# Organization of the Petroleum Exporting Countries

# Monthly Oil Market Report

# January 2011

# Feature Article: Factors driving the recent surge in crude oil prices

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# Oil Market Highlights

- The **OPEC Reference Basket** increased further in December, moving within a \$85-90/b range for a monthly average of \$85.56/b. The upward trend was attributed to bullish market sentiment, driven by improving macroeconomic expectations and the colder winter in the North Hemisphere. Declining inventories in the US and growing appetite for commodity investments, such as oil, also supported prices. In December, the Nymex WTI front month averaged \$89.23/b and ICE Brent averaged \$92.65/b. Futures continued to increase in early January to hit their 27-month highs with Brent around \$98/b. For the year, the Basket averaged \$77.45/b in 2010, up 26.8% from the previous year. The Basket moved higher in January to reach \$94.04/b on 14 January.
- The world economy continues to enjoy positive momentum backed by the ongoing expansion in the manufacturing sector. Growth for 2010 was revised up to 4.5% from 4.3% previously. Although dependent on government-led support, growth in 2011 has also been revised up to 3.9% from 3.8%. US growth is forecast at 2.8% in 2010 and 2.6% in 2011. The deceleration in Japan's economy remains more pronounced, dropping to 1.5% in 2011 after growth of 4.3% in 2010. The Euro-zone, which is forecast at 1.5% in 2010 and 1.2% in 2011, is expected to continue its two-speed growth pattern, with Germany taking the lead. China and India still face signs of overheating and continue to be challenged by high inflation. The forecasts for China and India remain unchanged at 9.7% and 8.5% for 2010 and at 8.8% and 8.0% for 2011, respectively.
- World oil demand is estimated to have grown by 1.6 mb/d in 2010, following an upward revision of 0.13 mb/d since the last report. Extra consumption of heating and fuel oil boosted oil demand in December, more than offsetting weak demand for transport fuels. World economic activities were stronger than expected, resulting in more oil usage; nevertheless, some of the increase was partially related to the low base line from 2009. In 2011, world oil demand growth is forecast at 1.2 mb/d, representing a minor upward revision of 50 tb/d. The continued pace of the global economic recovery will have a considerable impact on world oil demand in 2011.
- Non-OPEC oil supply growth in 2010 is estimated at 1.1 mb/d, representing a slight upward revision from the previous assessment. In 2011, non-OPEC oil supply is expected to increase by 0.4 mb/d to average 52.9 mb/d, following an upward adjustment of 40 tb/d. The revision came partially from the US, China and Russia on the back of healthy production in the fourth quarter of 2010. In December, total OPEC crude production is reported to average 29.23 mb/d, the highest level since February 2010, indicating an increase of 171 tb/d over the previous month.
- Product market sentiment turned bullish in December, supported by stronger heating oil demand due to cold winter weather along with a jump in the Chinese diesel demand. This encouraged refiners in the US and Asia to increase throughputs, resulting in a surplus in fuel oil, which caused an imbalance in the market exerting pressure on refinery margins.
- OPEC sailings increased slightly in December by 0.27 mb/d. Spot freight rates for VLCCs in the tanker market declined 9.1% in December due to tonnage oversupply, supported by a drop in floating storage.
- US commercial stocks fell 28.0 mb in December. The bulk of the draw came from crude which declined by 24.4 mb, while product stocks decreased by only 3.6 mb. Despite this drop, US commercial oil stocks remained at a surplus of 75 mb with the five-year average. The most recent monthly data for Japan shows that commercial oil inventories rose by 9.1 mb in November, narrowing the gap with the five-year average to 11.5%. Preliminary indications show a further increase of 1.6 mb in December.
- The **demand for OPEC crude** in 2010 is estimated at 29.0 mb/d, following an upward adjustment of around 0.1 mb/d over the previous report. With the revision, the demand for OPEC crude in 2011 stands at the same level as in the previous year. In 2011, the demand for OPEC crude is expected to average 29.4 mb/d, an increase of 0.4 mb/d over the 2010 level and an upward revision of 0.2 mb/d over the previous assessment.

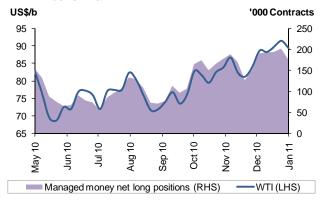
Monthly Oil Market Report\_

# Factors driving the recent surge in crude oil prices

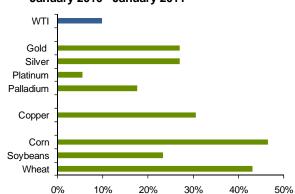
Since mid-November, US benchmark crude oil prices have jumped by more than \$10/b or 12% to break above the \$90/b mark. Over the first two weeks of the year, WTI prices averaged almost \$90/b. With the exception of 2008, this is the highest start to any year on record. Brent saw an even stronger increase of almost \$12/b or 14% over the same period, while Dubai experience a lower gain of \$7/b or 8%. Following the relative price stability seen for most of 2010, this has raised concerns about whether prices will persist at these higher levels or if this is only a temporary phenomenon and prices will correct over the coming weeks.

Among the key factors contributing to the recent price surge has been the early onset of winter weather. This has led to stronger heating oil demand as well as a decline in crude oil stocks above the seasonal average. Some forecasts calling for a revival of crude oil demand and a perceived potential for tightness in the market over 2011 have also contributed to the price rise. Additionally, bullish market sentiment and a surge in investment flows into major commodity markets including crude oil have also pushed prices higher. Indeed, speculative activities in the crude oil futures market, as represented by net long positions of money managers, reached a record high in the week ending 28 December 2010 (see *Graph 1*).

Graph 1: Speculative activity on Nymex and prices for benchmark WTI



Graph 2: Percentage changes in commodity prices, January 2010 - January 2011



As mentioned, the rise in crude is part of a general increase across commodities as a whole, as expectations about a continued improvement in the global economy have supported increasing commodity investment. Gains in most major commodities since the start of the year have even outpaced the 10% increase in crude oil. Agricultural commodities have risen the most with corn prices jumping nearly 50% and wheat up by more than 40%. Precious metals have also moved higher with silver and gold increasing by nearly 30% (see *Graph 2*).

The recent surge in prices cannot be fully explained by a change in oil market fundamentals, as global stocks point to a continued well-supplied market. Despite a stronger-than-usual seasonal crude draw, US crude inventories remain comfortably at 75 mb above the five-year average. Product stocks also show a surplus of 46 mb over the seasonal average. At the end of the year, other OECD regions, such as Europe and Japan, have even experienced counter-seasonal builds. Some extra barrels also remained available in floating storage. So, while the total overhang in inventories has declined since August, global inventories continue to be high.

Additionally, in the likelihood of a strong rise in demand or any sudden supply disruption, OPEC holds around 6 mb/d of spare capacity which could quickly be made available to the market. Expected demand for OPEC crude for this year stands at 29.4 mb/d, slightly above the current estimation of OPEC production. A closer look shows that demand for OPEC crude in the first half of the year will be lower than current OPEC production of 29.2 mb/d, which would result in a growing stock cushion.

It is clear that the overall economic situation has brightened since the start of last year, and expectations for a sustained improvement, particularly in key emerging economies such as China and India, will continue to influence oil market direction. However, important risks still remain which could impact crude oil prices over the coming months. These include rising sovereign debt concerns in some OECD countries; weaker-than-expected oil demand growth in 2011; excess crude and product inventories, both onshore and offshore; and higher spare capacity in both the upstream and downstream sectors.

As this shows, the oil market continues to face significant uncertainties. A clearer picture will emerge with the end of the winter season, as the market heads into the lower demand second quarter. Until then, there is an adequate cushion of supply in both inventories and spare capacity to meet the supply needs of the market.

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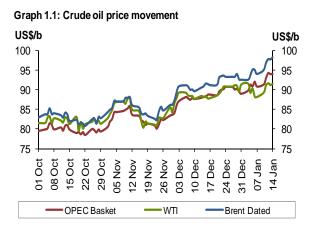
# **Crude Oil Price Movements**

Supported by bullish sentiment, the OPEC Reference Basket rose for the fifth month in a row to average \$77.45/b in 2010

# **OPEC Reference Basket**

The OPEC Reference Basket continued to improve in December to move within a range of \$85-90/b.

The Basket followed an upward trend in December, in line with futures prices. It started the month at \$84.13/b to move beyond \$90/b at the beginning of the fourth week, supported by positive macroeconomic sentiment, signs of growing global oil demand and a brisk surge in heating oil demand because of the cold weather in Europe and most parts of the US.



The sustained increase pushed the monthly average of the OPEC Reference Basket to \$88.56/b in December, up \$5.73 or 6.9% from a month earlier. That was the highest level since the \$96.85/b of September 2008. Following the fifth increase in a row, the OPEC Reference Basket average for 2010 stood at \$77.45/b, the second highest ever following the \$94.45/b of 2008. Compared to a year earlier, 2010 saw the Basket increase by \$16.39 or 26.8%.

All Basket components increased in December, particularly light crudes, as demand from the US and Europe strengthened due to cold weather. African light grades along with Basrah Light, Arab Light and Ecuadorian crude Oriente gained around 7.2% each. Medium to heavy Middle eastern crude increased by around 6.8% and Venezuelan crude showed the lowest increase of 5.8%.

Market sentiment for Middle Eastern crude was very bullish in December with the December/January Dubai intermonth spread moving to backwardation. Middle Eastern crudes were supported by rising demand as well as record-high premiums of Russian ESPO crude which hit a record of \$2.70 - \$2.80/b to Dubai quotes in early December amid strong demand for distillate-rich grades to meet seasonal heating oil demand in Asia. ESPO premiums widened further later for cargoes loading in February to early March to hit a fresh record of \$3.80/b to Dubai quotes. Supported by ESPO, Oman cargoes were also sold at strong premiums to Dubai quotes and Murban premiums jumped to high levels. Furthermore, prices were lifted by a strong Brent which reduced arbitrage opportunities to Asia for the Atlantic Basin and African crudes. The front-month Brent/Dubai Exchange of Futures for Swaps (EFS) for January jumped to the highest level in 25 months in early December. A widened EFS tends to curb the flow of Atlantic Basin grades into Asia and increase interest for Middle Eastern crudes. A strong crack spread for distillates also contributed to the bullishness of the Middle Eastern crude market.

Middle Eastern crudes weakened at the end of the month on the back of slowing demand after end-users completed their purchases ahead of holidays. Oman premiums plunged around 50¢ in the fourth week from 80-90¢/b in the previous week before flipping into discount to Dubai quotes of more than \$1/b in late-December. Middle Eastern crudes came under further pressure in early January after the UAE's ADNOC increased the official selling price formulae (OSPs) for its grades sharply at the time when fuel oil cracks weakened.

Light and heavy African crudes were also strong in December, supported by healthy refining margins because of surging demand for heating fuel and diesel in the US, Europe and China due to cold weather. Very limited availability of cargoes for January loading also contributed to the bullishness of the market.

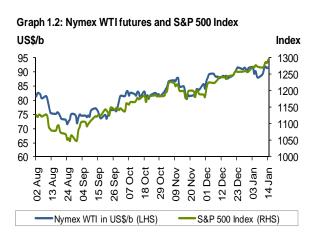
Table 1.1: OPEC Reference Ba	isket and select	ed crudes, L	JS\$/b		
			Change		
	<u>Nov 10</u>	Dec 10	Dec/Nov	<u>2009</u>	<u>2010</u>
OPEC Reference Basket	82.83	88.56	5.73	61.06	77.45
Arab Light	83.32	89.24	5.92	61.38	77.82
Basrah Light	82.14	88.09	5.95	60.50	76.79
Bonny Light	86.83	93.08	6.25	63.25	81.07
Es Sider	84.93	91.13	6.20	61.45	79.13
Girassol	85.80	91.36	5.56	61.81	79.53
Iran Heavy	82.24	87.81	5.57	60.62	76.74
Kuwait Export	81.59	87.25	5.66	60.68	76.32
Marine	83.41	88.98	5.57	62.38	78.18
Merey	73.07	77.30	4.23	55.90	69.70
Murban	85.36	91.06	5.70	63.78	79.94
Oriente	77.45	82.99	5.54	55.84	72.82
Saharan Blend	86.28	92.46	6.18	62.35	80.35
Other Crudes					
Minas	85.96	94.98	9.02	64.90	82.28
Dubai	83.72	89.17	5.45	61.83	78.10
Isthmus	82.03	88.17	6.14	60.85	77.86
T.J. Light	80.14	85.97	5.83	59.69	76.22
Brent	85.33	91.53	6.20	61.68	79.60
West Texas Intermediate	84.08	89.15	5.07	61.88	79.42
Urals	84.74	89.74	5.00	61.22	78.39
Differentials					
WTI/Brent	-1.25	-2.38	-1.13	0.19	-0.18
Brent/Dubai	1.61	2.36	0.75	-0.15	1.50

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

Driven by bullish market sentiment, crude oil futures prices continued their upward trend to move above \$90/b, for the first time since early October 2008. The positive sentiment was attributed to a set of parameters. Firstly, positive macroeconomic sentiment lifted by bullish manufacturing data on the US and China as well as weakening concerns regarding the Euro-zone turmoil because of Ireland's and Portugal's financial difficulties. The second factor is related the first and concerns growing demand in both



developed and developing countries as the global economy shows positive signs. Thirdly, cold weather around the globe but particularly in the US and Europe contributed to the bullishness of the market by pushing up demand for heating oil and diesel. Finally, a strong stock draw in the US crude oil – above the typical tax-driven decline in December – supported price direction to some extent. The last factor behind the upward trend in crude oil prices was growing investment in the paper market and increasing speculator activity.

On the Nymex, the WTI front-month started December at \$86.75/b to settle above \$89/b at the end of the first week before it faced resistance to move above \$90/b. The WTI front month remained within a narrow range of \$88-89/b within the following two weeks before it broke the psychological resistance point and moved beyond \$90/b on 22 December, the highest since 3 October 2008, lifted by a third straight weekly drop in crude oil inventories and cold weather on both sides of the Atlantic. Improving sentiment about global economic growth, particularly in the US, and expectations of higher oil demand let Nymex WTI crude futures increase further in the following days to move beyond \$91/b in the last week of December, resulting in a monthly average of \$89.23/b

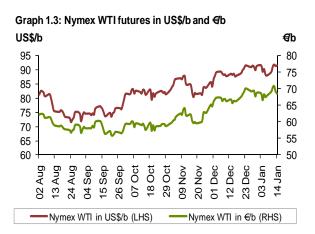
US crude oil futures rose further to average \$89.23/b in December, up \$14.63 from a year ago

compared with \$84.31/b the previous month and \$74.60/b in December 2009. On a yearly basis, WTI front-month averaged \$79.53/b in 2010, up 28.7% from a year earlier.

In the first week of January 2011, crude oil futures witnessed some weakness due to profit-taking from investors after prices hit a 27-month high of \$91.55/b. Additionally, the stronger US dollar also weighed on prices. However, the decline in crude oil prices came to an end in the second week because of supply concerns as the Trans-Alaska Pipeline was shut down because of a leak. Another shutdown by Statoil of its Snorre and Vigdis fields in the North Sea after a gas leak added more concerns to supply and sent prices back above \$91.5/b on 14 January.

Growing influence of macroeconomic sentiment is still shown in the trends of WTI and the S&P 500 Index which continued to move in the same direction in December.

In Europe, with the exception of the first day, ICE Brent moved within a higher range of nearly \$90-95/b in December to average \$92.65/b, up 7.1% from the previous month and 4.9% from a year earlier. Following a similar trend to Nymex WTI, ICE Brent prices eased in the first week of January 2010 before shooting up to nearly \$98/b on 14 January – the highest since the \$103.54/b of 26 September 2008 – because of supply concerns in the North Sea following the shutdowns by Statoil.

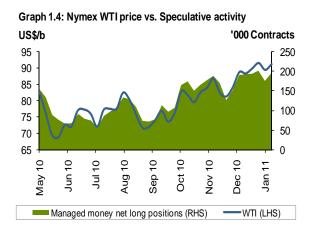


With Brent at \$92.25/b in December, its premium to the Nymex WTI moved to an average of more than \$3.00/b in December. However, on a daily basis, it hit nearly \$4.00/b in mid-December. The gap widened to more than \$6.50/b in the second week of January, prompting the debate over WTI's weakening status as a benchmark. The widening discount of WTI to Brent reflects the impact of the level of stocks at Cushing, Oklahoma, the delivery point for the Nymex. Inventories at Cushing rose again to 37.5 mb, nearly a record, in the last week of December. Another reason for the strength of Brent versus WTI was attributed to the sharp increase in interest in Brent futures contracts by investors.

Increasing investor appetite for crude oil futures continued to lend support to prices. Trading volume of the front-month contracts remained strong on both Nymex and ICE, despite declining in December compared to the previous month. Activity in December is usually lower compared to other months, because of the holidays. Nevertheless, trading volume on Nymex and ICE Brent front-month was higher in December 2010 compared to December 2009 levels. On the Nymex, more than 6.6 million contracts of the WTI front-month were traded in December 2010 compared with 5.7 million contracts a year earlier. For the whole of 2010, a record high of 85.17 million contracts of the Nymex front-month were traded compared to 66.8 million contracts in 2008, implying growth of around 27%. The growth rate was much higher in the case of ICE Brent, with trading volume of the front month rising by 46% to hit a record high of 38.6 million contracts.

Open interest also dropped in December, but was higher than a year ago. Open interest of WTI front-month contracts on the Nymex fell from 351,100 contracts at end November to 313,000 contracts at end December 2010. However, compared to a year earlier, it showed an increase of 11.5% at end December. The same trend was observed on ICE Brent front-month open interest, which fell in December to nearly 208,000 contracts, but remained 10.5% more than a year earlier.

Speculator activity continued to move in line with the crude oil futures trend in December. Speculators increased their net long crude oil futures positions on the Nymex over four consecutive weeks through 28 December to a new fresh record of more than 202,000 contracts, a week when the WTI front-month moved beyond \$91/b. Again, speculators' net positions and WTI prices followed the same trend in the week through 4 January speculators cutting positions to less than 176,000



contracts and the WTI font-month easing below \$90/b.

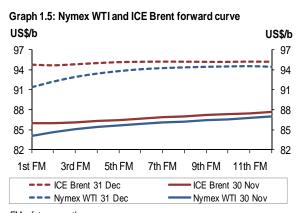
WTI remained in contango while ICE Brent moved to backwardation at the front of the curve

### The futures market structure

While the Nymex WTI remained in contango, ICE Brent futures at the front of the curve shifted into backwardation in December. The curve of Nymex WTI was more pronounced at the front months compared with forward months.

On the Nymex, the spread between WTI front and second month edged up 4¢ in December to average 61¢/b. However, in early January the spread surged to almost \$1.4/b as the nearly record high levels of stocks at Cushing, Oklahoma,

FM= future month



FM = future month

started to weigh again on prompt prices. The spread between the sixth month and the front-month widened from an average of \$2.00/b in December to around \$4.70/b on 6 January. A widening spread might renew financial incentives for storage of oil and support prices further.

For ICE Brent, the spread between the second and the first month vanished in December after the market shifted to backwardation in the second half of the month. The shift of ICE Brent to backwardation is due to a strong increase in prompt month prices relative to later months' prices. The main reason behind the strength of prompt prices is the growing demand in both the physical and futures markets. The backwardated Brent market compared to a contango for WTI reflects the extremely high premium of Brent to WTI. It is worth mentioning that Brent remained in contango for the third month and further albeit the spread is very tiny. For instance, the spread between the third and the second months averaged 8¢ in December.

Table 1.2: Nymex WTI and ICE Brent forward price, US\$/b											
Nymex WTI											
	1st FM	2nd FM	3rd FM	6th FM	12th FM						
31 Dec 2010	91.38	92.22	92.91	94.06	94.43						
30 Nov 2010	84.11	84.65	85.08	85.85	86.97						
ICE Brent											
	1st FM	2nd FM	3rd FM	6th FM	12th FM						
31 Dec 2010	94.75	94.67	94.81	95.15	95.15						
30 Nov 2010	85.92	86.00	86.11	86.67	87.67						

-Urals

The sweet/sour spread narrowed in the US

# The sour/sweet crude spread

The bullish sentiment in the oil market and increasing refinery runs coupled with high inventories at Cushing, Oklahoma, resulted in a light-sweet/heavy-sour narrow crude differential in December. However, on the spot market some grades like Mars sour traded even at a premium to WTI. The WTI-Mars sour spread shifted to negative territory in December to average minus 12¢/b compared with a premium of \$1.40/b in the previous month. The discount widened further in January to hit

Dubai

Graph 1.6: Brent Dated vs. Sour grades (Urals and Dubai)

\$2.70/b on 6 January, supported by the wide Brent-WTI spread.

In contrast to the WTI-Mars spread, the Dated Brent-Urals differential widened in December as Urals crude was under pressure because of ample supply and most refiners had already fulfilled their requirements ahead of the end-year holidays. Other reasons for a weaker Urals were the lower interest from buyers because of the delays in the Bosphorus and expected higher availability of Azeri Light loading for January. The discount of Urals to Dated Brent was more pronounced in the second half of December and early January, due to limited demand in the last days of December because of the holidays and the strength in Brent. The Brent-Urals rose from less than 60¢ in November to almost \$1.80 in December and stood at around \$2.40 in the first week of January 2011.

Similarly, the Brent-Dubai differential widened in December to average \$2.36/b. The main reason behind the widening spread was the strong price of Brent crude, which soared in December. At this level, Dubai-related grades were very competitive for Asian buyers compared to Brent-related crudes and opportunities of arbitrage were almost absent for some crudes like Azeri Light which saw January-loading sales to Asia-Pacific drop significantly. Similarly, West African crudes to China were also affected by the wide Brent-Dubai differential. More interest from Asian buyers was in light sour Murban and Lower Zakum crudes for February loading. This has resulted for instance in a record high premiums of retroactive official selling price for Murban for December. The continued strength of Brent crude in January 2011, pushed the Brent-Dubai differential to more than \$5/b in the first week. The high spread Brent-Dubai might curb further the flow of Atlantic Basin grades into Asia-Pacific, particularly ahead of refining maintenance.

# **Commodity Markets**

In a counter-cyclical movement, commodity markets bullish in December

# Trends in selected commodity markets

**The World Bank (WB) energy index** recovered from slower growth in November and rose by 6.5% m-o-m in December. The **non-energy commodity price index** reported a higher increase of 4.8% m-o-m in December, compared to 3% in the previous month.

Table 2.1: Commodity	y price data, 2	010								
Commodity	Unit	M	onthly ave	rages	9	6 Change				
Commounty	Oilit	Oct	Nov	Dec	Oct/Sep	Nov/Oct	Dec/Nov			
World Bank commodity price indices for low and middle income countries (2000 = 100)										
Energy		277.7	288.6	307.3	6.4	3.9	6.5			
Coal, Australia	\$/mt	97.5	107.2	115.0	2.7	10.0	7.3			
Crude oil, average	\$/bbl	81.7	84.5	90.0	7.4	3.4	6.5			
Crude oil, Brent	\$/bbl	82.9	85.7	91.8	6.6	3.3	7.2			
Crude oil, WTI	\$/bbl	81.9	84.2	89.1	8.8	2.9	5.8			
Natural gas index	2000=100	144.9	151.6	160.3	-3.7	4.7	5.7			
Natural gas, US	\$/mmbtu	3.4	3.7	4.2	-12.1	8.6	13.7			
Non Energy		296.2	305.6	320.2	3.3	3.2	4.8			
Agriculture		251.5	264.0	278.3	5.7	5.0	5.4			
Beverages		257.3	264.6	277.3	0.5	2.9	4.8			
Food		248.6	259.3	273.1	6.2	4.3	5.3			
Soybean meal	\$/mt	409.0	429.0	433.0	3.3	4.9	0.9			
Soybean oil	\$/mt	1157.0	1247.0	1322.0	11.0	7.8	6.0			
Soybeans	\$/mt	493.0	525.8	547.0	4.9	6.7	4.0			
Grains		249.5	255.9	271.8	6.5	2.6	6.2			
Maize	\$/mt	235.8	238.2	250.4	14.5	1.0	5.1			
Sorghum	\$/mt	201.0	203.2	221.6	8.7	1.1	9.0			
Wheat, Canada	\$/mt	365.6	376.2	408.9	0.2	2.9	8.7			
Wheat, US, HRW	\$/mt	270.2	274.1	306.5	-0.5	1.4	11.8			
Wheat, US, SRW	\$/mt	267.5	278.5	308.6	-3.2	4.1	10.8			
Sugar EU	¢/kg	45.4	44.5	43.2	3.4	-1.9	-3.0			
Sugar US	¢/kg	84.3	85.6	84.7	0.2	1.6	-1.1			
Sugar, world	¢/kg	54.3	58.1	61.7	9.3	7.1	6.2			
Raw Materials		255.7	275.2	291.4	7.6	7.7	5.9			
Fertilizers		315.3	332.7	339.8	5.2	5.5	2.1			
Base Metals		328.5	331.0	350.9	7.9	0.8	6.0			
Aluminum	\$/mt	2346.6	2333.1	2350.7	8.5	-0.6	0.8			
Copper	\$/mt	8292.4	8469.9	9147.3	7.6	2.1	8.0			
Iron ore	¢/dmtu	182.0	182.0	182.0	-14.2	0.0	0.0			
Lead	¢/kg	238.0	237.7	241.3	8.9	-0.1	1.5			
Nickel	\$/mt	23807.4	22909.3	24111.2	5.1	-3.8	5.2			
Steel products index	2000=100	234.8	233.5	233.5	-0.1	-0.5	0.0			
Tin	¢/kg	2634.3	2551.9	2616.3	16.0	-3.1	2.5			
Zinc	¢/kg	237.2	229.2	228.1	10.3	-3.4	-0.5			
Precious Metals	-									
Gold	\$/toz	1342.0	1369.9	1390.6	5.6	2.1	1.5			
Silver	¢/toz	2346.9	2657.2	2937.4	13.9	13.2	10.5			
	•									

\$ = US dollar dmtu = dry metric ton unit mt = metric ton n.a. = not available ¢ = US cent kg = kilogram toz = troy oz n.q. = no quotation bbl = barrel cum = cubic meter mmbtu = million British thermal units

SGP = Singapore

Source: World Bank, Commodity price data

The WB energy commodity index (crude oil, natural gas and coal) went up by 6.5% m-o-m following an easing of the growth trend in November, on the back of higher prices of Henry Hub (HH) natural gas, crude oil and coal. The flood in Australia drove the coal price up and, therefore, gas prices too. Likewise, cold weather also contributed to a bullish energy market.

HH natural gas prices continued recovering on the back of cold weather. Despite weak fundamentals, prices jumped by 13.7% m-o-m. Nevertheless, as already stated in previous reports, although cold weather has alleviated the surplus, the outlook for the market remained negative due to high production, weak demand and stocks. Given this backdrop, a recovery in gas prices is not expected earlier than in 2Q11

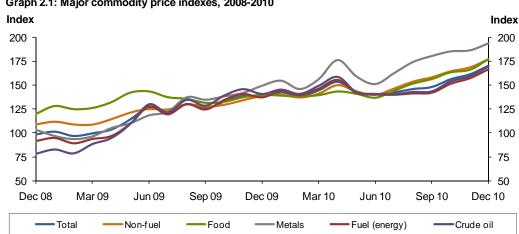
The WB non-energy commodity price index increased further by 4.8% m-o-m in December, compared to 3% in November, fostered by considerable increases in the prices of industrial metals and the grain complex. These markets felt the positive impact of tight supply related to cold weather and higher Chinese imports amid an optimistic outlook for 2011.

A trend upswing in industrial metal prices in December

The WB industrial metal price index rose by 6% m-o-m in December compared to 0.8% in November. The industrial metal price revival was related to a positive outlook for the new year as most observers point to a recovery in industrial metal prices for 2011, considering that the drop in Chinese imports in October 2010 was the result of destocking due to high prices and that the new restocking phase will bring booming imports. Indeed, Chinese industrial metal imports increased in November m-o-m. China's imports of copper rose 28.5% to 351,597 tonnes in November from 273,511 tonnes the previous month. Likewise, inventories at the LME declined in December following some build-up in November caused by destocking in China. Industrial metal prices experienced the positive impact of some disruptions in production as was the case for nickel, aluminium and copper. There were shipment delays of copper exports in Chile.

The launch of the physically-backed Exchange-Traded Funds (ETFs) in industrial metals also reinforced the positive outlook for industrial metals in December.

The previous encouraging factors prevailed over a rising dollar amid mixed macroeconomic data (concern about China and the Euro-zone).



Graph 2.1: Major commodity price indexes, 2008-2010

Commodity price index, 2005 = 100 Total:

Includes both fuel and non-fuel Non-fuel: Includes food and beverages and industrial inputs

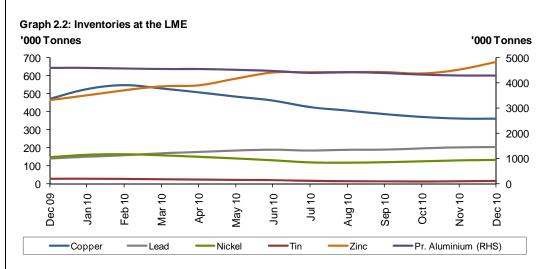
Food: Includes cereal, vegetable oils, meat, seafood, sugar, bananas and oranges Metals: Includes copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium

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

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

Source: IMF

Agricultural prices grew by 5.4% m-o-m in December compared to 5% in November. Despite a drop in some items like sugar, other like grains increased at high rates due to weather related supply constraints and a downgrade of major crops in the US, Australia and Brazil, for instance. Grain prices jumped by 6% m-o-m in December compared to 2.6% the previous month with major gains in corn, wheat and sorghum. As a whole, the outlook for the grain complex is bullish considering tight supply, potential weather disruptions, and government intervention like export curbs and higher Chinese demand.

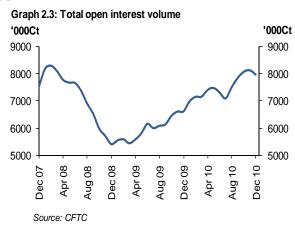


**Gold prices** slipped by 1.5% m-o-m in December compared to 2% in November due to the strong dollar, but the outlook for this metal and for silver remains positive considering the backdrop of low interest rates, concern about medium term inflation and sovereign debt worries.

### Investment flow into commodities

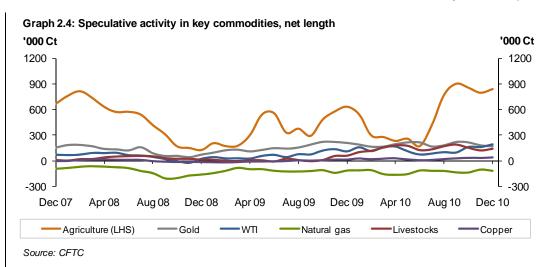
Open interest volume for US commodity markets declined in December Data from the CFTC reported a 2% m-o-m drop in the open interest volume (OIV) to 8,099,068 contracts for major US commodity markets in December The total number of contracts declined mainly in precious metals and agriculture with livestock and copper registering a gain.

Non-commercial net length saw a 2.8% m-o-m rise to 2,540,730 contracts in December after a drop in the previous month. Short positions declined by 1.5% m-o-m

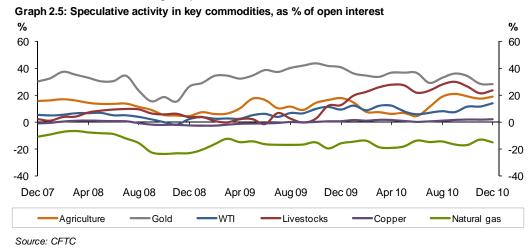


while longs recovered by 0.3% after a fall a month earlier. Consequently, the net length as percentage of the OIV increased from 58.3% in November to 59.1% in December.

Net positions of money managers rose by 1.5% m-o-m in December which compared favorably with a decline in the previous month.



**Agricultural OIV** went down by 3% m-o-m to 4,468,699 contracts in December. A strong decline of 16.5% m-o-m in money-manager short positions combined with a slight 0.7% drop in longs resulted in the non-commercial net length as a percentage of OIV to increase from to 17.4% in November to 18.7% in December. The renewed interest of investors was related to higher prices.



OIV growth for **precious metals** dropped by 8% m-o-m to 728,445 contracts in December. A rise in money manager longs of 23.9% m-o-m and a 6% decline in shorts, hiked the net length as a percentage of open interest volume from 31% in November to 35% in December.

**Nymex natural gas** open interest volume decreased again by 1.6% m-o-m to 772,752 contracts in December compared to 1.9% in November. Concerning the speculative activity, short positions increased more than longs, so the net length as percentage of OIV dropped from minus 12.7% in November to minus 15% in December. This is due to the bearish outlook for the HH natural gas market.

**Copper** OIV saw a revival in December, increasing by nearly 5% m-o-m to 163,744 contracts which compares positively with a drop in the previous month. There was a jump of 14% m-o-m in long money positions which, amid a modest rise of about 5% in shorts, caused the net length as a percentage of OIV to rise from 19.8% in November to 22% in December. The record prices in copper and positive outlook for 2011 explain the investors' bullish mood.

Table 2.2: CFTC data on non-commercial positions, '000 contracts									
				Net len	gth				
	Open interest	Swap positions		F	Money positions	Other positions			
	<u>Dec 10</u>	Dec	<u>% OIV</u>	Dec	<u>% OIV</u>	Dec	<u>% OIV</u>		
Crude Oil	1380	-34	-2	195	14	-30	-2		
Natural Gas	773	164	21	-116	-15	-74	-10		
Agriculture	4469	800	18	836	19	280	6		
Precious Metals	728	-103	-14	194	27	56	8		
Copper	164	38	23	37	22	-6	-4		
Livestock	586	187	32	140	24	-23	-4		
Total	8,099	1,053	13	1,286	16	202	2		
				Net len	gth				
	Open interest	ŗ	Swap positions	F	Money positions	F	Other oositions		
	Nov 10	Nov	<u>% OIV</u>	Nov	<u>% OIV</u>	Nov	<u>% OIV</u>		
Crude Oil	1399	-16	-1	163	12	-16	-1		
Natural Gas	780	153	20	-102	-13	-64	-8		
Agriculture	4605	813	18	793	17	227	5		

Concerning the investment inflow into commodity indices, there was a rise of 12.7% in December compared to a decline a month earlier. All the sectors reported gains, with WTI and Brent benefiting the most.

-12

24

32

13

206

30

121

1,212

27

19

22

15

56

-5

-12

185

7

-3

-2

2

774

155

561

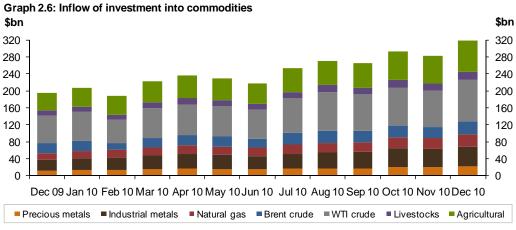
8,274

-94

38

180

1,074



Source: CFTC

Precious Metals

Copper

Total

Livestock

# **World Economy**

Table 3.1:Economic growth rates 2010-2011,%										
	World	OECD	USA	Japan	Euro-	China	India			
					zone					
2010	4.5	2.8	2.8	4.3	1.5	9.7	8.5			
2011	3.9	2.1	2.6	1.5	1.2	8.8	8.0			

# **Industrialised countries**

# **USA**

The final release of 3Q GDP growth shows that the US economy expanded by 2.6%, considerably better than the first estimate of 2.0%.

The US has just recently published the final reading on its 3Q GDP number. It was revised up to 2.6%, which compares to 2.0% in the first of the three estimates, so it marks a significant revision to the upside and underpins a positive momentum. This dynamic can be observed for the 4Q10. Still, it seems that this trend is mainly supported by the government-led stimulus, which now has been injected into the economy for more than two years and the most recent round of quantitative easing of the Federal Reserve Board (FED) and the newly proposed fiscal stimulus measures of the US administration are a continuation of this policy. While for the near-term growth pattern this support should have a lifting effect on the economy, it remains to be seen for how long this can be financed. So still it would be evident seeing that personal consumption is able to expand without this gracious support. This does not seem to be the case yet as otherwise these supportive measures would not be necessary or would lead to an overheating in the economy, certainly a situation that currently cannot be observed.

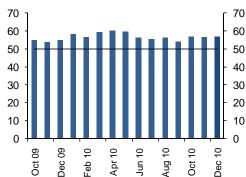
The labour market remains the centre of concern, despite an improvement of the unemployment rate. So far and despite the high unemployment rate, the recovery of consumption continues. Retail sales grew again in December by 0.6% m-o-m, a slight decline from the November number of 0.8% m-o-m. Retail sales rose the most in 2010 increasing by 6.7%, only matched by the 1999 number of 8.2%. Still the consumer seems to be concerned. Consumer confidence in December declined slightly, but holding up relatively well, still challenged by the severe situation of the labour market. The Thomson Reuters/University of Michigan Index for consumer confidence in December fell from 74.5 to 72.7.

The unemployment rate fell to 9.4% in December from 9.8% in November, but the addition of private job offers remained to remain muted at 113,000, below the market's expectations of 160k to 220 additions. Average hourly earnings increased by 0.1% m-o-m and the average hourly work-week remained flat at 34.3. The weekly jobless claims improved to a level of around 400,000, per week, which compares to levels of around 450k in the 2H10. On the other side, the ratio of long-term unemployed to the total of the unemployed population has again increased in December and stands now at 44% after 42% in November and is therefore almost matching the June peak of 46%. This means that more people are potentially losing their skills and the probability to be re-integrated into the job market becomes less. The 40% level now has been maintained since December 2009. So there are signs of a gradual improvement in the labour market, but nothing to get too excited about.

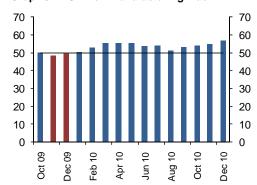
The housing market as well continues improving from low levels after it bottomed out again in mid 2010. Existing home sales moved higher in November from 4.48 annualized million entities to 4.63 million. Pending homes sales – as a future indicator – were showing an increase of 3.5% in November, after an increase of 10.4% in October and therefore support growth of the sector in the near future.

The positive dynamic of the economy is reflected as well in the most recent ISM surveys. Both the manufacturing and the services sector are expanding, according to the latest ISM index numbers. The ISM for the services sector grew from 55.0 in November to 57.1 in December, while the manufacturing sector moved to 57, from 56.6. Consequently this expansion has translated into further growth of the industrial production, which grew by 0.8% in December, after 0.4% in November and capacity utilization moved above 75% to 76.0% in December, the first time since August 2008.





### Graph 3.2: ISM non-manufacturing index



Source: Institute for Supply Management

In general it should be highlighted that despite the recovery the US is experiencing, it is a recovery that is not yet been translated entirely into the labour market and still mainly supported by stimulus. An improvement of the labour market remains a key criteria for a self-sustaining economy. Therefore, the forecast for 2010 has remained unchanged, while the prospect for 2011 has been lifted slightly from 2.4% to 2.6%, reflecting the supportive momentum.

# Japan

Japan has just recently announced a revision of its most recent GDP number – as usual – when 3Q numbers were published. All of the 2010 numbers were better than the previously published level and higher than the most recent expectations, based on consensus forecast. This is a further sign of the continuation of the Japanese recovery. However, it should be put into the perspective of the other revisions and the potential reasons for this better-than-expected growth in 2010.

Firstly, the numbers for 2009 were revised further down significantly, so that 2009 now officially declined by 6.3% instead of the previously published 5.2% and therefore bringing the level of GDP for 2009 statistically considerably lower. Secondly, as Japan is frequently revising its numbers, it remains to be seen, whether those numbers will be kept. Thirdly, the most recent growth momentum in domestic demand was significantly inflated by incentives for buying cars and most recently by home appliances. These incentives might have the potential to bring forward sales that otherwise would have occurred in 2011 or even later. So, by having this in mind, the number – while at relatively high levels compared to other OECD countries – might not be as solid, but it has to be acknowledged that the most recent government-led stimulus measures were highly successful. This seems even more so evident, when considering the still relatively high deflation, which is also improving. The nationwide core consumer price index (CPI) fell by minus 0.5% y-o-y in November, compared to 0.6% y-o-y in October, continuing to improve slightly. This compares to minus 2.3% in October 2009.

By analyzing the potential trend for the two main pillars of this government-inspired recovery – domestic demand and exports – it seems that Japan will be able to grow, at least at a low level, in 2011.

The most recent Tankan survey supports the scenario of a slow-down of the expansion, but backs the potential trend of at least low growth in 2011. Business sentiment fell slightly in the latest Bank of Japan's (BOJ) Tankan survey, which expects business conditions to worsen in 1Q11. The overall index level fell from 8 in the previous quarter to 5.

Retail, spending also picked up, but seems to have been inflated by stimulus measures of the government for home appliance sales. Retail sales increased 1.3% y-o-y in November, resuming positive growth after a 0.2% y-o-y drop in October. On a monthly basis, retail sales even increased 1.9% m-o-m in November, the first gain in three months. This comes after declines of 1.9% m-o-m in October and 2.8% m-o-m in September. That said, however, the November gains were strongly driven by last minute home appliance purchases before the eco-point rebate programme was halved on

Strong revisions in the historic numbers for 2009 and 2010 lifted growth expectations for 2010 and 2011

Exports are signalling improvement and the stimulus-led domestic consumption growth continues. After negative growth in the 4Q, growth is expected to resume in 2011

1 December, so this increase should not be expected to continue without further support measures being implemented. Real household spending also mirrors this development, when it was up by 1.0% m-o-m in November, after minus 0.9% in October and minus 0.4% in September. It is very difficult to estimate the underlying trend of domestic spending accurately, because of these special factors surrounding sales of cars, tobacco and home appliances, but there might be some resilience in the trend, even without these factors, based on the latest improvements the labour market.

Unemployment remained nearly flat at 5.1% and by looking at the reasons for unemployment on a seasonally adjusted basis, the details improved, with non-voluntary unemployment falling and voluntary unemployment rising for two straight months. This modest improvement in the labour market can also be seen in the new job offer-to-applicant ratio. The jobs-to-applicants ratio improved by 0.01 points to 0.57 and the new job offers, a leading employment indicator, rose by a seasonally-adjusted 1.7% m-o-m. Total cash earnings in November declined by 0.2% y-o-y, but this year's winter bonuses are expected to be 2.5% more than last year, the first increase in three years, according to the Japan Federation of Economic Organizations. Total hours worked continued to expand by a healthy 1.5% y-o-y.

Exports have improved in November after a deceleration since February 2010, i.e. almost a year. Shipments increased 9.1% in November from a year earlier, compared to October's 7.8%. The strongest contribution came from China, Japans' biggest trading partner. Exports to China increased 18.3% y-o-y in November. US-bound exports grew 1.2% y-o-y only, while those to the European Union increased by 10.1% y-o-y. The again declining Yen and the strengthening US dollar could also be a supportive factor for a continuation of a positive trend in exports.

Some positive momentum can also be traced in the development of the purchase manufacturing index (PMI) numbers. The most recently released number for the services sector shows an improvement from 48.3 to 50.17, signalling expansion of this sector that is responsible for more than 50% of the Japanese economy. This improvement complements the rise in the manufacturing PMI, which rose from 47.3 to 48.3, which is still below the 50-level and therefore indicating a contraction of the sector, but on the other side is moving closer to the 50 level.

Industrial production numbers from November give evidence to this trend. In November, production rose for the first time in six months by 1.0% m-o-m. It is important to notice that the December production forecasts of the Ministry of Economy, Trade and Industry (METI) for December and January now both stand above 3% at 3.4% m-o-m and 3.7% respectively. As a result, 4Q10 production is expected to decline less than previously expected. Due to the strong expected rise in January, the 1Q11 production has the potential to rise at a relatively high margin, even if production remains flat in February and March. The strong rise certainly is also the result of high production cuts in the transport equipment industry, which seems to have cut production too much ahead of the end of the eco-car subsidiary programme in September and gets support from the firmer-than-expected economy in the US and China, combined with the recent pick up in manufacturing-related data on a global basis.

Backed by the strong upward revisions of the first three quarters of 2010 and the downward revisions for 2009, the growth expectation for 2010 now stands at 4.3%, compared to 3.5% previously. Given the current dynamic – despite the expected negative growth in the 4Q10 - the growth forecast for 2011 was increased to 1.5% from 1.4%.

The Euro-zone economy continues to be challenged by sovereign debt and an unemployment rate of 10.1%. The underlying economy continued to expand in the 3Q10 at 0.3% and seems to continue this trend in the 4Q. While inflation in December was high at 2.2% y-o-y, core inflation did not change at 1.1% у-о-у.

### Euro-zone

The situation in the Euro-zone has not very much changed from last month. The main concern remains to be the sovereign debt situation. At the beginning of January, worries that Portugal is not able to handle its debt situation have highlighted again that the danger of a further deterioration of the Euro-zone public debt has not gone away. In the most recent negotiations, the Euro-zone countries agreed on additional new powers and lending capacity for the newly established rescue fund of €440bn starting 2013, when the current fund facility expires. The latest bond auctions of Portugal and Spain went relatively well, so - again - for the time being, the situation should be contained, but it seems relatively likely that over the course of the coming months concerns will re-emerge as could have been witnessed over the previous year. Portugal, Spain and Italy were successful in their most recent auctions in the second week of January, a success that has calmed market fears. Again, the countries were forced to pay high interest rates and the magnitude of these auctions might allow only limited breathing room for the highly indebted countries. Spain had to pay 4.54%, almost 1 percentage point more than in its most recent November auction, Italy's yield went up 25 basis-points and only Portugal managed to achieve a slightly lower yield of 6.7%, compared to 6.8% in its previous auction. Beside this expansion of powers for the stability fund, the member countries have also set themselves a deadline of March, until their next summit, to come up with proposals and to find an agreement on a package of measures to ensure the stability of the Euro.

The sovereign debt situation is having a significant impact on the economy in many areas. It is keeping the euro under pressure, which fell below the 1.29 level at the beginning of January for the first time since September 2010, it is keeping interest rates of sovereign debt in the highly indebted countries at very high, almost unbearable, levels and is therefore putting a lot of pressure on those countries to implement austerity measures, when actually the opposite would be probably necessary.

Contrary to the worries in the sovereign debt sphere, the underlying economy is continuing to expand. The Euro-area GDP for the 3Q10 was confirmed at 0.3% quarterly growth and the 4Q sees positive indicators, too. Industrial production was up by 1.2% m-o-m in November, higher than the 0.7% in October, both numbers are a strong rebound from the minus 0.7% in September. Still, the momentum seems not to be supported very much by household consumption and more by capital expenditure. The biggest contribution, for example, in industrial production came from intermediate goods and from energy products. Both grew by 1.6% and 1.5% respectively. Consumer goods, on the other side, were recorded with almost no growth at all. The general momentum of the manufacturing sector has been as well captured and supported by the latest numbers of the purchase managers index (PMI). It rose to 57.1 in December, up from 55.3 in November. Industrial new orders of November – a front running indicator – also indicate further growth in manufacturing with an increase of 1.4% m-o-m in October.

The muted levels of consumption on the other side might continue. Retail sales in December were down by 0.8%. This is the lowest level since April 2009, a sharp reversal from the positive trend since its lows in February 2009. This should hardly be surprising, considering that the unemployment rate has remained at 10.1% in November and has stayed above the 10% level now for the eighth consecutive month with no sign of coming down. This situation is combined with increasing inflation, that now has reached 2.2% y-o-y, above the around 2% objective of the European Central Bank (ECB) and while a rate hike does not seem imminent, the president of the ECB was saying that the ECB would act against any longer term inflation and warned that Euro-zone inflation was likely to rise further in coming months before falling later in the year. The latest data now shows that core inflation, i.e. excluding the volatile items of food and energy, has not increased in December and remained at 1.1% y-o-y and therefore is putting no imminent pressure on the ECB.

So it seems that while the Euro-zone is fighting its current challenges of primarily the sovereign debt crisis and the high unemployment rate that leads to lower consumption levels, it keeps its low growth momentum, primarily supported by the German expansion and the relative bigger growth contribution through exports. Therefore, the 2010 forecast remained at the same level of 1.5%, while the 2011 forecast was slightly increased from 1.1% to 1.2%.

Better-thanexpected performance in the Emerging Economies

# **Emerging Markets**

Performance of most emerging economies in the fourth quarter of 2010 has been better than expected and this has contributed to a robust economic recovery in 2010 which is expected to continue in 2011. Expansionary fiscal and monetary policies that were instrumental to take these economies out of the recession have had two major consequences in the majority of these economies, albeit with a different degree of severity: inflationary pressures and deterioration of the fiscal stance of the government. Inflationary pressures appear to be a more common issue compared to the budget deficit, as economies such as Brazil and India, with different public sector financial conditions, are experiencing immense inflationary pressures. Both economies have been expanding close to their potential capacity in 4Q10. To address these issues, countries have adopted different policies consistent with their particular economic, social and political circumstances.

The table below denotes our estimates of economic growth in the BRIC countries for 2010 and 2011. Consensus forecast for trade balance and public sector borrowing requirement (PSBR) also given for a summary review of public finance stance and foreign sector conditions in these countries. While Brazil enjoys a budget surplus of about 2.5% of its GDP, all other three members of the group have emerged from the recent economic crisis with significant public sector deficit accumulated mainly due to fiscal expansion and stimulus packages introduced by the governments of these countries. These stimulus schedules were introduced to avoid economic recession, in the case of China and India, and to prevent a severe economic crisis in the case of Russia where the economy shrank by almost 8% in 2009.

Table 3.2: Economic Performance of the BRICs in 2010 and 2011: GDP growth, trade balance and PSBR

	GDP grov	vth rate	Trade balance*		PSBR,* % of GDP		CPI inflation**	
	<u>2010</u>	<u>2011</u>	<u>2010</u>	<u>2011</u>	<u>2010</u>	<u>2011</u>	<u>2010</u>	<u>2011</u>
Brazil	7.2	4.0	-49.1	-66.4	2.6	2.5	5.8	5.1
China	9.7	8.8	291.4	315	-2.8	-2.1	5.5	3.3
India	8.5	8.0	-50.7	-57.9	-7.1	-6.9	11.9	6.8
Russia	4.0	3.8	74.4	62.5	-4.1	-2.8	8.3	7.6

PSBR = Public sector borrowing requirement

Source: \* Consensuses forecast, December 2010

# Brazil

Macroeconomic data points to Brazil resuming grow at close to its potential Although industrial production (IP) remained flat in November, some other main economic indicators, such as retail sales and credit expansion, income and employment suggest that Brazil's economy has resumed its growth at close to its potential capacity. According to the Central Bank of Brazil (BCB), industrial production rose by 0.4% in October. This has been the fastest pace in three months. In addition, unemployment also declined to a historically low level of 5.7% in November 2010. On the other hand, while domestic demand growth outpaced supply, with inflation rising higher than the targeted figure (4.5%) to 5.6% in November, imports also grew, together widening the current account deficit. Rising inflation in Brazil has induced tightening fiscal and monetary to bolster economic stability in 2011. According the BCB's 8 December report, investors expect an annual inflation rate of 5.4% in 2011. However, monetary authority has not indicated any interest rates increase so far despite admitting that the inflation outlook had deteriorated.

Against this background, uncertainty over the extent of monetary tightening (or fiscal policy for that matter) persists. The new president of the BCB has not indicated whether he would adjust the interest rates to curb inflationary pressures. While the BCB enjoys operational autonomy, it does not have full legal autonomy to adopt monetary policies and for this reason, the path of interest rates in Brazil depends to some extent on its fiscal policy and the fact that next year's budget has not yet passed, adding to uncertainties in current circumstances.

An economic concern for Brazil, and indeed for some other Latin American countries, in coming months would be the problem of their currency appreciation against the US

<sup>\*\*</sup> Economic Intelligent Unit, Country reports

dollar that negatively affects their foreign trade and encourages inflow of capital. While capital inflow provides sources of financing that helps boost the domestic economy, but negative consequences of adding to inflationary pressures in an economy that expands near its potential capacity should be taken into account. In first week of January the Brazilian Central Bank (BCB) announced a new reserve requirement on the banking systems for short exposure in the foreign exchanges spot market. This so called "prudent measure" was taken following reaching the value of short positions on the US-dollar in the spot market to \$16.8bn at the end of 2010.

# China

China's economy to see solid upward momentum over the coming month After having increased for four consecutive months since August 2010, Chinese manufacturing PMI fell slightly in December, reflecting monetary tightening impacts of raising interest rates and bank reserve requirements. Despite this slight easing of Chinese NBS manufacturing PMI to 53.9 in December from 55.2 in November, the economy's momentum seems to have improved since 3Q, with domestic demand growing steadily and trade balance improving against the previously softening trend in the export sector. Looking ahead, solid upward momentum is expected in the Chinese economy in coming months, driven by solid domestic and foreign demand and investment.

Referring to the table above, it is apparent that, despite strong performance of the Chinese economy, reflected in its GDP growth rate and manufacturing expansion in 2010, the government budget deficit and inflation appear the major problems of the economy under current circumstances. It is estimated that the budget deficit will reduce to 2.1% of GDP in 2011 from 2.8% in 2010. More improvements in the fiscal position of the public sector are envisaged in 2011-2015 as spending on emergency stimulus comes to an end. On the other hand, alerted by rising inflation in early December, 2010, the government changed its stance from "appropriately loose" to "prudent" following the People's Bank of China raising benchmark one-year lending rates by 25 basis points to 5.56% in October, the first interest rate rise since December 2007. It is worth mentioning, however, that in the Chinese economy, government ability to control credit expansion through the state owned banking sector gives the quantitative control on monetary and credit expansion an important role compared to manipulating of the lending rates. For this reason, a further increase in banks' reserve requirements is expected in a tightly managed credit expansion environment in 2011, with the probability of subjecting the banks to monthly and quarterly credit quotas.

Controlling inflation is now the main priority for the Chinese economic policymakers. It poses a policy challenge as in curbing inflation they need to avoid economic growth deceleration. In November, consumer price inflation reached 5.1%, its highest level since July 2008. The recent acceleration in inflation is being driven by higher food prices. Strong liquidity growth and booming demand are among the main factors contributing to current inflationary pressures in the Chinese economy. The inflation rate is expected to descend towards 3.3% in 2011. The main risk to the forecast of consumer price inflation in coming months is related to the volatility of food prices that depends on the changing weather conditions.

On the foreign exchange policy, China has come under pressure by its major trading partners to allow the appreciation of its currency, renminbi, in response to its trade surplus and capital inflow to China. Accumulation of record levels of foreign exchange is given as evidence of manipulation of the currency by the authority. It is unlikely however, that the Chinese foreign exchange rate policy will be changed significantly under these criticisms, however, it is expected that renminbi will be allowed to appreciate gradually to help reduce China's current account surplus, easing inflationary pressures stemming from expansion of the monetary bases.

### India

Rapid expansion of India's economy in the third quarter raises likelihood of further rate increase The Indian economy maintained the rapid expansion in the third quarter of 2010 when the rate of growth of GDP approached 8.9% y-o-y, a much faster rate compared to the previous year. The latest data and surveys suggest that demand in the Indian economy remains reassuringly robust. Following this strong performance of the economy in the first three quarters of 2010, the government has revised up its forecast for 2010 and

2011. However, acceleration of economic activity is likely to increase the chances of a further interest rate increase. Data for October showed that the CPI remained at the same level of 3Q as the wholesale price index was unchanged at 8.6% y-o-y. Despite the deceleration of food prices, the food price group index remained double digit.

The Reserve Bank of India (RBI) has been tightening monetary policy since early 2010 in response to rising inflation risk. Since March 2010, it raised interest rates six times to curb inflationary pressures, the most recent one being in early November 2010. The repo (the interest rate at which the RBI adds funds to the banking system) rate now stands at 6.25% and it might rise to 6.5% by the end of 2011. However, higher interest rates might jeopardize the government's fiscal consolidation plan, by encouraging capital inflow and appreciation of the rupee.

India's current fiscal year budget (2010/2011) includes a strong emphasis on fiscal consolidation with planned progressive deficit reduction. The budget deficit is targeted to be reduced to 5.5% of GDP in 2010/11 and 4.8% in 2011/12. Since the current account balance is negative, in order to avoid any negative impact of fiscal consolidating on private sector saving and investment, the government would try to improve its fiscal position partly by faster economic growth. The government proceeds from divestment of shares in state-owned firms and reforms to the fuel-subsidy programme are other major factors contributing to the improvement of the government fiscal position.

### **OPEC Member Countries**

Economic activities in OPEC MCs accelerated in 2H10

In general, OPEC Member Countries have seen their economic activities accelerated in the second half of 2010 compared to the previous year. According to available surveys and reports, the general pattern of economic recovery in this group of countries retained its upward trend in the fourth quarter of the year thanks to better performance of the global economy, solid demand for energy and upward movement of oil prices in third quarter of the year. It is expected that in most MCs economic expansion will continue in 2011, although in some cases economic growth is expected to decelerate.

### Algeria

Economic growth in **Algeria** will be led by the state's investment package as the government tries to lessen the economy's reliance on hydrocarbons. The economic growth rate is estimated at 4.2% for 2010 but it is expected that the GDP growth rate will reduce to 3.8% in 2011 as the overall demand for energy and oil will grow by a lower rate in 2011 compared to the previous year. Domestic price pressures are likely to remain high, around 4.4% in 2010 and 4.2% in 2011, due to strong domestic demand and uncompetitive markets.

### Angola

The main objective of government economic policy is to guide **Angola**'s transition to sustained economic growth. Poverty reduction and infrastructure expansion without jeopardizing macroeconomic stability are the main pillars of government economic policies. The national assembly has approved the 2011 budget, which envisions total revenue equivalent to \$36.2bn, a 6.4% increase on the revised budget of 2010. Last year, the revised budget added up to \$43bn following a 28% rise reflecting the oil price increase in second half of the year. After a large deficit in 2009, it is expected that the government budget will have a modest surplus in 2010 and 2011.

In recent years, Banco Nacional de Angola (BNA), the central bank, has tried to curb inflation through intervention in foreign exchange markets to keep the national currency (Kwanza) stable. However, inflation is still higher than its targeted level of 10%, estimated at 14.5% for 2010 and 2011.

A steady increase in oil output will drive real GDP growth in 2011 and beyond. However, economic expansion will remain capital intensive and import-dependent, with few linkages to areas of the economy other than government-dominated sectors. Rising oil output and prices increased exports from \$40bn in 2009 to estimated \$52bn in 2010. Angola's oil revenue is expected to rise to \$56.8bn in 2011. With government-led capital investment and growing domestic consumption, imports also are forecast to rise strongly, which might result in a sharp narrowing of the current account balance.

US dollar strengthened against the euro, the ven and the pound sterling, trading at an average rate of \$1.3219/€ in December

relatively high.

Oil prices, US dollar and inflation

The US dollar rose against all major currencies with the exception of the Swiss franc in December. Compared to the November level, the US dollar rose by 3.7% vis-à-vis the euro, increased by 1.4%, against the yen and versus the pound sterling rose by 2.6%. Against the Swiss-franc, the dollar declined by 1.1%. The trading range of the previous weeks of \$1.30/€ to \$1.40/€ was broken at the lower band on the last trading day of November, when concerns over the sovereign debt crisis re-emerged. From there it bounced back to reach again a level above \$1.33/€ on the last trading day of December, only to come under pressure again at the beginning of January, when it was trading at the level of around \$1.29/€ for some days and had its weakest performance since September. The average level of December was recorded at \$1.3219/€. The announcement of the Euro-zone countries to extend the power and the financial means of the European rescue fund by 2013, in combination with a successful bond auction of Portugal, Italy and Spain has managed to calm markets and the euro was lifted again above the \$1.30/€ area. So, despite the underlying trend of the US dollar to currently strengthen against the euro, the volatility is

While the higher inflation in the Euro-zone might lead to an earlier rate hike than in the US, such a move does not seem to be imminent. On the contrary, the ECB might get engaged in further monetary expansion, if needed by the economy, through extraordinary measures. This, combined with continued sovereign debt worries in the Euro-zone might keep the euro under pressure.

The OPEC Reference Basket price rose by 6.9% in November

In nominal terms, the OPEC Reference Basket increased by 6.9% or \$5.73/b from \$82.83/b in November 2010 to \$87.56/b in January 2011. In real terms, after accounting for inflation and currency fluctuations, the Basket price increased by 9.2% or \$4.72/b to \$56.13/b from \$51.41/b (base June 2001=100). Over the same period, the US dollar rose by 2.2% against the import-weighted modified Geneva I + US dollar basket and inflation increased by 0.1%.\*

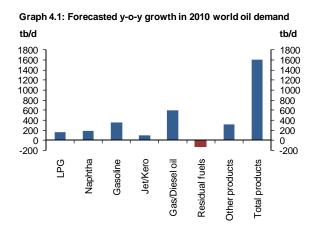
The 'modified Geneva I+US\$ basket' includes the euro, the Japanese yen, the US dollar, the pound sterling and the Swiss franc, weighted according to the merchandise imports of OPEC Member Countries from the countries in the basket.

# **World Oil Demand**

World oil demand forecast to grow by 1.6 mb/d, averaging 86.1 mb/d in 2010

# World oil demand in 2010

A bitter winter in some parts of the OECD affected energy demand. Extra consumption of heating and fuel oil made a mark on demand for December and more than offset the weak demand for transport fuel. economic World activity stronger than expected, leading to more oil usage; nevertheless, some of the increase was partially related to the low base line of 2009. The normal increase in driving distance pushed the US gasoline consumption up, adding another 0.13 mb/d to the country's gasoline



pool in the fourth quarter. As usual, the holiday season positively affected transport fuel consumption in the northern hemisphere.

World oil demand is forecast to grow by 1.6 mb/d averaging 86.1 mb/d for 2010

Table 4.1: World oil den	nand fore	cast for 2	010, mb/	d					
							Change 20	10/09	
	2009	1Q10	2Q10	3Q10	4Q10	2010	Volume	<u>%</u>	
North America	23.30	23.45	23.74	24.20	23.81	23.80	0.50	2.16	
Western Europe	14.52	14.17	14.13	14.81	14.43	14.39	-0.13	-0.91	
OECD Pacific	7.66	8.19	7.32	7.60	7.97	7.77	0.11	1.47	
Total OECD	45.47	45.81	45.19	46.61	46.21	45.96	0.48	1.06	
Other Asia	9.85	9.95	10.13	9.87	10.07	10.00	0.15	1.57	
Latin America	5.88	5.78	6.04	6.22	6.15	6.05	0.17	2.92	
Middle East	7.09	7.18	7.16	7.46	7.20	7.25	0.16	2.32	
Africa	3.25	3.30	3.28	3.16	3.31	3.26	0.02	0.55	
Total DCs	26.06	26.21	26.61	26.71	26.74	26.57	0.51	1.95	
FSU	3.97	3.96	3.78	4.22	4.27	4.06	0.09	2.17	
Other Europe	0.73	0.69	0.64	0.66	0.70	0.67	-0.05	-7.31	
China	8.25	8.30	8.94	9.18	8.90	8.83	0.58	7.02	
Total "Other regions"	12.95	12.95	13.37	14.06	13.87	13.57	0.61	4.73	
Total world	84.49	84.97	85.16	87.38	86.82	86.09	1.60	1.90	
Previous estimate	84.46	84.90	85.05	87.15	86.61	85.93	1.47	1.74	
Revision	0.02	0.07	0.11	0.23	0.21	0.16	0.13	0.16	

Totals may not add due to independent rounding

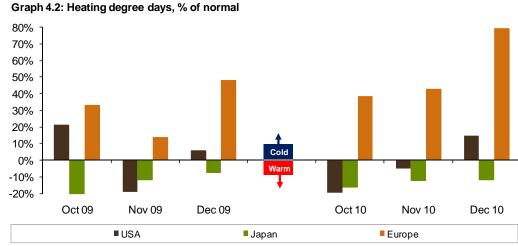
# **OECD - North America**

December gasoline demand growth in the US was the highest since September 2009. It grew by almost 3%, adding another 266 tb/d to the country's total gasoline demand pool.

The year 2010 ended with an upward trend for US oil consumption. However this increase came after a disappointing first quarter y-o-y oil consumption decline, resulting from the fragile economy. This was reflected in declining gasoline and weak distillate consumption. In the following quarters, oil consumption was stronger than expected due to an improved economy, several government stimulus plans and a low 2009 baseline. US oil consumption peaked during the third quarter, accommodating the traditional driving season and a sharp increase in industrial activity. The most recent monthly US data for October illustrated smaller growth of US oil consumption across all product with contractions in some industrial fuel products, such categories, propane/propylene. Preliminary weekly data for November and December are indicative of stronger oil consumption, especially in December, resulting from the cold weather in the north-eastern part of the country. As in previous reports, the preliminary character of this data requires caution as to whether these indications will also remain after monthly data is available. With data (monthly or weekly) for all months in 2010, and coming out of

As a result of various stimulus plans in the US, North American oil demand expected to grow by 0.5 mb/d y-o-y in 2010

a low baseline, US oil consumption shows little growth of only 2% or 0.4 mb/d compared to last year. The characteristics of the year 2010 are the extremely low gasoline growth of 0.7% and the strong distillates and residual fuel expansion, especially during the second half of the year. December light US vehicle sales increased sharply, with SUVs being the segment showing the biggest increase.



In Mexico, November figures were for the first time showing growth since the end of the second quarter; however the increase was marginal. Noticeable increases took place in

The high Canadian oil demand monthly growth rates during the year also continued during the fourth quarter with sharp increases in distillates and gasoline.

transport fuels and were mostly offset by shrinking consumption in industrial fuels.

As a result of various stimulus plans in the US, North American oil demand is expected to grow by only 0.5 mb/d y-o-y in 2010. However, fourth quarter growth is lower than growth in the third and the second quarters.

US auto sales peaked to the highest level for the last 16 months during December, despite uncertain expectations about the economy. During the year, a gradual recovery for the industry was achieved after the destructive year of 2009. The biggest increases in December were observed for SUVs with 25% and small cars by 7%, while demand for luxury cars decreased slightly by 1%.

In Canada, car and light truck sales during December fell marginally by 0.1% compared to the same month last year, but the year closed with an increase of around 7% compared to 2009. Mexican auto production during 2010 has increased by almost 50% while during the same period, Canadian vehicle production added 39%, compared to 2009.

Table 4.2: First and second quarter world oil demand comparison for 2010, mb/d									
			Change 2	010/09			Change 2010/09		
	1Q09	<u>1Q10</u>	<u>Volume</u>	<u>%</u>	2Q09	2Q10	<u>Volume</u>	<u>%</u>	
North America	23.43	23.45	0.02	0.09	22.94	23.74	0.80	3.49	
Western Europe	14.89	14.17	-0.72	-4.85	14.26	14.13	-0.13	-0.92	
OECD Pacific	8.12	8.19	0.07	0.84	7.27	7.32	0.04	0.56	
Total OECD	46.44	45.81	-0.63	-1.36	44.48	45.19	0.71	1.60	
Other Asia	9.73	9.95	0.22	2.26	9.92	10.13	0.21	2.13	
Latin America	5.63	5.78	0.15	2.74	5.83	6.04	0.21	3.59	
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	0.98	3.25	3.28	0.03	1.06	
Total DCs	25.58	26.21	0.63	2.48	26.06	26.61	0.54	2.09	
FSU	3.87	3.96	0.09	2.42	3.70	3.78	0.08	2.16	
Other Europe	0.74	0.69	-0.05	-6.77	0.69	0.64	-0.05	-7.37	
China	7.61	8.30	0.69	9.11	8.38	8.94	0.56	6.67	
Total "Other regions"	12.22	12.95	0.74	6.03	12.78	13.37	0.59	4.60	
Total world	84.23	84.97	0.74	0.88	83.32	85.16	1.84	2.21	

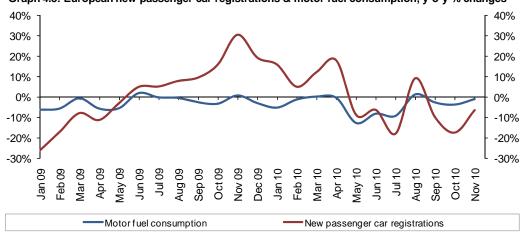
Totals may not add due to independent rounding

Table 4.3: Third and fourth quarter world oil demand comparison for 2010, mb/d								
			Change 20	010/09			Change 2	010/09
	3Q09	3Q10	<u>Volume</u>	<u>%</u>	4Q09	<u>4Q10</u>	<u>Volume</u>	<u>%</u>
North America	23.28	24.20	0.93	3.99	23.55	23.81	0.26	1.08
Western Europe	14.47	14.81	0.34	2.32	14.46	14.43	-0.03	-0.17
OECD Pacific	7.25	7.60	0.35	4.83	7.99	7.97	-0.01	-0.13
Total OECD	44.99	46.61	1.61	3.59	45.99	46.21	0.22	0.48
Other Asia	9.79	9.87	0.08	0.83	9.96	10.07	0.11	1.08
Latin America	6.03	6.22	0.19	3.09	6.02	6.15	0.14	2.28
Middle East	7.30	7.46	0.17	2.27	7.03	7.20	0.17	2.48
Africa	3.16	3.16	0.00	-0.07	3.31	3.31	0.01	0.21
Total DCs	26.28	26.71	0.43	1.64	26.31	26.74	0.43	1.62
FSU	4.14	4.22	0.08	1.93	4.18	4.27	0.09	2.18
Other Europe	0.71	0.66	-0.05	-7.14	0.76	0.70	-0.06	-7.93
China	8.66	9.18	0.53	6.07	8.36	8.90	0.54	6.49
Total "Other regions"	13.51	14.06	0.55	4.10	13.29	13.87	0.57	4.31
Total world	84.78	87.38	2.60	3.07	85.60	86.82	1.22	1.42

Totals may not add due to independent rounding

# **OECD - Europe**

Diesel demand in Europe is getting its boost from the transport sector. Not only is road cargo affecting diesel demand positively, but also the increase in diesel-operated passenger cars as well. Diesel-operated passenger cars within Europe have been gaining momentum for the past ten years. The percentage of sales of cars that operate with diesel increased from 22% to slightly more than 52% in 2010.



Graph 4.3: European new passenger car registrations & motor fuel consumption, y-o-y % changes

Unlike October, November European oil demand data denoted the third highest growth for the year. The European Big Four oil demand increased by 367 tb/d in November, compared to 245 tb/d during the third quarter. Stronger distillate consumption in Germany and France resulted from the filling of heating oil tanks, increased industrial production, and a low baseline in 2009. However, consumption of transportation fuels remained on the decline. During November, French and Italian oil consumption were up by 4% and 1% respectively, while oil consumption in the UK increased by 2%.

The OECD Europe total contraction in oil demand is expected to be less than earlier forecast and currently stands at 0.13 mb/d.

According to the latest information by ACEA, in November, European demand for new cars fell by 7%. All major European markets contracted, with a drop of 6% in Germany, 1% in France, 12% in the UK, 21% in Italy and 26% in Spain.

As for the first eleven months of 2010, approximately 6% fewer cars were registered compared to the same period in 2009 for the total European market. The UK and Spain performed better than over the same period in 2009 with increases of 3% and 6% respectively, while sales in France, Italy and Germany were in the minus with 2%, 8% and 25% respectively.

OECD Europe total contraction in oil demand expected to be less than previously forecast at 0.13 mb/d

OECD Pacific oil

demand to show

minor growth of 0.1 mb/d in 2010.

devastating decline

following a

last year

Table 4.4: Europe E	Table 4.4: Europe Big 4* oil demand, tb/d											
	Nov 10	Nov 09	Change from Nov 09	Change from Nov 09, %								
LPG	370	407	-37	-9.0								
Gasoline	1,244	1,291	-47	-3.6								
Jet/Kerosene	759	731	29	3.9								
Gas/Diesel oil	3,439	3,032	407	13.4								
Fuel oil	490	507	-17	-3.4								
Other products	1,152	1,119	32	2.9								
Total	7,455	7,088	367	5.2								

<sup>\*</sup> Germany, France, Italy and the UK

# **OECD - Pacific**

Japanese oil consumption data for the first eleven months indicates that the year 2010 evolved to becoming a recovery year, showing an increase of approximately 1.9%, the first increase in oil consumption since 2005. Petrochemical industry and thus naphtha, transportation fuels, direct crude burning and residual fuel oil usage in power plants and a very low baseline are the main reasons behind this increase. Oil usage was boosted by the government stimulus plans during the year.

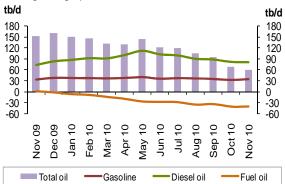
In South Korea, increases during the last quarter of 2010 were observed in the consumption of all products, especially in industrial and transportation fuels.

OECD Pacific oil demand is forecast to show minor growth of 0.1 mb/d in 2010, averaging 7.8 mb/d, following a devastating decline last year.

# **Developing Countries**

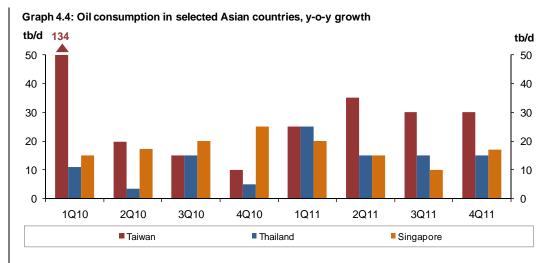
Indian oil demand has been negatively affected by the massive fuel switching from liquid to gas. However, November oil usage managed to pull out of the negative trend which started in August. It is expected that the total year oil demand growth will be 0.05 mb/d, half of what was estimated earlier. Transport fuel usage pushed the country's total oil demand above the red line. Gasoline alone grew by 17% in November y-o-y. The decline in fuel oil consumption was not as bad as the previous month: however

Graph 4.4: Yearly changes in Indian oil demand (12 month moving averages) tb/d tb/d



it was the decline in other products which squeezed total growth to only 0.46% for the month. The Indian energy consumption mix has changed this year and liquid usage lost some of its expected growth to other energy use. Furthermore, flooding during the peak of the agricultural season affected the use of diesel in this sector. India is consuming 3.3 mb/d of oil and is expected to consume more in the next year, but within a stable pattern.

Developing Countries' oil demand growth is forecast at 0.5 mb/d y-o-y in 2010, averaging 26.6 mb/d.



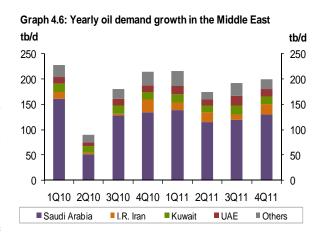
The healthy Indonesian economy has been keeping the country's oil use on the growth side. Indonesian oil demand for 2010 is expected to grow by 21 tb/d y-o-y, averaging 1.2 mb/d. 2010 oil demand growth is double of what was seen in 2009. Although there was a decline in the country's oil usage in October as a result of slowing exports to China, this will not affect the total oil usage of the year.

Contrary to Indonesian oil demand, Taiwan oil consumption was on the negative side for the fourth quarter of 2010. Fuel switching and usage of alternative fuel dented oil demand in Taiwan. Transport fuel demand was flat in October, however the use of LPG declined by 40% y-o-y for the same month. Despite the recent decline in oil use in Taiwan, there will be noticeable growth for the total year.

Given the unexpected slowdown in oil demand in India, Other Asia oil demand growth was revised slightly down to show growth of 0.2 mb/d or 1.6% y-o-y, averaging 10.0 mb/d.

Other Asia oil demand growth revised down slightly to show growth of 0.2 mb/d or 1.6% y-o-y, averaging 10.0 mb/d

The massive oil demand petrochemical, power plant and transport sectors which hiked Saudi oil demand by 19% or 0.34 mb/d in October y-o-y, slowed down in November as the weather cooled down and the demand for electricity dropped strongly. In fact, Saudi and Iranian oil demand in November dipped into the red. It is expected that Iranian transport fuel usage will slow down slightly, resulting from partial removal of subsidies. Due to the slowdown in Iran oil demand in the second half



of the year, the region's total oil demand was revised down slightly to settle at y-o-y growth of 2.3% or 0.16 mb/d for 2010.

Latin American oil demand growth is exceeding that of the Middle East as a result of strong demand in Brazil. Although Brazil oil demand has cooled down in the fourth quarter, the massive growth early in the year has kept the country's consumption growth above y-o-y. Gasoline usage alone is expected to achieve growth of 18% in 2010; however the usage of alcohol energy is expected to decline by 11% in the same year.



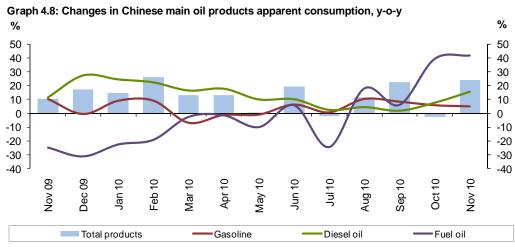
Developing Countries' oil demand growth is forecast at 0.51 mb/d y-o-y in 2010, averaging 26.6 mb/d.

Table 4.5: Consumption of petroleum products in Thailand, tb/d								
	Oct 10	Oct 09	Change, tb/d	Change, %				
LPG	211	175	37	20.9				
Gasoline	125	126	-1	-1.1				
Jet Fuel/Kerosene	81	77	4	5.5				
Diesel	288	299	-10	-3.5				
Fuel oil	39	60	-21	-34.2				
Other products	75	84	-9	-10.7				
Total	820	821	0	-0.1				

Source: JODI/EPPO

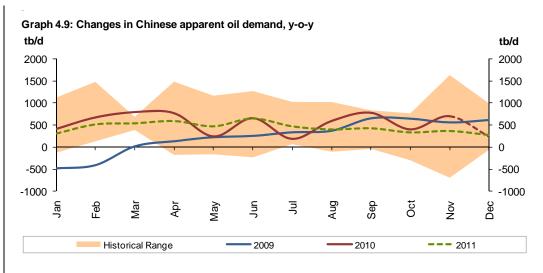
# Other regions

China has been facing a diesel shortage ever since the control of electricity deliveries led to a hike in the use of diesel-operated electricity generators. This has put pressure on diesel usage in the past quarter. The overheating Chinese economy is getting thirstier for oil, which has translated into 8.8% more oil consumption in November. China's oil imports reached 35% growth in November, a portion of which ended up in the country's commercial and strategic storage. China's apparent oil demand reached 8.7 mb/d in November. Economic and agricultural activities, an increase in new car registrations and summertime high requirement for electricity were the factors behind this strong oil demand. China keeps surprising oil analysts on the magnitude of oil usage, leading to a total oil consumption beating all expectations in 2010. China's oil demand is expected to increase by 0.6 mb/d or 7% this year, averaging 8.8 mb/d.



China's auto sales growth was lower in December, but still achieved growth of 27%, or 1.5 million units, as buyers rushed to take advantage of government tax incentives that expire soon. According to the China Passenger Car Association, total passenger car sales for 2010 accounted for 13 million units, an increase of almost 31% from 2009.

China's oil demand expected to increase by 0.6 mb/d or 7% this year, averaging 8.8 mb/d



Russian oil demand continued its strong trend which was started early in the year. Due to a booming economy, the country's oil demand is expected to grow more than earlier forecast. Hence, the FSU region's oil demand was revised up in the third and fourth quarters. The extra consumption occurred in both transport and industrial fuel. FSU oil demand is forecast to show positive growth in 2010 of 0.1 mb/d or 2.2% y-o-y.

# World oil demand in 2011

World oil demand forecast to grow by 1.2 mb/d, averaging 87.3 mb/d in 2011 Given the current level of petroleum product prices, expectations for world oil consumption will be dependent upon economic activities. The magnitude and the speed of the world economic recovery will have a remarkable impact on world oil demand this year. Weather in the northern hemisphere is gaining momentum and has slightly affected the heating and fuel oil demand. Nevertheless, fuel substitution to natural gas is reducing the demand for fuel oil. World oil demand for January is forecast to grow by

Graph 4.10: Forecasted y-o-y growth in 2011 world oil demand

LPG

Naphtha

Gasoline

Jet/Kero

Gas/Diesel oil

Residual fuels

Other products

1.5 mb/d y-o-y, of which 1.0 mb/d is related to the Non-OECD.

Given the latest upward revision in world GDP, world oil demand growth is forecast at 1.2 mb/d averaging 87.3 mb/d in 2011, only 50 tb/d higher than last month's estimate. Petrochemical and transport sectors are dominant in world oil demand growth in 2011.

Continuous recovery in the OECD economy is expected to hike the region's oil demand adding another 0.2 mb/d to total oil consumption. This is the second year in a row that the OECD oil demand not only stopped its decline but incurred extra oil usage. Nevertheless, debts in several European economies and continued application of rigorous state tax policies on oil are some of the factors which could impose future declines in European oil consumption during 2011. As for OECD Pacific, Japanese and South Korean oil demand is the engine behind the region's growth this year. Despite the positive performance last year, further development of Japanese oil consumption is heavily dependent upon the implementation of an additional stimulus plan, which is expected to take place in the first half of 2011 and is part of a supplementary budget for the current Japanese fiscal year.

Table 4.6: World oil demand forecast for 2011, mb/d									
							Change 20	011/10	
	<u>2010</u>	<u>1Q11</u>	2Q11	3Q11	4Q11	<u>2011</u>	<b>Volume</b>	<u>%</u>	
North America	23.80	23.75	23.91	24.45	24.11	24.06	0.25	1.06	
Western Europe	14.39	14.19	14.08	14.73	14.37	14.34	-0.04	-0.29	
OECD Pacific	7.77	8.17	7.27	7.58	7.95	7.74	-0.03	-0.35	
Total OECD	45.96	46.11	45.26	46.75	46.43	46.14	0.18	0.40	
Other Asia	10.00	10.13	10.33	10.06	10.26	10.20	0.19	1.92	
Latin America	6.05	5.94	6.18	6.38	6.30	6.20	0.15	2.52	
Middle East	7.25	7.40	7.33	7.65	7.40	7.45	0.20	2.69	
Africa	3.26	3.32	3.30	3.19	3.34	3.29	0.02	0.73	
Total DCs	26.57	26.79	27.15	27.28	27.30	27.13	0.56	2.12	
FSU	4.06	4.04	3.83	4.28	4.33	4.12	0.06	1.45	
Other Europe	0.67	0.67	0.61	0.64	0.66	0.64	-0.03	-4.25	
China	8.83	8.72	9.39	9.67	9.34	9.28	0.45	5.11	
Total "Other regions"	13.57	13.43	13.83	14.59	14.33	14.05	0.48	3.55	
Total world	86.09	86.33	86.24	88.62	88.06	87.32	1.23	1.43	
Previous estimate	85.93	86.24	86.09	88.29	87.80	87.11	1.18	1.37	
Revision	0.16	0.09	0.14	0.33	0.26	0.21	0.05	0.06	

Totals may not add due to independent rounding

The Non-OECD region is expected to contribute 85% to the total forecast oil demand growth this year. China alone is forecast to bring in half of this amount.

In 2011, Chinese auto sales growth is expected to slow as the Chinese government plans to introduce measures which will restrict growth. These new measures are being taken in order to reduce traffic congestion, pollution and unrestrained expansion of car production.

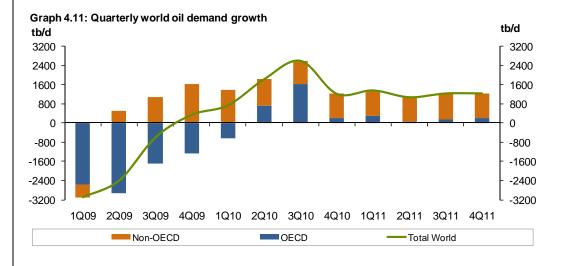


Table 4.7: First and second quarter world oil demand comparison for 2011, mb/d									
	Change 2011/10					Change 2011/10			
	<u>1Q10</u>	<u>1Q11</u>	<b>Volume</b>	<u>%</u>	2Q10	2Q11	<b>Volume</b>	<u>%</u>	
North America	23.45	23.75	0.30	1.28	23.74	23.91	0.17	0.70	
Western Europe	14.17	14.19	0.02	0.16	14.13	14.08	-0.05	-0.38	
OECD Pacific	8.19	8.17	-0.02	-0.27	7.32	7.27	-0.04	-0.57	
Total OECD	45.81	46.11	0.30	0.66	45.19	45.26	0.07	0.16	
Other Asia	9.95	10.13	0.19	1.90	10.13	10.33	0.20	1.94	
Latin America	5.78	5.94	0.16	2.75	6.04	6.18	0.15	2.40	
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	3.28	3.30	0.02	0.73	
Total DCs	26.21	26.79	0.58	2.22	26.61	27.15	0.54	2.03	
FSU	3.96	4.04	0.07	1.89	3.78	3.83	0.05	1.32	
Other Europe	0.69	0.67	-0.02	-2.18	0.64	0.61	-0.04	-5.46	
China	8.30	8.72	0.42	5.05	8.94	9.39	0.45	5.04	
Total "Other regions"	12.95	13.43	0.48	3.70	13.37	13.83	0.47	3.49	
Total world	84.97	86.33	1.36	1.60	85.16	86.24	1.08	1.27	

Totals may not add due to independent rounding

Table 4.8: Third and fourth quarter world oil demand comparison for 2011, mb/d									
	Change 2011/10					Change 2011/10			
	3Q10	3Q11	Volume	<u>%</u>	4Q10	4Q11	Volume	<u>%</u>	
North America	24.20	24.45	0.24	1.01	23.81	24.11	0.30	1.26	
Western Europe	14.81	14.73	-0.08	-0.53	14.43	14.37	-0.06	-0.40	
OECD Pacific	7.60	7.58	-0.02	-0.28	7.97	7.95	-0.02	-0.28	
Total OECD	46.61	46.75	0.14	0.31	46.21	46.43	0.22	0.47	
Other Asia	9.87	10.06	0.19	1.89	10.07	10.26	0.19	1.93	
Latin America	6.22	6.38	0.16	2.62	6.15	6.30	0.14	2.31	
Middle East	7.46	7.65	0.19	2.57	7.20	7.40	0.20	2.78	
Africa	3.16	3.19	0.03	0.82	3.31	3.34	0.02	0.75	
Total DCs	26.71	27.28	0.57	2.13	26.74	27.30	0.56	2.10	
FSU	4.22	4.28	0.05	1.30	4.27	4.33	0.06	1.32	
Other Europe	0.66	0.64	-0.03	-3.77	0.70	0.66	-0.04	-5.60	
China	9.18	9.67	0.49	5.37	8.90	9.34	0.44	4.97	
Total "Other regions"	14.06	14.59	0.52	3.72	13.87	14.33	0.46	3.31	
Total world	87.38	88.62	1.24	1.41	86.82	88.06	1.24	1.43	

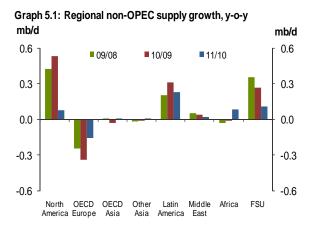
Totals may not add due to independent rounding

# **World Oil Supply**

# **Non-OPEC**

Forecast for 2010

Non-OPEC supply estimated at 52.3 mb/d in 2010, representing growth of 1.1 mb/d **Non-OPEC** oil supply estimated to have grown 1.13 mb/d in 2010 to average 52.26 mb/d. indicating an upward revision of 0.04 mb/d compared to the previous assessment. The continued healthy output from non-OPEC various countries required the adjustment in this month's report. Similar to the previous month, there was a minor upward revision that affected the outlook from the historical data in 2009. In general, the non-OPEC supply profile remains steady with



growth in 2010 coming mainly from North and Latin America, FSU, and China while output from OECD Western Europe declined. The revisions introduced to the supply outlook were mainly in the second half of the year to adjust for updated production data. Many non-OPEC countries' supply profiles experienced an adjustment, with considerable revisions encountered in the US, Norway, Azerbaijan and China. On a quarterly basis, non-OPEC supply is estimated at 52.12 mb/d, 52.11 mb/d, 51.96 mb/d and 52.82 mb/d respectively.

Table 5.1: Non-OPEC oil supply in 2010, mb/d									
							Change		
	<u>2009</u>	1Q10	<u>2Q10</u>	<u>3Q10</u>	<u>4Q10</u>	<u>2010</u>	<u>10/09</u>		
North America	14.36	14.71	14.86	14.92	15.10	14.90	0.54		
Western Europe	4.73	4.70	4.40	4.01	4.44	4.39	-0.34		
OECD Pacific	0.64	0.61	0.60	0.60	0.60	0.60	-0.03		
Total OECD	19.72	20.03	19.86	19.53	20.14	19.89	0.16		
Other Asia	3.70	3.68	3.67	3.71	3.72	3.69	-0.01		
Latin America	4.41	4.66	4.74	4.73	4.74	4.72	0.31		
Middle East	1.73	1.77	1.77	1.77	1.77	1.77	0.04		
Africa	2.61	2.62	2.59	2.61	2.60	2.61	-0.01		
Total DCs	12.46	12.73	12.76	12.82	12.83	12.79	0.33		
FSU	12.96	13.12	13.18	13.21	13.36	13.22	0.27		
Other Europe	0.14	0.14	0.14	0.14	0.15	0.14	0.00		
China	3.85	4.03	4.10	4.18	4.27	4.14	0.29		
Total "Other regions"	16.95	17.29	17.42	17.53	17.77	17.50	0.56		
Total Non-OPEC production	49.13	50.04	50.04	49.88	50.75	50.18	1.05		
Processing gains	2.00	2.08	2.08	2.08	2.08	2.08	0.08		
Total Non-OPEC supply	51.13	52.12	52.11	51.96	52.82	52.26	1.13		
Previous estimate	51.12	52.10	52.10	51.91	52.74	52.21	1.09		
Revision	0.00	0.02	0.02	0.05	0.08	0.04	0.04		

The estimated strong annual non-OPEC supply growth in 2010 of 1.13 mb/d is the highest increase since 2002. The non-OPEC supply forecast for 2010 has encountered many revisions since the initial projection in 2009. Most of the revisions to total non-OPEC were upward. By the end of the first quarter 2010, actual production data started to provide strong indications that supply was on the verge of healthy growth, however, the risk continued to exist and develop in different forms. Accordingly, the forecast responded to shifting the balance of risk and data showing gradual increases to the current level of 1.13 mb/d for 2010. Nonetheless, the growth level is still subject to adjustments, even after the end of the year, as actual production data from different non-OPEC countries remains unavailable at this point. Compared to the initial forecast, Russia oil supply experienced the largest upward revision of 0.33 mb/d, followed by the US and China.

# Revisions to the 2010 estimates

Non-OPEC supply estimates in the first three quarters of 2010 remained relatively steady compared to the previous month, with a minor upward revision of less than 30 tb/d on average. However, the estimates for the fourth quarter encountered an upward revision of 80 tb/d compared to a month earlier. Despite the total upward revision, there were a few downward revisions in this month's evaluation. Oil supply estimates for the US, Canada, Mexico, Denmark, Vietnam, Yemen, Chad, Egypt, Russia and China encountered upward revisions influenced mostly by updated production data. On the other hand, Norway, Australia, India, Brazil, Kazakhstan, and Azerbaijan oil supply estimates experienced downward revisions, similarly driven by updated production data in addition to other factors.

In the US, the above-average initial production from wells in the Bakken formation supported the upward revision of 40 tb/d. Additionally, the startup of the small Balboa field as well as the positive effect on operating efficiency by the cold weather in Alaska further supported the upward adjustment. US oil supply is now estimated to have averaged 8.58 mb/d in 2010, an increase of 0.44 mb/d over the previous year, indicating the largest growth among all non-OPEC countries. Canada oil supply profile experienced an upward revision of 10 tb/d compared to the previous month. The upward revision came as maintenance work had been completed in different projects including the White Rose, Horizon (where a fire damaged the upgrader in early January 2011) and Syncrude. The revision came despite the pipeline outage in Enbridge that forced some producers to reduce production.

Norway oil supply is seen to have averaged 2.14 mb/d in 2010, a decline of 0.22 mb/d over 2009, indicating a downward revision of 20 tb/d compared to previous month. The downward revision came to reflect the drop of production in the fourth quarter, partially due to the short shutdown of the Kristin and Tyrihans fields as well as lower output from the Statfjord and Valve developments. The downward revision came despite the startup of the Vega project. Similarly, Brazil oil estimate in 2010 encountered a downward revision of 10 tb/d compared to a month earlier. The downward adjustment was due to updated production data in the fourth quarter which indicated lower output than previously expected. Despite the startup of the P-57 platform at the Jubarte field, as well as production from the extended well testing at the Caratinga field, a downward revision was experienced in the fourth quarter.

China oil supply is estimated to have averaged 4.14 mb/d in 2010, growth of 0.29 mb/d over 2009, indicating an upward revision of 20 tb/d compared to the previous month. The upward revision came as production data continued to indicate better performance than earlier anticipated. The strong growth at the recent offshore developments, as well as the Yanchang and Changqing projects, is strongly supporting growth and upward revision in China's oil supply profile.

# Forecast for 2011

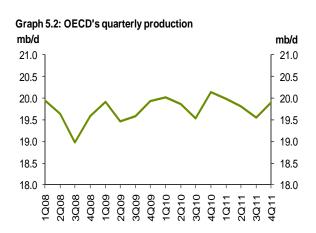
Non-OPEC supply to increase by 0.4 mb/d in 2011 to average 52.7 mb/d Non-OPEC supply in 2011 is forecast to grow by 0.41 mb/d over the previous year to average 52.67 mb/d, displaying an upward revision of 50 tb/d from a month earlier. The upward revision was due to various updates to countries' supply profiles in addition to carrying over some of the revisions introduced to 2010 supply estimates. On a quarterly basis, non-OPEC supply is expected to average 52.74 mb/d, 52.60 mb/d, 52.35 mb/d and 52.98 respectively.

Table 5.2: Non-OPEC oil supply in 2011, mb/d									
							Change		
	<u>2010</u>	<u>1Q11</u>	<u> 2Q11</u>	<u>3Q11</u>	<u>4Q11</u>	<u>2011</u>	<u>11/10</u>		
North America	14.90	14.96	15.01	14.87	15.06	14.97	0.07		
Western Europe	4.39	4.42	4.19	4.07	4.24	4.23	-0.16		
OECD Pacific	0.60	0.61	0.62	0.61	0.60	0.61	0.01		
Total OECD	19.89	19.99	19.81	19.55	19.90	19.81	-0.08		
Other Asia	3.69	3.69	3.69	3.70	3.72	3.70	0.01		
Latin America	4.72	4.82	4.93	4.96	5.07	4.94	0.23		
Middle East	1.77	1.78	1.79	1.79	1.81	1.80	0.02		
Africa	2.61	2.63	2.67	2.70	2.76	2.69	0.08		
Total DCs	12.79	12.93	13.07	13.15	13.36	13.13	0.34		
FSU	13.22	13.40	13.34	13.27	13.32	13.33	0.11		
Other Europe	0.14	0.14	0.14	0.14	0.14	0.14	0.00		
China	4.14	4.21	4.16	4.16	4.18	4.18	0.03		
Total "Other regions"	17.50	17.74	17.64	17.57	17.64	17.65	0.15		
Total Non-OPEC production	50.18	50.66	50.53	50.27	50.90	50.59	0.41		
Processing gains	2.08	2.08	2.08	2.08	2.08	2.08	0.00		
Total Non-OPEC supply	52.26	52.74	52.60	52.35	52.98	52.67	0.41		
Previous estimate	52.21	52.64	52.46	52.39	52.99	52.62	0.41		
Revision	0.04	0.10	0.15	-0.05	-0.02	0.05	0.01		

OECD supply is expected to decline by 0.1 mb/d in 2011, driven mainly by OECD Western Europe

# **OECD**

Total OECD oil production in 2011 is foreseen to average 19.81 mb/d, a drop of 0.08 mb/d compared to the previous year and an upward revision of 0.09 mb/d from the previous report. The upward revision came mainly from North America, while other reaions within **OECD** experienced minor revisions. Within the OECD, supply in the North American and Asia-Pacific regions are anticipated to show growth in 2011, while OECD Western Europe is expected to



decline. On a quarterly basis, total OECD supply is seen to stand at 19.99 mb/d, 19.81 mb/d, 19.55 mb/d and 19.90 mb/d respectively. According to preliminary data, OECD oil supply averaged 20.14 mb/d in the fourth quarter of 2010, growth of 0.21 mb/d over the same period in 2009.

# North America

**OECD North America** oil output is projected to increase by 0.07 mb/d in 2011 over the previous year to average 14.97 mb/d, representing an upward revision of 0.10 mb/d compared to the previous month. Both the US and Canadian oil supply are expected to show growth in 2011, while Mexico is estimated to decline. On a quarterly basis, North American oil supply is forecast to average 14.96 mb/d, 15.01 mb/d, 14.87 mb/d and 15.06 mb/d respectively.

# US

US oil supply to average 8.6 mb/d in 2011, an increase of 30 tb/d **Total US oil supply** is forecast to remain relatively steady in 2011 with a minor increase of 0.03 mb/d over 2010 to average 8.61 mb/d, indicating an upward revision of 0.07 mb/d from the previous month. The strong level of production in the fourth quarter of 2010 supported the upward revision. The reported increase in the US rig count, which has reached a 23-year high, is also supporting the upward revision. Moreover, the expected increase in biofuel requirement in 2011 is seen to improve output in 2011. Additionally, projects such as the Cascade, Chinook as well as Caesar Tonga, in addition to the Bakken oil shale supply are seen to support US production in 2010. However, a high level of uncertainty remains surrounding the US oil output in 2011 as the extent of the drilling delays, as a result of the deep water moratorium, is

still not clear. Moreover, the decline in mature producing areas, such as Alaska, is expected to negatively affect the US output in 2011. On a quarterly basis, US oil supply is anticipated to stand at 8.67 mb/d, 8.67 mb/d, 8.52 mb/d, and 8.59 mb/d respectively.

#### Canada and Mexico

Canadian supply to increase by 0.1 mb/d in 2011, to average 3.5 mb/d

Canada's oil production is projected to average 3.47 mb/d in 2011, growth of 0.11 mb/d over the previous year, indicating an upward revision of 20 tb/d over the previous month. The healthy level of production in the fourth quarter drove the upward revision in 2011. Additionally, the expected increase in investment in 2011 is seen to support growth in Canada. However, the fire incident at the Horizon facility had offset some of the gains. Canada oil supply is expected to gain from the ramp-up of various oil sand projects such as the Jack Pine AOSP, Leismer, Syncrude, and Christina Lake in 2011. However, the risk to the forecast is on the high side as the details of the effect of the fire on the Horizon project do not yet – at the time this report is being written – provide a clear view of when the capacity will return to normal levels. On a quarterly basis, Canada's supply is expected to average 3.39 mb/d, 3.44 mb/d, 3.47 mb/d and 3.57 mb/d respectively.

Mexico supply to decline by 60 tb/d in 2011

**Mexico** oil supply is expected to decline by 0.06 mb/d in 2011 compared to the previous year to average 2.90 mb/d, broadly unchanged from the last report, with a minor upward revision. The year 2011 will be a very demanding year in terms of stabilizing oil output. Despite the drop in production in November 2010 of nearly 60 tb/d, Mexico crude oil supply demonstrated a healthy level of output in contrast to the output stabilization target. With limited new volume expected from the Chicontepec, Ayun-Alux, and Kuil in 2011, Mexico will have to work hard to achieve its target. Nonetheless, the possibility of accomplishing the set objective remains within reach, similar to the performance realized in 2010, to maintain the uncertainty surrounding the forecast for 2011. On a quarterly basis, Mexico's oil supply is seen to average 2.91 mb/d, 2.90 mb/d, 2.88 mb/d, and 2.90 mb/d respectively.

#### Western Europe

**OECD Western Europe** supply is anticipated to decline by 0.16 mb/d over the previous year to average 4.23 mb/d in 2011, relatively unchanged from last month. Nevertheless, there were minor upward and downward revisions to individual countries, mostly offsetting each other. OECD Western Europe is expected to have quarterly supply of 4.42 mb/d, 4.19 mb/d, 4.07 mb/d and 4.24 mb/d respectively.

Norway supply expected to decline in 2011, yet less than 2010 Oil supply from **Norway** is foreseen to drop 0.08 mb/d compared to the previous year to average 2.06 mb/d in 2011, representing a downward revision of 0.01 mb/d from last month. The downward revision reflected the recent short shutdown of the Snorre and Vigdis fields. Additionally, the drop in output in November 2010 further had a small effect on the outlook of 2011 supply. The expected decline in 2011 is significantly lower than the drop in 2010, mostly due to the fact that the level of comprehensive maintenance stoppage expected in 2011 is less than a year earlier, as the heavy maintenance experienced in 2010 tends to revolve in a three-year cycle. Additionally, new volume from the Yme, Gjoa, Morvin, and Vega is expected to offset the decline in mature producing areas. Furthermore, the projected investment in 2011 is seen to reach a new record high in Norway, which is seen to further support the improvement of supply in 2011, compared to 2010. The risk on the forecast remains with the ability of producers to reduce their production shutdowns in 2011. On a quarterly basis, Norway's production is seen to average 2.19 mb/d, 2.01 mb/d, 1.96 mb/d and 2.07 mb/d respectively.

UK supply to drop 70 tb/d in 2011

**UK** oil supply is anticipated to average 1.31 mb/d in 2011, representing a decline of 0.07 mb/d over the previous year and unchanged from last month. The expected new volume from developments such as Fiddich, Bardolino, Burghley, Rochelle, Causeway, and Bentley (started in late December 2010) is expected to partially offset the output decline from mature producing areas. Furthermore, the effect of maintenance on output is expected to be lower than in 2010. On a quarterly basis, UK oil output is expected to average 1.35 mb/d, 1.30 mb/d, 1.26 mb/d and 1.32 mb/d respectively.

**Denmark** oil supply is forecast to average 0.23 mb/d in 2011, a drop of 0.02 mb/d over the previous year, representing an upward revision of 10 tb/d compared to a month earlier. The upward revision experienced in 2011 was due to the adjustment in the fourth quarter on the back of updated production data. **Other Western Europe** oil supply is expected to remain flat in 2011, averaging 0.64 mb/d, indicating a minor upward revision that was due to the start of production at the Wijk field in the Netherlands.

#### **Asia Pacific**

**OECD Asia Pacific** oil supply is predicted remain relatively flat in 2011 compared to the previous year, with a minor increase of 10 tb/d, indicating a downward revision of 25 tb/d compared to the previous month. The downward revision came mainly from Australia, while New Zealand supply forecast remained unchanged from a month earlier. On a quarterly basis, total OECD Asia Pacific oil supply is expected to average 0.61 mb/d, 0.62 mb/d, 0.61 mb/d and 0.60 mb/d respectively.

Australia oil production to increase slightly in 2011

**Australia** oil production is projected to increase 20 tb/d in 2011 to average 0.53 mb/d, indicating a downward revision of 25 tb/d compared to the most recent assessment. The downward revision came mainly from the anticipated lower production in the late fourth quarter and early January, due to shutdowns at different fields because of bad weather and flooding. However, the shutdown fields have returned to operation. In addition, supply is expected to improve with the startup and ramp-up of projects such as Pyrenees, Van Gogh, Kitan, and Turrum. On a quarterly basis, Australian oil supply is seen to stand at 0.52 mb/d, 0.53 mb/d, 0.53 mb/d and 0.52 mb/d respectively.

## **Developing Countries**

DC supply is expected to increase by 0.3 mb/d in 2011 Developing Countries (DCs) oil supply is forecast to grow by 0.34 mb/d over the previous year to average 13.13 mb/d in 2011, representing a minor upward revision of less than 10 tb/d from the previous month. Despite the unlucky "13" myth surrounding the average production figure, DC supply is expected to be the jewel of non-OPEC supply growth in 2011. All the regions within DCs are anticipated to show supply growth in 2011, with Latin America and Africa heading the list and

Graph 5.3: Developing Countries' quarterly production mb/d mb/d 13.75 13.75 13.50 13.50 13.25 13.25 13.00 13.00 12.75 12.75 12.50 12.50 12.25 12.25 12.00 12.00 

Middle East and Other Asia expected to remain relatively flat. On a quarterly basis, total oil supply in DCs is seen to average 12.93 mb/d, 13.07 mb/d, 13.15 mb/d and 13.36 mb/d respectively.

Other Asia production is expected to remain steady and average 3.7 mb/d in 2011 Oil production from Other Asia in 2011 is foreseen to remain relatively flat over the previous year and increase 10 tb/d to average 3.70 mb/d, unchanged from the last assessment. Despite the steady state compared to the previous month, there were a few upward and downward adjustments that offset each other. India is expected to show the largest growth in oil supply in 2011 among the Other Asia region. On a quarterly basis, Other Asia supply is seen to average 3.69 mb/d, 3.69 mb/d, 3.70 mb/d and 3.72 mb/d respectively. Output from India is expected to increase by 40 tb/d in 2011 to average 0.89 mb/d, indicating a downward revision of less than 10 tb/d, which was introduced to adjust for updated production figures in the fourth quarter 2010 that came lower than previously expected due to poorer output of different fields. The Mangala development is expected to continue to support output in 2011.

Vietnam oil supply is expected to increase 20 tb/d in 2011 to average 0.38 mb/d, indicating a minor upward revision compared to previous month's assessment. The upward revision came mainly to reflect healthy output data in the second half of 2010. The minor growth is supported by projects such as the Su Tu Den and Chim Sao in addition to biofuel production. Indonesia oil output is expected to decline by 30 tb/d in

2011 to average 1.00 mb/d, unchanged from the previous evaluation. The decline is anticipated despite the government scrapping plans to curb upstream recovery cost, which is regarded by many analyst as a supportive step toward improving production. Additionally, the foreseen increase in investment in 2011 supports production. However, the decline in mature producing areas is expected to offset the anticipated limited new volume. The Philippines oil supply is expected to decline in 2011, which is reflected in Other Asia, on the back of abandoning the Tindalo oil field due to increased water cut from the field.

Latin America oil supply is expected to increase by 0.23 mb/d in 2011 to average 4.94 mb/d, the highest growth among all non-OPEC regions. The forecast indicates a downward revision of 35 tb/d compared to the previous month. On a quarterly basis, Latin American supply is expected to stand at 4.82 mb/d, 4.93 mb/d, 4.96 mb/d and 5.07 mb/d respectively. Brazil oil supply is projected to average 2.87 mb/d in 2011, an increase of 0.16 mb/d over the previous year. The supply outlook shows a downward revision of 35 tb/d compared to the previous month's assessment. The downward revision was introduced to adjust for fourth quarter 2010 production data that came lower than previously anticipated. Despite the downward revision, Brazil's expected supply growth in 2011 marks the highest anticipated growth among all non-OPEC countries. This healthy growth is supported by developments such as the Paraques das Conchas, Tupi, Jubarte and other Santos basin projects. In addition, biofuel supply is expected to grow in 2011 as well as production from private companies. The expected new volume is seen to more than offset the decline from mature producing areas.

Colombia oil supply is foreseen to increase by 0.08 mb/d in 2011 to average 0.88 mb/d, unchanged from the previous month's evaluation. The expected growth is supported by the Quifa and Rubiales developments. However, the risk of the transportation bottleneck remains a major factor that could affect the development of oil production in 2011. Argentina oil production is expected to decline by 20 tb/d in 2011 to average 0.74 mb/d, indicating a downward revision of 10 tb/d compared to a month earlier. The downward revision was experienced due to an adjustment in the fourth quarter 2010 that was carried over to the 2011 supply forecast.

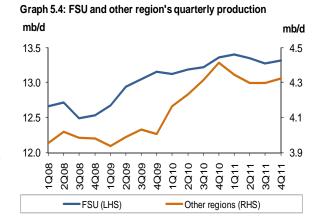
Middle East supply to increase by 20 tb/d in 2011 Oil supply from the Middle East is forecast to increase slightly by 20 tb/d from the previous year to average 1.80 mb/d in 2011, indicating an upward revision of 20 tb/d from the previous report. The revision was introduced to Syria and Yemen oil supply, while other countries in the region remain unchanged. The upward revision was due to historical adjustments that were carried over to the 2011 estimate. Oman is expected to lead the region in terms of growth, with output forecast to increase by 50 tb/d in 2011. Growth is expected to continue from 2010, where production achieved a healthy increase. Syria and Yemen oil supply are expected to experience a minor decline in 2011, driven by a decline in mature producing areas. On a quarterly basis, Middle East supply is seen to average 1.78 mb/d, 1.79 mb/d, 1.79 mb/d and 1.81 mb/d respectively.

Ghana to drive Africa supply growth in 2011 **Africa** oil supply is foreseen to average 2.69 mb/d in 2011, representing a growth of 0.08 mb/d over the previous year, and an upward revision of 25 tb/d from last month's assessment. Supply outlook for Chad, Egypt and Gabon experienced upward revisions mainly on the back of updated production figures in the fourth quarter 2010, where output indicated better performance. Ghana is expected to drive the growth in Africa with the Jubilee field. The field has started up in December and the first cargo has been offered. The quarterly distribution for 2011 stands at 2.63 mb/d, 2.67 mb/d, 2.70 mb/d and 2.76 mb/d respectively.

FSU forecast to grow by 0.1 mb/d in 2011to average 13.3 mb/d

### **FSU**, Other Regions

Total **FSU** oil supply is anticipated to grow by 0.11 mb/d in 2011 to average 13.33 mb/d, indicating a downward revision of 0.10 mb/d compared to the previous month. FSU remains the region with the highest production volume among all non-OPEC regions, however, projected growth in 2011 is lower than the growth experienced in previous years. All the major producers in the FSU are expected to show oil supply growth in 2011, yet at a slower pace than in previous years. On a quarterly



basis, total oil supply from the FSU is seen averaging 13.40 mb/d, 13.34 mb/d, 13.27 mb/d and 13.32 mb/d respectively. **China** oil supply is expected to increase by 30 tb/d in 2011 to average 4.18 mb/d and **Other Europe** is seen to remain steady in 2011 at 0.14 mb/d.

#### Russia

Russia oil supply to remain steady in 2011

Oil supply from Russia, the world's largest producer in 2010, is projected to remain relatively flat in 2011 with a minor increase of 10 tb/d, unchanged from the previous assessment. Russia oil supply forecast in 2011 has the highest level of risk and uncertainty. Despite the expected new volume from a few developments such as Talakan, Vankor, Uvat and Yuri, the expected decline at major producing areas is seen to offset the foreseen volume addition. Furthermore, the developments that drove growth in 2010, such as the Vankor field, are expected to add lower volume in 2011 than in 2010. On the other hand, the decline rate that was offset by strong growth in 2010 is expected to continue to depress Russian output in 2011. Moreover, the supply development in Russia during recent years interacted robustly with the government policy. With increases in taxation and duties, Russia oil supply showed a decline and vice versa. Accordingly, government policy regarding taxation and duties will have a major role in shaping the Russian oil supply profile in 2011. The risk with the Russian oil supply forecast is the highest among all non-OPEC countries, given the size of production as well as the various factors affecting the output. On a quarterly basis, Russian oil supply is foreseen to average 10.19 mb/d, 10.17 mb/d, 10.12 mb/d and 10.12 mb/d respectively.

#### Caspian

Kazakh oil production to increase by 70 tb/d in 2011 Oil supply from **Kazakhstan** is forecast to increase by 70 tb/d over the previous year to average 1.66 mb/d in 2011, indicating a downward revision of 20 tb/d from the previous month. The downward revision was introduced to adjust for updated fourth quarter production figures. Despite the downward revision, the anticipated growth in 2011 is supported by the Tengiz and Karachaganak developments. Kazakh oil production is expected to remain relatively steady in 2011. On a quarterly basis, Kazakhstan oil supply is expected to average 1.67 mb/d, 1.64 mb/d, 1.63 mb/d, and 1.69 mb/d respectively.

Azeri supply to grow by 40 tb/d in 2011

**Azerbaijan** oil production is forecast to increase by 40 tb/d over the previous year to average 1.12 mb/d in 2011, representing a downward revision of 65 tb/d from the previous month. The downward revision was partially carried over from the fourth quarter 2010, when production data suggest slower growth at the ACG field. The downward revision was introduced despite the restart of the Chirag platform, after the short shutdown. Quarterly supply is seen to stand at 1.13 mb/d, 1.12 mb/d, 1.11 mb/d and 1.11 mb/d respectively.

China supply to average 4.2 mb/d in 2011

#### China

**China** oil supply is estimated to increase by 30 tb/d over the previous year to average 4.18 mb/d in 2011, indicating an upward revision of around 50 tb/d from the previous month. The upward revision was introduced to adjust for continued healthy production from China in the fourth quarter 2010. However, the base of the growth seen in 2010 is expected to slow in 2011. The anticipated decline from China's mature producing areas is expected to offset most of the anticipated new volume in 2011. On a quarterly basis, China oil supply is seen to average 4.21 mb/d, 4.16 mb/d, 4.16 mb/d and 4.18 mb/d respectively.

## OPEC natural gas liquids and non-conventional oils

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

Table 5.3: OPEC NGLs + non-conventional oils, 2008-2011											
Change								Change		Change	
	2008	2009	09/08	<u>1Q10</u>	2Q10	3Q10	4Q10	<u>2010</u>	10/09	<u>2011</u>	<u>11/10</u>
Total OPEC	4.14	4.35	0.21	4.60	4.77	4.81	4.96	4.79	0.44	5.25	0.46

# **OPEC** crude oil production

According to secondary sources, total OPEC crude oil production averaged 29.23 mb/d in December, an increase of 0.17 mb/d from the previous month. Crude oil output saw an increase from the UAE, Saudi Arabia, Iraq, Kuwait and Nigeria, while production fell in Angola. According to secondary sources, OPEC crude production, not including Iraq, stood at 26.78 mb/d in December, an increase of 0.13 mb/d over the previous month.

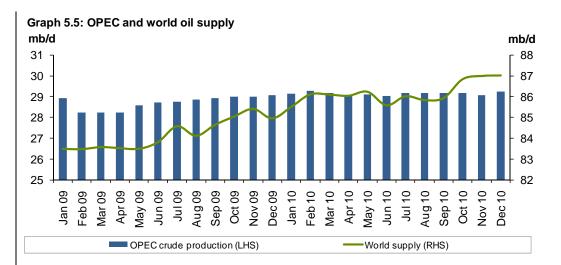
Table 5.4: OPEC ci	Table 5.4: OPEC crude oil production based on secondary sources, 1,000 b/d									
	2009	<u>2010</u>	2Q10	3Q10	4Q10	Oct 10	Nov 10	Dec 10	Dec/Nov	
Algeria	1,270	1,270	1,270	1,269	1,269	1,268	1,268	1,270	1.7	
Angola	1,786	1,786	1,850	1,749	1,637	1,687	1,664	1,561	-102.9	
Ecuador	477	473	471	475	470	470	472	470	-2.2	
Iran, I.R.	3,725	3,709	3,730	3,682	3,682	3,680	3,685	3,681	-3.8	
Iraq	2,422	2,403	2,361	2,366	2,423	2,397	2,415	2,458	42.3	
Kuwait	2,263	2,307	2,305	2,313	2,323	2,312	2,312	2,344	31.6	
Libya, S.P.A.J.	1,557	1,560	1,561	1,567	1,568	1,564	1,567	1,573	5.8	
Nigeria	1,812	2,058	1,971	2,115	2,157	2,189	2,133	2,149	15.4	
Qatar	781	804	801	805	807	800	806	814	7.9	
Saudi Arabia	8,055	8,186	8,137	8,226	8,248	8,203	8,239	8,301	62.4	
UAE	2,256	2,306	2,309	2,318	2,317	2,325	2,273	2,350	76.7	
Venezuela	2,309	2,283	2,294	2,285	2,259	2,284	2,228	2,264	36.0	
Total OPEC	28,712	29,144	29,061	29,170	29,160	29,181	29,063	29,234	171.0	
OPEC excl. Iraq	26,290	26,741	26,700	26,804	26,737	26,783	26,647	26,776	128.7	

Totals may not add due to independent rounding

# **World Oil Supply**

Preliminary data indicates that global oil supply remained relatively steady in December compared to the previous month. The decline in non-OPEC supply in December offset the gains in OPEC crude oil production. The share of OPEC crude oil in global production remained steady at 34% in December. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production from secondary sources.

OPEC crude oil production increased 0.17 mb/d in December

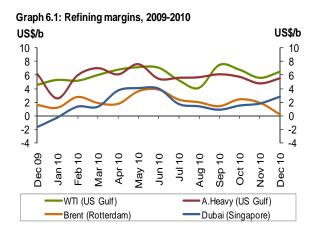


# **Product Markets and Refinery Operations**

Winter demand kept product markets sentiment bullish

The sustained momentum in the middle distillate market, created by inventories drawn in the Atlantic Basin during previous months, has received further support from stronger heating oil demand due to colder weather along with the jump in Chinese diesel demand.

The bullish sentiment and middle distillate demand across the world encouraged refiners in the US and Asia to increase throughputs, however the fuel oil surplus closed the arbitrage from the Atlantic



Basin to Asia and this market unbalance has started to exert pressure on refinery margins.

Looking ahead to the end of the refinery maintenance season, higher refinery runs could increase the unbalanced market conditions for light distillates and heavy fuel oil, keeping pressure on the refinery margins in the coming months.

The performance of the refining industry improved during December and the margins for WTI crude on the US Gulf Coast recovered by \$1/b, supported by improved gasoline and distillate cracks and a lower WTI price during the build in inventories in Cushing, Oklahoma. In Europe, the refining industry failed to protect the margins because product cracks were not able to follow the more expensive crude Brent (the WTI-Brent differential widened at the end of December) and the bad weather conditions dampened demand for transport fuels, causing the margin for Brent crude in Rotterdam to drop by \$1/b.

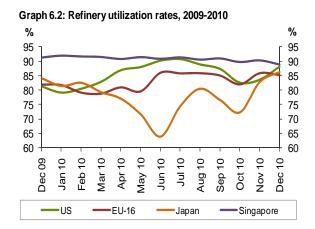
Refining margins for Dubai crude oil in Singapore were supported by the gains in light and middle distillate cracks – higher naphtha demand from the petrochemical sector and recovery in the gasoline crack spreads – which, despite the loss in fuel oil, allowed refinery margins to keep rising during December.

Refinery utilization increasing to capture the seasonal heating oil margin

## Refinery operations

American refiners boosted refinery runs during the first weeks of December by 5 % up to 15 mb/d, which contributed to a sharp gasoline and middle distillate stock build, however the stronger product demand protected the refining margins.

European refiners have kept moderated throughputs over the last months – around 85 % – in a failed effort to protect margins, while Asian refiners continued to increase runs to face the higher distillate demand.



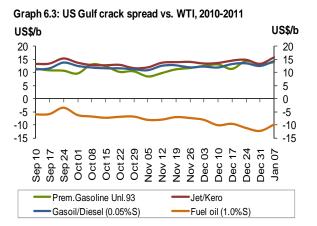
Looking ahead, positive signals in the world economy can lead to strong product demand and boost refinery utilization, however the unbalanced market will enforce moderated refinery runs.

Gasoline recovered ground in a tight East Coast market

#### US market

According to the EIA, US gasoline demand increased 271 tb/d in December – against the seasonal trend – to reach a level of approximately 9.2 mb/d, up 266 tb/d from a year ago.

In addition to the higher regional demand, some support came from the temporary supply shortage on the East Coast on the back of limitations in refinery operations and the shutdown of the Hovensa, Saint Croix, refinery FCC unit.



The incremental inflows coming from Europe were offset by additional export opportunities to Latin America, and tightening supply on the east coast allowed the return of bullish sentiment to the US gasoline market.

These developments allowed the gasoline crack spread at the US Gulf Coast to exhibit a sharp recovery to reach \$12.8/b on average in December from \$10.6/b in November.

Middle distillate demand remained strong in the US but lower than last month - 3,84 mb/d in December vs. 3,91 mb/d in November - 19 tb/d lower than the y-o-y average .

Low temperatures supported heating oil demand on the Atlantic coast and additional export opportunities of diesel to Latin America – mainly to Argentina and Peru – kept the sentiment in the US distillates market positive, which remained bullish despite higher refinery runs and the increase in stocks in December.

The US gasoil crack on the Gulf Coast has kept gaining ground over the last months to average \$12.5/b in December, 60¢/b higher than the average level of \$11.9/b in November.

Following these developments, heating oil managed money traders on Nymex held net long positions at the high level of 52.000 lots in December.

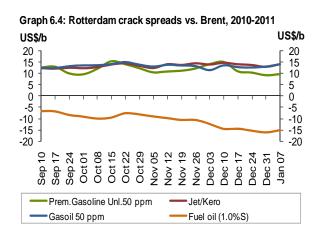
Little market activity for high sulphur fuel oil, as the arbitrage from the US Gulf Coast to Asia closed, pressuring the margins, and a lack of export opportunities to Latin America caused the fuel oil crack to lose \$2.6/b.

Product crack spread dropped in Europe despite colder weather

#### European market

The product market in Europe remained bearish as products from the bottom of the barrel became weaker and distillate demand, although strong, was lower than expected because of the bad weather.

European gasoline lost ground at the end of December because of limited demand within the region and limited arbitrage to the US, due to increasing US refinery runs and US gasoline stock builds during the month.



The gasoline crack spread against Brent crude oil showed a sharp drop of more than \$2/b from the end of November to the end of December, however, improved export

opportunities until the middle of the month to the US, West Africa – mainly to Nigeria – and the Middle East enabled the crack to remain at a similar level from the previous month of around \$12/b on average.

The European naphtha market remained healthy due to higher demand from Asia as feedstock for the stronger petrochemical sector.

Although colder weather boosted heating oil demand during the winter season, the very bad weather seen in Europe in December has dampened the demand for transportation fuels – in particular for diesel – and caused the middle distillate market to lose part of the momentum exhibited over the last months.

The gasoil crack spread against Brent crude at Rotterdam lost 40¢/b to drop from an average of \$13.0/b in November to \$12.6/b in December.

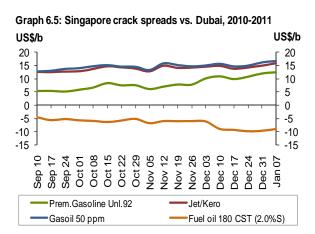
The European fuel oil market continued losing ground last month on the back of limited arbitrage opportunities and an oversupply situation coming from higher Russian exports, where mild weather limited the domestic consumption. The fuel oil crack spread against Brent dropped sharply from minus \$10.6/b in November to minus \$14.6/b in December, the lowest in the last months.

### Regional demand kept the gasoil crack on the rise and supported margins

#### Asian market

Asian naphtha market sentiment kept the ground gained due to very healthy regional demand – mainly from Taiwan – as well as crackers running at full capacity, driven by the strong petrochemical activity in the region.

The Asian gasoline market gained support from stronger regional demand, mainly from India and Indonesia. Additional support came from the supply side, as some refineries have been running in maximum gasoil mode.



The gasoline crack spread against Dubai crude oil in Singapore showed a sharp jump from an average \$7.8/b in November to \$10.8/b in December, the highest level for the last months.

Expectation of lower inflows in the coming months could offset higher regional refinery runs and could keep the Asian gasoline market bullish.

Middle distillate cracks remained supported by regional heating oil and diesel demand, due to increased power generation requirements, although the rise in Chinese refinery runs has eased the diesel supply crunch observed over the last months. Singapore onshore middle distillate stocks kept falling until mid December, when they started to rise.

The gasoil crack spread in Singapore against Dubai kept the ground gained and surpassed \$16/b at the end of December, the highest level in six months, which was maintained over the last weeks. Support is expected to continue to come from stronger Asian demand for gasoil.

The Asian fuel oil market remains under pressure, because of higher refinery runs to meet diesel demand and higher-than-expected inflows from India and the Persian Gulf, which have kept the market oversupplied and caused the crack to fall further.

Following these developments, the high sulfur fuel oil crack spread in Singapore against Dubai fell more than \$2.5/b to drop to minus \$8.7/b on average in December.

Higher refinery runs in Asia could unbalance the product market and will continue to pressure the Asian fuel oil market.

Table 6.1: Refined pro	duct prices, US\$/b				
					Change
		Oct 10	Nov 10	Dec 10	Dec/Nov
US Gulf (Cargoes):					
Naphtha		86.39	88.79	96.23	7.44
Premium gasoline	(unleaded 93)	93.35	94.38	102.07	7.69
Regular gasoline	(unleaded 87)	87.79	89.53	97.76	8.23
Jet/Kerosene	,	94.49	97.56	103.09	5.53
Gasoil	(0.05% S)	93.36	96.13	101.68	5.55
Fuel oil	(1.0% S)	74.91	76.58	78.59	2.01
Fuel oil	(3.0% S)	71.51	72.31	75.74	3.43
Rotterdam (Barges Fo	B):				
Naphtha		83.47	86.37	93.15	6.78
Premium gasoline	(unleaded 10 ppm)	96.08	96.83	103.44	6.61
Premium gasoline	(unleaded 95)	93.41	94.14	100.57	6.43
Jet/Kerosene		96.35	99.07	105.26	6.19
Gasoil/Diesel	(10 ppm)	96.88	98.67	104.15	5.48
Fuel oil	(1.0% S)	73.78	75.18	76.54	1.36
Fuel oil	(3.5% S)	71.94	74.09	76.19	2.10
Mediterranean					
Naphtha		81.91	84.55	90.81	6.26
Premium gasoline	(50 ppm)	97.81	99.91	106.73	6.82
Jet/Kerosene		94.45	96.79	102.77	5.98
Gasoil/Diesel	(50 ppm)	96.65	97.50	104.16	6.66
Fuel oil	(1.0% S)	72.90	74.36	75.98	1.62
Fuel oil	(3.5% S)	71.76	72.38	73.77	1.39
Singapore (Cargoes):					
Naphtha		82.97	87.26	93.83	6.57
Premium gasoline	(unleaded 95)	89.71	93.21	102.09	8.88
Regular gasoline	(unleaded 92)	87.66	91.15	100.02	8.87
Jet/Kerosene		94.30	97.87	103.53	5.66
Gasoil/Diesel	(50 ppm)	94.97	98.59	104.40	5.81
Fuel oil	(180 cst 2.0% S)	74.42	77.71	80.20	2.49
Fuel oil	(380 cst 3.5% S)	73.05	75.85	78.57	2.72

Table 6.2: Refinery operations in selected OECD countries							
	Refinery	throughput,	mb/d	Refinery utilization, %			
	Nov 10	Dec 10	Dec/Nov	Nov 10	Dec 10	Dec/Nov	
US	14.18	14.94	0.76	83.6	88.1	4.47	
France	1.39	1.41	0.03	75.2	75.6	0.41	
Germany	2.01	1.96	-0.05	86.1	85.9	-0.19	
Italy	1.73	1.72	-0.01	81.0	80.9	-0.05	
UK	1.39	1.37	-0.02	78.1	77.3	-0.76	
Euro16	11.22	11.14	-0.07	85.8	85.2	-0.62	
Japan	3.74	3.90	0.16	82.7	86.2	3.50	

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

# **Tanker Market**

OPEC spot fixtures increased by 13% in December

OPEC spot chartering increased by 13% in December compared to the previous month to reach 14.68 mb/d, according to preliminary data. Within the Middle East, spot chartering towards East displayed an increase of 16%, while those towards the West gained 13%. The Middle East/East spot chartering ended the month at 6.82 mb/d, up from 5.9 mb/d in November, while the Middle East/West route ended the month at 1.50 mb/d, up from 1.33 mb/d. On a y-o-y basis, OPEC spot chartering in December indicated an increase of 28% compared to the same month a year ago, while average spot fixtures for the year 2010 were 6.2% higher compared to the previous year. Similarly, global spot chartering increased in December by 9% compared to the previous month to stand at 20.03 mb/d, and about 8% higher compared to the same month a year ago.

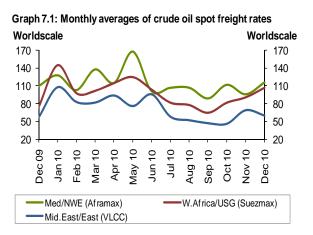
Sailings from OPEC were 1.2% higher in December, at 23.6 mb/d, up from 23.33 mb/d in the previous month, and also 3% higher than in the same month a year ago. Middle East sailings in December were at 17. 5 mb/d, about 1.5% higher than the previous month and 4% higher than a year earlier. Crude oil arrivals in the US increased by 2.5% in December compared to the previous month. In contrast, crude arrivals to North-West Europe, the Mediterranean and Japan were all lower in December compared to November.

Table 7.1: Tanker chartering, sailings and arrivals, mb/d								
				Change				
	Oct 10	Nov 10	Dec 10	Dec/Nov				
Spot Chartering								
All areas	17.93	18.37	20.03	1.66				
OPEC	12.61	12.94	14.68	1.74				
Middle East/East	5.93	5.90	6.82	0.92				
Middle East/West	1.17	1.33	1.50	0.17				
Outside Middle East	5.51	5.71	6.36	0.65				
Sailings								
OPEC	23.07	23.33	23.60	0.27				
Middle East	16.99	17.24	17.50	0.26				
Arrivals								
North America	8.57	8.45	8.66	0.21				
Europe	12.38	12.32	11.58	-0.74				
Far East	8.00	8.15	8.06	-0.09				
West Asia	4.79	4.77	4.70	-0.07				

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

Despite a considerable decline of **VLCC freight rates** by an average 9% in December compared to the previous month, average dirty spot freight rates remained in the positive territory, supported by 17% gain in Suezmax and 22% in Aframax. In the clean segment, the gains were even higher and the upward momentum continued in December with East of Suez spot freight rates increasing 13% compared to the previous month and West of Suez rates closed with a healthy gain of 26%.

Crude oil spot freight rates gained 14% in December despite a drop in VLCC spot freight rates VLCC spot freight rate losses in December 2010 came from lower activities and tonnage over-supply on all VLCC's routes. Spot freight rates on the long haul Middle East to East route registered a decline of 13% compared to the previous month. The decrease was driven mainly by tonnage over-supply, as well as the holiday season. Additionally, the decline of short term floating storage in the Middle East and Europe partially drove this tonnage oversupply.



The westbound long haul route was affected by the tonnage oversupply in the Middle East and lower activity due to the holiday season in the Northern-Hampshire. The decline in spot freight rates came despite the congestions reported in many ports on the back of weather conditions. The VLCC spot freight rate on Middle East to westbound destinations closed down by 11% in December, compared to the previous month.

VLCCs spot freight rates for the long haul route from West Africa to the East declined by 3% in December compared to a month earlier. The decrease came on the back of the decline of deliveries to India, despite higher tonnage demand for other eastern destinations. However, the decline in VLCC spot freight rates from West Africa was partially offset by the effect of the Suez Max sector. Tonnage over-supply in the Middle East as well as lower fixtures from West Africa influenced VLCC spot freight rates. The total number of VLCCs fixed from West Africa loading ports to different discharging ports in December dropped by around 11% compared to the previous month. The lower number of fixtures strongly affected the spot freight rate developments in December.

Contrary to the VLCC segment, Suezmax spot freight rates increased by 18% in December compared to the previous month. On the West Africa to West route, Suezmax spot freight rates gained 18% compared to the previous month. The increase was mainly supported by delays in ports due to weather conditions despite the decline in Suezmax fixtures from the West African ports of around 8% in December compared to a month earlier. On the Northwest Europe to US route, Suezmax spot freight rates increased by 18% compared to the previous month. The increase in freight rates was driven mainly by weather conditions in the Northern Hemisphere as well as fuel demand in the US and Europe.

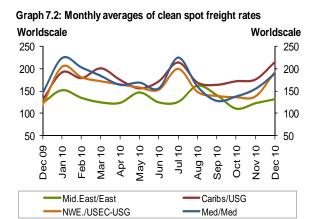
The developments of the Aframax spot freight rates were bullish in December as spot freight rates experienced increases on different routes. In East of Suez, Aframax spot freight rates gained 7% compared to the previous month on the back of winter fuel demand in China, South Korea and Japan as well as delays due to bad weather conditions. West of Suez Aframax spot freight rates increased by around 29% compared to the previous month. In West of Suez, Caribbean-US spot freight rates gained 23% supported by delays in Houston ports due to bad weather conditions and healthy winter demand. The Mediterranean Aframax spot freight rates increased by 21% for Northwest Europe and 41% for the Mediterranean due mainly to bad weather conditions, Turkish strait delays and higher exports from the Black-Sea. In the Mediterranean, around 24 vessels were held out of the market due to wind and high swell affecting spot freight rates in the region.

Table 7.2: Spot tanker crude freight rates, Worldscale Size Change 1,000 DWT Oct 10 Dec/Nov Nov 10 **Dec 10** Crude Middle East/East 230-280 46 69 60 -9 Middle East/West 270-285 34 45 40 -5 West Africa/East -2 260 52 66 64 West Africa/US Gulf Coast 130-135 81 90 106 16 NW Europe/USEC-USGC 130-135 75 84 99 15 Indonesia/US West Coast 80-85 90 105 112 7 Caribbean/US East Coast 80-85 96 127 157 30 Mediterranean/Mediterranean 80-85 117 94 133 39 Mediterranean/North-West Europe 80-85 116 20 112 96

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

Upward momentum in clean spot freight rates continued in December

The clean tanker spot freight rates continued the upward momentum and gained some ground in December supported by demand. winter bad weather conditions and petrochemical activities. ΑII reported routes increased in December compared to the previous month. Clean East of Suez spot freight rates gained 14%, while West of Suez gained 26% on average.



In the East, clean tanker spot freight rates from the Middle East

to East experienced an increase of 7% compared to the previous month. The increase was supported by the higher activity between Middle East and India, China, South Korea and Japan as well as bad weather conditions that caused delays. The higher activity between Middle East and India was backed by stronger gasoil imports, while the Middle East to China route was dominated by kerosene and gasoil trade. Singapore to Far East freight rates were also affected by bad weather conditions as well as a higher tonnage demand for naphtha trade.

The West of Suez clean tanker spot freight rates increased on all reported routes in December compared to the previous month. Clean spot freight rates in the Caribbean route rose by 22% while clean Northwest Europe to the US exhibited healthy growth of 40% compared to last month. The upward momentum in spot freight rates on the Caribbean to US route was supported by the rush of charterers to cover their positions before the holiday season as well as bad weather conditions on the Gulf Cost that caused various delays. Northwest Europe to the US clean spot freight rates increased by 40% compared to the previous month. This record gain was supported by the open arbitrage of gasoline, diesel and naphtha as well as bad weather conditions on both sides of the Transatlantic.

In the Mediterranean, clean spot freight rates increased in December compared to the previous month, supported by bad weather conditions as well as delays in the Turkish Straits and arbitrage cargos to the Far East and Asia Pacific. Clean spot freight rates for tankers moving between both sides of the Mediterranean rose by 22% in December compared to the previous month, while clean spot freight rates for tankers moving from the Mediterranean to Northwest Europe gained 21%. The increased in both routes was driven by delays and long-haul tonnage demand to the East and Far East due to open arbitrage of naphtha, gasoil and kerosene.

Table 7.3: Spot tanker product freight rates, Worldscale								
	Size							
	1,000 DWT	Oct 10	Nov 10	Dec 10	Dec/Nov			
Products								
Middle East/East	30-35	111	123	132	9			
Singapore/East	30-35	127	136	163	27			
Caribbean/US Gulf Coast	38-40	171	175	214	39			
NW Europe/USEC-USGC	33-37	136	138	193	55			
Mediterranean/Mediterranean	30-35	138	155	189	34			
Mediterranean/North-West Europe	30-35	148	165	199	34			

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

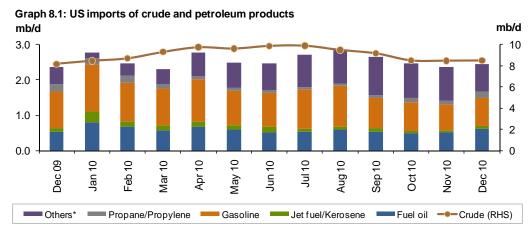
# Oil Trade

US crude oil imports remained stable at nearly 9.5 mb/d in December

#### **USA**

US crude oil imports remained almost stable at around 8.48 mb/d in December. It was the third consecutive month when imports stayed below 9 mb/d. However, when compared to a year ago, US crude oil imports were 314,000 b/d or 3.8% higher in December 2010. Contrary to the previous years when imports fell considerably in December because of a stock draw for end-year taxes purposes, in December 2010 US crude oil imports didn't experience that trend. Nevertheless, on a weekly basis, US crude oil imports did drop 367,000 b/d in the last week of December compared to the previous week, while in the first week of the month they averaged more than 9 mb/d. One of the main reason that imports didn't fall in December as usual was because of strong high refineries activity.

For the whole of 2010, US crude oil imports averaged 9.14 mb/d, some 120 tb/d or 1.4% more than the previous year. The increase in US crude oil imports in 2010 reflects the growth in refinery throughput and the stock build over 2009. It is worth noting that US crude oil imports remained below 10 mb/d over the last three years.

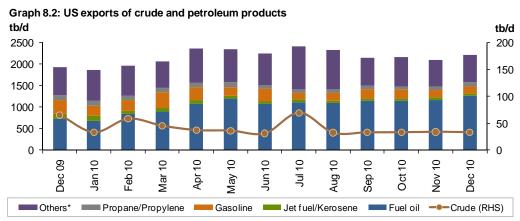


\*Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene

Product imports saw a stronger increase compared to crude oil. They increased by 81 tb/d or 3.4% to average around 2.5 mb/d and showed y-o-y growth of 3.6%. The increase in product imports was driven by stronger seasonal demand because of very cold weather. Following the same trend as crude oil, product imports fell sharply in the last week of December, due to the holidays, to 1.7 mb/d compared to 2.6 mb/d in the week-ending 3 December. Among products, gasoline and distillate imports increased the most in December. Distillate and fuel oil imports rose by more than 100%, supported by strong demand due to cold weather and gasoline showed the second largest increase of more than 81%. However, on a yearly basis, US product imports dropped for the fourth consecutive year to average less than 2.5 mb/d in 2010 compared with 3.6 mb/d in 2006. The low level of imports reflects the slowing in demand and high level of product inventories.

Crude oil exports remained stable at 33 tb/d but products rose to 2.2 mb/d, up 5.2% from November and almost 30% from a year ago. The rise in product exports was due to a combination of slowing demand, ample inventories and increasing products from refineries.

As a result, US total net imports stood at nearly 8.7 mb/d in December, almost unchanged from the previous month and the same month a year ago. Nevertheless, considering the whole year, US net oil imports remained affected by the economic crisis. Net oil imports fell further in 2010 to average less than 9.7 mb/d compared to nearly 9.9 mb/d in 2009 and 11.1 mb/d in 2008 while in 2005-2006 net oil imports were hovering around 12.4 mb/d.



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

US crude oil imports from OPEC Member Countries fell below 4.0 mb/d in October compared to more than 4.7 mb/d in September 2010, resulting in a share of 46.8%. Among OPEC Member Countries, Saudi Arabia remained the main supplier with 1.1 mb/d or 13.1% of total US crude oil imports. Venezuela was the second main supplier with around 10.5% followed by Nigeria with 9.6%.

Non-OPEC countries accounted for 53.2% in US crude oil imports in October with Canada leading the share with 21.7% and standing as the main supplier of the US, followed by Mexico with 13.9%.

On the product side, OPEC Member Countries contributed to 12% in US product imports of October with Algeria leading the Group with 7.3%, followed by Nigeria with 2.2% and Venezuela with 1.6%.

Table 8.1: US crude and product net imports, tb/d								
	Change							
	Oct 10	Nov 10	<u>Dec 10</u>	Dec/Nov				
Crude oil	8,466	8,433	8,450	18				
Total products	467	269	242	-27				
Total crude and products	8,933	8,702	8,693	-9				

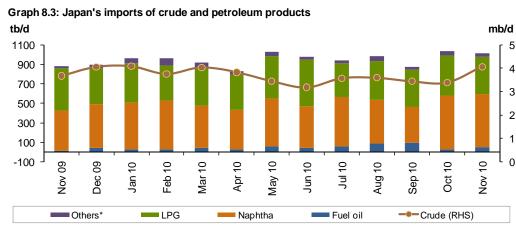
## Japan

Japan's crude oil imports rebounded from their low level of 3.39 mb/d a month earlier to average almost 4.07 mb/d in November, the second highest since the 4.08 mb/d of January 2010. The surge of almost 20% in November was attributed to strong seasonal demand from refiners ahead of the winter season, since stocks were very low. Yet, most of the imports went to stocks in order to allow refiners to be ready for the seasonal demand. Recent data on Japan's crude oil inventories confirm this fact. When compared to a year ago, November crude oil imports remained almost 11% higher in 2010.

For the period January-November 2010, Japan's crude oil imports showed marginal growth of 62 tb/d or 1.7% from the same period a year earlier. However, despite the increase, Japan's crude oil imports in 2010 will likely remain below 4.0 mb/d for the second year in a row. In 2008, Japan's crude oil imports averaged almost 4.2 mb/d, before they dropped along with the economic crisis.

Product imports, excluding LPG, edged up 1.1% in November, the second increase in a row, resulting in a monthly average of 629 tb/d, the highest so far in 2010. Including LPG, Japan's product imports fell 21 tb/d to 1.01 mb/d in November but were 130 tb/d or nearly 15% higher than a year earlier.

Japan's crude oil imports rose sharply in November

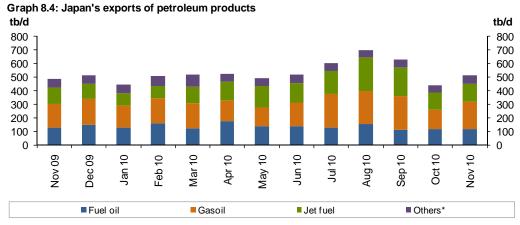


\*Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax

Japan's product exports rose by more than 70 tb/d in November because of strong demand for middle distillates in the Asia-Pacific. Gasoil was the main contributor to the rise in product exports.

With product exports at 514 tb/d, Japan's total net oil imports stood at almost 4.6 mb/d in November, up 581 tb/d or 14.6% from the previous month. Crude accounted for 4.07 mb/d, following the increase of 676 tb/d, and products accounted for almost 500 tb/d, after having dropped by 94 tb/d from a month earlier.

So far, Japan's net oil imports averaged 4.1 mb/d during the period January-November 2010, up 180 tb/d or 4.7% from a year earlier.



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

Japan imported 1.275 mb/d of crude oil from Saudi Arabia in November, up 368 tb/d from the previous month. That has kept Saudi Arabia the main supplier for Japan's crude oil imports. The United Arab Emirates, the second-largest supplier, saw its exports also increasing, but by just 18 tb/d to average 0.74 mb/d. The second largest increase of crude oil imports in terms of volume was attributed to Qatar, which exported 0.50 mb/d to Japan, up 147 tb/d from October. Therefore, Qatar stood as the third main supplier of Japan's crude oil followed by Iran with 0.37 mb/d.

Table 8.2: Japan's crude and product net imports, tb/d										
	<u>Sep 10</u>	Oct 10	Nov 10	Nov/Oct						
Crude oil	3,445	3,394	4,069	676						
Total products	247	592	498	-94						
Total crude and products	3,692	3,986	4,567	581						

China crude oil imports rebounded from a 19-month low, expected to show a record high in 2010

#### China

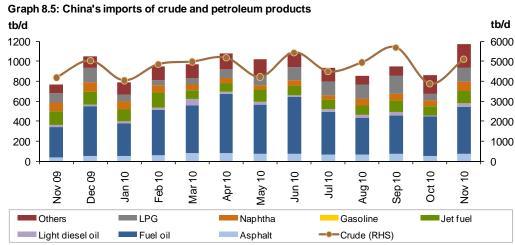
shortage.

China's crude oil imports rose sharply in November to average 5.11 mb/d after having declined to a 19-month low level of 3.87 mb/d a month earlier, implying an increase of almost 32% from October and 20% from November a year ago. The surge in November's import came as a result of increasing refinery runs to almost full capacity in order to respond to a diesel shortage as the government urged companies to increase domestic diesel supplies.

For the period January-November, China's crude oil imports averaged almost 4.8 mb/d, up 788 tb/d or 20% from the same period in 2009, reflecting continued growing demand and increasing inventories. However, China's crude oil imports for the whole of 2010 will likely hit a record high.

Following the same trend, China's product imports jumped 331 tb/d or 36% in November to 1.17 mb/d, the highest since mid-2009, in response to diesel shortage. Compared to a year earlier, product imports were more than 53% higher in November 2010.

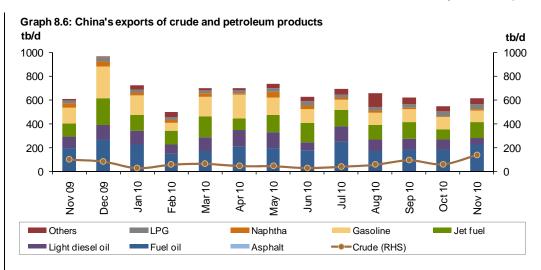
Altogether, China's crude oil and product imports averaged 6.28 mb/d, up 1.54 mb/d from October, but remained below the 6.6 mb/d reached in September.



Crude oil exports rose 80 tb/d to 141 tb/d and product exports increased 65 tb/d to 613 tb/d. However, exports of gasoline and distillates fell sharply. Gasoline imports fell by 11% and light diesel oil imports plummeted by almost one-third due to the diesel

The combination of imports and exports left China's total net oil imports at 5.52 mb/d in November, implying an increase of almost 34% from the previous month and 31% from a year ago. For the first eleven months of 2010, China's net oil imports stood at around 5.0 mb/d compared to 4.3 mb/d year ago.

China imported 0.89 mb/d of crude oil from Saudi Arabia in November, down 3% from the previous month. Imports from Angola jumped by more than 0.1 mb/d to 0.73 mb/d.



For the first eleven months, China's imports from Saudi Arabia averaged around 0.88 mb/d, up 9% from a year ago and kept Saudi Arabia the main supplier with 17.4%. Imports from Angola rose sharply in 2010 to average 0.81 mb/d in January-November, up 0.19 mb/d from the same period in the previous year. However, imports from Iran fell 46 tb/d or 9.6% to 0.43 mb/d, but Iran kept its position as the third main supplier of China's crude oil supplies with 11.6%.

Table 8.3: China's crude and product net imports, tb/d								
	<u>Sep 10</u>	Oct 10	<u>Nov 10</u>	Nov/Oct				
Crude oil	5,594	3,813	4,967	1154				
Total products	327	312	558	246				
Total crude and products 5,921 4,126 5,525 1399								

### India

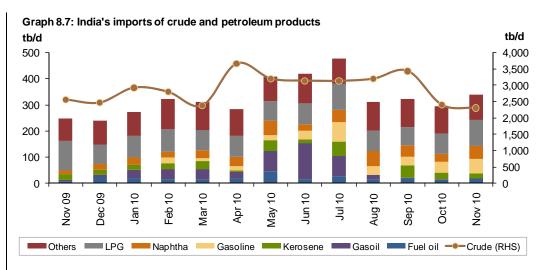
India's crude oil imports fell further in November to average 2.3 mb, down 96 tb/d or 4.0% from October and down 1.1 mb/d from September. On a yearly basis, the decline was significant at 29.5%. This sharp drop in crude oil imports was due to lower refinery runs because of a shutdown at Reliance Industries' largest refinery for repairs.

During the period January-November, Indian crude oil imports averaged 2.96 mb/d or 1.3% down from the 3.0 mb/d in the same period of 2009. Lower crude oil imports during the last two months were the main reason behind the drop of the first eleven months of 2010 compared to a year earlier.

The combination of the refinery shutdown and increasing domestic product consumption pushed product imports up by 14% in November to average 338,000 b/d, the highest since July 2010. Compared to a year earlier, growth amounted to 36%. Diesel imports rose 3.3% and gasoline jumped 39.8%, supported by strong new vehicle purchases. Naphtha imports averaged 49,720 b/d, up 59%. Kerosene was the only product which saw declining imports in November. Kerosene imports fell almost 28% to average 17,400 b/d. and fuel oil imports also increased to 96,950 b/d and 17,400 b/d respectively in November. LPG imports rose by 26% and fuel oil by 21% to 97,000 b/d and 17,400 b/d, respectively.

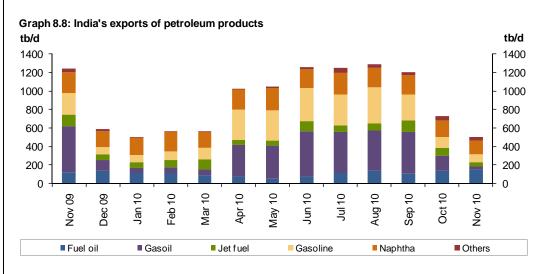
India's product imports averaged 342,000 b/d during January-November 2010, slightly more than 6% compared to the same period last year, as a result of stronger domestic consumption.

India's crude oil imports fell in November due to lower refinery runs



Refinery outage limited product exports which fell sharply by 227 tb/d or 31% in November to average 500,000 b/d, the lowest level since the 501, 000 b/d of January 2010. Compared to November 2009, the decline was even higher, by 60%. Diesel and gasoline exports declined by 78.7% and 28.8%, respectively, in November.

Product exports averaged 905,000 b/d or 2.5% during the first 11 months of 2010, 2.5% less than the same period last year. Increasing refining runs was not enough to boost exports during this period because of stronger domestic demand. Naphtha exports in November reached 148,580 b/d, down 16.3% from October. Jet fuel exports also dropped by 46.8% to 44,710 b/d.



India's net oil imports reached 2.14 mb/d in November, up 8.8% from the prevous month, but down 5.8% from November a year ago. During the period January-November India's net oil and product imports averaged 2.39 mb/d, almost the same level reached over the same period last year.

Table 8.4: India's crude and product net imports, tb/d								
Sep 10 Oct 10 Nov 10								
Crude oil	3,430	2,400	2,304	Nov/Oct -96				
Total products	-880	-431	-162	269				
Total crude and products	2,550	1,969	2,142	173				

#### **FSU**

FSU crude oil exports in November slipped after a significant increase in October **FSU crude oil exports** dropped by 2.8% in November to average 6.56 mb/d after having increased by 6% in October. Crude oil exports were also down by 1.8% compared to a year earlier. Russian crude exports, which fell sharply, were the main contributor to the region's export decline, which might be attributed to a higher export duty.

Deliveries through the Russian pipeline fell to 3.9 mb/d in November, down 156,000 b/d from October as the export duty increased. Deliveries into Russia westbound through the Black Sea and the Baltic fell to 2.3 mb/d. The cut was due probably to the impact of the start of direct pipeline shipments to China through the spur from the ESPO line.

Rosneft officially began shipping oil direct to China in November through the ESPO line. Around 60,000 b/d were exported last month through this line which has a spur capacity of 300,000 b/d. It is expected that in the first quarter of 2011 the new pipeline will reach full capacity, as Russia is planning to supply China with 300,000 b/d of crude oil for the next 20 years.

Exports through the Kozmino pipeline fell by 30,000 b/d but ESPO Blend crude oil exports on this route were still relatively strong at 326,000 b/d. Exports via the Druzhba pipeline system rose 3.9% to 1.16 mb/d, supported by the cold winter in Europe.

Russian rail deliveries rose to 356,600 b/d in November compared with 251,000 b/d in October, mostly due to a big increase in transit shipments of Kazakh Tengiz crude. Russian rail exports overland also increased, supported by Chinese demand.

CPC blend exports in November dropped to 665,000 b/d from 776,000 b/d the previous month. This was attributed to maintenance at Kazakhstan's Karachaganak field.

BTC Blend deliveries from Ceyhan also dropped to average 776 tb/d, down 6.1% from the previous month, nevertheless the export level is still healthy.

Year-to-date, crude exports from the FSU region reached an average of 6.73 mb/d or 1.5% more than over the same period of 2009.

**FSU product exports** stood at 9.14 mb/d in November, down 3.9% from a month earlier. The decline was mostly attributed to the drop in shipment activity due to the end of river navigation season. Fuel oil exports fell 4.7% to 1.19 mb/d, reflecting the beginning of a cold winter in the region which also contributed to the decline of VGO exports, which dropped by 30.8% to 200 tb/d. Diesel exports showed a normal seasonal decline of 8.8%, reflecting the end of agricultural activity in some consumer countries. On the other hand, gasoline exports increased 3.7% on the month. The increase reflects weakening domestic demand. Naphtha exports surged 14.1% to 259 tb/d as demand is growing, particularly in Asia. Jet fuel exports from the FSU also increased to 18,000b/d in November from just 8,000 b/d in October.

For the period January-November, product exports from the FSU averaged 2.82 mb/d, almost unchanged from the same period of 2009.

Table 8.5: Recent FSU exp	orts of cru	ıde and p	roducts by	y source,	tb/d		
	2008	2009	<u>1Q10</u>	2Q10	3Q10	Oct 10*	Nov 10*
Crude							
Russian pipeline							
Black Sea	1,248	1,201	1,027	976	1,038	941	898
Baltic	1,559	1,577	1,526	1,629	1,530	1,640	1,452
Druzhba	1,077	1,112	1,123	1,091	1,155	1,118	1,162
Kozmino	n.a.	n.a.	n.a.	323	320	356	326
Total	3,905	3,922	3,932	4,019	4,043	4,054	3,898
Other routes							
Russian rail	283	280	364	324	331	251	205
Russian-Far East	220	283	293	296	204	296	305
Kazakh rail	17	18	18	18	6	0	0
Vadandey	20	155	163	167	150	138	142
Kaliningrad	0	0	21	22	24	30	20
CPC	675	736	736	732	755	776	665
BTC	648	805	679	809	812	816	766
Kenkiyak-Alashankou	121	157	205	200	205	202	208
Caspian	185	281	296	271	195	182	197
Total crude exports	6,089	6,653	6,711	6,858	6,726	6,746	6,557
Products							
Gasoline	210	229	215	155	127	120	124
Naphtha	217	273	273	270	289	227	259
Jet	37	52	27	31	23	8	18
Gasoil	810	949	976	892	822	867	791
Fuel oil	1,069	1,114	1,445	1,312	1,331	1,243	1,185
VGO	196	233	238	287	232	289	200
Total	2,539	2,850	2,790	2,947	2,824	2,756	2,577
Total oil exports	8,628	9,503	9,493	9,805	9,542	9,502	9,135

\* Preliminary Totals may not add due to independent rounding

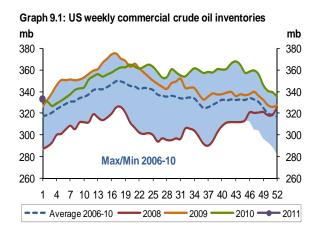
Source: Nefte Transport, Global Markets, Argus Fundamentals, Argus FSU and OPEC

# **Stock Movements**

US commercial stocks fell in December, but remained 75 mb above the five-year average

#### **USA**

A the end of December, US commercial oil inventories fell for the fourth consecutive month by 28.0 mb. above the seasonal draw. to stand at 1078.1 mb. The stock draw was mainly driven by crude oil which declined by 24.4 mb, while product stocks dropped by only 3.6 mb. Despite this substantial reduction, US commercial oil stocks remained at 74.8 mb or 7.5% above the five-year average. However, it should be noted that the overhang has been reduced since August when it reached



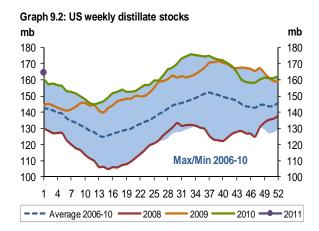
110 mb. Compared to the end of 2009, US commercial oil stocks stood at 28.3 mb or 2.7% above the same period a year ago.

The fall in **US** commercial crude stocks to 335.3 mb at the end of this year put them at the lowest level since January 2010. This draw came on the back of lower crude oil imports which declined by 170 tb/d to average 8.39 mb/d. Higher refinery runs also contributed to the drop in crude oil stocks. In fact, US crude oil inputs to refiners averaged 15.0 mb/d during December, 100 tb/d more than a month earlier. This corresponds to a utilization rate of 88.0%, 0.5% more than the previous month. Additionally, year-end tax considerations were also behind the drop in crude. Although falling considerably at the end of December, US crude oil stocks remained at 10.1 mb or 3.1% above a year ago at the same time and 28.5 mb or 9.3% above the five-year average.

On the product side, product stocks fell to end the month at 742.8 mb, but the picture was mixed within components. Gasoline stocks rose further by 8.0 mb to stand at 218.1 mb, the highest level since September 2010. They were 4.3 mb or 2.0% above the five-year average, but still remained 5.1 mb or 2.3% below a year ago at the same time. This build occurred despite gasoline demand averaging 9.2 mb/d, up 2.8% from the same period last year. Distillate stocks also rose by 4.1 mb after three consecutive months of decline to stand at 162.1 mb owing to higher production which reached 4.63 mb/d, 170 tb/d more than a month earlier. Distillate demand in December stood at 3.89 mb/d, 180 tb/d more than the previous month and 150 tb/d more than a year ago, driven by an increase in heating oil demand due to cold weather. With this build, the surplus in middle distillates with regard to the five-year average remained higher at 25 mb, or 18.2%. However, the deficit with a year ago has narrowed to 2.3% from 7.6% a month earlier. In contrast to the build in gasoline and middle distillate stocks, residual fuel oil and jet fuel oil declined by 2.0 mb and 0.9 mb respectively. At 38.9 mb, residual fuel oil stocks stood at 1.7% above last year over the same period, but indicated a deficit of 1.5% with the seasonal norm. Jet fuel stocks showed a surplus of 1.6% with a year ago and 11.1% with the five-year average.

The latest data for the week ending 7 January shows US commercial stocks rose 0.9 mb to 1064.6 mb, representing an overhang of almost 50 mb for the week. Crude oil stocks declined by 2.2 mb to 333.1 mb. Over the last six weeks, US commercial crude oil stocks lost almost 27 mb, the biggest six-week decline since January 2008. However, in days of forward cover, they are above the historical norm. In absolute terms, they stood at 19 mb above the five-year average. This drop came despite a 450 tb/d increase in crude oil imports to 8.9 mb/d and lower refinery runs as refineries were operating at 86.4%, 1.6 percentage points less than the previous week. It should be noted that Cushing stocks dipped slightly by 0.1 mb to 37.4 mb, but remain near the all-time high, which put pressure on WTI prices compared with other crudes.

In contrast to the drop in crude stocks, total product stocks went up by 3.1 mb leaving them at 30.0 mb above the five-year average. Gasoline stocks rose 5.1 mb to 223.2 mb, leaving them 9.2 mb or 4.1% above the seasonal average. This build came on the back of higher imports, which rebounded by 360 tb/d to 0.9 mb/d gasoline demand remained unchanged at 8.8 mb/d. Distillate stocks also rose 2.7 mb 164.8 mb, leaving them 23.2 mb or 16.4% above the five-year average.



However within distillate components, heating oil inventories declined by 0.8 mb for the fifth consecutive week to 44.4 mb, reflecting healthy heating oil demand. Winter demand will keep some bullishness in the heating oil market, leading to more stock draws in coming weeks.

Table 9.1: US onland commercial petroleum stocks, mb									
		Change							
	Oct 10	Nov 10	Dec 10	Dec 10/Nov 10	Dec 09	<u>07 Jan 11</u> *			
Crude oil	365.8	359.7	335.3	-24.4	325.2	333.1			
Gasoline	209.8	210.2	218.1	8.0	223.3	223.2			
Distillate fuel	161.6	158.1	162.1	4.1	166.0	164.8			
Residual fuel oil	41.1	40.9	38.9	-2.0	37.2	39.4			
Jet fuel	44.2	44.9	44.1	-0.9	43.4	44.1			
Total	1119.0	1106.1	1078.1	-28.0	1049.8	1064.6			
SPR	726.6	726.5	726.5	0.0	726.6	726.5			

<sup>\*</sup> Latest available data at time of report's release

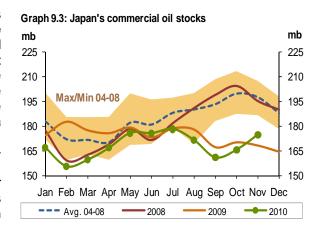
Source: US Department of Energy's Energy Information Administration

In November, Japanese stocks

Japanese stocks rose, while preliminary data for December indicates a further build

#### Japan

In November, commercial oil stocks in Japan continued to build for the second consecutive month and rose by 9.1 mb to stand at 174.7 mb, the highest level since July 2010. With this build, the deficit with a year ago during the last four months has switched to a surplus of 6.7 mb or 4.0%. However the gap with the last fiveyear average remained negative, indicating a deficit of 22.8 mb or 11.5%. The build in November was mainly driven by crude which increased by 8.2 mb, while products saw a small build of 0.9 mb.



Japanese crude oil inventories in November reversed the downward trend for the last three months and rose to 97.1 mb, or 7.4 mb above a year ago at the same time, while remaining 15.8 mb or 14.0% below the five-year average. It is worth noting that the substantial build in crude oil has helped to narrow the deficit with the seasonal norm from 22% in the previous month to just 14% in November. The build in crude oil stocks is mainly driven by a considerable increase in crude oil imports. In fact, in November, Japanese crude oil imports rose by almost 600 tb/d versus the previous month to average 4.1 mb/d, 11% higher than a year ago at the same time. However this build came despite an increase in crude runs as refinery runs were operating at highest rates to meet the expected increase in heating oil demand. In November, the refinery operation rate averaged 82.7%, 10.5% higher than the previous month and 7.7% above

a year ago at the same time. During the week ending 27 November, refiners were running at very high rates averaging 85.5%, the highest since 28 February 2009.

Total product stocks in November rose for the second consecutive month ending the month at 77.6 mb to reach the highest level in one year, but still remained 7 mb or 8.2% below the five-year average. The main reason behind the build in product stocks was the increase of 9.5% in refinery output. This build came despite the rise in Japanese total oil product sales by 10.7% versus the previous month or 2.8% from a year earlier, when product sales dropped to the lowest level since November 1987. Within products, the picture was mixed; gasoline and naphtha stocks saw a build, while distillates and residual fuel oil experienced a drop. Indeed, gasoline stocks rose 0.5 mb to end the month at 13.67 mb, almost at the same level as last year, but slightly higher than the historical norm. This build could be attributed to a 4.5% rise in gasoline output, while the increase of 3.0% in gasoline sales abated this build. Naphtha also rose 1.1 mb to 12.8 mb, ending the month 3.0 mb above a year ago in the same month. The combination of higher output and lower domestic sales were behind this build. In contrast, middle distillate inventories dropped 0.5 mb to 35.0 mb, remaining at 8.2% below a year ago and 20.8% less than the five-year average. Within distillates, all components dropped with kerosene leading the drop by 2.0% followed by gasoil and jet fuel as both dropped by 0.5%. The drop in kerosene was driven by a substantial rise in kerosene sales - used mainly for heating oil - by almost double from the previous month and a near 6% increase from a year ago at the same time. The decline in gasoil stocks also was driven by a 0.7% increase in gasoil inland consumption or 6% above a year ago over the same period. The rise by 2.0% in jet fuel domestic sales combined with a 3.9% decline in output was behind the drop in jet fuel oil stocks. Fuel oil stocks saw a slight drop of 0.1 mb to end the month at 16.2 mb, remaining 2.2% lower than a year ago over the same period and 17.4% below the five-year average. The drop in total fuel oil stocks was driven by the fall in fuel oil A stocks, while the other component fuel oil B.C saw a slight build. In fact, fuel oil A stocks went down by 2.9% as domestic sales rose by almost 16% versus the previous month. Fuel oil B.C stocks increased by 0.6% driven by higher imports as well as by lower domestic sales, as it is used mainly by large ships and utilities.

Table 9.2: Japan's co	ommercial oil st	ocks*, mb			
				Change	
	<u>Sep 10</u>	Oct 10	Nov 10	Nov 10/Oct 10	Nov 09
Crude oil	89.1	88.9	97.1	8.2	89.7
Gasoline	12.4	13.2	13.7	0.5	13.7
Naphtha	11.2	11.7	12.8	1.1	9.9
Middle distillates	32.3	35.5	35.0	-0.5	38.1
Residual fuel oil	15.8	16.3	16.2	-0.1	16.6
Total products	71.8	76.7	77.6	0.9	78.3
Total**	160.9	165.6	174.7	9.1	168.0

<sup>\*</sup> At end of month

Source: METI, Japan

Preliminary indications for November based on weekly data published by PAJ show that commercial oil stocks rose further by 1.6 mb for the third consecutive month to stand at 176.3 mb. Crude and total products saw a mixed picture. Crude oil rose by 8.0 mb, almost the same rate as the previous month, while product inventories declined by 6.4 mb. Despite this build, Japanese total commercial oil stocks remained at 11.3% below the five-year average, however the surplus with a year ago observed in November has widened to 7.4% from 4.0 % a month earlier. The build in crude oil stocks came mainly from robust imports as refineries were running at very high rates, much more than the average for the month of November. In fact, at the end of the month, refinery operation rates stood at 87.9%, 8.7% above the rate seen the same week last year. The decline in total inventories was driven by distillates and naphtha and to a lesser extent to gasoline, while residual fuel is the only product experiencing a drop. Distillate stocks fell by 5.0 mb to stand at 30.0 mb, widening the deficit with the five-year average to 9.8% from 8.2% a month earlier. The bulk of the decline came from kerosene products driven by colder-than-normal weather. Gasoline stocks fell by 0.8 mb to 12.9 mb on the back of higher stronger demand during the year-end period. Gasoline

<sup>\*\*</sup> Includes crude oil and main products only

stocks stood at 0.8% above a year ago over the same period and 6.3% higher than the seasonal norm. Residual fuel stocks went up by 1.1 mb to end the month at 17.3 mb, leaving them 1.0% above a year ago at the same time and 6.3% above the five-year average.

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

Product stocks in Singapore fell in November, preliminary data for December shows a further drop At the end of November, **product stocks held in Singapore** fell by 0.9 mb for the second consecutive month to stand at 44.98 mb, the lowest level since June 2010. At this level, product stocks stood at 3.0 mb or 6.3% below a year ago at the same time. Within products, middle distillates and fuel oil saw a drop, while light distillate inventories experienced a build. The draw of 0.7 mb in middle distillates could be attributed to higher imports by Indonesia combined with some arbitrage cargoes headed for Europe. At 14.18 mb, middle distillate stocks stood at 0.8 mb or 6.6% above a year ago at the same time. Fuel oil stocks also dropped 0.45 mb to 20.39 mb, leaving them at 4.0 mb or 16% less than a year earlier at the same period. The drop came on the back of lower western arbitrage arrivals. Light distillate stocks rose 0.2 mb to end the month at 10.41 mb, which represents a surplus of 0.1 mb or 0.8% compared to a year ago at the same time. This build came as result of weaker gasoline demand in the region, however, with the expectation of firmer gasoline demand from Indonesia and increased demand from Oman due to refinery problems, light distillate stocks are expected to decline in coming months.

**Preliminary data** for the end of December based on weekly information showed that product stocks in Singapore fell further by 0.61 mb to stand at 44.38 mb. With this draw, total product stocks stood at 0.6 mb or 1.4% below a year ago over the same period. Light and middle distillates saw a drop, as they declined by 1.2 mb and 0.6 mb respectively, while fuel oil stocks experienced a build of 0.6 mb. The drop in light distillates to 9.2 mb came on the back of stronger demand from Indonesia and Vietnam, Asia's two largest gasoline importers. It was reported that Indonesian Pertamina imported 8.0 to 8.5 mb of gasoline compared to just 6.8 mb for November. Light distillate stocks stood at 1.9 mb or 1.7 % below a year ago at the same time. Middle distillate stocks dropped to 13.5 mb showing a deficit of 1.3 mb or 8.9% with a year earlier. The fall in distillate stocks came on the back of higher imports from Malaysia. Middle distillate stocks are expected to decline further in coming months as Vietnam will buy more spot cargoes to feed growing demand.

Product stocks in ARA rose in November, while December preliminary data shows a further build Product stocks in ARA at the end of November reversed the decline observed over the last two months and increased by 1.12 mb to 36.54 mb. However, despite this build, product stocks in Singapore remained 1.2 mb or 3.2% below last year at the same time. Within products, the picture was mixed: gasoline, fuel oil and jet fuel oil stocks experienced a drop, while naphtha and gasoil saw a build at the end of November. Gasoline inventories saw a large drop of 2.45 mb to stand at 4.18 mb, the lowest level since more than a year, leaving them almost 39% below a year ago over the same period. The drop came on the back of higher prices which reached a two-year high driven by a severe winter in the region. Higher imports, especially from China, also supported this drop. Jet fuel and fuel oil stocks fell by 0.52 mb and 0.23 mb respectively, however, jet fuel stocks stood at a deficit of 23% versus last year, while fuel oil stocks represented a surplus of 17%. In contrast, gasoil stocks saw a large build of 3.75 mb to 21.41 mb, widening the surplus with a year earlier to 9.3%. This build came as imports surpassed exports to the UK and the Mediterranean. The contango structure of gasoil is also supporting more gasoil storage. Naphtha also rose by 0.57 mb to stand at 0.87 mb, supported by heavy imports from Russia.

**Preliminary data** for December based on weekly information shows product stocks increased further by 0.3 mb to 37.16 mb, leaving them at 4.9 mb or 11.7% below a year ago over the same period. The main build in products came from gasoline, fuel oil and jet fuel, while gasoil and naphtha experienced a drop. Gasoline stocks rose 0.5 mb to 4.71 mb, but remained at 3.2 mb or 40% below a year ago at the same period. This build was driven by higher gasoline imports, which outpaced exports, mainly to the US. Fuel oil stocks also rose 0.1 mb to 5.75 m, however despite this build, they remained 0.5 mb or 8.4% below a year earlier over the same period. Gasoil stocks reversed the build incurred last month and declined by 0.75 mb to stand at 20.66 mb, but remained 0.45 mb or 2.2% higher than a year earlier. The drop in gasoline inventories could be

attributed to cold weather pushing demand higher, leading to more stock draws.

# **Balance of Supply and Demand**

Required OPEC crude for 2010 estimated at 29.0 mb/d, flat from a year earlier

### Estimate for 2010

Demand for OPEC crude for 2010 has been revised up by 0.1 mb/d to currently stand at 29.0 mb/d. This revision reflects mainly the upward adjustment in world oil demand. All the quarters saw an upward revision with the bulk of the adjustment occurring in the third quarter, which was revised up by 0.2 mb, reflecting up-to-date data. With this adjustment, the demand for OPEC crude stood at the same level as 2009. The first quarter of the year is still showing a drop of 0.9 mb/d, while the second quarter is estimated to see slight growth of 0.1 mb/d. The third quarter is estimated to see positive growth of 1.4 mb/d, while the fourth quarter is projected to return to negative growth with 0.4 mb/d.

Table 10.1: Summarized supply/demand be	alance for	2010, ml	o/d			
	2009	1Q10	2Q10	3Q10	4Q10	2010
(a) World oil demand	84.49	84.97	85.16	87.38	86.82	86.09
Non-OPEC supply	51.13	52.12	52.11	51.96	52.82	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	56.72	56.88	56.77	57.79	57.04
Difference (a-b)	29.01	28.25	28.28	30.61	29.03	29.05
OPEC crude oil production	28.71	29.19	29.06	29.17	29.16	29.14
Balance	-0.30	0.93	0.78	-1.44	0.13	0.09

Totals may not add due to independent rounding

### Forecast for 2011

The demand for OPEC crude for this year is projected to average 29.4 mb/d, showing an upward revision of 0.2 mb/d from the previous assessment, mainly due to the adjustment of world oil demand, as total non-OPEC supply including OPEC NGLs remained almost unchanged. The bulk of the revision came from the third and fourth quarter as they were revised up by 0.4 mb/d and 0.3 mb/d respectively. The required OPEC crude is forecast to increase by 0.4 mb/d this year. The first quarter is expected to see growth of around 0.3 mb/d, while the second quarter is forecast to see a slight increase of 0.1 mb/d. The third quarter is projected to see a rise of 0.3 mb/d; however, the fourth quarter is expected to see higher growth of 0.7 mb/d compared to the same period last year.

Table 10.2: Summarized supply/demand b	alance for	2011, ml	b/d			
	<u>2010</u>	1Q11	2Q11	3Q11	4Q11	<u>2011</u>
(a) World oil demand	86.09	86.33	86.24	88.62	88.06	87.32
Non-OPEC supply	52.26	52.74	52.60	52.35	52.98	52.67
OPEC NGLs and non-conventionals	4.79	5.08	5.22	5.33	5.38	5.25
(b) Total supply excluding OPEC crude	57.04	57.82	57.82	57.67	58.36	57.92
Difference (a-b)	29.05	28.52	28.42	30.94	29.70	29.40
OPEC crude oil production	29.14					
Balance	0.09					

Totals may not add due to independent rounding

Graph 10.1: Balance of supply and demand



Demand for OPEC crude in 2011 forecast at 29.4 mb/d, up 0.4 mb/d from the previous year

Table 10.3: World oil demand/supply balance, mb/d	balance,	p/qm													
	2005	2006	2007	2008	2009	1010	2010	3010	4010	2010	1011	2011	3011	4011	2011
World demand															
OECD	49.9	49.6	49.3	47.6	45.5	45.8	45.2	46.6	46.2	46.0	46.1	45.3	46.7	46.4	46.1
North America	25.6	25.4	25.5	24.2	23.3	23.5	23.7	24.2	23.8	23.8	23.8	23.9	24.4	24.1	24.1
Western Europe	15.7	15.7	15.5	15.4	14.5	14.2	14.1	14.8	14.4	14.4	14.2	14.1	14.7	14.4	14.3
Pacific	9.8	8.5	8.4	8.0	7.7	8.2	7.3	7.6	8.0	7.8	8.2	7.3	7.6	8.0	7.7
DCs	22.7	23.5	24.6	25.5	26.1	26.2	26.6	26.7	26.7	26.6	26.8	27.1	27.3	27.3	27.1
FSU	3.9	4.0	4.0	4.1	4.0	4.0	3.8	4.2	4.3	4.1	4.0	3.8	4.3	4.3	4.1
Other Europe	0.8	6:0	0.8	0.8	0.7	0.7	9:0	0.7	0.7	0.7	0.7	9.0	9.0	0.7	9.0
China	6.7	7.2	7.6	8.0	8.3	8.3	8.9	9.2	8.9	8.8	8.7	9.4	6.7	9.3	9.3
(a) Total world demand	84.1	85.2	86.4	85.9	84.5	85.0	85.2	87.4	8.98	86.1	86.3	86.2	9.88	88.1	87.3
Non-OPEC supply															
OECD	20.4	20.1	20.0	19.5	19.7	20.0	19.9	19.5	20.1	19.9	20.0	19.8	19.5	19.9	19.8
North America	14.1	14.2	14.3	13.9	14.4	14.7	14.9	14.9	15.1	14.9	15.0	15.0	14.9	15.1	15.0
Western Europe	5.7	5.3	5.2	5.0	4.7	4.7	4.4	4.0	4.4	4.4	4.4	4.2	4.1	4.2	4.2
Pacific	9.0	9.0	9.0	9.0	9.0	9.0	9:0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
DCs	11.9	12.0	12.0	12.2	12.5	12.7	12.8	12.8	12.8	12.8	12.9	13.1	13.2	13.4	13.1
FSU	11.5	12.0	12.5	12.6	13.0	13.1	13.2	13.2	13.4	13.2	13.4	13.3	13.3	13.3	13.3
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	4.3	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	52.0	52.8	52.3	52.7	52.6	52.3	53.0	52.7
OPEC NGLs + non-conventional oils	3.9	3.9	3.9	4.1	4.3	4.6	4.8	4.8	2.0	4.8	5.1	5.2	5.3	5.4	5.3
(b) Total non-OPEC supply and OPEC NGLs	53.5	53.8	54.4	54.5	55.5	26.7	26.9	26.8	57.8	57.0	57.8	57.8	57.7	58.4	57.9
OPEC crude oil production (secondary sources)	30.7	30.5	30.2	31.2	28.7	29.2	29.1	29.2	29.2	29.1					
Total supply	84.2	84.4	84.6	85.7	84.2	85.9	85.9	85.9	6.98	86.2					
Balance (stock change and miscellaneous)	0.1	-0.8	-1.9	-0.2	-0.3	6:0	8.0	-1.4	0.1	0.1					
OECD closing stock levels (mb)															
Commercial	2587	2668	2572	2697	2680	2680	2762	2744							
SPR	1487	1499	1524	1527	1567	1567	1563	1549							
Total	4073	4167	4096	4224	4247	4247	4325	4293							
Oil-on-water	954	919	948	696	873	873	876	902							
Days of forward consumption in OECD															
Commercial onland stocks	52	54	54	26	28	26	26	26							
SPR	30	30	32	34	34	35	34	34							
Total	82	84	98	93	92	94	93	93							
Memo items ESII net exnorts	7.7	α	α π	α π	0 6	9.2	9.4	0 6	0 1	0 0	7 0	0 7	0 6	0 6	6.0
(a) - (h)	30.6	31.4	32.0	31.4	29.0	28.3	283	30.6	79.0	20.0	28.5	28.4	30.9	7 00	20.7
	)	:	1		?	)	)	;	) :	) :	2		:	:	:

Note: Totals may not add up due to independent rounding

Table 10.4: World oil demand/supply balance: chang	balance:		s from	last mo	nth's ta	es from last month's table*, mb/d	p/qu								
	2005	2006	2007	2008	2009	1010	2010	3010	4010	2010	1011	2011	3011	4011	2011
World demand															
OECD	•	٠		٠	٠	٠	0.1	0.2	0.2	0.1		٠		٠	
North America	1	٠	٠				0.1	0.1	0.1	0.1		٠	٠		
Western Europe	1		٠			٠		0.1							
Pacific	ı	,	•	,	,	٠			•		,	,	1		,
DCs	ı	٠	٠	٠	٠	٠	٠	٠		٠		٠	٠	٠	
FSU	ı	٠	٠	٠		٠			٠			٠	0.1	٠	
Other Europe	1				٠										
China	ı	٠	٠	٠	٠	0.1	٠	٠		٠	0.1	٠		٠	
(a) Total world demand		٠	٠		•	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.2
World demand growth	-0.05				0.02	0.07	80:0	0.20	0.18	0.13	0.02	0.03	0.10	0.05	0.05
Non-OPEC supply															
OECD	ı	٠			•	٠	•	•	0.1	,	0.1	0.1	•	0.1	0.1
North America	ı	٠	•	•	٠	٠	٠		0.2	0.1	0.1	0.1	0.1	0.1	0.1
Western Europe		٠	٠		•	٠	٠		-0.1	٠			•	٠	
Pacific	ı	•	•	,	,	٠	•	,	•	•	,	,	ı	٠	,
DCs	1				٠							0.1			
FSU	ı					٠			-0.1		-0.1	-0.1	-0.1	-0.1	-0.1
Other Europe	ı	٠	•	•	٠	٠	٠		٠	٠	٠			٠	
China		٠	٠	٠	٠		٠		0.1		0.1				
Processing gains		٠		٠	٠								٠		
Total non-OPEC supply	1	•	•	,	•		•	,	0.1	,	0.1	0.1	ı		,
Total non-OPEC supply growth	0.01					0.02	0.02	0.04	0.07	0.04	0.09	0.13	-0.09	-0.10	•
OPEC NGLs + non-conventionals	ı	٠													
(b) Total non-OPEC supply and OPEC NGLs	-								0.1		0.1	0.1			•
OPEC crude oil production (secondary sources)															
Total supply	1	1			1	:									
Balance (stock change and miscellaneous)	i				1		-0.1	-0.2							
OECD closing stock levels (mb )															
Commercial	,				<del>-</del>	-									
SPR	•	٠		٠	٠										
Total		٠			<del></del>	<u></u>	٠								
Oil-on-water		٠		٠	٠	٠		٠							
Days of forward consumption in OECD															
Commercial onland stocks	ı	٠	٠	٠	٠	٠	•								
SPR	1	٠	٠												
Total	ı				•										
Memo items															
FSU net exports	i	٠	•		٠		•		-0.1		-0.1	-0.1	-0.2	-0.2	-0.1
(a) - (b)	ı					0.1	0.1	0.2	0.1	0.1			0.4	0.3	0.2

This compares Table 10.3 in this issue of the MOMR with Table 10.3 in the December 2010 issue. This table shows only where changes have occurred

Table 10.5: OECD oil stocks and oil on water at the end of perio	s and c	oil on	water	at the	end o	f period																		
	2003	2004	2005	2006	2007	2008	2006	3006	4006	1001	2007	3007	4007	1008	2008	3008 4	4008 10	1009 20	2009 3C	3009 40	4009 1010	10 2010	0 3010	0
Closing stock levels mb																								
OECD onland commercial	2,511	2,538	2,587	2,668	2,572	2,697	2,649	2,761	2,668	2,601	2,661	2,646	2,572	2,572	2,602	2,664 2,	2,697 2,	2,750 2,7	2,758 2,7	2,778 2,	2,664 2,680	30 2,762	2 2,744	4
North America	1,161	1,193	1,257	1,277	1,229	1,301	1,277	1,351	1,277	1,238	1,294	1,285	1,229	1,216	1,240	1,282	1,301 1,	1,355 1,3	1,388 1,3	1,390 1,	1,309 1,322	777,1	7 1,396	9,
Westem Europe	915	915	935	963	937	686	936	949	896	943	940	929	937	961	953	951	686	886	5 696	896	972 9	973 980	0 945	ιĊ
OECD Pacific	435	430	394	429	407	407	436	461	429	420	428	432	407	394	409	431	407	408 4	401 4	419	383 3	386 405	5 403	33
OECD SPR	1,411	1,450	1,487	1,499	1,524	1,527	1,493	1,495	1,499	1,507	1,506	1,520	1,524	1,529	1,526	1,522 1,	1,527 1,	1,547 1,5	1,561 1,5	1,564 1,	1,564 1,567	57 1,563	3 1,549	6
North America	640	829	<b>189</b>	691	669	704	069	069	691	169	692	969	669	702	708	704	704	715	726 7	727	729 7	729 729	9 728	<u>∞</u>
Westem Europe	374	377	407	412	421	416	411	412	412	415	413	423	421	423	414	414	416	424 4	427 4	429	426 4	429 424	4 419	6
OECD Pacific	396	396	393	396	404	406	393	393	396	401	401	403	404	404	404	403	406	408 4	408 4	408	409 4	409 411	1 402	7
OECD total	3,922	3,988	4,073	4,167	4,096	4,224	4,142	4,256	4,167	4,108	4,168	4,166	4,096	4,101	4,128	4,186 4,	4,224 4,	4,297 4,3	4,319 4,3	4,342 4,	4,228 4,247	17 4,325	5 4,293	2
Oil-on-water	882	902	954	919	948	696	975	974	919	916	891	917	948	935	925	885	696	3 668	3 668	698	8 906	873 876	905	2 2
Days of forward consumption in OECD																								
OECD onland commercial	51	51	52	54	54	26	54	22	54	54	54	23	52	54	29	26	28	62	19	09	28	26 2	26 2	26
North America	46	47	49	20	51	26	20	23	20	46	51	20	20	20	23	54	29	26	09	26	99	2 29	57 5	26
Western Europe	26	28	09	62	61	89	09	09	63	62	09	26	19	64	19	62	99	69	<i>L</i> 9	19	69	9 69	9 99	99
OECD Pacific	21	20	47	51	51	53	22	23	48	23	24	49	46	20	54	54	20	26	22	52	47	53 5	53 5	21
OECD SPR	28	29	30	30	32	34	30	30	30	31	31	30	31	32	33	32	33	35	35	34	34	35 3	34 3	34
North America	25	26	27	27	29	30	27	27	27	27	27	27	28	29	30	29	30	31	31	31	31	31 3	30 3	31
Westem Europe	24	24	26	27	27	29	26	26	27	27	26	27	27	28	27	27	28	30	29	30	30	30 2	29 2	29
OECD Pacific	46	46	46	47	20	53	20	45	44	21	21	46	45	52	54	51	20	26	26	51	20	2 29	54 5	20
OECD total	79	80	82	84	98	93	84	82	84	82	82	83	84	87	88	89	91	26	96	94	92	94 9	93 9	93
:																								

n.a. not available

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

lable 10.6: Non-OPEC supply and	dns	oly an	ב כ	EC natural gas	urai ga	bill Se	ılds, ı	D/GL														
	2005	9000	2007	2008	Change 08/07	1009	2009	3008		Ü	Change 09/08					Change 10/09					2011	Change 11/10
<b>4</b> 8	7.34	7.36	7.47	7.50	0.03	7.84	808	8,20													8 61	0.03
Canada	3.03	3.20	3.31	3.27	-0.04	3.32	3.13	3.23													3.47	0.11
Mexico	3.77	3.69	3.49	3.17	-0.31	3.04	2.97	2.94													2.90	-0.06
North America	14.14	14.24	14.26	13.94	-0.33	14.21	14.18	14.46													14.97	0.07
Norway	2.97	2.78	2.56	2.47	-0.09	2.53	2.21	2.29													2.06	0.08
Denmark	0.38	0.34	0.31	 8. C	-0.03	0.28	72.0	1.2.1													0.23	0.07
Other Western Europe	0.49	0.51	0.62	0.64	0.03	0.62	0.62	0.64													0.64	0.00
Western Europe	5.72	5.34	5.17	4.97	-0.20	5.07	4.67	4.47													4.23	-0.16
Australia	0.53	0.51	0.53	0.53	0.01	0.55	0.53	0.55													0.53	0.02
Other Pacific	0.05	0.05	0.08	0.10	0.02	0.09	0.09	0.10													0.09	-0.01
OECD Pacific	0.58	0.56	0.60	0.63	0.03	0.64	0.62	0.65													0.61	0.01
lotal OECD	20.44	20.14	20.04	7.54	0.50	19.91	19.4/	19.58													19.81	80.0
Didia India	0.76	0.78	0.80	0.0	0.00	0.17	0.78	0.10													0.89	0.00
Indonesia	1.12	1.07	1.02	1.04	0.02	1.03	1.02	1.02													1.00	-0.03
Malaysia	0.77	0.76	0.76	0.76	0.00	0.74	0.72	0.73													99.0	-0.04
Thailand	0.29	0.32	0.33	0.36	0.02	0.37	0.37	0.36													0.35	0.00
Vietnam	0.39	0.37	0.35	0.33	-0.01	0.40	0.39	0.37													0.38	0.05
Asia others	0.26	0.26	0.26	0.26	0.00	0.25	0.26	0.25													0.25	0.01
Other Asia	3.79	3.78	3.70	3,72	0.07	3.74	3.70	3.68													3.70	0.01
Augenma	1.98	2.11	2.22	2.38	0.16	2.47	2.49	2.51													2.87	0.16
Colombia	0.53	0.54	0.54	0.60	90:0	0.65	0.67	99.0													0.88	0.08
Trinidad & Tobago	0.18	0.18	0.16	0.16	-0.01	0.15	0.15	0.15													0.13	-0.02
L America others	0.30	0.26	0.28	0.28	0.01	0.31	0.30	0.31													0.32	0.02
Latin America	3.77	3.87	3.97	4.20	0.23	4.36	4.38	4.39													4.94	0.23
Barrain	0.21	0.21	0.21	0.21	0.00	0.21	0.21	0.21													0.21	0.00
Onan	0.76	0.73	0.71	0.70	0.03	0.79	0.00	0.00													0.91	0.03
Yemen	0.41	0.37	0.33	0.30	-0.03	0.30	0.30	0.30													0.26	-0.02
Middle East	1.85	1.76	1.66	1.68	0.02	1.71	1.72	1.75													1.80	0.02
Chad	0.18	0.15	0.15	0.15	00:00	0.14	0.14	0.14													0.14	-0.01
Congo	0.24	0.25	0.24	0.26	0.02	0.27	0.27	0.27													0.31	0.01
Egypt	0.70	0.66	0.66	0.69	0.04	0.72	0.72	0.69													0.72	0.00
Gabon	0.30	0.25	0.25	0.30	0.0	0.23	0.33	0.33													0.26	0.0
South Africa	0.19	0.19	0.18	0.18	0.00	0.18	0.18	0.17													0.18	0.00
Sudan	0.34	0.40	0.50	0.48	-0.02	0.47	0.48	0.48													0.45	-0.01
Africa other	0.23	0.29	0.28	0.27	-0.01	0.27	0.26	0.25													0.32	0.09
Africa Total DCs	2.49	2.55	2.62	2.64	0.02	2.63	2.62	2.60													2.69	0.08
FSU	11.55	12.02	12.53	12.60	0.06	12.67	12.93	13.05													13.33	0.11
Russia	9.44	9.65	9.87	9.78	-0.08	9.78	6.87	6.97													10.15	0.01
Kazakhstan	1.23	1.30	1.35	1.41	90:0	1.48	1.51	1.54													1.66	0.07
Azerbaijan ESH othors	0.44	0.65	0.87	\$ % 6	0.0	0.97	II. 0	60.1													1.12	90.0
Other Europe	0.16	0.15	0.15	0.15	-0.01	0.14	0.13	0.14													0.14	0.00
China	3.64	3.69	3.77	3.84	0.07	3.79	3.86	3.89													4.18	0.03
Non-OPEC production	47.69	47.97	48.45	48.36	-0.09	48.96	48.82	49.08													50.59	0.41
Processing gains	1.91	1.96	1.99	1.97	-0.02	2.00	2.00	2.00													2.08	0.00
Non-OPEC supply	49.60	49.93	50.43	50.33	-0.11	50.96	50.82	51.08													52.67	0.41
OPEC NGL	3.74	3.70	3.86	40.0	0.02	3.99	4. I 0. 11	0.11													5.09	0.04
OPEC (NGL+NCF)	3.89	3.89	3.95	4.14	0.19	4.10	4.30	4.52	4.48	4.35	0.21	4.60	4.77 4	4.81	4.96 4.79	79 0.44	44 5.08	38 5.22	22 5.33	3 5.38	5.25	0.46
Non-OPEC &	9	8		;	6	1	;	;													1	6
OPEC (NGL+NCF)	53.49	53.82	54.38	54.47	0:06	55.06	55.12	22.60	56.12 5	55.48	1.01	56.72 56	56.88 56.	56.77 57.	57.79 57.04		1.57 57.82	32 57.82	32 57.67	7 58.36	57.92	0.88
The state of the s	and an all the same	done of cheek	and and a	00 000 01 1-1	TO comment for	to comment	a consequence															

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

Table 10.7: World Rig Count	rld Rig	Count																						
		S	Change					ភ	Change					Cha	Change					Change	e			
	2002	2006	09/02	2007	3007	4007	2007	90//0	1008	2008	3008	4008	2008 0	1 10/80		2009 3009	4009	9 2009	80/60 60	1010	10 2010	0 3010	4010	2010
USA	1,381	1,647	267	1,756	1,788	1,790	1,767	119	1,770	1,864	, 876,1	1,898	1,877	111 1	1,326	936 926	1,108	1,081	31 -796	1,345	45 1,508	1,622	1687	1541
Canada	458	470	12	139	348	326	344	-126	207	169	432	408	379	35	328	771 177	TT 277		218 -161		470 166	6 364	389	347
Mexico	107	83	-24	88	96	93	92	6	96	106	103	106	103	11	128	128 135		123 128		26 1	118 106	6 84	08	16
North America	1,945	2,200	255	1,983	2,231	2,240	2,202	2	2,373	2,139	2,513	2,411 2	2,359	157 1	,782 1,	1,154 1,267	7 1,508	1,428	18931	_	933 1,780	0 2,070	2156	1985
Norway	17	17	0	19	18	17	18	_	17	21	21	21	20	2	25	18	18	20 2	20	0	21 18	8 13	3 20	18
NK	21	27	2	29	27	22	26	Ţ	19	21	24	24	22	4-	22	19	. 91	15 1	18	4-	15 2	20 21	21	19
Western Europe	70	77	7	80	79	77	78	0	91	16	101	103	86	20	06	82	3 9/	85 8	83 .	-15	87 9	96 92	100	94
OECD Pacific	25	26	2	30	32	30	29	2	32	39	39	34	36	7	27	25 2	26	23 2	25 -	1-	22 18	8 23	3 22	21
Total OECD	2,078	2,347	569	2,141	2,387	2,385	2,352	4	2,532	2,317	2,698	2,593 2	2,535	183 1	,945 1,	1,299 1,368	1,616	1,557		-978 2,042	42 1,893	3 2,185	5 2278	2100
Other Asia	200	202	2	213	212	216	212	10	213	220	218	212	216	4	212	212 213		233 217	7	1 2	235 249	9 253	3 255	248
Latin America	129	149	19	177	171	179	175	27	187	184	195	197	191	16	164	147 149		169 157		-34	183 203	3 220	213	205
Middle East	131	132	_	146	154	154	149	18	158	165	175	171	167	18	162	151 139	147	150		-18	152 150	0 163	159	156
Africa	80	10	2	12	14	14	14	4	10	13	14	1	12	-5	80	11	6	12 1	0	-5	20 19	9 19	18	19
Total DCs	468	493	25	549	220	563	551	28	699	583	602	591	286	36	546	520 510	0 561	51 534		-52 5	589 621	1 655	645	628
Non-OPEC Rig Count	2,546	2,840	294	2,690	2,937	2,948	2,903	62	3,101	2,900	3,300	3,183	3,121	219 2	2,491 1,	1,819 1,878	8 2,177	77 2,091	1,030	2	,632 2,514	4 2,840	) 2924	2727
Algeria	21	24	4	26	28	28	27	2	26	27	24	26	26	<del>-</del>	24	30	27	27	27	<u></u>	23 2	28 24	1 24	25
Angola	3	4	_	4	3	2	4	-	S	9	2	2	2	<del>-</del>	2				4	<del>-</del>				6
Ecuador	12	Ε	0	10	11	10	1	<del>,</del>	7	6	12	13	10	<del>-</del>	10	10	. 01	10	10	0	11 1	11 11	=======================================	1
Iran	40	44	4	51	51	20	20	9	20	20	20	51	20	0	51				52	2	52 5	52 52		52
Iraq	0	0	0	0	0	0	0	0	29	29	29	29	29	29	36	36	36	36	36	7	36 3	36 36	36	36
Kuwait	12	14	-	13	13	1	12	<del>,</del>	12	1	12	12	12	0	12	11	. 14		13	0	19 1	18 21		20
Libya	6	10	-	12	14	14	13	3	14	15	15	15	15	2	15	13	. 14	15 1	14	<del>-</del>	17 1	17 14		16
Nigeria	6	10	-	7	∞	10	00	<del>-</del>	6	œ	9	9	7	<del>-</del>	7	9	9	7		<del>-</del>	11 1	13 18	•	15
Oatar	12	=	Ţ	12	13	14	13	2	Ξ	12	=	=	11	<del>-</del>	6	6	6	6	6	-5	8	6 8	6	6
Saudi Arabia	37	99	28	9/	78	77	77	1	78	77	76	9/	77	0	72	9 19	) (9	9 99	89	6-	9 89	19 19	, 65	19
UAE	16	16	0	15	15	14	15	-5	12	12	13	12	12	-5	13	12	. 13	12 1	12	0	13 1	13 13	3 13	13
Venezuela	89	8	13	80	77	71	76	τĊ	82	81	77	81	80	4	69	64	54	54 6	09	-20	66 64	4 70	08 0	70
OPEC Rig Count	238	290	51	305	311	302	305	16	336	337	330	336	335	29	322	314 30	302 30	305 311		-24 3	334 335	5 344	355	342
Morldwide Dia Count*	7 795	2 120	2/15	2005	2 2 40	2.250	3 200	97	2 420	2 727	5 630	2 510	2 1156	7 01/0	, 613	7122 7180	2402	23 2.402	1 054	2 0 6	7 2 40	2 10/	2772	3060
of which:	3	2	5	2	740	200	24	2																
lio	086	1,124	144	1,167	1,254	1,285	1,242	119	1,408	1,351	1,479	1,490	1,432	. 061	1283 1,	1,069 1182	1356	56 1222		-210 1,590	90 1,534	4 1,783	1896	1701
Gas	1,746	1,947	201	1,764	1,931	1,904	1,903	-44	1,969	1,814	2,070	1,948	1,950	47	1450	993 965	5 1092	1125		-825 1,333	33 1,276	6 1,356	1337	1325
Others	21	17	4-	17	20	25	20	4	26	32	36	37	33	12	35	35	34	37 3	35	3	43 4	40 42	46	43

\*/ Excludes China and FSU not available Note: Totalsmay not add up due to independent rounding Source: Baker Hughes International & Secretariat's Estimates

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# OPEC Basket average price

US\$ per barrel

♠ up \$5.73 in December

December 2010

88.56

November 2010 82.83

# **December OPEC production**

in million barrels per day, according to secondary sources

♠ up 0.17 in December

December 2010

29.23

November 2010

29.06

# World economy

Global growth was revised up to 4.5% from 4.3% in 2010 and to 3.9% from 3.8% in 2011. OECD growth was increased to 2.8% from 2.6% for 2010 and to 2.1% from 2.0% for 2011. China's growth remains at 9.7% and 8.8% in 2010 and 2011, respectively. India's forecast is also unchanged at 8.5% for 2010 and 8.0% for 2011.

# Supply and demand

in million barrels per day

2010		2011	
World demand	86.1	World demand	87.3
Non-OPEC supply	52.3	Non-OPEC supply	52.7
OPEC NGLs	4.8	OPEC NGLs	5.3
Difference	<i>29.0</i>	Difference	29.4

Totals may not add due to independent rounding

# Stocks

US commercial inventories dropped 28.0 mb in December. The bulk of the decline came from crude which fell by 24.4 mb while product stocks saw a draw of only 3.6 mb. Despite this drop, US commercial oil stocks remained at a surplus of 75 mb with the five-year average. The most recent data for November shows that commercial oil inventories in Japan rose by 9.1 mb, narrowing the gap with the five-year average to 11.5%. Preliminary indications show a further rise by 1.6 mb in December.