 20%. Angola came in second with 0.69 mb/d or 13% followed by Iran with 9.6% and Sudan with 8%. The share of Sudan stood at 5.8% a year earlier.

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

	<u>Dec 10</u>	<u>Jan 11</u>	<u>Feb 11</u>	<u>Change Feb/Jan</u>
Crude oil	4,875	5,088	5,202	114
Total products	819	685	579	-106
<b>Total crude and products</b>	<b>5,693</b>	<b>5,773</b>	<b>5,781</b>	<b>7</b>

*India's net oil imports rose 126 tb/d or 5.3% in February*

## India

India's crude oil imports, excluding figures for Reliance Industries' 580,000-b/d Jamnager refinery in western India, recovered from their strong decline of more than 0.66 mb/d of January to average 2.74 mb/d in February, up 66 tb/d from the previous month.

In contrast, product imports dropped 58 tb/d, offsetting the increase of the previous month, to average 0.32 tb/d, almost the same level as of December 2010. All products saw imports decline except kerosene which rose slightly to nearly 32 tb/d. Gasoline was the main contributor to the decline after having dropped by 38 tb/d or 88% to average a marginal 5 tb/d. Diesel imports showed the second largest decline of more than 10 tb/d to stand at nearly 16 tb/d. LPG, the largest imported product, showed a slight decline to stand at around 0.11 mb/d. Naphtha and fuel oil dropped also to average 53 tb/d and 17 tb/d.

Product exports, excluding exports from Reliance Industries refinery of Jamnagar, dropped also to an average of 0.54 mb/d, down 118 tb/d or 18% from January. All products witnessed the same trend, except fuel oil. Gasoline exports fell sharply to 64/tb/d, half the level of the previous month. The same decline of 50% was observed in diesel imports which halved to 62 tb/d. Jet fuel exports fell by 27% to 70 tb/d. Naphtha, which accounts for more than a third in India's product exports, edged slightly to 178 tb/d. That was the third decline in a row. The exception came from fuel oil exports which rose by 9% to 144 tb/d but remained below the level of December 2010.

Thus, **India's net oil imports**, excluding Reliance Industries figures, **rose 126 tb/d, resulting from an increase of 66 tb/d in crude oil imports and a drop of 60 tb/d in product exports to average 5.3% or 2.52 mb/d in February.**

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

	<u>Dec 10</u>	<u>Jan 11</u>	<u>Feb 11</u>	<u>Change Feb/Jan</u>
Crude oil	3,334	2,670	2,736	66
Total products	-771	-276	-216	60
<b>Total crude and products</b>	<b>2,563</b>	<b>2,394</b>	<b>2,520</b>	<b>126</b>

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

## FSU

*FSU crude oil exports fell to 6.5 mb/d in February, the lowest since September 2010*

Total crude oil exports from the FSU fell for the second month in a row to stand at 6.51 mb/d in February, down 75,000 b/d or 1.1% from the previous month and 466 tb/d or 6.7% from December 2010, when exports rose sharply to average almost 7 mb/d. With this second decline in a row, FSU crude oil exports were the lowest since September 2010.

The decline was attributed essentially to the low level of exports to countries outside FSU which fell for the fifth month in a row as higher Russian export duty and resumptions of exports to Belarus cut the shipments through Russia's Transneft pipeline system. Total deliveries of crude to Belarusian refineries by pipeline hit around 363 tb/d in February, which represented an increase of more than 300% from January when shipment stopped. Total deliveries within FSU region were up by 67% at almost 0.6 mb/d.

Transneft exports to non-FSU countries dropped by 150 tb/d or 3.6% to average almost 4 mb/d but they were up 5.5% compared to a year earlier. Exports through the Black Sea accounted for more than 120 tb/d of the decline. Urals exports at Novorossiysk port dropped by more than 120 tb/d to some 0.78 mb/d. Companies cut their Novorossiysk loadings in January to divert crude along the Druzhba pipeline to the Polish port of Gdansk. This helped Gdansk to compensate for the offset of Primorsk because of maintenance on pipelines, resulting in an increase in exports through the Baltic which recovered from their low level of January to average 1.4 mb/d.

Deliveries through Druzhba fell by 42tb/d or 3.7% to average 1.1 mb/d as Plock refinery reduced demand because of maintenance. Meanwhile ESPO Blend exports from Russia's Far East port Kozmino edged up 3 tb/d or 1%, to average 288 tb/d compared to last month.

Exports thorough the pipelines from the Caspian region have increased. Caspian Pipeline Consortium (CPC) exports rose 17 tb/d or 2.2% to 0.75 mb/d while exports via the Baku-Tbilisi-Ceyhan Pipeline (BTC) pipeline jumped 115 tb/d or 18% to average 0.74 mb/d. A year earlier, exports through the BTC pipeline stood below 0.63 mb/d. Exports to the East also increased. Shipments to China via the Kenkiyak-Alashankou pipeline system rose 14 tb/d or more than 6% to reach nearly 0.24 mb/d.

Total product exports from the FSU rose 127 tb/d or 4.7% in February to average 2.8 mb/d, the highest level since the third quarter 2010. The growth was driven mainly by vacuum gasoil and naphtha. Vacuum gasoil (VGO) exports jumped 65 tb/d or 44% to 0.21 mb/d, the highest level since the 0.29 mb/d of last October. Naphtha exports followed and increased by 35 tb/d or 13% to jump beyond 0.3 mb/d, supported by stronger production from Rosneft's Achinsk and Komsomolsk refineries. Gasoline exports increased by 16 tb/d to stand at 0.2 mb/d, the highest level in more than a year. Fuel oil, the main exported product, saw shipments increase 21 tb/d or 1.8% to average around 1.2 mb/d in February but remained below the 1.25 mb/d of December 2010. In contrast, FSU gasoil exports fell 19 tb/d or 2% to 0.88 mb/d as domestic demand increased, limiting exports.

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

	<u>2009</u>	<u>2010</u>	<u>2Q10</u>	<u>3Q10</u>	<u>4Q10</u>	<u>Jan 11</u>	<u>Feb 11*</u>
<b>Crude</b>							
<b>Russian pipeline</b>							
Black Sea	1,201	994	976	1,038	933	1,015	894
Baltic	1,577	1,564	1,629	1,530	1,569	1,382	1,409
Druzhba	1,112	1,126	1,091	1,155	1,136	1,149	1,107
Kozmino	0	309	323	320	336	285	288
<b>Total</b>	<b>3,922</b>	<b>4,005</b>	<b>4,019</b>	<b>4,043</b>	<b>4,018</b>	<b>4,142</b>	<b>3,993</b>
<b>Other routes</b>							
Russian rail	280	330	324	331	280	212	170
Russian-Far East	283	276	296	204	313	275	328
Kazakh rail	18	1	18	6	0	0	0
Vadandey	155	152	167	150	127	119	113
Kaliningrad	0	24	22	24	24	27	21
CPC	736	743	732	755	749	738	755
BTC	805	775	809	812	796	629	744
Kenkiyak-Alashankou	157	204	200	205	204	223	237
Caspian	281	239	271	195	197	220	148
<b>Total crude exports</b>	<b>6,653</b>	<b>6,750</b>	<b>6,858</b>	<b>6,726</b>	<b>6,759</b>	<b>6,584</b>	<b>6,509</b>
<b>Products</b>							
Gasoline	221	152	155	127	124	184	200
Naphtha	269	275	270	289	245	270	305
Jet	47	20	31	23	15	1	10
Gasoil	948	878	892	822	824	900	881
Fuel oil	1,116	1,235	1,312	1,331	1,225	1,175	1,196
VGO	235	242	287	232	218	147	212
<b>Total</b>	<b>2,837</b>	<b>2,801</b>	<b>2,947</b>	<b>2,824</b>	<b>2,651</b>	<b>2,677</b>	<b>2,804</b>
<b>Total oil exports</b>	<b>9,490</b>	<b>9,551</b>	<b>9,805</b>	<b>9,550</b>	<b>9,410</b>	<b>9,261</b>	<b>9,313</b>

\* Preliminary

Totals may not add due to independent rounding

Source: Nefte Transport, Global Markets, Argus Fundamentals, Argus FSU and OPEC

# Stock Movements

*US commercial stocks fell in March, driven by products, as crude saw a build*

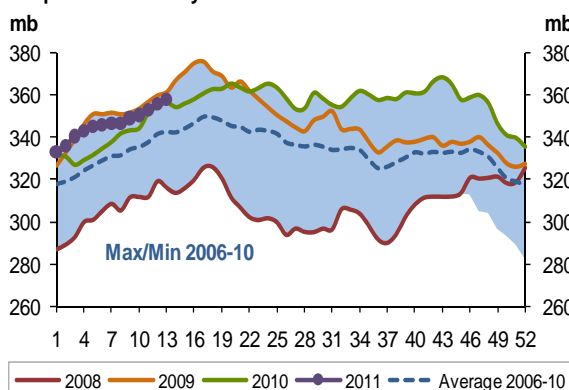
## US

At the end of March, **US commercial oil inventories** continued their seasonal downward trend, declining by 9.0 mb, for a cumulative loss of nearly 35 mb over the last two months. The draws were driven by products which fell strongly by 18.3 mb, while US crude oil stocks reduced the decline, increasing by 9.3 mb. The fall in total US commercial oil inventories to 1042.1 mb put them at 10.7 mb or 1% below a year ago, while the surplus with the five-year average narrowed to 24 mb or 2.3% in March from 31 mb or 3% a month earlier.

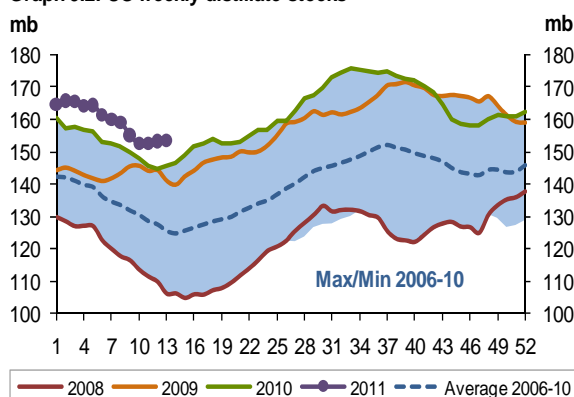
The build in **US commercial crude oil stocks** to 355.7 mb, the highest level in five months puts them at 0.4 mb or 0.1% above a year earlier at the same period and 13.6 mb or 4.0% above the seasonal norm. This build came on the back of higher crude oil imports, increasing by almost 800,000 b/d to average 8.9 mb/d, but still remained slightly lower than a year ago over the same period. Since the beginning of this year, US crude oil imports have not sustained the increase to 9 mb/d as they dipped by almost 1 mb/d during the week ending 25 February, on reduced refinery needs due to lower capacity utilization rates. This came despite a strong rebound in the economy since the fourth quarter of 2010. With the exception of early January, refineries have operated below 85% of capacity. At the end of March, refineries were running at 84.4%, 2.4 percentage points above last month, but remained almost at the same level as last year. This corresponds to US crude oil refinery inputs of 14.4 mb/d, around 300,000 b/d more than the previous month and a year ago. Cushing crude stocks at the end of March moved to 42.0 mb from 38.6 mb in the previous month, contributing to the widening of the WTI-Bent spread to almost \$14/b in the beginning of April. Should crude oil at Cushing hold or build more, this will favour more weakness in the front-month WTI contract.

On the product side, **product stocks** continued to drop significantly in March to end the month at 686.4 mb and drew almost 49 mb since the beginning of this year. This stock draw has widened the deficit with a year ago to 11.1% from 7.3% a month earlier. The surplus from the five-year average has also shrunk to 1.5% from 2.4% in the previous month. With the exception of residual fuel, all other products experienced a stock draw, with the bulk coming from gasoline followed by distillate stocks. Gasoline inventories entered the seventh week of decline decreasing by 17.7 mb to end the month at 217.0 mb. As refinery runs remain weak, production of gasoline in March has declined by about 200,000 b/d, supporting the fall in gasoline stocks. At the same time, fewer imports combined with higher exports have also contributed to the gasoline stock-draw. The decrease in gasoline demand has limited the fall in gasoline inventories. Indeed, gasoline demand has declined by 150 tb/d to average 8.9 mb/d, lower than a year ago by almost the same amount. If gasoline retail prices remain high, growth of gasoline demand going into the summer

Graph 9.1: US weekly commercial crude oil inventories



Graph 9.2: US weekly distillate stocks





will be very slow. At the end of March, gasoline inventories stood at 7.0 mb or 3.1% below a year ago, but still showed a surplus with the historical average of 2.3 mb or 1.1%. Distillate stocks also saw a drop of 5.9 mb for the third consecutive month to stand at 153.3 mb. However despite this draw, gasoline inventories remained at 7.3 mb or 5.0% above a year ago and showed a surplus of 25.4 mb or 20% compared to the historical average. The decline in US distillate stocks could be attributed to higher exports and lower imports. The decline in distillate demand has abated the stock draw as demand decreased by 130,000 b/d to average 3.7 mb/d. During the last two weeks of March, gasoline stocks saw a build, indicating that domestic market factors point to continued sluggishness in the market. Middle distillate output rose on the back of higher production reaching 4.3 mb/d, around 300,000 b/d more than a year ago. Distillate demand went down, hovering in the range of 3.7 mb/d, less than the previous year for the same period. However, the strength of the US distillate market will come from abroad, leading to higher export demand, notably in Latin America, as seasonal demand increases and Asia supply is reduced. Residual fuel oil and jet fuel oil saw a mixed picture as residual fuel oil stocks rose by 0.4 mb, while jet fuel inventories declined by 0.2 mb. Residual fuel stocks ended March at 37.4 mb and show a shortage with a year ago and the five-year average of 7.8% and 6.1% respectively. At 40.6 mb, jet fuel oil stocks stood at 1.4% below last year over the same period, and indicated a deficit of 1.5% with the seasonal norm.

**Table 9.1: US onland commercial petroleum stocks, mb**

	<u>Jan 11</u>	<u>Feb 11</u>	<u>Mar 11</u>	<u>Change</u> <u>Mar 11/Feb 11</u>
<b>Crude oil</b>	347.4	346.4	355.7	9.3
Gasoline	235.0	234.7	217.0	-17.7
Distillate fuel	162.2	159.2	153.3	-5.9
Residual fuel oil	39.0	37.1	37.4	0.4
Jet fuel	41.5	40.8	40.6	-0.2
<b>Total</b>	<b>1076.83</b>	<b>1051.08</b>	<b>1042.12</b>	<b>-8.96</b>
SPR	726.5	726.5	726.5	0.0

\* Latest available data at time of report's release

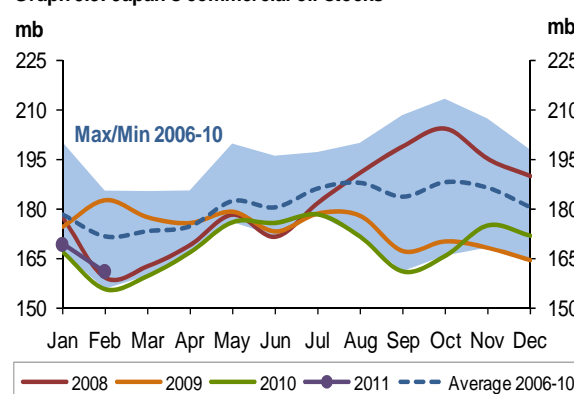
Source: US Department of Energy's Energy Information Administration

## Japan

*Japanese stocks fell in February, driven by both crude and product stockdraws*

In February, **commercial oil stocks** in Japan continued their downward trend for the previous three months, declining by 8.3 mb to stand at 160.9 mb, the lowest level since September 2010. With this draw, Japanese oil inventories stood at 5.3 mb or 3.4% above a year ago, while the deficit with the five-year average has widened to 6.2% from 5.0% a month earlier. Both crude and product inventories fell by 6.5 mb and 1.9 mb respectively.

**Graph 9.3: Japan's commercial oil stocks**



**Japanese crude oil stocks** fell in February for the second consecutive month to stand at 92.0 mb, the lowest in four months. At 92.0 mb, Japanese crude oil stocks stood at 5.1 mb or 5.9% above a year ago, while they still remained 5.6 mb or 5.8% below the five-year average. The drop in crude oil stocks in February came from a robust refinery utilization rate reaching 89.2% or 1.0 percentage point higher than the previous month and 6.8% from a year ago. This corresponds to crude throughput of 4.03 mb/d. It is worth noting that during the week ending 26 February, the refinery utilization rate reached a three-year high close to 90.0% as refiners raised their runs ahead of the refinery turnaround season. Additionally, the fall of refinery capacity in Japan amid slowing demand forced refiners to increase their runs. The fall in crude oil imports also supported the decline in crude oil stocks. Indeed, crude oil imports in February fell by 130 tb/d to average 3.9 mb/d, however crude oil imports remained 3.4% above a year ago.

**Total products** also fell in February, reversing the slight build in January. At 68.9 mb, total products stood at the lowest level since May 2010 and indicated a slight surplus of 0.2% with a year ago, but remained at 4.9 mb or 6.7% below the five-year average. The drop in product stocks could be attributed to the increase in Japanese oil product sales, which rose by 6.9% compared to the previous month. At 3.9 mb/d, Japanese oil sales are 0.8% higher than a year ago, reflecting some improvement in the economy which helped to boost demand for four straight months. Japan's economy was showing signs of picking up after a contraction as Japanese factory output rose in January and February, but the outlook turned gloomy as this month's triple disaster of earthquake, tsunami and nuclear safety crisis shut factories and disrupted fuel sales.

Within products, the picture was mixed as distillate and gasoline stocks saw a drop, while residual fuel oil and naphtha indicated a slight build. Distillate inventories dropped by 1.9 mb to end the month at 27.8 mb, the lowest level since April 2010. With this draw, distillate stocks remained at 3.3% below the five-year average and 3.9% less than a year ago. Within the components of distillates, jet fuel and gasoil fell by 7.4% and 12.5% respectively, while kerosene stocks rose by 0.4%. The drop in gasoil stocks could be attributed to the decline of 9.3% in production combined with higher domestic sales, which rose by 5.8%. The fall in jet fuel stocks came on the back of lower production as domestic sales also went down. In contrast, kerosene stocks rose as mild weather in Northern Japan curbed demand for heating oil. In February, kerosene demand fell 12.8% or 3.1% from a year earlier. Gasoline stocks fell slightly by 0.1 mb to 14.3 mb leaving them 0.2% above the five-year average, but they still remained 1.7% below a year ago at the same period. The fall in gasoline stocks is mainly attributed to the decline in production which dropped by 7.2% as domestic sales saw a minor decline, but motor fuel sale is expected to see a significant drop in March as gasoline stations were temporarily closed in Tokyo and eastern Japan after the 11 March earthquake disturbed supplies. Residual fuel oil stocks saw a slight build leaving them at 19.3% below the historical norm and 7.8% less than a year earlier.

The build in residual fuel oil was driven by the increase in fuel oil B.C as fuel oil A indicated a drop. The build in fuel oil B.C could be attributed to lower domestic sales as they declined by 2.3% combined with increase in imports which rose more than double. The decline in fuel oil A came on the back of a 4.5% increase in domestic sales. Naphtha stocks saw a slight build ending the month at 12.5 mb, remaining at 2.8 mb or 1.6% above a year ago at the same period.

**Table 9.2: Japan's commercial oil stocks\*, mb**

	<b>Dec 10</b>	<b>Jan 11</b>	<b>Feb 11</b>	<b>Change Feb 11/Jan 11</b>	<b>Feb 10</b>
<b>Crude oil</b>	101.1	98.5	92.0	-6.5	86.8
Gasoline	12.5	14.4	14.3	-0.1	14.5
Naphtha	11.2	12.3	12.5	0.2	9.7
Middle distillates	31.0	29.6	27.8	-1.8	28.9
Residual fuel oil	15.7	14.3	14.4	0.1	15.6
<b>Total products</b>	70.5	70.8	68.9	-1.9	68.8
<b>Total**</b>	<b>171.6</b>	<b>169.2</b>	<b>160.9</b>	<b>-8.3</b>	<b>155.6</b>

\* At end of month

\*\* Includes crude oil and main products only

Source: METI, Japan

### **Singapore and Amsterdam-Rotterdam-Antwerp (ARA)**

At the end of February, **product stocks held in Singapore** reversed the downward trend incurred for the last five months and rose by 2.9 mb to end the month at 43.2 mb. With this build, product stocks narrowed the gap with a year ago to 8.3% from 10.4% a month earlier. Within products, the bulk of this build came from middle distillates, which rose by 2.5 mb, while light distillate stocks saw a slight build of 0.4 mb. Fuel oil stocks indicated a minor drop at the end of February. At 14.3 mb, middle distillates stood at the highest level since October 2010, reversing the deficit with a year ago incurred over the last two months to a surplus of 4.6%. The build in middle distillates stocks was led by higher inflows from mainly India, Taiwan, Saudi Arabia and South Korea. Indeed, Taiwan and South Korea have raised crude runs in February ahead of maintenance resulting in higher product exports. Additionally, more Saudi gasoil barrels could have

*Singapore product stocks rose in February, reversing the downward trend over the last five months*

entered Singapore attracted by higher cargo prices. Light distillate stocks rose to 9.6 mb, but remained 2.3% below a year earlier. However, gasoline stocks are expected to rise in coming weeks benefiting from higher gasoline exports from Europe as some sellers were forced to redirect barrels to Asia and the US, which were initially booked for Libya. Fuel oil stocks fell marginally to end the month at 19.0 mb, 18.2% below a year ago. It is worth noting that fuel oil stocks reached more than 20 mb during the week ending 24 February reflecting strong inflows from West, however this started to ease and inventories dropped to a little over 19 mb at the end of month. With fuel oil imports expected to remain low, combined with projected higher demand, fuel oil stocks in Singapore are expected to fall further.

*Product stocks in ARA dropped in February after three consecutive months of increase*

**Product stocks in ARA** in February dropped by 1.8 mb after three consecutive months of increase. At 36.7 mb, products stood at the lowest level since October 2010, still representing a surplus of 1.0% above a year ago. Within products, the picture was mixed; gasoline and gasoil saw a build, while fuel oil, jet oil and naphtha indicated a drop. Gasoline stocks went up 0.3 mb to 7.4 mb, representing a 12.8% surplus with a year ago. Investors are taking advantage of the contango structure in the gasoline market to build more inventories. Additionally, higher imports of gasoline outpacing exports have helped to build gasoline stocks. Gasoil stocks also saw a build of 0.3 mb to end the month at 19.5 mb, 4% more than a year ago in the same month. This build is driven by higher imports from Norway and Qatar outpacing outflows to Northwest Europe and Spain. Fuel oil stocks saw the largest drop of 2.0 mb, ending the month at 3.4 mb, plunging to the lowest level in more than one year. Weak prices relative to the Asian market led to more shipments to that market, contributing to the decline in stocks. With this draw, fuel oil stocks stood at 19% below a year earlier. Naphtha stocks fell slightly 0.1 mb, remaining 5% below a year ago, driven by increasing flows to the petrochemical industry. Jet fuel inventories saw a slight drop of 0.2 mb to end the month at 6.0 mb, leaving them 6.4% below a year earlier.

# Balance of Supply and Demand

*Required OPEC crude for 2010 estimated at 29.5 mb/d, a gain of 0.4 mb/d over the previous year*

## Estimate for 2010

Demand for OPEC crude for 2010 has been revised up by 0.2 mb/d to currently stand at 29.5 mb/d, reflecting mainly the upward adjustment in world oil demand. All the quarters saw an upward revision with the bulk of the adjustment occurring in the fourth quarter, which was increased by 0.3 mb/d to reflect the most recent data. The demand for OPEC crude is estimated to have risen by 0.4 mb/d above the previous year. Compared to a year ago, the first quarter showed a drop of 0.8 mb/d, while the second quarter is estimated to see slight growth of 0.3 mb/d. The third quarter is forecast to see positive growth of 1.7 mb/d followed by 0.5 mb/d growth in the fourth quarter.

**Table 10.1: Summarized supply/demand balance for 2010, mb/d**

	2009	1Q10	2Q10	3Q10	4Q10	2010
(a) World oil demand	84.54	85.15	85.43	87.67	87.90	86.55
Non-OPEC supply	51.13	52.13	52.11	51.93	52.86	52.26
OPEC NGLs and non-conventionals	4.35	4.60	4.77	4.81	4.96	4.79
(b) Total supply excluding OPEC crude	55.48	56.73	56.88	56.74	57.83	57.05
Difference (a-b)	29.07	28.42	28.56	30.93	30.07	29.50
OPEC crude oil production	28.71	29.19	29.07	29.18	29.28	29.18
Balance	-0.36	0.76	0.52	-1.75	-0.80	-0.32

Totals may not add due to independent rounding

## Forecast for 2011

The demand for OPEC crude in 2011 is projected to average 29.9 mb/d, following an upward revision of 0.1 mb/d from the previous assessment, mainly due to an adjustment in world oil demand. The first quarter remained unchanged, the second quarter saw a downward revision of 0.1 mb/d, while the third and the fourth quarters were revised up by 0.1 mb/d and 0.3 mb/d respectively. Required OPEC crude is forecast to increase by 0.4 mb/d this year over last year. Compared to a year ago, the first quarter should see growth of around 0.7 mb/d, while the second is forecast to experience reduced growth of 0.2 mb/d. The third quarter is projected to remain flat, while the fourth quarter is likely to see higher growth of 0.5 mb/d.

**Table 10.2: Summarized supply/demand balance for 2011, mb/d**

	2010	1Q11	2Q11	3Q11	4Q11	2011
(a) World oil demand	86.55	87.07	86.67	88.83	89.17	87.94
Non-OPEC supply	52.26	52.89	52.65	52.60	53.22	52.84
OPEC NGLs and non-conventionals	4.79	5.06	5.22	5.33	5.38	5.25
(b) Total supply excluding OPEC crude	57.05	57.95	57.87	57.93	58.59	58.09
Difference (a-b)	29.50	29.12	28.80	30.90	30.58	29.85
OPEC crude oil production	29.18	29.75				
Balance	-0.32	0.63				

Totals may not add due to independent rounding

**Graph 10.1: Balance of supply and demand**

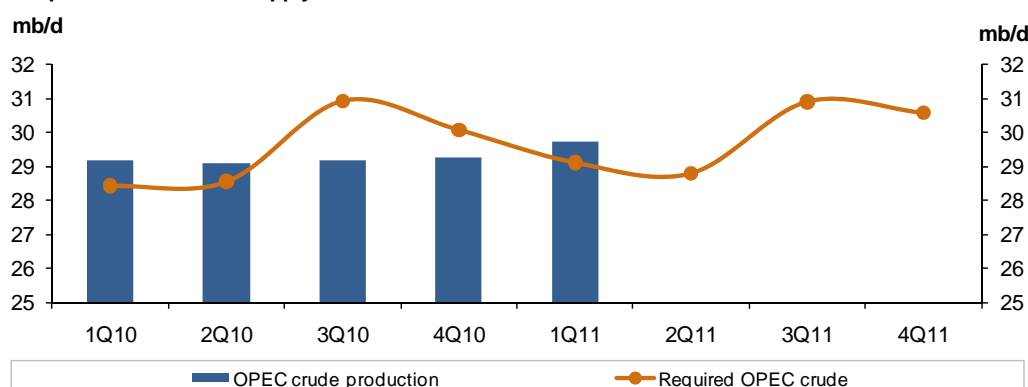


Table 10.3: World oil demand/supply balance, mb/d

	2005	2006	2007	2008	2009	1Q10	2010	3Q10	4Q10	2010	1Q11	2011	3Q11	4Q11	2011
<b>World demand</b>															
OECD	49.9	49.6	49.3	47.6	45.5	45.8	45.2	46.6	46.7	46.1	46.5	45.3	46.6	46.9	46.3
North America	25.6	25.4	25.5	24.2	23.3	23.5	23.8	24.2	24.0	23.9	24.0	23.9	24.4	24.3	24.2
Western Europe	15.7	15.7	15.5	15.4	14.5	14.2	14.1	14.8	14.7	14.4	14.3	14.1	14.7	14.6	14.4
Pacific	8.6	8.5	8.4	8.0	7.7	8.2	7.3	7.6	8.0	7.8	8.1	7.2	7.5	8.0	7.7
DCs	22.8	23.6	24.7	25.5	26.1	26.3	26.7	26.9	27.0	26.7	27.0	27.3	27.5	27.6	27.3
FSU	3.9	4.0	4.0	4.1	4.0	4.0	3.8	4.2	4.3	4.1	4.0	3.9	4.3	4.4	4.2
Other Europe	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.6	0.7	0.7	0.7
China	6.7	7.2	7.6	8.0	8.3	8.4	9.1	9.2	9.1	9.0	8.9	9.6	9.7	9.6	9.5
(a) Total world demand	84.1	85.2	86.5	86.0	84.5	85.2	85.4	87.7	87.9	86.5	87.1	86.7	88.8	89.2	87.9
<b>Non-OPEC supply</b>															
OECD	20.4	20.1	20.0	19.5	19.7	20.0	19.9	19.5	20.3	19.9	20.2	19.9	19.7	20.0	19.9
North America	14.1	14.2	14.3	13.9	14.4	14.7	14.9	14.9	15.3	14.9	15.3	15.1	15.0	15.2	15.2
Western Europe	5.7	5.3	5.2	5.0	4.7	4.7	4.4	4.0	4.4	4.4	4.4	4.1	4.1	4.2	4.2
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6
DCs	11.9	12.0	12.0	12.2	12.5	12.7	12.7	12.8	12.8	12.8	12.9	13.0	13.1	13.3	13.1
FSU	11.5	12.0	12.5	12.6	13.0	13.2	13.2	13.2	13.3	13.2	13.4	13.4	13.3	13.4	13.4
Other Europe	0.2	0.2	0.2	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	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.2
Processing gains	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Total non-OPEC supply	49.6	49.9	50.4	50.3	51.1	52.1	52.1	51.9	52.9	52.3	52.9	52.7	52.6	53.2	52.8
OPEC NGLs + non-conventional oils	3.9	3.9	3.9	4.1	4.3	4.6	4.8	4.8	5.0	4.8	5.1	5.2	5.3	5.4	5.2
(b) Total non-OPEC supply and OPEC NGLs	53.5	53.8	54.4	54.5	55.5	56.7	56.9	56.7	57.8	57.0	58.0	57.9	57.9	58.6	58.1
<b>OPEC crude oil production (secondary sources)</b>	30.7	30.5	30.2	31.2	28.7	29.2	29.1	29.2	29.3	29.2	29.7				
<b>Total supply</b>	84.2	84.4	84.6	85.7	84.2	85.9	85.9	85.9	87.1	86.2	87.7				
<b>Balance (stock change and miscellaneous)</b>	0.1	-0.9	-1.9	-0.3	-0.4	0.8	0.5	-1.7	-0.8	-0.3	0.6				
<b>OECD closing stock levels (mb)</b>															
Commercial	2587	2668	2572	2697	2664	2680	2771	2742	2663	2663					
SPR	1487	1499	1524	1527	1564	1567	1563	1549	1561	1561					
Total	4073	4167	4096	4224	4228	4247	4334	4291	4223	4223					
Oil-on-water	954	919	948	969	919	894	897	926	871	871					
<b>Days of forward consumption in OECD</b>															
Commercial onland stocks	52	54	54	59	58	59	59	59	57	57					
SPR	30	30	32	34	34	35	34	33	34	34					
Total	82	84	86	93	92	94	93	92	91	91					
<b>Memo items</b>															
FSU net exports	7.7	8.0	8.5	8.5	9.0	9.2	9.4	9.0	9.0	9.1	9.3	9.5	9.0	9.0	9.2
(a) - (b)	30.6	31.4	32.1	31.5	29.1	28.4	28.6	30.9	30.1	29.5	29.1	28.8	30.9	30.6	29.9

Note: Totals may not add up due to independent rounding

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

	2005	2006	2007	2008	2009	1Q10	2Q10	3Q10	4Q10	2010	1Q11	2011	3Q11	4Q11	2011
<b>World demand</b>															
OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Western Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
DCs	-	-	-	-	-	0.1	-	0.1	0.2	0.1	0.1	-	0.1	0.2	0.1
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) Total world demand	-	-	-	-	-	0.1	0.1	0.2	0.3	0.2	-	-0.1	0.2	0.3	0.1
<b>World demand growth</b>	<b>-0.10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.06</b>	<b>0.09</b>	<b>0.16</b>	<b>0.31</b>	<b>0.16</b>	<b>-0.02</b>	<b>-0.20</b>	<b>-</b>	<b>0.03</b>	<b>-0.05</b>
<b>Non-OPEC supply</b>															
OECD	-	-	-	-	-	-	-	-	0.1	-	0.2	-	-	-	0.1
North America	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Western Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-0.1
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-
<b>Total non-OPEC supply growth</b>	<b>0.01</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-0.01</b>	<b>-0.01</b>	<b>-0.01</b>	<b>0.01</b>	<b>-</b>	<b>0.10</b>	<b>-0.01</b>	<b>0.08</b>	<b>0.07</b>	<b>0.06</b>
OPEC NGLs + non-conventionals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-
OPEC crude oil production (secondary sources)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total supply</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Balance (stock change and miscellaneous)	-	-	-	-	-	-0.1	-0.1	-0.2	-0.3	-0.2	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>															
Commercial	-	-	-	-	-	-	-	-	-5	-5	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	4	4	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-1	-1	-	-	-	-	-
Oil-on-water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>															
Commercial onland stocks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Memo items</b>															
FSU net exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) - (b)	-	-	-	-	-	0.1	0.1	0.2	0.3	0.2	-	-0.1	0.1	0.3	0.1

\* This compares Table 10.3 in this issue of the MOMR with Table 10.3 in the March 2011 issue  
This table shows only where changes have occurred



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

	2003	2004	2005	2006	2007	2008	3Q06	4Q06	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09	1Q10	2Q10	3Q10	4Q10
<b>Closing stock levels mb</b>																								
OECD onland commercial	2,511	2,538	2,587	2,668	2,572	2,697	2,761	2,668	2,601	2,661	2,646	2,572	2,572	2,602	2,664	2,697	2,752	2,761	2,777	2,664	2,680	2,771	2,742	2,663
North America	1,161	1,193	1,257	1,277	1,229	1,301	1,351	1,277	1,238	1,294	1,285	1,229	1,216	1,240	1,282	1,301	1,355	1,388	1,390	1,309	1,322	1,386	1,397	1,323
Western Europe	915	915	935	963	937	989	949	963	943	940	929	937	961	953	951	989	990	971	968	972	973	980	942	947
OECD Pacific	435	430	394	429	407	407	461	429	420	428	432	407	394	409	431	407	408	401	419	383	386	405	403	392
OECD SPR	1,411	1,450	1,487	1,499	1,524	1,527	1,495	1,499	1,507	1,506	1,520	1,524	1,529	1,526	1,522	1,527	1,547	1,561	1,564	1,564	1,567	1,563	1,549	1,561
North America	640	678	687	691	699	704	690	691	691	692	695	699	702	708	704	704	715	726	727	729	729	729	728	729
Western Europe	374	377	407	412	421	416	412	412	415	413	423	421	423	414	414	416	424	427	429	426	429	424	419	423
OECD Pacific	396	396	393	396	404	406	393	396	401	401	403	404	404	404	403	406	408	408	408	409	409	411	402	410
<b>OECD total</b>	<b>3,922</b>	<b>3,988</b>	<b>4,073</b>	<b>4,167</b>	<b>4,096</b>	<b>4,224</b>	<b>4,256</b>	<b>4,167</b>	<b>4,108</b>	<b>4,168</b>	<b>4,166</b>	<b>4,096</b>	<b>4,101</b>	<b>4,128</b>	<b>4,186</b>	<b>4,224</b>	<b>4,299</b>	<b>4,322</b>	<b>4,341</b>	<b>4,228</b>	<b>4,247</b>	<b>4,334</b>	<b>4,291</b>	<b>4,223</b>
Oil-on-water	882	905	954	919	948	969	974	919	916	891	917	948	935	925	885	969	899	899	869	919	894	897	926	871
<b>Days of forward consumption in OECD</b>																								
OECD onland commercial	51	51	52	54	54	59	55	54	54	54	53	52	54	56	56	58	62	61	60	58	59	59	59	58
North America	46	47	49	50	51	56	53	50	49	51	50	50	50	53	54	56	59	60	59	56	56	57	58	55
Western Europe	59	58	60	62	61	68	60	63	62	60	59	61	64	61	62	66	69	67	67	69	69	66	64	66
OECD Pacific	51	50	47	51	51	53	53	48	53	54	49	46	50	54	54	50	56	55	52	47	53	53	50	50
OECD SPR	28	29	30	30	32	34	30	30	31	31	30	31	32	33	32	33	35	35	34	34	35	34	33	34
North America	25	26	27	27	29	30	27	27	27	27	27	28	29	30	29	30	31	31	31	31	31	30	30	31
Western Europe	24	24	26	27	27	29	26	27	27	26	27	27	28	27	27	28	30	29	30	30	30	29	29	29
OECD Pacific	46	46	46	47	50	53	45	44	51	51	46	45	52	54	51	50	56	56	51	50	56	54	50	53
<b>OECD total</b>	<b>79</b>	<b>80</b>	<b>82</b>	<b>84</b>	<b>86</b>	<b>93</b>	<b>85</b>	<b>84</b>	<b>85</b>	<b>85</b>	<b>83</b>	<b>84</b>	<b>87</b>	<b>88</b>	<b>89</b>	<b>91</b>	<b>97</b>	<b>96</b>	<b>94</b>	<b>92</b>	<b>94</b>	<b>93</b>	<b>92</b>	<b>92</b>

n.a. not available

April 2011

Note: Totals may not add up due to independent rounding. Indonesia has been included in non-OPEC supply for purpose of comparison

Table 10.7: World Rig Count

	2005	2006	06/05	Change	4Q07	2007	07/06	Change	1Q08	2Q08	3Q08	4Q08	2008	08/07	1Q09	2Q09	3Q09	4Q09	2009	09/08	Change	1Q10	2Q10	3Q10	4Q10	2010	10/09	Change	Feb 11	Mar 11	Change
USA	1,381	1,647	267	1,790	1,767	119	1,770	1,864	1,978	1,898	1,877	1,877	111	1,326	936	956	1,108	1,081	-796	1,345	1,508	1,622	1,687	1,541	459	1718	1721	3			
Canada	458	470	12	356	344	-126	507	169	432	408	379	35	328	91	177	277	218	-161	470	166	364	389	347	129	608	547	-61				
Mexico	107	83	-24	93	92	9	96	106	103	106	103	11	128	128	135	123	128	26	118	106	84	80	97	-31	84	85	1				
North America	1,945	2,200	255	2,240	2,202	2	2,373	2,139	2,513	2,411	2,359	157	1,782	1,154	1,267	1,508	1,428	-931	1,933	1,780	2,070	2,156	1,985	557	2,410	2,353	-57				
Norway	17	17	0	17	18	1	17	21	21	21	21	20	2	25	18	18	20	20	0	21	18	13	20	18	-2	21	19	-2			
UK	21	27	5	22	26	-1	19	21	24	24	22	-4	22	19	16	15	18	-4	15	20	21	21	19	1	16	15	-1				
Western Europe	70	77	7	77	78	0	91	97	101	103	98	20	90	82	76	85	83	-15	87	96	92	100	94	11	118	118	0				
OECD Pacific	25	26	2	30	29	2	32	39	39	34	36	7	27	25	26	23	25	-11	22	18	23	22	21	-4	14	16	2				
Total OECD	2,078	2,347	269	2,385	2,352	4	2,532	2,317	2,698	2,593	2,535	183	1,945	1,299	1,368	1,616	1,557	-978	2,042	1,893	2,185	2,278	2,100	543	2,542	2,487	-55				
Other Asia	200	202	2	216	212	10	213	220	218	212	216	4	212	212	213	233	217	1	235	249	253	255	248	31	259	245	-14				
Latin America	129	149	19	179	175	27	187	184	195	197	191	16	164	147	149	169	157	-34	183	203	220	213	205	48	222	226	4				
Middle East	131	132	1	154	149	18	158	165	175	171	167	18	162	151	139	147	150	-18	152	150	163	159	156	6	168	159	-9				
Africa	8	10	2	14	14	4	10	13	14	11	12	-2	8	11	9	12	10	-2	20	19	19	18	19	9	26	22	-4				
Total DCs	468	493	25	563	551	58	569	583	602	591	586	36	546	520	510	561	534	-52	589	621	655	645	628	93	675	652	-23				
Non-OPEC Rig Count	2,546	2,840	294	2,948	2,903	62	3,101	2,900	3,300	3,183	3,121	219	2,491	1,819	1,878	2,177	2,091	-1,030	2,632	2,514	2,840	2,924	2,727	636	3,217	3,139	-78				
Algeria	21	24	4	28	27	2	26	27	24	26	26	-1	24	30	27	27	27	1	23	28	24	24	25	-2	30	24	-6				
Angola	3	4	1	5	4	1	5	6	5	5	5	1	5	3	3	4	4	-1	10	8	9	9	9	5	9	5	-4				
Ecuador	12	11	0	10	11	-1	7	9	12	13	10	-1	10	10	10	10	10	0	11	11	11	11	11	1	11	11	0				
Iran	40	44	4	50	50	6	50	50	50	51	50	0	51	52	52	52	52	2	52	52	52	52	52	0	0	0	0				
Iraq	0	0	0	0	0	0	29	29	29	29	29	29	36	36	36	36	36	7	36	36	36	36	36	0	0	0	0				
Kuwait	12	14	1	11	12	-1	12	11	12	12	12	0	12	11	14	13	13	0	19	18	21	23	20	8	31	33	2				
Libya	9	10	1	14	13	3	14	15	15	15	15	2	15	13	14	15	14	-1	17	17	14	15	16	1	15	0	-15				
Nigeria	9	10	1	10	8	-1	9	8	6	6	7	-1	7	6	6	7	6	-1	11	13	18	17	15	8	14	14	0				
Qatar	12	11	-1	14	13	2	11	12	11	11	11	-1	9	9	9	9	9	-2	8	8	9	9	9	0	10	9	-1				
Saudi Arabia	37	65	28	77	77	11	78	77	76	76	77	0	72	67	67	66	68	-9	68	67	67	65	67	-1	63	65	2				
UAE	16	16	0	14	15	-2	12	12	13	12	12	-2	13	12	13	12	12	0	13	13	13	13	13	1	19	21	2				
Venezuela	68	81	13	71	76	-5	82	81	77	81	80	4	69	64	54	54	60	-20	66	64	70	80	70	10	95	93	-2				
OPEC Rig Count	238	290	51	302	305	16	336	337	330	336	335	29	322	314	302	305	311	-24	334	335	344	355	342	31	297	275	-22				
Worldwide Rig Count*	2,785	3,130	345	3,250	3,208	78	3,438	3,237	3,630	3,519	3,456	248	2,813	2,133	2,180	2,483	2,402	-1,054	2,965	2,849	3,184	3,278	3,069	667	3,514	3,414	-100				
of which:																															
Oil	980	1,124	144	1,285	1,242	119	1,408	1,351	1,479	1,490	1,432	190	1,283	1,069	1,182	1,356	1,222	-210	1,590	1,534	1,783	1,896	1,701	479	2,120	2,107	-13				
Gas	1,746	1,947	201	1,904	1,903	-44	1,969	1,814	2,070	1,948	1,950	47	1,450	993	965	1,092	1,125	-825	1,333	1,276	1,356	1,337	1,325	200	1,345	1,263	-82				
Others	21	17	-4	25	20	4	26	32	36	37	33	12	35	35	34	37	35	3	43	40	42	46	43	8	50	45	-5				

\*/ Excludes China and FSU

na: Not available

Note: Totals may not add up due to independent rounding

Source: Baker Hughes International &amp; Secretariat's Estimates

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# The OPEC Award for Research 2012

## Call for Nominations

The presentation of the fourth prestigious OPEC Award for Research will take place in Vienna, Austria, in June 2012. Organizations and institutions are invited to nominate qualified candidates to be considered for this Award.

### *Objective of the Award*

The OPEC Award for Research recognises past efforts and encourages future endeavours. In this regard, it honours individuals who have made outstanding contributions to knowledge of the petroleum industry and oil-related issues.

### *Frequency of the Award*

Instituted in 2004, the OPEC Award for Research is conferred by the President of the OPEC Conference on the occasion of the biennial OPEC International Seminar.

### *Eligibility*

To be eligible for the OPEC Award for Research, the recipient must:

- i. Be well-known in the energy industry and/or academia;
- ii. Have consistently maintained high achievement levels over many years, including the production of a substantial record of publications;
- iii. Have shown dedication to research and analysis of important oil-related issues;
- iv. Have contributed to an improved understanding of key determinants that support oil market stability;
- v. Have played a role in enhancing dialogue between producers and consumers;
- vi. Have demonstrated a high level of objectivity and integrity in his/her work;
- vii. Have consistently presented a critical, yet impartial view on oil-related issues in public debates and discourse;
- viii. Have furthered knowledge in the oil industry by encouraging and promoting young researchers within OPEC Member Countries and the developing world;
- ix. Have demonstrated innovative thinking throughout his/her career.

### **Nominations**

Candidates for the OPEC Award for Research can be nominated by individuals, institutions and/or Organizations by filling out the nomination form. This can also be downloaded from the OPEC Website [www.opec.org](http://www.opec.org). Completed nomination forms, accompanied by a 500-word biography of the candidate and a list of some of his/her publications, should be sent either by email to [prid@opec.org](mailto:prid@opec.org) or by post to:

The Chairman  
The OPEC Award for Research  
Organization of the Petroleum Exporting Countries  
Helferstorferstrasse 17  
A-1010 Vienna  
Austria

Deadline for nominations is *Tuesday, 31 May 2011*.

### **Winner**

The recipient of the OPEC Award for Research will be chosen by a panel of professionals in the industry from within and outside OPEC Member Countries and the OPEC Secretariat.

### **Presentation of the Award**

The OPEC Award for Research will be presented at the close of the Fifth OPEC International Seminar in Vienna, Austria, on *13–14 June 2012*.





# The OPEC Award for Research 2012

## Nomination form

The call for nominations for the 2012 OPEC Award for Research has begun. The OPEC Award for Research recognizes past efforts and encourages future endeavours. In this regard, it honours individuals who have made outstanding contributions to knowledge of the petroleum industry and oil-related issues. Instituted in 2004, the Award is conferred by the President of the OPEC Conference on the occasion of the biennial OPEC International Seminar.

**Name of the Nominee:** \_\_\_\_\_

**Position:** \_\_\_\_\_

**Company/Organization:** \_\_\_\_\_

**Street address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **Country:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Nominating Institution:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **Country:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_ **Email:** \_\_\_\_\_



Please send completed nomination forms and samples of published work by email to [prid@opec.org](mailto:prid@opec.org) or by post:

The Chairman  
The OPEC Award for Research  
c/o the Public Relations and Information Department  
Organization of the Petroleum Exporting Countries  
Helferstorferstrasse 17  
A-1010, Vienna  
Austria

**All material should be received by 31 May 2011.**



## OPEC Basket average price

US\$ per barrel

↑ up \$9.55 in March

March 2011	109.84
February 2011	100.29
Year-to-date	101.27

## March OPEC production

in million barrels per day, according to secondary sources

↓ down 0.63 in March

March 2011	29.31
February 2011	29.94

## World economy

The global growth expectation for 2011 has been reduced to 3.9% from 4.0%, mainly impacted by the situation in the Japanese economy, which is now forecast to decline by 0.1% compared to a previous forecast of 1.5%. Consequently, the OECD forecast has been changed from 2.3% to 2.2%. The US and Euro-zone remain at 2.9% and 1.5% respectively. China and India are unchanged at 9.0% and 8.1%.

## Supply and demand

in million barrels per day

2010			09/10	2011			10/11
World demand	86.5		2.0	World demand	87.9		1.4
Non-OPEC supply	52.3		1.1	Non-OPEC supply	52.8		0.6
OPEC NGLs	4.8		0.4	OPEC NGLs	5.2		0.5
Difference	29.5		0.4	Difference	29.9		0.4

Totals may not add due to independent rounding

## Stocks

US commercial inventories fell around 9 mb in March. The decline was driven by a hefty fall of 18.3 mb in products as US crude oil stocks rose by 9.3 mb. Nevertheless, US commercial oil inventories remained at 24 mb above the historical average. The most recent data for Japan shows that commercial oil inventories declined by 8.3 mb in February.