

# Organization of the Petroleum Exporting Countries

# Monthly Oil Market Report

*January 2009*

*Feature Article:*

***Oran decision: Firm resolve to restore market balance***

<i>Oil market highlights</i>	<i>1</i>
<i>Feature article</i>	<i>3</i>
<i>Press release</i>	<i>5</i>
<i>Crude oil price movements</i>	<i>7</i>
<i>The oil futures market</i>	<i>11</i>
<i>Commodity markets</i>	<i>13</i>
<i>Highlights of the world economy</i>	<i>19</i>
<i>World oil demand</i>	<i>24</i>
<i>World oil supply</i>	<i>34</i>
<i>Product markets and refinery operations</i>	<i>42</i>
<i>The tanker market</i>	<i>46</i>
<i>Oil trade</i>	<i>50</i>
<i>Stock movements</i>	<i>60</i>
<i>Balance of supply and demand</i>	<i>63</i>





## Oil Market Highlights

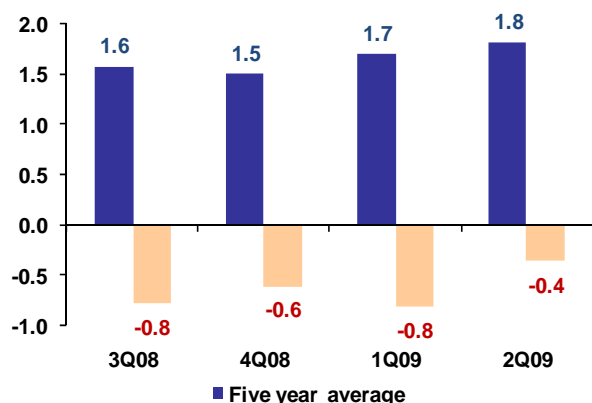
- **Crude oil prices** remained volatile as the weak global economy was seen undermining demand growth. However, reduced OPEC supply followed by the Conference decision in Oran for further production adjustments helped ease the downward slide in prices by the end of the month. The fluctuation in the US dollar and outlook for lower prices prompted fund sell-offs for profit-taking. The OPEC Reference Basket fell \$11.16 or 22.4% in December to settle at \$38.60/b, closing the month at \$35.58. For the year, the Basket averaged \$94.45/b. In the first half of January, ongoing conflicts in the Middle East and the Russia-Ukraine natural gas dispute revived some bullishness. The Basket stood at \$41.31/b on 14 January to average \$42.38/b, month-to-date.
- The forecast for the **global economy** in 2009 has been reduced by a further 0.2 percentage points to 1.3% as major OECD regions slip deeper into recession and economic activity in developing countries and China slows sharply. US labour market conditions deteriorated further in December, with the unemployment rate rising to a fifteen-year high of 7.2%. The Fed lowered its target for the federal funds rate to between zero and 0.25% and China cut its key one-year lending rate to 5.31%, the fifth reduction in three months. Chinese exports fell by 2.8% y-o-y, the second monthly drop. The World Bank is forecasting world trade volumes will drop 2.1% in 2009, the first decline in 25 years.
- **World oil demand** in 2008 remains broadly unchanged from the previous assessment, showing a decline of 0.1 mb/d, the first year of negative growth since 1983. The erosion in US oil consumption of 1.1 mb/d is a major factor behind the sharp decline in oil demand last year. In 2009, world oil demand is expected to see continued negative growth of 0.2 mb/d. The huge decline in the OECD consumption, particularly in the US, is expected to offset weaker growth in non-OECD, primarily from China, the Middle East, and Other Asia. Taken together, these countries are expected to grow by 0.6 mb/d, representing 78% of total non-OECD demand growth.
- **Non-OPEC oil supply** is estimated to increase 0.1 mb/d over the previous year and a downward revision of 50 tb/d versus the last assessment. The revisions to the full year estimate are concentrated around the fourth quarter. In 2009, non-OPEC oil supply is expected to increase 0.6 mb/d over last year, following a downward revision of 120 tb/d. The revision to the production outlook is principally due to lower expectations for Russia, Azerbaijan, Brazil, Mexico and Oman. In December, total **OPEC crude production** averaged 30.3 mb/d, a decrease of 0.8 mb/d over the previous month.
- A combination of a cold snap across the western Hemisphere with unseasonable cuts by refiners and lower cost of crude has provided support for **product prices** and refining economics over the last few weeks. The recent positive developments in product markets may not last long, as the recessionary outlook for the world economy may further undermine product demand and exert pressure on refining economics as soon as the impact of the cold winter weather eases.
- OPEC spot fixtures and sailings from OPEC countries fell in December from the previous month. US arrivals also fell on lower crude oil imports. Spot freight rates for crude oil **tankers** increased in December, impacted by the contango structure in crude markets which led to a good number of VLCCs being tied up in storage as well as stormy weather and port closures to the west of Suez.
- US commercial **oil inventories** increased a further 2 mb in December, resulting in a contra-seasonal build in the fourth quarter, with stocks at the highest level since September 2007. Inventories at the WTI delivery point of Cushing, Oklahoma, stood at a record level of 33 mb, approaching maximum storage capacity, impacting the price of US benchmark crude. European total oil stocks rose 1.7 mb to approach 1,120 mb, corresponding to the five year average, while commercial oil stocks in Japan fell in December but remained comfortable considering sluggish demand.
- The **demand for OPEC crude** in 2008 is estimated to average 30.8 mb/d, a decline of 0.5 mb/d from the previous year. In 2009, the demand for OPEC crude is expected to average 29.5 mb/d, a drop of 1.4 mb/d from the year earlier.



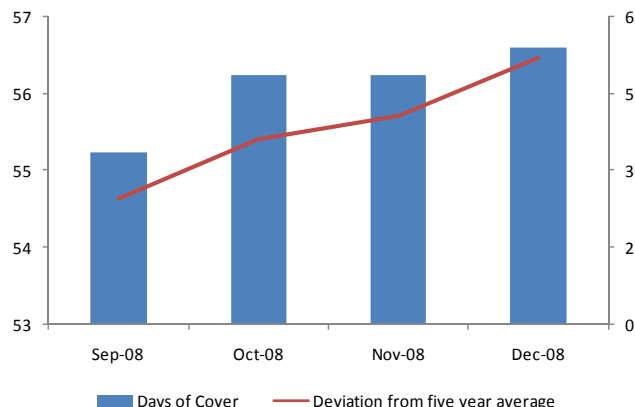
## Oran decision: Firm resolve to restore market balance

- When the OPEC Conference met on 17 December in Oran, the market was facing a deterioration in the global economy. The recession was deepening in all major OECD regions, the global financial crisis was spilling over into the real economy and spreading to the developing countries, particularly Asia. The widening economic downturn had begun to sharply erode oil demand in the OECD countries as well as undermine growth in the emerging economies. At the same time, commercial crude oil inventories had experienced contraseasonal builds, resulting in an excessive overhang of crude oil supplies. Given the expected supply/demand balance, oil inventories would rise even higher to move to the top of the five-year range. These were the circumstances in which the decision was taken to reduce OPEC supply by 4.2 mb/d from September production levels.
- Since the meeting in Oran, negative news on the world economy has only continued, despite the acceleration of governmental efforts to stimulate the economy. The modest expectations for world growth this year, now at around 1.3%, compared with a 3.4% growth last year, effectively indicate a world recession led by a sharp contraction in global manufacturing and trade.

**Graph 1: World oil demand growth, y-o-y (mb/d)**



**Graph 2: OECD oil stocks, days of forward cover**



- The considerable uncertainty about the course of the recovery implies the potential for further deterioration in world oil demand growth this year. Demand growth in 2009 is forecast to contract by 0.2 mb/d following negative growth of 0.1 mb/d in 2008, the first decline in over two decades. Indeed, in quarterly terms, the consecutive negative growth seen in the second half of 2008 is expected to continue into the first two quarters of 2009 (see *Graph 1*). This is well below the continuous positive growth seen in previous years. Taken together, the net decline is expected to reach 2.5 mb/d in the first half of this year, providing a clear indication of the erosion in demand.
- While demand has been falling, non-OPEC supply has revived from the poor performance seen in the first half of last year. Non-OPEC supply rose by roughly 800 tb/d in 4Q08 over the third quarter and by a further 700 tb/d in the first quarter 2009. For the year, non-OPEC production is expected to increase by 600 tb/d.
- The weakening demand and excess of supply has led to an expansion in global inventories in the fourth quarter, a time when oil stocks typically experience seasonal declines. As an example, crude oil stocks in Cushing, Oklahoma, now stand at an all-time high, while floating storage has risen to around 50 mb. The build in crude oil stocks has been supported by the strong contango structure in the forward market for light sweet crude, with the differential between the first and third month price for US benchmark WTI crude recently deepening to more than \$10/b. Moreover, in days of forward cover, OECD commercial stocks now stand at 57 days (see *Graph 2*), a significant increase of five days over the five-year average.
- Despite these bearish expectations since the meeting in Oran, the focus of the market has begun to switch from the contraction in demand to developments on the supply side. Estimates showing full OPEC compliance in December and reports that OPEC Members were further adjusting their supply in January have helped mitigate the downward slide in prices. An example can be seen in the Dubai benchmark crude, which serves as a major price indicator for Middle East grades. In recent weeks, the contango structure for Dubai has narrowed significantly and even now is selling at a premium to sweet benchmark crudes.
- The Oran Conference reflects a decisive effort by OPEC Members to restore oil market stability. Of course, achieving an acceptable level of stability will take time given the ongoing challenges facing the global economy. However, it is essential that crude oil prices return to levels sufficient to encourage timely and adequate investment to meet the expected future demand growth. This is a shared responsibility that calls for broad support from other producers as well as effective cooperation with consuming countries.



No 17/2008

Oran, Algeria, 17 December 2008

## 151<sup>ST</sup> (EXTRAORDINARY) MEETING OF THE OPEC CONFERENCE

The 151<sup>st</sup> (Extraordinary) Meeting of the Conference of the Organization of the Petroleum Exporting Countries (OPEC) convened in Oran, Algeria, on 17 December 2008, under the Chairmanship of its President, HE Dr Chakib Khelil, Minister of Energy and Mines of Algeria and Head of its Delegation, and its Alternate President, HE Eng José Maria Botelho de Vasconcelos, Minister of Petroleum of Angola and Head of its Delegation.

The Conference welcomed the Minister of Industry and Energy of the Republic of Azerbaijan, the Minister of Oil and Gas of the Sultanate of Oman, the Deputy Prime Minister of the Russian Federation, and the Minister of Petroleum and Mineral Resources of the Syrian Arab Republic, attending the Meeting as Observers.

The Conference considered the report of the Ministerial Monitoring Sub-Committee, whose Members the Conference once again thanked for their continuing and much-appreciated efforts on behalf of the Organization, as well as a submission from the Secretary General on oil market developments.

Having reviewed the oil market outlook, including overall demand/supply projections for the year 2009, in particular the first and second quarters, the Conference observed that crude volumes entering the market remain well in excess of actual demand: this is clearly demonstrated by the fact that crude stocks in OECD countries are well above their five-year average and are expected to continue to rise. Moreover, the impact of the grave global economic downturn has led to a destruction of demand, resulting in unprecedented downward pressure being exerted on prices, which have fallen by more than US \$90 a barrel since early July 2008. Indeed, the Conference noted that, if unchecked, prices could fall to levels which would place at jeopardy the investments required to guarantee adequate energy supplies in the medium-to-long term.

In light of the above, the Conference agreed to cut 4.2 million barrels a day from the actual September 2008 OPEC-11 production of 29.045 mb/d, with effect from 1 January 2009, with Member Countries strongly emphasizing their firm commitment to ensuring that their production is reduced by the individually agreed amounts.

In taking the above decision, Heads of Delegation reiterated the Organization's firm commitment to providing an economic and regular supply of petroleum to consuming nations, as well as to stabilizing the market and realizing OPEC's objective of maintaining crude oil prices at fair and equitable levels, for the future well-being of the market and the good of producers and consumers alike. With this in mind, the Conference renewed its call on non-OPEC producers/exporters to cooperate with the Organization to support oil market stabilization.

The Conference confirmed that its next Ordinary Meeting will be held on Sunday, 15 March 2009, in Vienna, Austria, shortly before the OPEC International Seminar, which is to take place at the Hofburg Palace, Vienna, on 18 and 19 March 2009.

The Conference approved the Budget of the Organization for the year 2009.

The Conference expressed its sincere gratitude to His Excellency Abdelaziz Bouteflika, the President of the Republic, the Government and the People of Algeria for the warm hospitality extended to the Conference participants and for the excellent arrangements made for the Meeting. In addition, the Conference recorded its special thanks to HE Dr Khelil, Minister of Energy and Mines, and his Staff for their warm hospitality and the excellent arrangements made for the Meeting.

The Conference also expressed its thanks to the 2008 President of the Conference, HE Dr Khelil, for his excellent leadership, and welcomed the 2009 President, HE Eng Botelho de Vasconcelos.

Finally, the Conference passed Resolutions that will be published on 17 January 2009, after ratification by Member Countries.





# Crude Oil Price Movements

**Steep fall in oil demand prompted producers to rein in supplies**

## OPEC Reference Basket

Volatility and market turbulences continued to dominate market bearishness into the first week of December. Demand worries remained as weak economic indicators sustained fears over a prolonged recession. The Basket plunged in the first weekly period by \$5.26 or 11.4% to settle at \$40.77/b. The downward trend continued into the second week amid growing signs of demand contraction and the rise in US distillate stocks, despite lower allocations from a Mideast supplier. Nonetheless, a rebound in the US dollar against major currencies

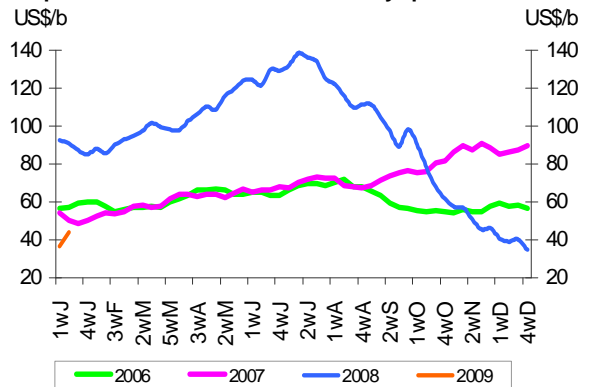
prompted some investment into the petroleum futures. The volatility continued on the back of some industry forecast for rising demand next year, along with the failure of an automaker bailout plan and expectations that crude oil prices would continue to fall. The Basket averaged \$39.06/b in the second week, \$1.71 or 4.2% lower than the previous week.

Nonetheless, in the third week, market sentiment revived on lower allocations for January barrels while the North Sea supply tightened. The agreement for an unexpectedly sharp cut in supply at the OPEC Meeting in Oran, Algeria, partly supported by major oil producers outside the Organization, boosted market bullishness. However, economic woes and demand destruction continued to cap gains. The Basket averaged \$40.28/b in the third week, \$1.22 or over 3% higher than the previous week. In the fourth week, the softening sentiment resumed on mounting fears that the weakening economy will dent demand further. The Basket averaged \$34.92/b over the short week, a decline of \$5.36/b or 13.3%, the lowest weekly average since December 2004. In the final week of the year, the market gained momentum on the back of the conflict in the Middle East while China announced plans to accelerate filling of its SPR. Weakness in the US dollar also lent support. The Basket firmed in the final week to average 15¢ higher at \$35.07/b.

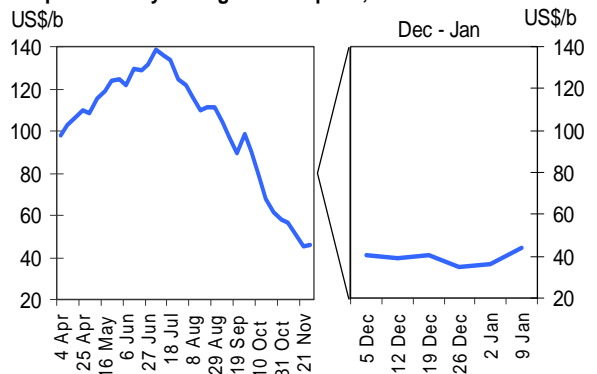
In monthly terms, volatility continued on US dollar fluctuation and forecasts for lower prices by major financial institutes, which prompted funds sell-offs for profit-taking. The weak economy was seen denting demand growth, while the plunge in the equity market lent support to the bearishness. Adjustments in OPEC production capped the downturn. In the final days, geopolitics on the back of the Middle East conflict and the disruption of Russian natural gas supplies revived some bullishness. Nonetheless, the OPEC Reference Basket averaged

down by \$11.16 or 22.4% in December to settle at \$38.60/b, closing the month at \$35.58/b to average the year at \$94.45/b after peaking at \$131.22/b in the month of July. In the first week of January, ongoing conflicts in the Middle East and the Russia-Ukraine dispute revived some bullishness. However, fears remained that economic factors were denting petroleum demand. Year-to-date in 2009, the Basket averaged \$42.38/b.

**Graph 1: OPEC Reference Basket - weekly spot crude**



**Graph 2: Weekly average Basket price, 2008-2009**

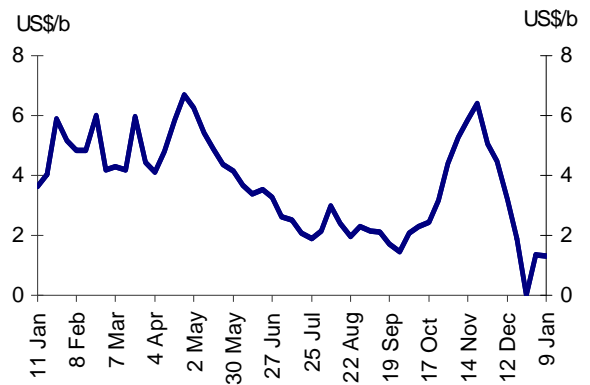


**Crude stocks built at Cushing, Oklahoma, while the transatlantic arbitrage spread supported light grade**

**US market**

The US domestic sweet crude emerged under pressure from weak refining margins. Adding to the bullishness for light crude, Enbridge imposed a 24% apportionment on December crude shipments on a part of its pipeline system. Rise in crude oil stocks at Cushing, Oklahoma, also weighed on sweet grade. Thus, the first weekly average spread for WTI/WTS was 57¢ narrower at \$4.48/b. In the second week narrowing transatlantic spread, while forecast for a drop in distillate stocks, lent support to light grade amid a cold snap driving demand for heating oil.

**Graph 3: WTI spread to WTS, 2008-2009**



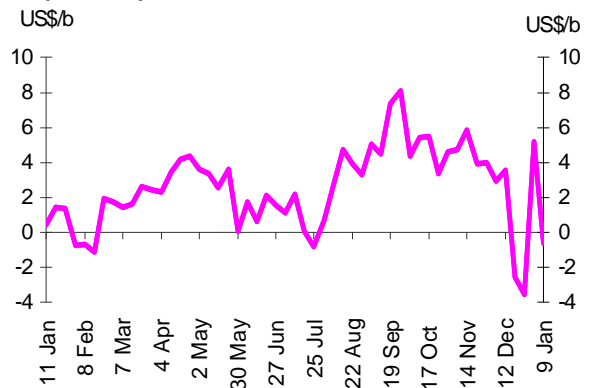
However, sweet crude saw some support on the buying spree in a contango-structure market while light grade fell on rise in seasonal fuel stocks. The WTI/WTS spread averaged the second week at \$3.22/b, or \$1.26 narrower. Continued uneconomical transatlantic arbitrage, while demand for seasonal fuel emerged, sustained light grade differentials. Further build of crude oil stocks at Cushing, Oklahoma, continued to pressure the sweet grade. In the third week, the WTI/WTS spread averaged \$1.32 narrower at \$1.90/b. In the fourth week, activities were subdued by the short week ahead of seasonal holidays as well as pipeline scheduling and physical contracts expiry. The WTI/WTS averaged spread fell \$1.90/b to flat, a weekly average not seen before, or at least not in the past few years. The contango-structure supported the buying spree. However, in the final week the average WTI/WTS spread was \$1.44/b amid a continued outage at the Delek refinery in Tyler, Texas, after a 20 November explosion and full pipelines and storage at Cushing, Oklahoma. In December, WTI averaged \$41.45/b, down by \$15.67 or 27%, yet premium to WTS averaged \$3.16 narrower at \$2.49/b.

**The firm crack spread for distillates grade supported North Sea crude**

**North Sea market**

Light sweet crude differentials strengthened on the North Sea market prompted by relatively firmed refining margins. Although prompt supply weighed on the market, cold weather and refinery outages kept the bullish momentum intact. The Brent discount to WTI narrowed by \$1.07 to \$2.90/b in the first week, the narrowest weekly average since early August. However, weakness in the crack spread for gasoline and distillates revived the bearishness in the marketplace, although tight January supply from the North Sea balanced market sentiment. In the second week, WTI premium to Brent widened by 63¢

**Graph 4: WTI premium to Dated Brent, 2008-2009**



to \$3.53/b. Nonetheless, while demand softened, major traders taking advantage of wide contango spread to store some December barrels on the high seas for future delivery supported the market. Adding to the market bullishness was the firm value of distillates-rich grade amid healthy margins. Hence, Brent flipped into premium to WTI by \$2.54/b in the third week. The market firmed in the fourth week, amid further storage on the high seas on the back of wide contango spread. Brent premium to WTI was \$1 wider at \$3.54/b. However, the sentiment was short lived with January prompt stems emerging with limited buying in the final week. Weak naphtha and gasoline spreads made the light grade less attractive. Hence, Brent flipped again into a hefty discount to WTI of \$4.77/b. Brent averaged in December at \$40.35/b, down by \$12.16/b or 23% with the discount to WTI of \$3.51 narrower at \$1.10/b, the narrowest since July.

**Floating storage supported the regional crude market while a strike in France boosted margins**

**An attractive arbitrage spread amid lower OPEC exports lent support to regional crude**

### *Mediterranean market*

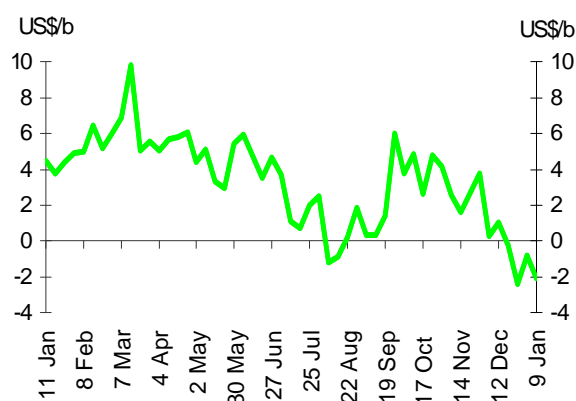
The Mediterranean market emerged on a weaker note amid ample supply while demand remained subdued. However, floating storage on the back of cheap freight rates at wide contango spread boosted market sentiment. The Urals discount to Brent averaged 29¢ narrower at 39¢/b in the first week. In the second week, a strike by port workers at France's largest oil hub of Fos-Lavera near Marseille had boosted freight rates dramatically in the Mediterranean while some cargoes would have to find other destinations. However, limited demand for naphtha-rich crude pressured the market while strikes in France reduced operations at four refineries weighing on the market. In the second week, Brent/Urals spread widened by 15¢ to 54¢/b. In the third week, the pressure continued as Russia was seen reducing export duties availing further supply. However, the strengthening of the naphtha crack and lower OPEC exports supported the Mediterranean market. Urals discount to Brent narrowed 22¢ to 32¢/b in the third week. The improved fuel oil crack lent support to the regional crude in the fourth week with perception of the grade falling into backwardation. Thus, Urals flipped into a premium to Brent to average the fourth week at 13¢/b. However, the momentum was short lived with Urals flipping back into a discount to Brent by 31¢/b amid limited activity while buyers took to the sideline ahead of the New Year. Urals averaged \$11.76 or nearly 23% lower at \$40.03/b in December, with the discount to Brent averaging 32¢/b, the lowest level since December 2001.

### *Middle Eastern market*

The Middle East market opened the month on a quiet note awaiting January allocations and the retroactive OSP. Perception of lower price differentials was seen setting the tune for the spot market. The Brent/Dubai spread narrowed in the first week by \$3.54 to 27¢/b, the lowest weekly average since August, encouraging the flow of rival grades. The sentiment was mixed with February heavy-sour crude expected to gain on the back of a stronger fuel oil crack, while lighter grades were seen struggling on still-weak naphtha and gasoil. However, deep cuts by a Mideast major lent support to regional crude. The

Brent/Dubai spread was 76¢ wider at \$1.03/b in the second week. In the third week, Sakhalin-1 Sokol differentials recovered while OPEC cuts were foreseen on the horizon. Dubai flipped into a premium of 25¢/b to Brent in the third week. The sentiment persisted into the fourth week. The Dubai premium to Brent averaged \$2.13 wider at \$2.38/b in the fourth week. Although the Mideast crude edged higher in the final week on lower allocation notification, yet activities were subdued by the year-end holidays. Weak condensate on weak naphtha kept a cap on differentials. The Brent discount to Dubai was narrow at 14¢/b. Dubai averaged December at \$40.46/b, down \$9.38 or almost 19%, yet the premium to Brent averaged the month at 11¢/b, a level not seen before.

**Graph 5: Dated Brent spread to Dubai, 2008-2009**



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

	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change Dec/Nov</u>	<u>2007</u>	<u>2008</u>
<b>OPEC Reference Basket</b>	<b>49.76</b>	<b>38.60</b>	<b>-11.16</b>	<b>69.08</b>	<b>94.45</b>
Arab Light	50.09	38.82	-11.27	68.75	95.16
Basrah Light	49.11	37.27	-11.84	66.40	92.08
BCF-17	40.37	31.65	-8.72	61.80	86.73
Bonny Light	56.11	43.10	-13.01	75.14	100.60
Es Sider	51.86	39.60	-12.26	71.41	96.65
Girassol	51.76	40.30	-11.46	70.88	95.64
Iran Heavy	47.55	36.88	-10.67	67.06	91.49
Kuwait Export	47.13	36.47	-10.66	66.35	91.16
Marine	50.58	41.24	-9.34	69.30	94.86
Minas	56.48	41.80	-14.68	73.56	100.65
Murban	53.05	43.15	-9.90	72.87	99.03
Oriente	40.17	29.56	-10.61	61.55	85.43
Saharan Blend	53.86	41.35	-12.51	74.66	98.96
<b>Other Crudes</b>					
Dubai	49.84	40.46	-9.38	68.38	93.85
Isthmus	49.77	37.27	-12.50	67.58	95.22
T.J. Light	47.44	35.26	-12.18	65.65	92.25
Brent	52.51	40.35	-12.16	72.55	97.37
W Texas Intermediate	57.12	41.45	-15.67	72.29	100.00
<b>Differentials</b>					
WTI/Brent	4.61	1.10	-3.51	-0.26	2.63
Brent/Dubai	2.67	-0.11	-2.78	4.17	3.52

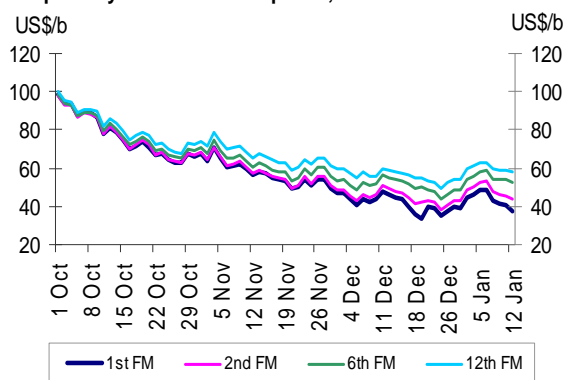
Source: Platt's, Direct Communication and Secretariat's assessments.

## The Oil Futures Market

### Liquidation of spreading options and rise in commercial short positions pressured Nymex WTI prices

Market sentiment continued to slide as economic indicators pointed to a prolonged recession. Stronger dollar and weak equity markets added to the bearishness. Nymex WTI closed the **first weekly** period \$3.81 lower at \$46.96 to average \$51.28. Non-commercials reduced net long positions by some 500 lots to nearly 2,500 contracts amid a rise in shorts at faster rate than longs, according to the CFTC. Open interest volume was 26,700 lots higher at 1,147,500 contracts. With options included, open interest volume was almost 103,000 lots higher at 3 million contracts, on the back of higher commercials and spreading.

Graph 6: Nymex WTI futures prices, 2008-2009



FM = future month

In the **second weekly** period, non-commercials increased a significant 8,500 lots to 10,800 contracts. Open interest volume was 20,555 higher at 1,168,000 lots, amid a healthy build in non-reportables and spreading. Including options, open interest was 129,500 lots higher at 3,143,400 contracts on the back of higher commercial shorts and another rise in spreading volume. Stronger dollar, the impact of the bleak economy on equities and forecasts for lower demand growth all helped to drive prices lower. Thus, Nymex WTI averaged the second weekly period down by \$7.87 or over 15% lower to \$43.41/b, closing the weekly period down \$4.89 to \$42.07/b.

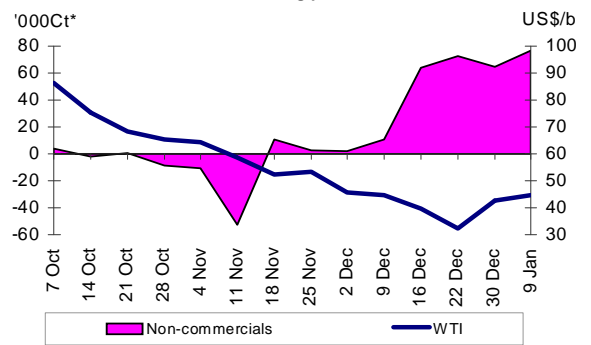
However, the momentum somewhat reversed in the **third weekly** period on the decline in the dollar. Lower allocations by Saudi Arabia foreshadowing a further cut in OPEC supplies revived some bullishness in the market. However, the momentum was short lived on the bleak economy and failure of the automaker bailout plan. Predictions by investment banks that oil prices would drift much lower added to funds sell-offs for profit-taking. Nonetheless, Nymex WTI averaged the third weekly period up \$1.77 to \$45.18/b after peaking at nearly \$48 before closing at \$43.60/b. Non-commercials increased net positions by a significant 53,300 lots to 64,100 contracts, the highest level since May, amid a hefty liquidation in shorts while longs rose. With options included, open interest volume deflated significantly by 206,500 lots to 2,936,900 contracts, amid a heavy drop in spreading and liquidation of commercials volumes.

In the **fourth weekly** period, non-commercial net long positions rose 8,500 lots to 72,600 contracts, amid a rise in long positions at a faster pace than shorts. However, open interest volume was 31,400 lots lower at 1,135,500 contracts, amid hefty liquidation of non-reportable volume. In contrast, including options, open interest volume was 35,200 lots wider at 2,972,100 contracts, on the back of increased commercial and spreading volume. Non-commercials net positions were slightly higher at 128,200 lots. A healthy build in gasoline and distillate stocks in the US the week before was perceived as an indicative of lower demand. Nonetheless, economy woes continued to signal recession on the horizon. Over this period, Nymex WTI plunged as low as \$33.87 to average at \$37.81, down by \$7.37 or 16.3%, before closing the period at \$38.98/b.

In the **final weekly** period, market sentiment was mixed. While the dire economic situation continued to dent petroleum demand, the supply adjustments from OPEC Member Countries lent support. The conflict in the Middle East and an announcement that China would increase its petroleum reserves added to the bullish momentum. The weaker US dollar enhanced the upward trend. Nymex WTI averaged the final week 22¢ firmer at \$38.03 and closed the period at \$39.03/b. Non-commercials reduced net long positions by 8,000 lots to 64,500 contracts. Yet, open interest volume was 33,700 lots wider at 1,169,200 lots, mostly on increased short positions in both sectors. With options included, open interest volume rose 43,700 lots to 3,015,800 contracts, amid an increase in spreading and commercial volume.

On a **monthly** basis, non-commercial positions on the Nymex flipped into a net long by 42,900 lots in December, which was still 11,000 lots lower than the same month the year before. Open interest volume averaged at 1,157,400 contracts or 26,500 lots higher than November's average, yet nearly 200,000 lots lower than in the same period in 2007. Non-commercial net long positions in 2008 averaged 34,200 lots, down 18,300 lots from the previous year. Open interest averaged 1,279,300 lots for a decline of 114,130 lots from the previous year. Including options, open interest weekly average in December was 3,016,400 or almost 50,000 lots lower than November, yet 395,900 lots higher than in same period the year before. Non-commercial net long positions averaged 121,800 lots or 35,100 lots higher than the month before, but 4,350 contracts lower than the same month in the previous year.

Graph 7: Non-commercial net long positions vs WTI, 2008-2009

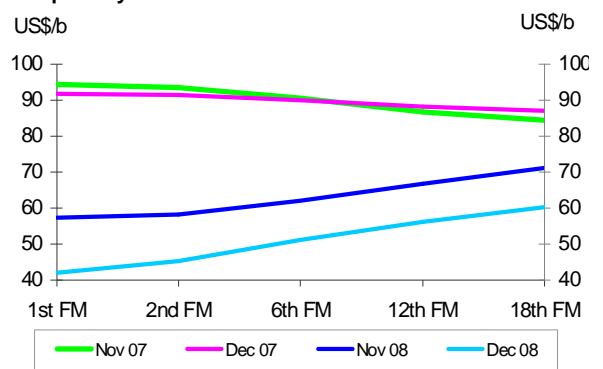


On a **yearly** basis, non-commercials in 2008 averaged 103,740 lots, a gain of 35.3%, while open interest volume including options averaged 2,887,500 lots or nearly 28% higher over the same period. The market bearishness dominated in December as the weak economy was seen eroding demand growth. The plunge in the equity market and strengthening of the US dollar against major currencies added to bearishness in the marketplace. The failure of bailout plans, a healthy build in petroleum stocks and an investment bank forecast of a further price drop kept downward volatility in place on funds sell-offs for profit-taking. The Nymex WTI front month contract averaged \$42.04/b in December, for a drop of almost \$15 or 26.3%. For the year, WTI averaged \$99.75 for a gain of \$27.34 or 37.8%.

**The Forward Structure**

The contango on the forward curve widened in December with the 1<sup>st</sup>/2<sup>nd</sup> month spread averaging \$3.11 vs. 81¢ in November. The 1<sup>st</sup>/6<sup>th</sup>, 1<sup>st</sup>/12<sup>th</sup> and 1<sup>st</sup>/18<sup>th</sup> contracts were at \$9.16, \$14.27 and \$18.38/b, for an increase of \$4.54, \$4.71 and \$4.62, respectively. This compares to the backwardation last year with the 1<sup>st</sup>/2<sup>nd</sup>, 1<sup>st</sup>/6<sup>th</sup>, 1<sup>st</sup>/12<sup>th</sup> and 1<sup>st</sup>/18<sup>th</sup> month spread of 16¢, \$1.58, \$3.36 and \$4.75/b, respectively. In December, US crude oil stocks averaged 3 mb higher than in the previous month at 319.8 mb and 23.6 mb higher than the year before. Weekly crude oil inventories averaged 306.6 mb in 2008, a decline of 21.2 mb from the previous year but nearly 5 mb over the five-year average. US refinery runs averaged 14.6 mb/d in December or 55,000 b/d lower than the previous month and 0.7 mb/d lower than the same month last year. Moreover, refinery runs in 2008 averaged 14.6 mb/d or almost 0.6 mb/d lower than in the previous year and 577,000 b/d below the five-year average.

Graph 8: Nymex WTI forward curve



**Continued lower refinery run rates contributed to the widening contango spread**

# Commodity Markets

Commodity prices dropped further in December on the severe economic and financial crisis

## Trends in selected commodity markets

Commodity prices declined 14.1% in December following a decline of 16.8% in the previous month. As in the two previous months, the December drop in the IMF commodity price index was one of the largest since the publication of the index in 1992. The deeper deterioration in the financial and economic conditions continues being the determining factor behind the dramatic decline and volatility of commodity prices via the negative impact on demand. Considering the dramatic fall of major economic indicators for the US and other OECD regions in the last quarter of 2008, it becomes clear that there is no possibility that the expected sharp deceleration in demand could be offset by the rest of the world. There are also signs of deceleration in non-OECD in major emerging countries such as China, India and Brazil.

The same combinations of negative factors since the collapse of commodity prices last October persist, namely the weakening in global demand and credit constraints. A recovery of commodity prices in the near term is unlikely considering the disastrous macroeconomic panorama; a sustainable recovery in commodity prices would only be possible once the global economic recession will begin to recede possibly in the second half of 2009. Although prices have plummeted along the commodity spectrum, energy and especially crude oil and metals have been the major losers as they are strongly-correlated to the economic cycle. Agricultural products have performed better in relative terms, since these products are more isolated from the GDP cycles.

Table 2: Monthly changes in selected commodity prices, 2007-2008

	Oct/Sep	% Change		% Change Dec 08/Dec 07
		Nov/Oct	Dec/Nov	
Commodity	-21.2	-16.8	-14.1	-36.4
Non-Energy	-16.3	-7.8	-6.8	18.4
Energy	-23.5	-21.3	-18.5	-42.7
Crude	-26.8	-25.7	-23.2	-53.6
Natural Gas	-11.6	-0.6	-12.9	-18.1
Coal	-28.0	-14.6	-14.7	13.6
Agriculture*	-16.7	-5.7	-4.0	na
Food	-15.7	-5.5	-2.7	-18.4
Grains	-17.5	-8.7	-3.7	na
Corn	-21.8	-10.2	-3.0	-40.3
Wheat	-19.7	-4.4	-3.6	-23.2
Soybean Oil	-22.4	-9.9	-6.5	-33.7
Soybeans	-20.0	0.7	-3.1	-24.6
Sugar	-5.8	-9.2	-4.0	-1.7
Industrial Metals	-19.9	-11.7	-10.9	-36.4
Aluminium	-15.9	-12.5	-19.0	-36.9
Copper	-29.8	-23.8	-16.7	-53.2
Nickel	-31.7	-11.3	-8.6	-62.2
Zinc	-25.3	-10.3	-4.8	-53.2
Steel products*	-1.0	-7.0	-9.3	na
Gold*	-2.8	-5.7	7.3	na
Silver*	-14.5	-5.4	4.5	na
Fertilizers*	-18.6	-16.2	-10.9	na

na Not available

Sources: IMF; Estimations based on data provided by the IMF.

\* World Bank Index

**Energy index led commodity losses for third month in row**

The trend in the IMF commodity prices index in December is explained by the plunge in energy and especially crude oil and metal prices. During the first week of January, an unexpected recovery due to temporary factors was seen in the commodity markets. There seems to be agreement among analysts on a negative outlook for commodities over the short-term with a potential slight recovery only coming in the second half of 2009.

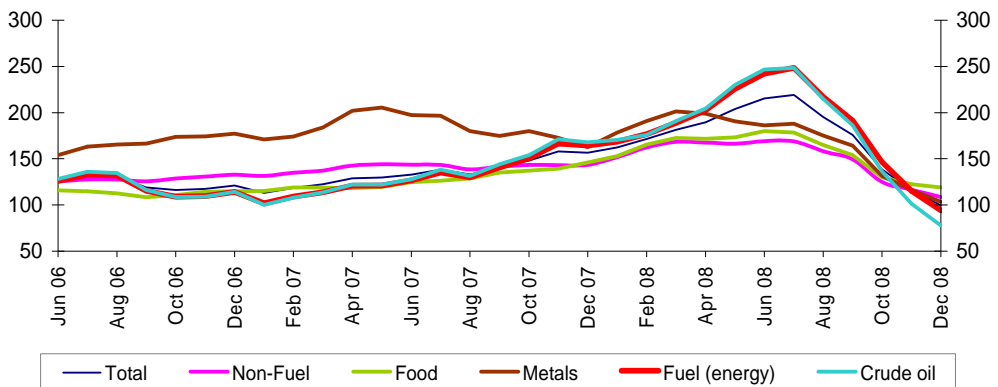
The **energy commodity index** (crude oil, natural gas and coal) posted the worst performance within the commodity spectrum for the third month in a row. **Crude oil prices** (the averaged petroleum spot price) have fallen dramatically by 23.2% m-o-m (around 40% lower than a year early) in December and despite the rise in geopolitical tension no visible and sustainable recovery is foreseen.

**Henry Hub gas sank by 12.9% in December.** This was a reverse in the relative recovery experienced last November ascribed to temporary factors. High production and economic turmoil exerted pressures on natural gas through lower demand. US gas consumption is expected to have slackened in December as a result of shrinkage in industrial and electricity-generation demand which together with output growth due to production increase as seen in the prolific Barnett Shale field in Texas, weighed on US natural gas prices suggesting an unfavorable outlook for 2009. It must be noted that economic recession is exerting pressures on natural gas through competition with low crude prices as well. Ample storage also added to the bearish trend.

The outlook for this natural gas thus remains bearish due to forecasted lower consumption in 2009 as a result of the economic recession.

**Coal prices fell 14.7% in December on the same factors that weighed on prices in the previous months,** namely lackluster global demand as well as a lack of liquidity which hampered business.

**Graph 9: Major commodity price indexes, 2006-2008**



**Commodity Price Index, 2005 = 100**

- Total - Includes both fuel and non-fuel.
- Non-fuel - Includes food and beverages and industrial inputs.
- Food - Includes cereal, vegetable oils, meat, seafood, sugar, bananas and oranges.
- Metals - Includes copper, aluminum, iron ore, tin, nickel, zinc, lead and uranium.
- Fuel (energy) - Includes crude oil (petroleum), natural gas and coal.
- Crude oil - Is the simple average of three spot prices: Dated Brent, West Texas Intermediate and Dubai Fateh.

**Non-energy commodities plunged 6.8 % in December m-o-m, down 24.2% from year-ago level.**

**The industrial metal price index saw a fall of 10.9% m-o-m in December** for the 8<sup>th</sup> consecutive month, a 36.4% yearly drop. Although some factors encouraged metal prices during the end of December, e.g. anticipation of index rebalancing and re-weightings, supposed to revive net buying of base metals and of COMEX copper, LME nickel and LME zinc, and expectations of fiscal stimuli; However, the impact has proved to be short-lived. At present, the metal markets are characterized by massive surpluses reflected in very high inventories.



**The metal complex together with the energy market has been severely hit by the economic and financial turmoil because they are the sectors most closely-linked to the economic cycle. The current economic recession translated into a plunge in production and weaker demand for raw materials emerging from construction, transport and other sectors.** As in last November, the high level of inventories and the move of the forward curve into contango reflected weaker metal fundamentals. In this context, weak demand will remain the major factor behind metal markets without perspective of an improvement in the short term as there has been a worsening of recent indicators showing a decline in industrial production, European confidence and the US unemployment report. Analysts agree on the fact that even with production cuts, industrial metal prices will decline in the short-term owing to the high surpluses.

**Following the dramatic 22% drop in copper prices in November, prices fell a further 16.7% in December.** Still copper was a loss leader in December with the falling trend in the three final months being the worse since 1980. The three-month forward curve moved into contango at the end of October. The milder decline in copper price in December was related to high Chinese imports which led global copper demand to remain artificially high. Chinese buyers were piling up stocks encouraged by declining prices at the LME, which helped to support prices. Despite that, the accumulation of stocks at the LME in December indicated that global copper demand is weak. On the positive side, the Chinese government has announced plans to buy metal from local smelters and production adjustments are still in progress. The magnitude of the current economic recession makes a recovery in copper price in the short-term unlikely.

**Aluminum prices sank 19% in December, which compared unfavorably with -12% in November -37% lower down from the year ago level** as a result of slow demand from the construction and transport sectors. The critical situation of the US automotive sector seems to have been a key factor with major US automakers reporting a large fall in car sales in November, at up to 47% for Chrysler. On top of that, construction spending in the first 10 months of 2008 dropped 5.7% y-o-y. Despite efforts of producers to reduce output significantly and the approval of a rescue plan to the automotive sector in the US, a recovery in aluminum prices in 2009 is not foreseen given the magnitude of the surpluses and the severity of the economic crisis. Likewise, if production cuts materialize, there are still some new capacities coming onstream. The latest data flowing from China has not been encouraging, with reports that aluminum production remained the same on a yearly basis (8.2%), which represents bad news as China is the world's largest producer country.

**Nickel prices kept slumping by 8.6% m-o-m, down 62.2% from a year earlier. The same negative factors that have exerted downward pressures on this market are still at work: deteriorating demand** from the stainless steel sector which has seen weakening demand from end-users. Chinese major producers cut production in October by 50% as a result of tumbling demand and despite nickel inventories at the LME continuing to increase in December. The outlook for nickel market remains gloomy despite the cut in production in nickel mines which is estimated to reach 16% of the expected output for 2009 due to unfavorable conditions in the stainless steel market and in the transport and construction sector at the global economy.

**Zinc prices reported a 4.8% drop in December which compared favorably to a 10% loss in November. However, prices are still 53% lower than a year ago** due to a series of sharp production cut announcements. However, as in other industrial metals, the key factor behind this market was weakening demand due to the collapse of the automotive and construction sectors and zinc LME inventories posted high gains in the first part of December. The construction sector whose demand fell 5.7% during the first 10 months of 2008, accounts for 45% of global zinc demand. Despite the recent decision by the US government to provide US\$13.4 bn to Chrysler and GM, a recovery of the zinc market in the short-term is unlikely.

**The World Bank's agricultural price index continued decreasing in December by 4.0%, compared to 5.7% in the previous month. The mild improvement was ascribed to a recovery in cocoa prices as a result of a significant slow-down in shipments to the port of Abidjan, Ivory Coast. Also, palm kernel oil prices increased on higher imports from China and Europe. However an important decline in raw materials took place as well, notably in rubber, owing to lower oil prices and weak demand for vehicles.** In general, similar factors as in the previous month have affected agricultural prices — weakening demand, sharp drop in crude oil prices, investor risk aversion and an improved supply outlook. The decline in the IMF food price index eased from 5.5% in November to 2.7% m-o-m in December on the relatively

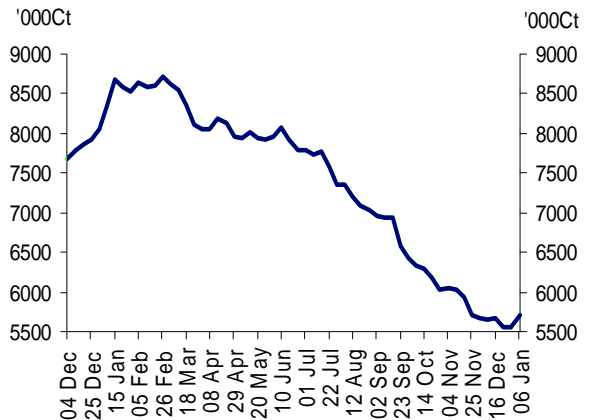
better performance of corn, wheat and soybeans. According to some analysts, agricultural products can perform as a “defensive commodities” — cereals and lower-cost proteins — because they may be less affected by lower income growth. Indeed the agricultural sector has performed better than the energy and industrial metals, because losses in demand has not less dramatic and are supposed to remain so because of the role of population growth in agricultural demand. Thus the outlook for agriculture in the near term is better than for the rest of the commodity sector.

Following a decline of 5.7% in November, **gold prices** reported a 7.3% m-o-m positive growth rate in December influenced essentially by investor safe haven buying in the face of the tremendous economic and financial crisis, although physical demand is still weak. As shown below, a strong recovery of global inflows into gold ETPs was reported in December. In the near term, gold prices may fall due to a deflation and the movement in dollar, depending on whether there is enough investment demand. In the forthcoming months, the outlook for gold look quite positive considering the following encouraging factors: first, a likely weakening of the US dollar against the euro on a 12 month basis; secondly, a recovery in crude oil prices towards the middle of the year and, thirdly, an inflationary scenario by the end the year.

**Investment flow into commodities**

**According to CFTC data, open interest volume declined further by 310,000 contracts to 5,660,000 m-o-m** in major US commodity markets in December, with compared to a decline of 277,000 contracts in last November. This was according to the commodity price decline in November and the severity of the global economic recession (see *Table 3 and Graphs 10 and 11*). A mild increase of 27,000 contracts in net longs non-commercials due to a higher decline in short than in longs. Consequently, the net non-commercials as a percentage of OIV for the US commodity markets slightly increased sin November from 1.9% to 2.5% in December.

**Graph 10: Total open interest volume, 2007- 2009**



Source: CFTC

**A further drop was reported in open interest in major US commodity markets in line with declining prices**

**Agriculture** open interest dropped 261,000 to 2,923,000 contracts in December m-o-m (99,000 contracts more than in November), being the determinant factor behind the decline in total open interest. Both long and short non-commercials dropped to 567,000 and 428,000 contracts respectively. Thus the net length of non-commercials as percentage of OIV fell from 6.0% to 5%. Soybean oil and corn experienced the worst performance within the agricultural complex in terms of investment activity.

**Precious metals** open interest declined by 18,000 to 406,000 contracts in December m-o-m which compared favorably with the 36,000 contracts decline in November. Non-commercial longs in this commodity group climbed by 11,000 contracts m-o-m in December, which combined with the 24,000 decline in short contracts led to an increase in net length as a percentage of open interest volume from 24.1% to 33.6% (see *Graphs 11 and 12*).

**Table 3: CFTC positions, '000 contracts**

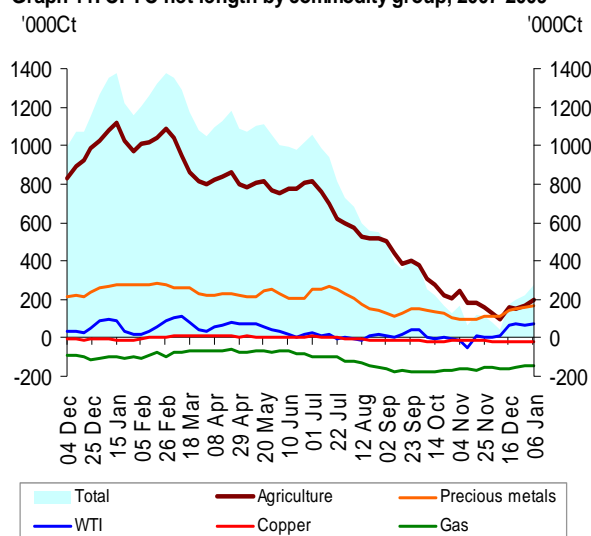
	Net Positions		Long Positions		Short positions		Open Interest	
	Change		Change		Change		Change	
	Dec 08	Dec/Nov	Dec 08	Dec/Nov	Dec 08	Dec/Nov	Dec 08	Dec/Nov
Crude Oil	43	55	204	17	161	-38	1,157	27
Natural Gas	-155	5	79	-9	234	-14	701	-43
Agriculture	139	-52	567	-69	428	-17	2,923	-261
Corn	37	-21	156	-38	119	-17	821	-154
Soybean Oil	-15	-11	16	-6	31	5	221	-31
Soybeans	22	-4	57	1	35	5	305	-8
Sugar	87	-9	149	-3	62	6	643	8
Precious Metals	137	34	176	11	39	-24	406	-18
Copper	-18	-2	9	2	28	5	72	-5
Livestocks	-6	-13	95	-9	101	4	401	-9
<b>Total</b>	<b>140</b>	<b>27</b>	<b>1,130</b>	<b>-57</b>	<b>990</b>	<b>-84</b>	<b>5,660</b>	<b>-310</b>

Natural gas (Nymex) open interest fell 43,000 contracts to 701,000 contracts in December m-o-m compared to a 98,000 contracts drop in November. Non-commercial longs declined 9,000 contracts in December while shorts fell 14,000 contracts. Thus, the net-length as percentage of the OIV continued at a high level of minus 22.1%.

**The significant fall in copper prices in December led to a 5,000 decline in open interest** to 72,000 contracts. An increase in non-commercial shorts outpaced the increase in longs resulting in non-commercial net positions turning negative and the percentage of the OIV declined to minus 25.5.

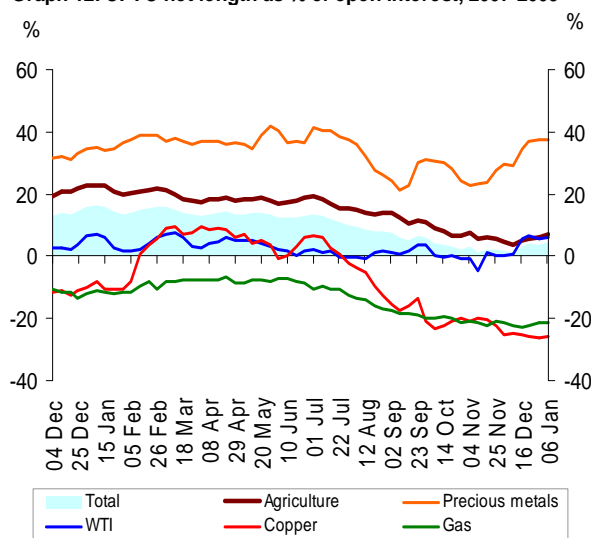
The recovery seen in the inflows into commodity-linked ETPs in November continued at a faster pace in December with the inflows reaching \$4bn. It should be noted that despite declining oil prices, it was energy and especially crude oil that was the largest beneficiary with \$2.8bn in December. This was the largest ever inflow reported to any commodity ETP subsector. (see *Tables 4a and 4b*)

**Graph 11: CFTC net length by commodity group, 2007-2009**



Source: CFTC

**Graph 12: CFTC net length as % of open interest, 2007-2009**

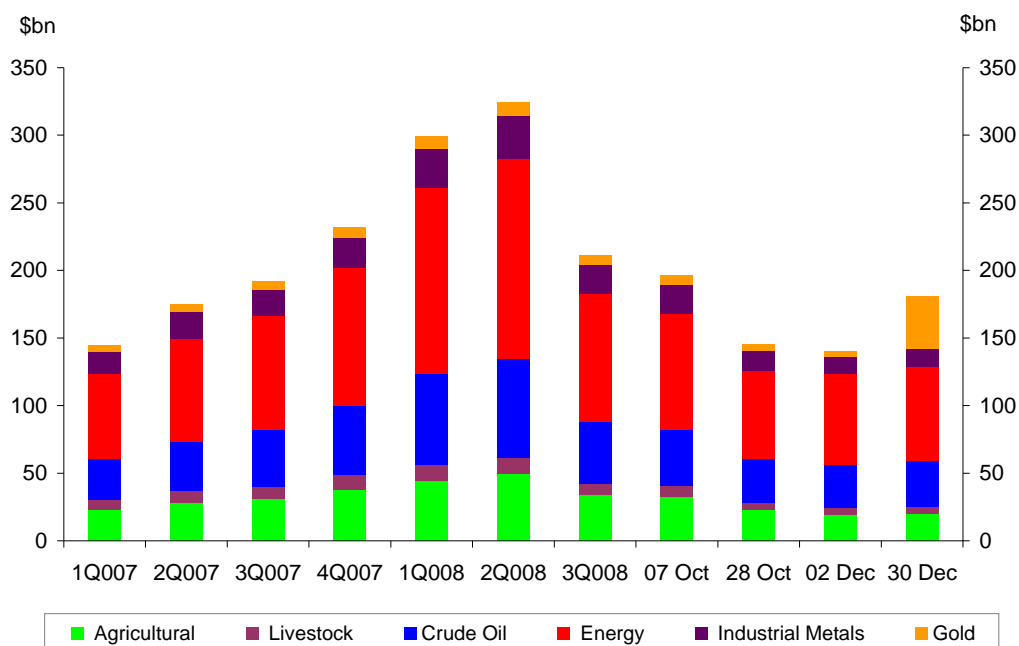


Source: CFTC

Our estimates of the investment inflow into commodities (see **Graph 13**) suggest that the recovery reported in November continued during December. Investment into the two major commodity investment indices (S&P GSCI and DJCI) increased above 6% on 30 December from 2 December. The sector most favored were gold followed by crude oil.

The most favored sector was precious metals and especially gold. Despite declining prices crude oil benefited as well from the investment interest which may be partly explained by the fact that the formulas embedded in the indices implies that fund managers buy more futures when crude prices drop, which in turn, reinforce the contango in crude by encouraging inventory accumulation. In this sense, the increase in investment into the S&P GSCI or Dow Jones-AIG indexes may have contributed to the massive increase in crude inventories and therefore to the collapse in prices.

**Graph 13: Investments in two principal commodity instruments (S&P GSCI and DJ-AIG)**



**Table 4a: US commodity exchanged traded products (ETP) - monthly flows**

	Long ETP Flows			Short ETP Flows		
	Dec 08	Nov 08	Oct 08	Dec 08	Nov 08	Oct 08
Base	-2.0	0.0	-29	0.0	0.0	-8.0
Precious	723.0	290.0	-137	10.0	2.0	-10.0
Agriculture	-62.0	-29.0	-265	0.0	0.0	-5.0
Energy	2,491.0	487.0	-720	-68.0	-35.0	-95.0
Broad-based	195.0	-3.0	-454	0.0	-1.0	-7.0
<b>Total</b>	<b>3,345.0</b>	<b>745.0</b>	<b>-1,605.0</b>	<b>-58.0</b>	<b>-34.0</b>	<b>-125.0</b>

**Table 4b: European commodity exchanged traded products (ETP) - weekly flows, 2008**

	Long ETP Flows				Short ETP Flows			
	07 Jan	17 Dec	10 Dec	12 Nov	07 Jan	17 Dec	10 Dec	12 Nov
Base	1.8	1.4	5.3	0.9	-0.6	-14.3	-8.3	2.8
Precious	10.6	-4.8	6.2	-108.7	0.4	-6.2	-2.2	0.2
Agriculture	5.3	2.1	5.8	-14.5	0.8	-13.4	-4.3	2.7
Energy	45.0	69.8	75.6	5.2	0.0	-14.3	-7.7	-13.2
Broad-based	0.5	1.5	0.5	-4	0.0	-0.6	0.9	-1.7
<b>Total</b>	<b>63.1</b>	<b>70.0</b>	<b>93.4</b>	<b>-117.4</b>	<b>0.6</b>	<b>-48.7</b>	<b>-21.6</b>	<b>-9.1</b>

Source: Barclays.

# Highlights of the World Economy

## Economic growth rates 2008-2009, %

	World	OECD	USA	Japan	Euro-zone	China	India
2008	3.4	1.2	1.2	0.1	1.0	9.5	6.9
2009	1.3	-1.0	-1.5	-1.9	-0.9	7.0	5.8

### Industrialised countries

#### United States of America

**Indicators point to a deepening of US recession; job losses amounted to 2.6 mn in 2008**

Economic indicators in December point to a deepening US recession as unemployment rises sharply, PMI indices continue to signal deep contraction in both manufacturing and services sectors and consumer confidence falls to record lows. The urgency for more government support, for which there is widespread consensus, is now focusing attention on the new administration's plans for a two-year \$775 bn fiscal stimulus package (2.8% of GDP) and its chances of quick passage through Congress — ideally within a few weeks after assuming office. The plan envisages tax cuts of around \$300 bn as well as massive investments in infrastructure and increased spending for health and energy networks. As a result, GDP is expected to be 3.7% higher by the end of 2010 than it would otherwise have been without the stimulus, according to a study compiled by the president-elect's economic advisers. The two-year plan is expected to generate or save as many as 4 mn jobs. The government impetus may interrupt an increasingly probable downward spiral of falling private consumption and higher unemployment.

However, the increased efforts by the Federal Reserve Board (Fed) and the government since the onset of the subprime crisis are leading to a surge in the US budget deficit. Economists surveyed by Bloomberg project the US government's budget deficit for the fiscal year 2009, which started in October 2008, to reach \$1.325 trn, equivalent to a post WWII high of 8.6% of GDP. This is close to the recent Central Budget Office forecast of 8.3%, which still excludes the planned fiscal stimulus package. Even in the 1980's, a period of high spending, the deficit had not exceeded 6% of GDP. This fact may cause some difficulties in gaining rapid support for the fiscal stimulus package, despite the economy's obvious needs. It is also exerting downward pressure on the US currency, with an erosion of the dollar's safe-haven status in December.

The dollar was also weakened by further monetary easing. The Fed lowered the federal funds rate target in mid-December to almost zero (range of 0% - 0.25%), testing the limits of monetary easing. Given the continued disinflation, with consumer inflation moderating to 1.1% in November y-o-y from 5.6% in July, and fears of downright deflation ahead, the Fed is beginning to consider direct inflation-targeting. Moreover, the Fed is looking at other options such as purchasing assets under the \$700 billion Troubled Asset Relief Program which was considered earlier, in addition to capital injections for banks, steps to avoid foreclosures and expansion of the planned \$200 billion Fed program to finance new securities backed by credit-card, automobile and student loans and possibly commercial mortgage-backed securities.

The US economy is losing jobs at a very fast pace, with payrolls falling 524,000 jobs in December, following a decline of 584,000 in November. The unemployment rate rose to a 15-year high of 7.2% from 6.8% in November. Job losses in 2008 totaled 2.6 mn, the biggest annual fall since 1945. It is generally expected that the unemployment rate will rise further in the coming months. A Bloomberg survey of 59 economists taken in early January 2009 sees a rise in the unemployment rate to 8.4% by late 2009. Even should the economy begin to recover in the second half of 2009, unemployment, which is a lacking indicator, may continue to climb higher as was witnessed in previous recessions.

At the same time, retail sales fell a higher-than-expected 2.7% in December for the sixth consecutive month, following a revised decline of 2.1% in November. For the whole of 2008, sales fell 0.1%, the first drop in the Commerce Department's records. Declines in 11 out of the 13 major categories was led by a 16% reduction in gasoline sales, partly reflecting cheaper gasoline prices (-43 cents/gallon in December). The International Council of Shopping Centers reported sales at stores open at least a year had dropped 2.2% in the last two months of 2008, the biggest holiday-season decline since records started in 1970.

The one positive factor for the US consumer in an otherwise gloomy landscape has been the moderation in inflation led by sharp falls in oil prices, which are equivalent to a large fiscal

stimulus package. The average price of regular gasoline fell to \$1.62 per gallon by 28 December or around 61% below the record high in July.

However, contrary to the last couple of months when consumer confidence was responding positively to the bonus of lower gasoline prices, the Conference Board's measure of consumer confidence for December fell to a record low of 38.0 from 44.7 in November as anxiety over the job situation and declining household wealth dominated consumer sentiment.

The Institute for Supply Managers' index of non-manufacturing businesses was 40.6 in December—falling below the threshold 50 level for the third month in a row albeit higher than the 37.3 reached in November. In addition, the decline in manufacturing deepened in December. The ISM index for manufacturing which represents around 12% of the economy fell to 32.4 from 36.2, in November, the lowest level recorded since 1980. The new orders sub-index reached the lowest level on record, signaling further contraction ahead. Moreover, the Commerce Department reported that factory orders had fallen by 4.6% in November, their fourth monthly fall.

Meanwhile, the downturn in the housing sector is still to reach bottom. The National Association of Realtors' November index of pending home re-sales fell 4.0% while sales of existing homes dropped by 8.6% in November, while foreclosures continue to rise. At this pace, it would take 11.2 months to clear the stock of unsold houses. The ratio was higher than the 10.3 months registered in October and similar to the peak seen in April 2008. The S&P Case/Shiller index which tracks home prices across 20 metropolitan areas fell 18% in October y-o-y after a 17.4% drop in September. Average house prices have already fallen by a quarter from their peaks in the mid-2006. Sales of new homes also dropped at a pace of 2.9% m-o-m in November, reaching their lowest level since 1991.

Overall, the US economy is expected to contract by 1.5% in 2009, a downward revision of 0.2 pp, from a positive 1.2% growth last year. On a quarterly basis the US economy is forecast to continue contracting in the first two quarters of 2009.

#### *Japan*

#### **November industrial production fell a record 8% in Japan as the economy was hit by falling exports**

Japan's recession deepened in the last quarter of 2008 as industrial production and exports plunged and the credit crunch intensified. The Nikkei stock index lost a record 42% in 2008. Almost two thirds of the index's members are now priced below their net worth. According to a survey of economists conducted by Bloomberg, the Japanese economy fell by 2.85% percent in the 4Q08, the third consecutive quarterly contraction, and is expected to continue to exhibit negative growth in the first quarter of 2009.

As recession deepened and the ability of businesses to access credit decreased, the number of bankruptcies rose 11% to 15,646 cases in 2008, the fastest pace since 2000, according to Tokyo Shoko Research Ltd. Large corporations turned to bank lending instead of the corporate debt market which led to a 4.1% rise in bank lending in December, the fastest pace in 16 years. In the process smaller companies' access to bank credit was squeezed. The Bank of Japan (BoJ) is attempting to do more to support the economy after lowering its key interest rate to 0.1% in December from 0.3%. The BoJ plans to buy commercial paper and to widen the range of acceptable collateral as well as increase the amount of monthly government bonds purchases.

At the same time, the government has announced a stimulus package of 10 trillion yen (\$108 billion) on December 12, twice the size of the one announced two months earlier. However the government may face difficulties in passing the package.

Other economic indicators were overwhelmingly bearish. The Cabinet Office reported that the Economy Watchers Index, a survey of consumer services, dropped to 15.9 in December, the lowest level since the government started the report in August 2001. Industrial production plummeted by 8.1% in November, the biggest monthly fall for more than half a century. The PMI manufacturing index for December fell to 30.8 from 36.7 a month earlier. Machinery orders, a forward indicator of capital spending, fell by a record 16.2% in November. With mounting layoffs, the unemployment rate rose from 3.7% in October to 3.9% in November, while the consumer price index fell to 1% from 1.7% in October.

The Japanese car industry is facing severe problems as exports fall and domestic sales slump. The additional problem of a strong yen, which rose almost 20% in 2008, is reducing the competitiveness of Japanese cars produced domestically. It is estimated that every 1 yen gain against the US dollar reduces Toyota's and Honda's annual operating profits by 40 and 18 bn yen,

**ECB expected to cut interest rates further as the recession deepens in the Euro-zone**

respectively. The Japan Automobile Manufacturers Association forecasts that domestic demand for cars will fall to 4.86 mn vehicles in 2009, a 31-year low, from 5.08 in 2008 and way below the peak of 7.78 mn back in 1990. In the past years exports have helped to compensate for the fall in domestic sales but due to the recent fall in external demand this is no longer the case and the productive overcapacity is becoming more obvious. Partial closures over the next two months by major car producers may be a first step to permanent reduction in overcapacity.

As a result of the global recession, Japanese exports fell by a record 26.5% in November from a year earlier, while imports slid 13.7%. The current-account surplus continued narrowing for the ninth month in November reaching 581.2 billion yen (\$65 bn), or 65.9% below a year earlier level.

Overall, the Japanese economy is forecast to contract at the pace of 1.9% in 2009, 0.2 pp lower than last month, following an estimated growth of 0.1% in 2008. On a quarterly basis the Japanese economy is forecast to continue contracting in the first two quarters of 2009.

*Euro-zone*

The Euro-zone economy slid further into recession with sharp drops in industrial production and new orders, record low business and consumer confidence, further contraction in services and manufacturing and higher unemployment. National governments are considering additional stimulus packages while the European Central Bank (ECB) is expected to lower its interbank rate once again in its January 15 meeting. The OECD in its latest Economic Survey of the Euro Area published on January 14, 2009, sees output continuing to contract in the first half of 2009, with growth remaining below trend until mid-2010. According to the OECD, GDP in the region is expected to contract by 0.6% in 2009 before growing at 1.2% in 2010.

During the second and third quarters of 2008, Euro-zone GDP declined by 0.2% each, compared with the previous quarter, according to the second estimate from Eurostat, the Statistical Office of the European Communities. In comparison with the same quarter of the previous year, seasonally adjusted GDP grew in 3Q08 by +0.6%, after a +1.4% expansion in 2Q08. In the third quarter, household final consumption expenditure and exports remained unchanged while investments fell by 0.6% and imports increased by 1.4%.

In November, seasonally adjusted industrial production registered a sharp drop of 1.6% m-o-m and 7.7% y-o-y. Production of energy decreased by 1.5% m-o-m, while capital goods declined 1.8% and durable consumer goods dropped 2.4%. In the previous month, industrial new orders had fallen by 15.1% m-o-m and 4.7% y-o-y. Meanwhile, Euro area unemployment rose to a two-year high of 7.8% in November from 7.7% in October compared to 7.2% in November 2007. Eurostat estimates that 12.180 million persons in the euro area were unemployed in November. Compared with October 2008, the number of unemployed increased by 202,000 and rose 1,059,000 compared to November 2007. It is expected that the rate of unemployment will rise further in coming months. It is however somewhat removed from the 8.7% unemployment rate of January 2006.

With the weakening of external demand, the Euro-zone trade balance with the rest of the world in October 2008 showed a small surplus of +0.9 bn euro, compared with +4.2 bn in October 2007, but better than the deficit of -4.5 bn euro in September, as seasonally adjusted imports fell faster (-4.6% m-o-m) than exports (-2.5% m-o-m). Exports were hampered not only by falling external demand but by the stronger euro, while falling imports reflect slowing growth as well as lower oil prices.

Meanwhile, European confidence in the economic outlook fell to the lowest level on record, exerting further pressure on the ECB to cut rates. The European Commission's index of executive and consumer sentiment dropped to 67.1 in December from 74.9 in November, far removed from the 101.7 in January 2008. The December level was the lowest since records began in 1985.

There has been some criticism of the slow reaction of the ECB to the deteriorating economic outlook, with the ECB seen to be behind the curve. However, the central bank's option to ease policy is now facilitated by the fall in consumer price inflation which slowed down to 1.6% in December from 2.1% in November as a result of lower oil prices and weakening demand, taking the CPI figure below the ECB's target of "below, but close to 2%" for the first time since August 2007. Despite the marked hesitation and lack of prior signaling by the ECB, it is expected that the refinancing rate will be cut by 25 to 50 basis points during the January 15 meeting. The ECB has

voiced concern that low interest rates may sow the seeds of future inflation. The rate stands currently at 2.5%, having come down by 175 basis points already since October 2008. Despite these cuts, the ECN reported that lending to consumers and businesses failed to grow in November for the first time on record.

Apart from monetary easing which is the domain of the ECB, European governments are resorting to fiscal measures to counteract the deepening recession. Following mounting internal criticism that the first fiscal package in November was too small, the German government agreed to a supplementary 50 billion euros (\$66 billion) of spending as well as approving a fund to guarantee loans to companies. In total, Germany's fiscal stimulus now adds up to 82 bn euros over two years, or about 1.6% of GDP, the biggest such package in Europe. It is expected to provide a lift to the economy at the earliest by mid-2009. The package includes infrastructure investment in schools and roads, reductions in health-insurance payments and a drop in the lowest income-tax rate, as well as 100-euro checks for each child. Moreover, a "protective umbrella" for non-financial companies of about 100 billion euros is to be set up to guarantee loans. France is also preparing a second banking package to the tune of 10.6 bn euros as well as considering plans to facilitate corporate borrowing.

Overall, the Euro-zone economy is forecast to contract by 0.9% in 2009 following a 1.0% growth this year. On a quarterly basis the Euro-zone economy is forecast to continue contracting in the first two quarters of 2009.

#### *Former Soviet Union*

The signs of negative impacts to Russia's economy from the global financial crisis were enhanced by latest economic indicators. The government predicts that the economy grew by just 1.6% y-o-y in November 2008; in fact it has dropped by 0.7% when adjusted for seasonal factors in response to the global financial crisis. This is compared to 6.9% in September and 5% in October for the same period last year. Industrial output fell by 7.5% in November. This slowdown comes from the decline in manufacturing industries, as well as electricity, gas and water production and distribution. The value of the rouble has come under intensive pressure since the decline of oil price in the last quarter of 2008. The Central Bank started devaluing the rouble over two months ago in response to falling oil prices, prospects of an economic recession and widespread capital flight. Russia saw record net capital outflows of \$129.9 bn last year, nearly a third more than forecast and in sharp contrast to inflows of \$83 bn in 2007, data from the Russian Central Bank revealed. The second half of 2008 saw investors turn negative on Russia due to a rise in global risk aversion, worsening economic fundamentals, a weaker oil price and a depreciating rouble.

#### *Developing Countries*

The Chinese National Bureau of Statistics revised 2007 GDP growth rate in China up by 1.1 percentage points to 13.0% from an original estimate of 11.9%, making China the world's third-largest economy surpassing Germany. However, the change in GDP estimates for two years ago will not alter the Chinese economy's near-term outlook. It might send perhaps a negative signal as a stronger 2007 would make the 2008 slowdown steeper. For 2009, a further slowdown is projected, as the global economy remains in a dismal state, hurting China's export-related businesses, which have been the main engine for growth during the previous cycle. In December 2008, exports dropped by 2.8% y-o-y, following a 2.2% decline in November, according to the Chinese customs agency. This is the biggest decline in a decade strongly contrasting with January 2008 export growth rate of 26.7%. Reflecting the trade slowdown, the Chinese Central Bank reported that China's foreign reserves grew by only \$45 billion in the three months ending December 31. This was down from the \$377 bn increase reported for the first three quarters of the year — or an average of more than \$125 bn per quarter. Growth in Chinese bank lending and money supply surged in December in response to government efforts to pump up the economy after trade data showed that it was being hit hard by the global financial crisis. The government cut fuel prices for the second time in January to reflect the decline in global oil prices and reduce costs for factories as the economy slows. The government will also continue to intervene in foreign exchange markets to limit the yuan's appreciation against the US dollar in 2009 on concern renewed appreciation will hurt exporters at a time of shrinking global demand.

India's economy may grow at close to the slowest pace since 2003 for a second straight year at 5.8% as the global recession cuts overseas orders and domestic demand weakens. To spur growth, India's government unveiled a second stimulus package to inject capital into banks and allow overseas investors to double purchases of debt. The central bank cut interest rates for the fourth

**The Russian government estimates output growth at 1.6% y-o-y in November 2008**

**China revised up GDP growth in 2007 to 13%**

**Chinese government cuts fuel prices, expands money supply, slows Yuan devaluation in efforts to support economic growth**

**India's economy slowing down in 2009 but there are reasons for hope**



time in less than three months. India's industrial production rose by 2.4% y-o-y in November, a partial recovery from the 0.3% decline of the previous month. However, industrial activity remains on a slowing trend in response to the weakening global economy. Yet there are reasons to believe that the Indian economy will sustain reasonable performance in 2009 in comparison to developed economies. The large domestic consumption base, a still-strong financial sector and many sound, well-managed companies will all assist in the economic recovery. India has a relatively low dependence on exports compared to other economies in the region, which limits its direct exposure to the global slowdown. In addition, cheaper oil prices will definitely help to lower the deficit in the current-account. The falling inflation assisted the central bank to drive the interest rates down and the recent slew of policy measures should begin to take effect in coming months. As developed world interest rates trend towards zero, emerging markets like India will remain attractive for savings and this would boost cash inflow into the Indian economy.

**Economic stimulus package announced in Saudi Arabia**

***OPEC Member Countries***

Saudi Arabia announced an SR475 billion (\$126.7 billion) economic stimulus budget for 2009, allocating more money for education and increasing public spending by 15.8% (SR65 billion), despite the sharp decline in oil prices.

**US dollar fell against euro as Fed cut interest rate to near-zero and attention turned to dollar-negative forecasted expansion of US budget deficit**

***Oil prices, the US dollar and inflation***

Breaking a four-month upward trend, the dollar lost ground against the three of the major currencies in the OPEC currency basket in December, appreciating only versus the pound sterling. The dollar fell 5.4% versus the euro, 5.5% vis-à-vis the yen and 3.7% against the Swiss franc, but appreciated by a further 3.2% with respect to the pound sterling. Against the modified Geneva I + US dollar basket, the dollar depreciated by almost 2.9% in the last month of 2008 compared to a 2.6% rise in November, reducing the overall rise since July to 8.2%. The US currency averaged \$1.3419/€ in December from \$1.2731/€ in November.

The weakening of the dollar in December can be attributed to the drop in US interest rates as the Fed lowered the federal funds target rate to almost zero, as well as to the deepening US economic recession and market attention turning to the budgetary costs of the massive envisaged bailouts. The dollar ended the year at around \$1.41/€ but improved to \$1.32/€ by January 14 in anticipation of a cut in Euro-zone interest rates by the ECB on January 15, in addition to some optimism about the envisaged fiscal stimulus package's ability to revive growth. The yen rose as high as 87.5¥/\$ on December 17 but has since weakened somewhat in January. It stood at 89.5 ¥/\$ on January 14.

In December, the OPEC Reference Basket dropped by \$11.2/b or 22.4% to \$38.60/b from \$49.76/b in November. In real terms (base June 2001=100), after accounting for inflation and currency fluctuations, the Basket price fell \$8.2/b or 24.7% to \$25.11/b from \$33.32/b. The dollar depreciated by 2.86%, as measured against the import-weighted modified Geneva I+US dollar basket, while inflation eroded the value of the barrel by a mere 0.02%.\*

\* 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 to decline by around 0.1 mb/d in 2008**

## World oil demand in 2008

US oil consumption is considered the major factor behind the vanishing growth in oil demand in 2008. North America alone shaved 1.1 mb/d from world oil demand growth last year. For the whole OECD region, the decline reached 1.5 mb/d, more than enough to off-set the growth seen in other regions. Recent data from the USA indicated that oil demand in October was not as poor as initial estimates, leading to an upward revision of 0.6 mb/d. Despite the ease in oil prices, world economic turbulence managed to reduce oil demand growth in the non-OECD by a third or 0.5 mb in the second half of 2008. Given the recent adjustment in the USA and the Middle East, the fourth quarter oil demand forecast was revised up by 0.1 mb/d. Thus, world oil demand is forecast to show a decline of 0.1 mb/d in 2008 y-o-y to average 85.8mb, basically unchanged from our last month's assessment. It should be noted that world oil demand has not seen negative growth since 1983. It has been growing on an average of 1.1 mb/d or 1.88% since then, adding 26.64 mb/d to total world oil demand.

**Table 5: World oil demand forecast for 2008, mb/d**

	<u>2007</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>4Q08</u>	<u>2008</u>	Change 2008/07	
							<u>Volume</u>	<u>%</u>
North America	25.53	24.84	24.53	23.76	24.34	24.36	-1.17	-4.57
Western Europe	15.30	15.20	14.88	15.35	15.51	15.23	-0.06	-0.41
OECD Pacific	8.35	8.87	7.82	7.50	8.29	8.12	-0.23	-2.74
<b>Total OECD</b>	<b>49.17</b>	<b>48.90</b>	<b>47.23</b>	<b>46.60</b>	<b>48.14</b>	<b>47.71</b>	<b>-1.46</b>	<b>-2.96</b>
Other Asia	9.12	9.32	9.49	9.09	9.38	9.32	0.20	2.23
Latin America	5.51	5.54	5.75	5.88	5.78	5.74	0.23	4.11
Middle East	6.50	6.75	6.81	7.05	6.80	6.85	0.36	5.49
Africa	3.09	3.19	3.11	3.09	3.20	3.15	0.05	1.75
<b>Total DCs</b>	<b>24.22</b>	<b>24.80</b>	<b>25.15</b>	<b>25.11</b>	<b>25.16</b>	<b>25.06</b>	<b>0.84</b>	<b>3.47</b>
FSU	3.98	3.97	3.89	4.22	4.44	4.13	0.15	3.74
Other Europe	0.93	1.03	0.96	0.92	0.91	0.96	0.03	2.74
China	7.59	7.97	8.17	8.10	7.67	7.98	0.39	5.15
<b>Total "Other Regions"</b>	<b>12.50</b>	<b>12.98</b>	<b>13.02</b>	<b>13.25</b>	<b>13.02</b>	<b>13.07</b>	<b>0.57</b>	<b>4.53</b>
<b>Total world</b>	<b>85.89</b>	<b>86.68</b>	<b>85.39</b>	<b>84.95</b>	<b>86.32</b>	<b>85.84</b>	<b>-0.05</b>	<b>-0.06</b>
Previous estimate	85.90	86.68	85.40	84.97	86.30	85.83	-0.07	-0.08
Revision	-0.01	0.00	0.00	-0.02	0.03	0.00	0.02	0.02

*Totals may not add due to independent rounding.*

## Review of oil consumption in 2008

Undoubtedly 2008 has been quite a rough year for world oil consumption, showing for the first time since 1983 year-on-year decrease of -0.05 mb/d, as compared to 2007. A major distinction can be made between deteriorating OECD and increasing Non-OECD oil consumption. Furthermore, the first half of the year still showed positive year-on-year growth, which became negative during the third and fourth quarters resulting from an increasing decline in OECD oil demand which was more than enough to off-set the growth of oil demand elsewhere. Two major causes that negatively affected the oil demand in 2008 were the high oil prices and the global financial crisis. The first adversely affected the oil demand in the first half of the year, and the latter hammered the world oil demand in the second half of 2008.

All OECD regions showed a growing consumption decline throughout the four quarters of the year, with the biggest drawbacks taking place in North America, and the USA in particular. The financial crisis led to significant drawbacks in oil consumption in North America by -1.8 mb/d and -1.1 mb/d in the third and fourth quarters. The bulk of the declines in North America are explained by consumption drawbacks in transport fuels, especially gasoline (-0.3 mb/d) and jet fuel (-0.1 mb/d), due to high prices in the first half of the year as well as the impact of the financial crisis after the beginning of the third quarter. As the financial crisis spread over to Europe and the Pacific, oil consumption experienced further reductions of a minus 0.4 mb/d during the second half of the year in the Pacific, as well as minus 0.1 in Europe for the same time period, with transport fuels accounting for most of the reductions. Although it was extremely cold in Europe, which led to higher consumption of heating and residual fuel oil, this did not offset the decline in other products. In general 2008 was a very disappointing year for oil consumption in the OECD; with the financial crisis just ahead of us, fears of even more deteriorating OECD oil consumption in the near future become more eminent.

The situation for Non-OECD regions is a different one. Although oil consumption in some Developing Country's regions, such as Other Asia, Latin America and Africa, started showing weakening signals during the second half of the year, especially the fourth quarter, consumption showed an increase by 0.8 mb/d in the third quarter and 0.6 mb/d in the fourth y-o-y. Particularly during the fourth quarter a number of countries in Other Asia experienced reduced oil consumption, the significantly Taiwan, Thailand, Singapore, Malaysia and Indonesia, while at the same time Indian oil consumption appeared to be weaker as compared to previous quarters of 2008. In Latin America, Brazil and Venezuela were dominating the bulk of oil demand growth during 2008. Middle East oil consumption remained robust throughout the year with an average growth of 0.4 mb/d, with Saudi Arabia and Iran being the major contributors.

Although some signs of fading Chinese oil consumption were observed during the last two months of 2008, China consumed an additional 0.4 mb/d during 2008, as has been forecasted initially, remaining one of the biggest contributors of oil consumption growth. The country's net oil imports in 2008 averaged 4.06 mb/d, an access of 0.34 mb/d or 9% from 2007. However, it did not reach the massive growth of 20% that was recorded in 2006.

### North America to show a decline of 1.2 mb/d in 2008

#### *OECD – North America*

Modest gasoline prices in the US have already reached a low not seen since 2004. To some degree this has helped the consumption of gasoline creep higher. Recent data from the US indicated that oil usage in October was not as bad as earlier thought. According to the EIA, October demand was revised up by 0.6 mb/d. Although further data corrections are expected, the current US oil demand is forecast at a decline of 1.1 mb/d for 2008. Gasoline demand was hit badly by high oil prices early in the year, leading to a total decline of 0.3 mb/d or 3.3% in 2008 to average 9.0 mb/d. One major decline in oil usage was due to low demand for industrial fuel.

Similarly, Canadian oil demand also declined. As seen in October, the country's November oil demand plunged by 4% y-o-y. It lost 74 tb/d of its total annual demand to average 1.7 mb/d. Industrial oil product usage declined the most due to slowing industrial production nationwide. Cold weather led to a growth in fuel oil consumption which will lead to some increase in winter products; however it is not enough to level out the strong decline in other products.

As in the rest of the region, Mexican oil demand declined, but at twice the rate in October, reaching 136 tb/d y-o-y. However, due to growth that was accumulated in transport fuel early in the year, the country's total oil demand shows a growth of 0.7% y-o-y in the first eleven months. With the forecast decline in December, Mexico's oil demand will be flat or slightly negative for the year 2008.

As a consequence of the recent US revision, North American oil demand forecast has been revised up by 0.1 mb/d to show a decline of 1.2 mb/d y-o-y in 2008.

## Canadian sales of refined petroleum products, tb/d

	<u>Nov 08</u>	<u>Nov 07</u>	<u>Change from Nov 07</u>	<u>Change from Nov 07 (%)</u>
Motor Gasoline	699	725	-26	-3.5
Aviation Fuels	139	151	-12	-8.2
Diesel Fuel Oil	449	480	-31	-6.5
Residual Fuel Oil	191	176	15	8.7
Other Products	239	264	-25	-9.3
<b>Total Products</b>	<b>1717</b>	<b>1795</b>	<b>-78</b>	<b>-4.4</b>

*OECD Europe***OECD Europe to decline a slight 60 tb/d in 2008**

Cold weather led to an increase in the usage of winter products across Europe, especially in Germany. Recent data from Germany indicated an increase of 18% in the usage of heating oil. As seen in October's growth of 9.2%, November oil usage within the country is on the plus of around 5% y-o-y. Germany's fourth quarter inland oil product deliveries are forecast to grow by 0.1 mb/d y-o-y. Although British oil demand showed growth in the first month of the fourth quarter resulting from strong consumption in fuel oil, the total year oil usage will be in the negative by 0.1 mb/d y-o-y. France, on the other hand, was hammered strongly by the slowing economy leading to a drastic decline in the usage of all the products. Like the UK, French oil demand for the year 2008 is forecast to show a decline of 0.1 mb/d y-o-y. Italy and Spain are no different from France and the UK. Both countries' oil demand will be in the negative for the year 2008. As for the total of OECD Europe, November oil demand declined by 2.3 mb/d y-o-y. Given the forecast of December oil demand decline of only 1.0 mb/d, OECD Europe's fourth quarter oil demand is forecast to decline by 0.14 mb/d y-o-y.

Although the fourth quarter oil demand showed a drastic decline, the OECD Europe oil demand for the whole year is forecast to decline by only 60 tb/d y-o-y to average 15.2 mb/d.

**Table 6: First and second quarter world oil demand comparison for 2008, mb/d**

	<u>1Q07</u>	<u>1Q08</u>	<u>Change 2008/07</u>		<u>2Q07</u>	<u>2Q08</u>	<u>Change 2008/07</u>	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	25.68	24.84	-0.84	-3.27	25.40	24.53	-0.88	-3.45
Western Europe	15.19	15.20	0.01	0.07	14.93	14.88	-0.04	-0.30
OECD Pacific	8.91	8.87	-0.04	-0.48	7.87	7.82	-0.05	-0.65
<b>Total OECD</b>	<b>49.78</b>	<b>48.90</b>	<b>-0.87</b>	<b>-1.75</b>	<b>48.20</b>	<b>47.23</b>	<b>-0.97</b>	<b>-2.02</b>
Other Asia	8.98	9.32	0.34	3.78	9.23	9.49	0.26	2.78
Latin America	5.30	5.54	0.24	4.48	5.48	5.75	0.26	4.83
Middle East	6.47	6.75	0.28	4.35	6.45	6.81	0.36	5.54
Africa	3.11	3.19	0.09	2.76	3.05	3.11	0.06	1.90
<b>Total DCs</b>	<b>23.86</b>	<b>24.80</b>	<b>0.94</b>	<b>3.96</b>	<b>24.22</b>	<b>25.15</b>	<b>0.94</b>	<b>3.87</b>
FSU	3.87	3.97	0.10	2.70	3.71	3.89	0.18	4.92
Other Europe	1.01	1.03	0.03	2.53	0.92	0.96	0.04	4.47
China	7.48	7.97	0.50	6.63	7.77	8.17	0.40	5.14
<b>Total "Other Regions"</b>	<b>12.35</b>	<b>12.98</b>	<b>0.63</b>	<b>5.06</b>	<b>12.39</b>	<b>13.02</b>	<b>0.62</b>	<b>5.03</b>
<b>Total world</b>	<b>85.99</b>	<b>86.68</b>	<b>0.70</b>	<b>0.81</b>	<b>84.81</b>	<b>85.39</b>	<b>0.59</b>	<b>0.69</b>

Totals may not add due to independent rounding.

**Table 7: Third and fourth quarter world oil demand comparison for 2008, mb/d**

			Change 2008/07				Change 2008/07	
	<u>3Q07</u>	<u>3Q08</u>	<u>Volume</u>	<u>%</u>	<u>4Q07</u>	<u>4Q08</u>	<u>Volume</u>	<u>%</u>
North America	25.54	23.76	-1.79	-7.00	25.49	24.34	-1.15	-4.50
Western Europe	15.42	15.35	-0.07	-0.47	15.65	15.51	-0.14	-0.90
OECD Pacific	7.89	7.50	-0.39	-4.95	8.72	8.29	-0.43	-4.88
<b>Total OECD</b>	<b>48.85</b>	<b>46.60</b>	<b>-2.25</b>	<b>-4.61</b>	<b>49.86</b>	<b>48.14</b>	<b>-1.71</b>	<b>-3.44</b>
Other Asia	8.94	9.09	0.15	1.72	9.31	9.38	0.07	0.73
Latin America	5.65	5.88	0.23	4.14	5.61	5.78	0.17	3.02
Middle East	6.62	7.05	0.43	6.50	6.45	6.80	0.36	5.53
Africa	3.06	3.09	0.03	0.89	3.15	3.20	0.05	1.46
<b>Total DCs</b>	<b>24.26</b>	<b>25.11</b>	<b>0.84</b>	<b>3.48</b>	<b>24.52</b>	<b>25.16</b>	<b>0.64</b>	<b>2.61</b>
FSU	4.00	4.22	0.22	5.56	4.35	4.44	0.09	1.99
Other Europe	0.90	0.92	0.02	2.35	0.90	0.91	0.01	1.62
China	7.72	8.10	0.38	4.94	7.38	7.67	0.29	3.93
<b>Total "Other Regions"</b>	<b>12.62</b>	<b>13.25</b>	<b>0.63</b>	<b>4.95</b>	<b>12.63</b>	<b>13.02</b>	<b>0.39</b>	<b>3.10</b>
<b>Total world</b>	<b>85.74</b>	<b>84.95</b>	<b>-0.78</b>	<b>-0.91</b>	<b>87.01</b>	<b>86.32</b>	<b>-0.68</b>	<b>-0.79</b>

Totals may not add due to independent rounding.

### OECD Pacific

#### OECD Pacific down 0.23 mb/d in 2008

As a result of slowing industrial production in 2008, the strong decline in South Korea's fuel oil demand of 30% suppressed the country's total oil demand by 12% in November y-o-y. Naphtha and diesel demand showed a strong decline of 11% and 13%, respectively, in the same month. Not only the high oil prices earlier in the year, but also slowing economic activities pushed the country's total oil demand down by a little less than 5% y-o-y in the first eleven months of 2008. The picture in Japan is much worse as far as the oil demand is concerned. The deteriorating economic situation has led to a massive decline in oil demand in the fourth quarter of 2008.

Japan's November oil sales lost almost 12% of annual sales y-o-y resulting in a loss of 0.5 mb/d in the country's total petroleum product sales. With the re-instating of the previously damaged nuclear power plants and the reduction of demand in the power sector, crude direct burning declined by almost half in November y-o-y. Sliding industrial use of naphtha pushed down the consumption by 15% or 0.13 mb/d in November y-o-y. Given the dim economic situation in Japan, the country's total use of oil products is forecast to decline by 0.35 mb/d in the fourth quarter y-o-y. However, as for the total year, the decline in oil usage is forecast at 0.2 mb/d y-o-y. Japan and South Korea have pushed OECD Pacific oil demand down by 0.3 mb/d in the fourth quarter leading to an average loss for the year of 0.23 mb/d.

**Table 8: Japanese domestic sales, tb/d**

	<u>Nov 08</u>	<u>Change from Nov 07</u>	<u>Change from Nov 07 (%)</u>
Gasoline	980	-33	-3.3
Naphtha	749	-133	-15.1
Jet Fuel	95	-13	-12.4
Kerosene	449	-49	-9.9
Gas Oil	588	-66	-10.1
Other Products	607	-69	-10.2
Direct Use of Crude	112	-110	-49.4
<b>Total</b>	<b>3,579</b>	<b>-473</b>	<b>-11.7</b>

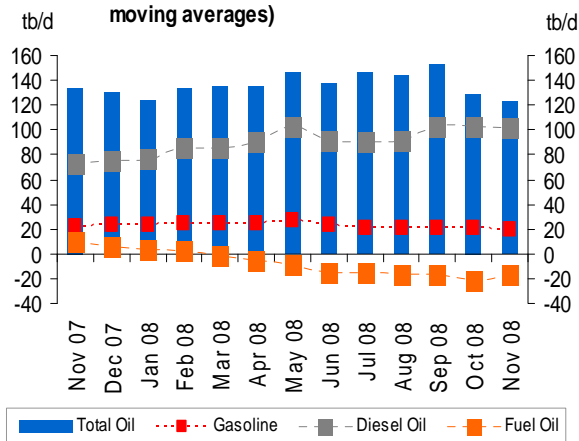
Source: Ministry of Economy and Trade in Japan (METI).

**Middle East to see healthy growth of 0.36 mb/d**

**Developing Countries**

As in other Asian countries, Taiwan oil demand continued its decline achieving a 15% drop y-o-y in November. Slowing exports, a reduction in industrial production and agricultural off-season led to a 6.6% decline in the fourth quarter y-o-y. This sudden strong decrease in the fourth quarter reduced average total oil demand growth for the year to only 0.3 mb/d. As is the case in Asia, the declining petrochemical industry caused naphtha demand to perform the most poorly in Taiwan. For the same reasons as Taiwan, other large consuming countries, such as Thailand and Malaysia, are expected to show a decline in the fourth quarter of 0.03 mb/d and 0.4 mb/d, respectively.

**Graph 14: Yearly changes in Indian oil demand 12 month moving averages)**



Indian oil demand recovered from its October decline; however, the November growth of 2.5% was the lowest since last June. Gasoline and diesel demand growth were very mild. For the first eleven months of the year, Indian oil demand grew by 4.4% to average 2.8 mb/d. Not only did industrial use of oil slow down, but agricultural use was on the decline as well. Furthermore, fuel switching among power and petrochemical plants led to low consumption of fuel oil.

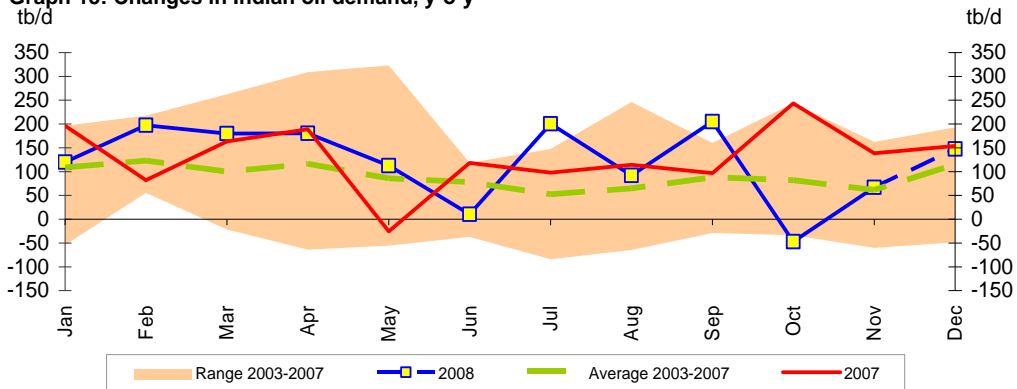
Other Asia was affected by the global financial crisis which, in turn, slowed down the region's economic activities causing oil usage in major Asian countries to decline. Hence, Other Asia oil demand for the fourth quarter was revised down by 60 tb/d for growth of 68 tb/d.

**Table 9: Indian oil demand by main products, tb/d**

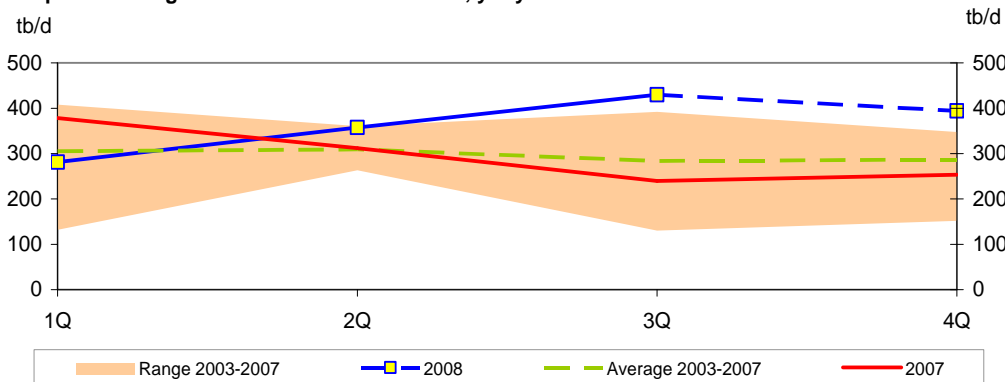
	<u>Nov 08</u>	<u>Oct 08</u>	<u>Jan 08 - Nov 08</u>	<u>Difference to Jan 07 - Nov 07</u>	<u>%</u>
LPG	381	376	375	13	3.6
Motor Gasoline	243	259	251	19	8.3
Jet Kero	302	292	296	4	1.3
Gas Diesel Oil	1,130	954	1,067	101	10.5
Residual Fuel Oil	328	350	322	-15	-4.5
Other Products	353	422	538	-2	-0.4
<b>Total Oil Demand</b>	<b>2,737</b>	<b>2,653</b>	<b>2,849</b>	<b>120</b>	<b>4.4</b>

Sources: Direct Communication, Indian Ministry of Petroleum, Indianpetro, JODI plus OPEC Secretariat's estimates.

**Graph 15: Changes in Indian oil demand, y-o-y**

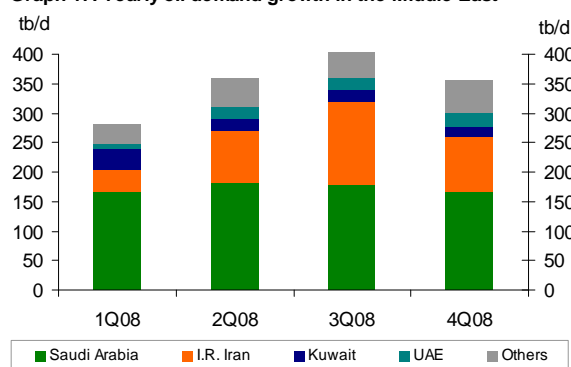


**Graph 16: Changes in Middle East oil demand, y-o-y**



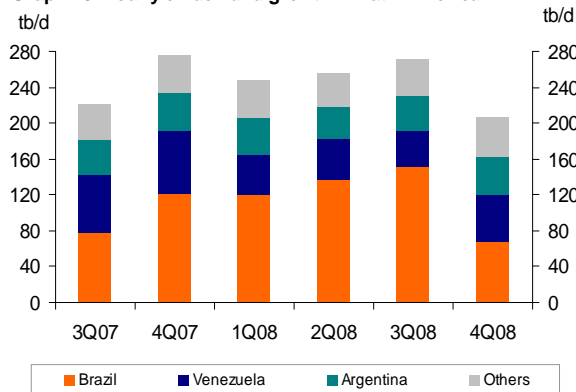
The Middle East fourth quarter oil demand was not affected by the global downturn. Contrary to most of the world, the Middle East oil demand was stronger than expected; hence the fourth quarter was revised up by 0.08 mb/d. Controlled petroleum product retail prices along with energy intensive projects helped Middle East oil demand achieve a healthy growth of 0.36 mb/d in 2008 to average 5.7 mb/d. Middle East oil demand growth is the second strongest worldwide, after China.

**Graph 17: Yearly oil demand growth in the Middle East**



As a result of the strong oil demand in Other Asia, Latin America, and the Middle East, oil demand growth in the Developing Countries reached 0.8 mb/d y-o-y in 2008.

**Graph 18: Yearly oil demand growth in Latin America**



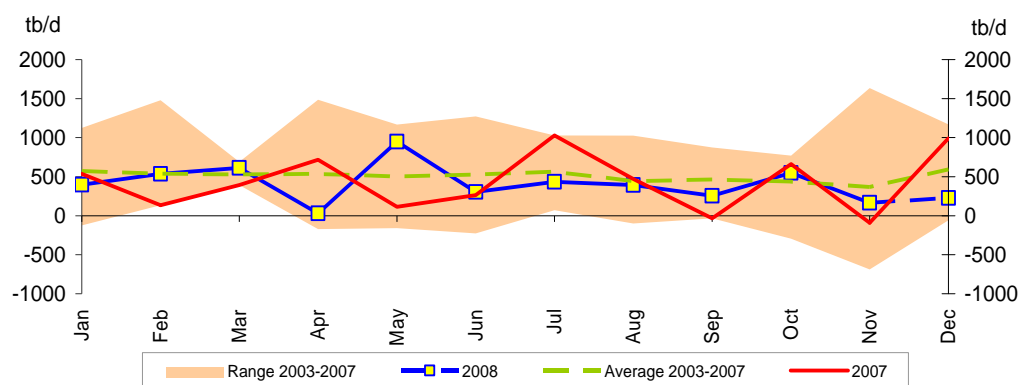
**Other Regions**

**China to increase 0.4 mb/d in 2008**

Despite the high oil prices during 2008, China's oil demand, especially transport fuel demand, grew strongly in the first eleven months of the year. Gasoline demand grew by 15% y-o-y. Total Chinese oil demand scored 5.5% in the same period averaging 8 mb/d. Despite negative net oil imports of 0.1 mb/d, November apparent oil demand grew by 0.16 mb/d y-o-y. China's oil demand has been negatively affected by the world economic downturn with November oil demand growth only one third of October's increase. Gasoil, which is largely consumed in China not only as a transport fuel but by industrial and agricultural sectors, has grown by 15% in the first eleven months of 2008. Furthermore, strong travel activities during the Olympic Games pushed the kerosene consumption up by more than 20% in the same period. Industrial activities had a big impact on the use of fuel oil leading to a total growth of 20% y-o-y.

Given the slow oil demand in the last two months of the year, the country's oil demand growth is forecast at 0.4 mb/d in 2008.

**Graph 19: Changes in Chinese apparent oil demand, y-o-y**



**World oil demand to see negative growth of 0.2 mb/d**

**World oil demand in 2009**

The year 2009 started with a very depressed world economy which caused the year's oil demand forecast to show negative growth of 0.2 mb/d y-o-y. The huge decline in OECD oil demand is expected to more than offset the growth in non-OECD consumption, resulting in the projected annual decline.

The depressed world economy is expected to have a large impact on oil demand this year, especially in the OECD countries. It will result in a major contraction on the OECD oil demand mainly in the first half of the year, which is anticipated to average at 1.3 mb/d y-o-y. However, this decline will shrink to half in the second part of the year as the world economy shows better performance. The main contributor to the 1.0 mb/d OECD oil demand decline in 2009 will be the USA.

World oil demand growth will come solely from non-OECD countries, mainly China, the Middle East and Other Asia. Taken together, these countries are expected to growth by 0.6 mb/d, representing 78% of total non-OECD demand growth.

**Table 10: World oil demand forecast for 2009, mb/d**

	<u>2008</u>	<u>1Q09</u>	<u>2Q09</u>	<u>3Q09</u>	<u>4Q09</u>	<u>2009</u>	<u>Change 2009/08</u>	
							<u>Volume</u>	<u>%</u>
North America	24.36	23.91	23.93	23.26	24.04	23.78	-0.58	-2.38
Western Europe	15.23	14.90	14.59	15.13	15.36	14.99	-0.24	-1.57
OECD Pacific	8.12	8.59	7.59	7.41	8.23	7.95	-0.16	-2.03
<b>Total OECD</b>	<b>47.71</b>	<b>47.39</b>	<b>46.11</b>	<b>45.79</b>	<b>47.63</b>	<b>46.73</b>	<b>-0.98</b>	<b>-2.06</b>
Other Asia	9.32	9.38	9.56	9.19	9.50	9.41	0.09	0.93
Latin America	5.74	5.60	5.84	5.98	5.90	5.83	0.09	1.62
Middle East	6.85	6.97	7.04	7.31	7.06	7.10	0.24	3.56
Africa	3.15	3.21	3.14	3.13	3.25	3.18	0.03	1.04
<b>Total DCs</b>	<b>25.06</b>	<b>25.16</b>	<b>25.58</b>	<b>25.61</b>	<b>25.70</b>	<b>25.51</b>	<b>0.46</b>	<b>1.82</b>
FSU	4.13	4.00	3.93	4.27	4.50	4.18	0.04	1.07
Other Europe	0.96	1.04	0.97	0.94	0.93	0.97	0.01	1.44
China	7.98	8.23	8.41	8.43	8.02	8.27	0.29	3.67
<b>Total "Other Regions"</b>	<b>13.07</b>	<b>13.27</b>	<b>13.30</b>	<b>13.64</b>	<b>13.45</b>	<b>13.42</b>	<b>0.35</b>	<b>2.69</b>
<b>Total world</b>	<b>85.84</b>	<b>85.82</b>	<b>84.99</b>	<b>85.03</b>	<b>86.79</b>	<b>85.66</b>	<b>-0.18</b>	<b>-0.21</b>
Previous estimate	85.83	85.88	85.04	85.05	86.76	85.68	-0.15	-0.18
Revision	0.00	-0.05	-0.05	-0.02	0.03	-0.02	-0.03	-0.03

Totals may not add due to independent rounding.



### North America to decline by 0.6 mb/d in 2009

#### OECD – North America

With USA GDP estimated at a minus 1.5%, the country's oil consumption is expected to contract by 0.5 mb/d in 2009 versus 1.2 mb/d in 2008. Given the expectation of an improved economic situation in the USA in the second half of the year and a more positive impact of oil prices on oil demand, the oil demand forecast is more optimistic. The consumption of two major products will be affected negatively next year: transport and industrial fuel. Both products are highly elastic to economic activities. Gasoline consumption in the US, the highest consumed product in OECD, is forecast to show a vast decline resulting from a decrease in driving mileage within the US. Another factor that is affecting gasoline demand is the movement to smaller, more efficient vehicles nationwide. This expected negative effect on gasoline will be to some degree reduced by cheap gasoline prices.

Separately, the Mexican government is taking measures to ease the negative impact of downward economic activities on its citizens by either reducing or freezing some retail petroleum product prices in 2009. This move would have a slightly positive impact on oil demand in Mexico. Furthermore, the government is keen on promoting energy saving across the country.

The slow US economy has badly impacted the Mexican economy, which in turn slowed oil demand by 70 tb/d in the 4<sup>th</sup> quarter of 2008. The country's GDP is forecast to slow from 1.7% to almost flat; hence, Mexican oil demand is not expected to show any growth but would show a decline amounting to around 40 tb/d in 2009. Industrial fuel consumption will perform the worst among Other Products caused by slowing industrial production. Canada won't be any different from the rest of North American countries. Apart from the cold winter affecting winter product consumption, oil demand is expected to contract in 2009. The expected economic recession put the country's GDP to a minus of 0.5% leading to a total oil demand decline of 40 tb/d for the year.

Furthermore, a strong cut in industrial production in North America will have a drastically negative impact on usage of naphtha, diesel and fuel oil. Industrial fuel is anticipated to show a decline of around 2% next year.

The decline in North America oil demand is expected to bottom out at around 0.9 mb/d in the first quarter of 2009 and then bounce back to a minus 0.3 mb/d in the last quarter. North America oil demand is forecast to decline by 0.6 mb/d in 2009 to average 23.8 mb/d.

**Table 11: First and second quarter world oil demand comparison for 2009, mb/d**

			Change 2009/08				Change 2009/08	
	1Q08	1Q09	Volume	%	2Q08	2Q09	Volume	%
North America	24.84	23.91	-0.93	-3.74	24.53	23.93	-0.60	-2.45
Western Europe	15.20	14.90	-0.30	-1.97	14.88	14.59	-0.29	-1.95
OECD Pacific	8.87	8.59	-0.28	-3.17	7.82	7.59	-0.23	-2.94
<b>Total OECD</b>	<b>48.90</b>	<b>47.39</b>	<b>-1.51</b>	<b>-3.09</b>	<b>47.23</b>	<b>46.11</b>	<b>-1.12</b>	<b>-2.37</b>
Other Asia	9.32	9.38	0.06	0.64	9.49	9.56	0.07	0.74
Latin America	5.54	5.60	0.06	1.08	5.75	5.84	0.09	1.57
Middle East	6.75	6.97	0.22	3.26	6.81	7.04	0.24	3.45
Africa	3.19	3.21	0.02	0.47	3.11	3.14	0.03	0.96
<b>Total DCs</b>	<b>24.80</b>	<b>25.16</b>	<b>0.36</b>	<b>1.43</b>	<b>25.15</b>	<b>25.58</b>	<b>0.43</b>	<b>1.69</b>
FSU	3.97	4.00	0.03	0.76	3.89	3.93	0.04	0.95
Other Europe	1.03	1.04	0.01	0.97	0.96	0.97	0.01	1.04
China	7.97	8.23	0.26	3.20	8.17	8.41	0.24	2.94
<b>Total "Other Regions"</b>	<b>12.98</b>	<b>13.27</b>	<b>0.29</b>	<b>2.27</b>	<b>13.02</b>	<b>13.30</b>	<b>0.29</b>	<b>2.20</b>
<b>Total world</b>	<b>86.68</b>	<b>85.82</b>	<b>-0.86</b>	<b>-0.99</b>	<b>85.39</b>	<b>84.99</b>	<b>-0.41</b>	<b>-0.48</b>

Totals may not add due to independent rounding.

**Table 12: Third and fourth quarter world oil demand comparison for 2009, mb/d**

	<u>3Q08</u>	<u>3Q09</u>	<u>Change 2009/08</u>		<u>4Q08</u>	<u>4Q09</u>	<u>Change 2009/08</u>	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	23.76	23.26	-0.50	-2.10	24.34	24.04	-0.30	-1.23
Western Europe	15.35	15.13	-0.22	-1.43	15.51	15.36	-0.15	-0.97
OECD Pacific	7.50	7.41	-0.09	-1.20	8.29	8.23	-0.06	-0.72
<b>Total OECD</b>	<b>46.60</b>	<b>45.79</b>	<b>-0.81</b>	<b>-1.74</b>	<b>48.14</b>	<b>47.63</b>	<b>-0.51</b>	<b>-1.06</b>
Other Asia	9.09	9.19	0.10	1.10	9.38	9.50	0.12	1.23
Latin America	5.88	5.98	0.10	1.70	5.78	5.90	0.12	2.08
Middle East	7.05	7.31	0.26	3.69	6.80	7.06	0.26	3.82
Africa	3.09	3.13	0.04	1.30	3.20	3.25	0.05	1.44
<b>Total DCs</b>	<b>25.11</b>	<b>25.61</b>	<b>0.50</b>	<b>1.99</b>	<b>25.16</b>	<b>25.70</b>	<b>0.54</b>	<b>2.15</b>
FSU	4.22	4.27	0.05	1.18	4.44	4.50	0.06	1.35
Other Europe	0.92	0.94	0.02	1.63	0.91	0.93	0.02	2.19
China	8.10	8.43	0.32	4.01	7.67	8.02	0.35	4.56
<b>Total "Other Regions"</b>	<b>13.25</b>	<b>13.64</b>	<b>0.39</b>	<b>2.94</b>	<b>13.02</b>	<b>13.45</b>	<b>0.43</b>	<b>3.30</b>
<b>Total world</b>	<b>84.95</b>	<b>85.03</b>	<b>0.08</b>	<b>0.09</b>	<b>86.32</b>	<b>86.79</b>	<b>0.46</b>	<b>0.53</b>

Totals may not add due to independent rounding.

### *OECD - Europe*

**OECD Europe oil demand forecast to decline by 0.24 mb/d in 2009**

Bitterly cold weather and the recent gas supply halt by Russia led to an increase in Europe oil consumption so far this winter. It is anticipated that fuel and heating oil will show some growth resulting from power plants switching to liquids in some parts of Europe. Europe will not show a big difference from the rest of the OECD countries with respect to oil demand. European oil demand will continue its downward slide in 2009. The loss in oil demand this year will be four times as large as last year. Most of the continent's oil demand decline will result from the big four and Spain. Both industrial fuel and transportation fuel, to a certain degree, will be the main two sectors that will cause the oil demand to decline this year. Given the retreat of 1.99% in the European economy, the OECD Europe oil demand is forecast to decline by 0.24 mb/d y-o-y in 2009. It is expected that the situation will be enhanced due to better economic performance in the last part of the year leading to an upward oil consumption recovery by half.

### *OECD - Pacific*

**OECD Pacific oil demand forecast to decline by 0.16 mb/d in 2009**

In response to the recent decline in oil prices, South Korea is planning to restore its previous petroleum products tax level which was reduced last year as a result of high oil prices. Given the current low crude prices, this tax increase might have a slight effect on total oil demand. With regard to the country's power generation sector, South Korea is planning to rely mostly upon nuclear fuel by adding new capacity of 9.5 gigawatts by the year 2016. Currently 35% of the country's power comes from nuclear generation. The new nuclear expansion would come at the cost of natural gas usage. South Korea is the second largest oil consuming country in the Pacific OECD and its total oil consumption growth will experience a major decline in 2009 as a result of slowing economy.

Japan, on the other hand, is expected to reduce its oil demand by more than 0.15 mb/d in 2009. Japanese declining oil usage is nothing new and it is a result of not only the current economic crisis but an overall downward trend for the past few years. Japan's ageing population is leading to a shift in consumption behavior. People are buying smaller, more efficient cars and are driving less. Japan's economy is expected to be in a deep recession this year; hence, not only transport fuel but industrial fuel will show a huge decline. The reduced demand for power forced some power supply companies to cut down their usage of fuel oil. Although the forecast for Japan's weather this winter is slightly colder than normal, it is not expected to put pressure on power or kerosene demand this quarter.

Other OECD Pacific countries will show flat and stable oil demand behavior. Due to the strong reduction in Japanese oil demand, the OECD Pacific oil demand is forecast to decline by 0.16 mb/d y-o-y in 2009, averaging 8.0 mb/d.

### Non-OECD countries' oil demand forecast at 0.8 mb/d for 2009

#### Non-OECD

As mentioned in our last month's assessment, China's retail prices are not expected to change as far as the final consumers are concerned. The new January tax increase will be evened out by a reduction in other fees. However, the later announced cut in ex-refinery prices will result in a reduction in fuel prices which will to a certain degree inch up domestic demand. The new ex-refinery cut reduced gasoline by 13% per ton and gasoil by 17% per ton. Chinese oil demand is expected to grow in 2009 by 3.8% y-o-y; however not to the level of 5.2% as seen in 2008.

Although low crude prices are going to increase domestic consumption, the slowing Chinese economy is expected to have a negative impact on energy demand.

Given the weakening GDP this year, China's oil demand is expected to follow the same behaviour leading to an oil demand growth of 0.30 mb/d y-o-y. This slowing growth is expected despite the recent reduction in retail prices for gasoline, diesel and kerosene.

Low oil prices came as a big relief to some developing countries as far as fuel subsidies are concerned. These current crude prices have encouraged some countries to reduce domestic retail petroleum product prices; however, it is not expected to make a big difference in oil usage this year. Indonesia announced a new set of reduced prices for gasoline and diesel after an increase of around 29% last May. Gasoline was reduced by 9% and diesel by 13%.

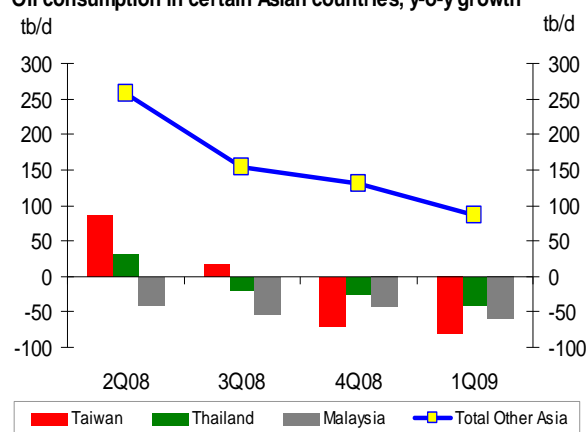
Given the current world economic recession, the Developing Countries' oil demand growth is forecast at 0.46 mb/d y-o-y in 2009, down by almost half from the growth seen in 2008. Other Asia and Latin America are expected to show growth of only half of what was seen last year. The Middle East oil demand increase is expected to lose one third of its annual average growth.

Various sectors, such as industrial and agricultural, are expected to maintain diesel demand growth this year as seen in 2008. In total, the Non OECD oil countries' oil demand is forecast at 0.8 mb/d for 2009.

#### Risk:

A combination of low oil prices and improved economic activities could result in positive growth of around 0.3 mb/d. However, should the world economic situation show further deterioration and the world weather become warmer, then oil demand might exhibit a further decline. In addition, should the upcoming summer show only mild heat, or should there be an active hurricane season, this would result in even further decline in oil demand. These downward risk factors could result in a decline of around 0.4 mb/d in 2009.

Oil consumption in certain Asian countries, y-o-y growth



# World Oil Supply

More downward revision for Non-OPEC 4<sup>th</sup> quarter supply leading to yearly growth of 80 tb/d

## Non-OPEC

### Forecast for 2008

Non-OPEC supply is expected to average 50.57 mb/d in 2008, an increase of 80 tb/d over 2007 and a downward revision of 50 tb/d from the previous month's assessment.

This month's estimate includes Indonesia in the non-OPEC supply group for the first time, for comparison purposes. Downward revisions were carried out for supply from Mexico, New Zealand, Malaysia, Vietnam, Brazil, Russia and Azerbaijan. There were upward revisions to supply from USA, Canada, UK, Colombia, but these

were not sufficient to offset the downward revisions made to the supply forecasts for other countries. The fourth quarter witnessed a significant downward revision of around 250 tb/d. The first and third quarters experienced upward revisions of around 8 tb/d and 43 tb/d, respectively. On a quarterly basis, non-OPEC supply now stands at 50.78 mb/d, 50.91 mb/d, 49.87 mb/d and 50.70 mb/d, respectively.

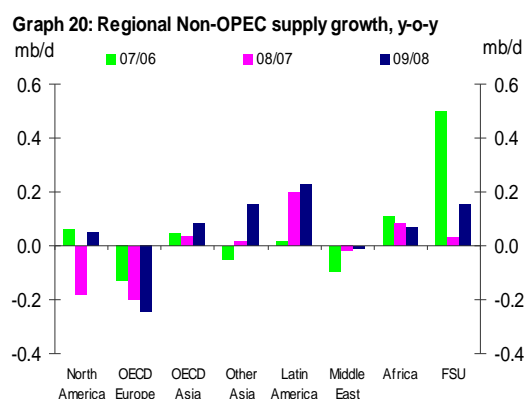


Table 13: Non-OPEC oil supply in 2008, mb/d

	<u>2007</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>4Q08</u>	<u>2008</u>	<u>Change 08/07</u>
North America	14.30	14.25	14.38	13.81	14.05	14.12	-0.18
Western Europe	5.23	5.21	5.04	4.79	5.09	5.03	-0.20
OECD Pacific	0.60	0.58	0.63	0.64	0.70	0.64	0.03
<b>Total OECD</b>	<b>20.14</b>	<b>20.04</b>	<b>20.06</b>	<b>19.24</b>	<b>19.84</b>	<b>19.79</b>	<b>-0.35</b>
Other Asia	3.74	3.80	3.71	3.72	3.78	3.75	0.01
Latin America	3.88	4.00	4.06	4.12	4.14	4.08	0.20
Middle East	1.66	1.64	1.65	1.64	1.63	1.64	-0.02
Africa	2.71	2.77	2.78	2.80	2.82	2.79	0.08
<b>Total DCs</b>	<b>11.99</b>	<b>12.21</b>	<b>12.21</b>	<b>12.28</b>	<b>12.38</b>	<b>12.27</b>	<b>0.28</b>
FSU	12.52	12.62	12.68	12.42	12.48	12.55	0.03
Other Europe	0.15	0.14	0.14	0.14	0.14	0.14	0.00
China	3.77	3.82	3.88	3.85	3.91	3.86	0.10
<b>Total "Other regions"</b>	<b>16.44</b>	<b>16.58</b>	<b>16.70</b>	<b>16.41</b>	<b>16.54</b>	<b>16.56</b>	<b>0.12</b>
<b>Total Non-OPEC production</b>	<b>48.56</b>	<b>48.83</b>	<b>48.96</b>	<b>47.92</b>	<b>48.75</b>	<b>48.62</b>	<b>0.05</b>
Processing gains	1.92	1.95	1.95	1.95	1.95	1.95	0.03
<b>Total Non-OPEC supply</b>	<b>50.49</b>	<b>50.78</b>	<b>50.91</b>	<b>49.87</b>	<b>50.70</b>	<b>50.57</b>	<b>0.08</b>
Previous estimate	50.49	50.77	50.91	49.83	50.95	50.62	0.13
Revision	0.00	0.01	0.00	0.04	-0.25	-0.05	-0.05

Note: Indonesia has been included in historical Non-OPEC supply for comparison purposes.

In 2008, Developing Countries contributed the most to supply growth based on the current estimate of 260 tb/d, while OECD countries' supply showed a heavy decline of around 350 tb/d. Latin America experienced the highest growth on a regional basis, especially Brazil and Colombia, followed by China, Africa, OECD Pacific, the FSU and Other Asia. In 2008, Latin America saw growth of 0.2 mb/d over the previous year as Brazil witnessed another year of strong performance with growth of around 130 tb/d, which was lower than the initial forecast. China registered strong growth of around 96 tb/d in 2008. Production for the FSU registered an increase of around 30 tb/d for 2008 over the previous year. The majority of the growth came from Kazakhstan, while only a minor increase came from Azerbaijan, instead of an expected large growth, mainly due to the BTC pipeline explosion and the gas leak on one of the ACG platforms. The forecast for Western Europe, North America, and the Middle East showed

declines. Western Europe supplies displayed the heaviest drop among the other regions in 2008 of around 200 tb/d. The UK and Norway displayed declines of 120 tb/d and 110 tb/d, respectively. In North America, the heavy decline of 310 tb/d in Mexico outpaced the significant growth in Canada of around 100 tb/d and USA growth of around 40 tb/d. USA supply has suffered and is still partially affected by the impact of hurricanes Gustav and Ike.

#### **Revisions to the 2008 estimate**

A significant downward revision of 250 tb/d has been made to the fourth quarter of 2008, while the first and third quarters have been revised up by 8 tb/d and 43 tb/d, respectively. These revisions reflect the most recent data and have resulted in an overall downward revision of 50 tb/d for 2008 to average at 50.57 mb/d, including Indonesian supply. The estimate for the USA was revised up for both the third and fourth quarters by 32 tb/d and 39 tb/d, respectively. The upward revisions reflect recent actual data, with Gulf of Mexico production continuing to return as well as the ramp-up of the Thunder Horse project. In Canada, both third and fourth quarters were revised up by 27 tb/d and 5 tb/d from previous month's assessment to adjust to actual figures. Mexico production continued to display a decrease due to heavier than expected fields decline, and hence was adjusted downward in the fourth quarter by 80 tb/d. In the North Sea, UK production showed a positive increase and required an upward amendment of 23 tb/d and 114 tb/d in both the third and fourth quarters, respectively. In Asia Pacific, the delays in the Maari development along with adjustment to actual figures required a downward revision for the third and fourth quarters of 6 tb/d and 20 tb/d, respectively. In Asia, the maintenance in Malaysia reduced the fourth quarter supply estimate by 61 tb/d and in Vietnam adjustments to actual figures reduced the supply forecast by 15 tb/d and 50 tb/d in both the third and fourth quarters, respectively. In Latin America, Brazil supply estimate was revised down by 75 tb/d in the fourth quarter to adjust for actual figures mainly impacted by various delays, while improved performance from Colombia required an upward revision of 37 tb/d for fourth quarter supply. In the FSU, the Russia supply forecast was revised down by 95 tb/d in the fourth quarter on the back of lower production as per recent data. Various reports have indicated that with the current price environment, the expected margin for some operators is not sufficiently economical to encourage continued production at certain wells, thus affecting Russia's overall production. In Azerbaijan, while it was reported that the Central Azeri field partially resumed production, a considerable volume remains shut from the platform as the gas leak situation has not yet been resolved.

**Table 14: Non-OPEC oil supply in 2009, mb/d**

	<u>2008</u>	<u>1Q09</u>	<u>2Q09</u>	<u>3Q09</u>	<u>4Q09</u>	<u>2009</u>	<u>Change</u> <u>09/08</u>
North America	14.12	14.22	14.05	14.14	14.28	14.17	0.05
Western Europe	5.03	5.03	4.84	4.57	4.71	4.79	-0.25
OECD Pacific	0.64	0.74	0.72	0.73	0.70	0.72	0.08
<b>Total OECD</b>	<b>19.79</b>	<b>19.99</b>	<b>19.61</b>	<b>19.45</b>	<b>19.68</b>	<b>19.68</b>	<b>-0.11</b>
Other Asia	3.75	3.90	3.83	3.94	3.96	3.91	0.15
Latin America	4.08	4.21	4.28	4.39	4.36	4.31	0.23
Middle East	1.64	1.63	1.63	1.63	1.63	1.63	-0.01
Africa	2.79	2.86	2.84	2.86	2.89	2.86	0.07
<b>Total DCs</b>	<b>12.27</b>	<b>12.61</b>	<b>12.58</b>	<b>12.82</b>	<b>12.84</b>	<b>12.71</b>	<b>0.44</b>
FSU	12.55	12.74	12.73	12.56	12.78	12.70	0.15
Other Europe	0.14	0.14	0.14	0.14	0.14	0.14	0.00
China	3.86	3.93	3.94	3.93	3.91	3.93	0.06
<b>Total "Other regions"</b>	<b>16.56</b>	<b>16.81</b>	<b>16.81</b>	<b>16.63</b>	<b>16.83</b>	<b>16.77</b>	<b>0.22</b>
<b>Total Non-OPEC production</b>	<b>48.62</b>	<b>49.41</b>	<b>49.01</b>	<b>48.90</b>	<b>49.36</b>	<b>49.17</b>	<b>0.55</b>
Processing gains	1.95	1.98	1.98	1.98	1.98	1.98	0.03
<b>Total Non-OPEC supply</b>	<b>50.57</b>	<b>51.39</b>	<b>50.99</b>	<b>50.88</b>	<b>51.34</b>	<b>51.15</b>	<b>0.58</b>
Previous estimate	50.62	51.69	51.22	50.89	51.31	51.27	0.66
Revision	-0.05	-0.29	-0.23	-0.01	0.04	-0.12	-0.07

*Note: Indonesia has been included in Non-OPEC supply for comparison purposes.*

**Non-OPEC supply growth expected at 0.58 mb/d in 2009**

**Forecast for 2009**

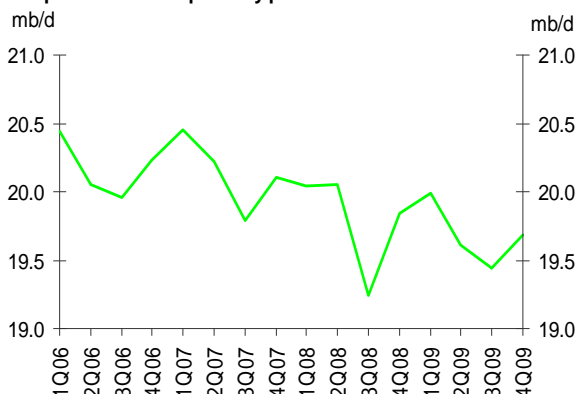
Non-OPEC supply is expected to average around 51.15 mb/d in 2009, an increase of 0.58 mb/d over the 2008 figure and a downward revision of around 70 tb/d from the previous month's assessment. On a quarterly basis, non-OPEC supply is expected to average 51.39 mb/d, 50.99 mb/d, 50.88 mb/d, and 51.34 mb/d, respectively.

**Total OECD forecast to decline by 110 tb/d**

**OECD**

**Total OECD oil supply is forecast to average 19.68 mb/d in 2009, representing a decline of 110 tb/d from the 2008 level, following a downward revision of 79 tb/d from last month's figure.** OECD production levels for all quarters in 2009 were revised down by 85 tb/d, 80 tb/d, 42 tb/d, and 109 tb/d, respectively. Both North America and Pacific OECD regions were revised down, while OECD Western Europe was revised up. The downward revisions were supported by the ongoing financial situation in addition to the price developments and assuming heavier decline for some mature fields. Meanwhile, better performance in the North Sea and a review of investment supported the upward revision for the OECD Western Europe region. On a quarterly basis, OECD oil supply is estimated to average 19.99 mb/d, 19.61 mb/d, 19.45 mb/d and 19.68 mb/d, respectively. Preliminary data for December 2008 puts total OECD output at around 20.04 mb/d.

**Graph 21: OECD's quarterly production**



**US oil supply expected to average 7.72 mb/d in 2009, revised down by 36 tb/d**

**USA**

US oil supply is expected to reach 7.72 mb/d in 2009, an increase of 190 tb/d over the current 2008 assessment and a downward revision of 36 tb/d from the previous month. Supply forecast for the first three quarters in 2009 encountered downward revisions while the fourth quarter was revised higher. US production from the Gulf of Mexico, which was curtailed on the back of hurricane effects, should continue to recover through 2009, despite the reported permanent loss of some minor volumes. Additionally, the strong ramp-up of the Thunder Horse project is expected to support growth in 2009. The operator reportedly brought onstream the third and fourth wells of the project with volumes reaching 200 thoe/d. Volumes are also expected from startups and ramp-ups such as Atlantis, Genghis Khan, Tahiti, Thunder Hawk, and Shenzi as well as other projects. Moreover, US supply growth is expected to receive some support from biofuels despite the increased difficulties surrounding the industry with the current price and demand environment. On a quarterly basis, US oil supply is expected to stand at 7.65 mb/d, 7.68 mb/d, 7.71 mb/d and 7.72 mb/d, respectively. The preliminary data puts US oil supply in December at 7.62 mb/d, almost steady from the November level. The drop from Alaskan production offset the increase from US federal Gulf of Mexico production.

**Canada and Mexico**

Oil supply from **Canada** is forecast to grow by around 50 tb/d in 2009 over the current 2008 estimate to average 3.47 mb/d, representing a downward revision of around 23 tb/d from the previous month's evaluation. The increase in Canadian supply is expected to come generally from unconventional oil, with projects such as Long Lake. The downward revision came as many operators announced deferrals and cancellations of project as well as a reduction in their Capex on the back of lower oil prices. On a quarterly basis, production stands at 3.46 mb/d, 3.42 mb/d, 3.46 mb/d and 3.52 mb/d, respectively. As per preliminary data, Canadian oil supply stood at 3.48 mb/d in December, which is higher than the November level.

**Mexico** oil supply is expected to average 2.98 mb/d in 2009, a decline of around 0.19 mb/d over the current level of the previous year, showing a downward revision of 46 tb/d from last month. The heavy declines witnessed in 2008 required further revision and depending on the future performance might lead to further downward adjustment. The reported sharp decline at the Akal

field in the Canterell complex is anticipated to continue in 2009, while the fate of supply increases from Ku-Maloob-Zapp (KMZ) and partially from Chicontepec will determine the strength of Mexico oil supply in 2009. On a quarterly basis, Mexico oil supply is expected to stand at 3.10 mb/d, 2.96 mb/d, 2.97 mb/d and 2.90 mb/d, respectively.

#### *Western Europe*

**Western Europe supply to decline by 250 tb/d in 2009**

Oil supply from **OECD Western Europe** is anticipated to decrease by around 250 tb/d in 2009 over the current figure for 2008 to average 4.79 mb/d, following an upward revision of around 50 tb/d from the previous month. The better than expected performance in the North Sea supported the upward revision. OECD Western Europe still represents the largest decline on a regional basis in 2009. On a quarterly basis, OECD Western Europe supply in 2009 stands at 5.03 mb/d, 4.84 mb/d, 4.57 mb/d and 4.71 mb/d, respectively. Preliminary December data suggests a production level of 5.09 mb/d.

**UK and Norway forecasts for 2009 slightly higher, while Denmark down**

**Norway** oil supply is estimated to average 2.34 mb/d in 2009, a decline of around 0.11 mb/d from the current 2008 level and a minor upward revision of around 6 tb/d from last month's estimate. Despite the ongoing decline in the Norway field, however, developments in projects such as the Tyrihans, Brage, and YME are promising to add volume and offset some of the decline in mature fields. On a quarterly basis, Norway supply stands at 2.48 mb/d, 2.35 mb/d, 2.20 mb/d and 2.32 mb/d, respectively.

Oil supply from the **UK** is forecast to decline by around 140 tb/d in 2009 over the current 2008 level to average 1.43 mb/d, an upward revision of around 50 tb/d from last month's level. The current production data indicating better than expected performance supported the upward revision. The startup of the Grouse oil production slightly supported the outlook in addition to the news of the proposed tax breaks for marginal oil and gas fields. On a quarterly basis, UK oil supply stands at 1.51 mb/d, 1.46 mb/d, 1.38 mb/d and 1.37 mb/d, respectively.

**Denmark** oil supply is foreseen to decline slightly in 2009 from the current 2008 level to average 0.27 mb/d, representing a downward revision of around 25 tb/d from the previous month's level to reflect the lower than expected supply in 2008.

#### *Asia Pacific*

**Australia revised down slightly**

**OECD Asia Pacific** oil supply is expected to average 0.72 mb/d in 2009, indicating an increase of around 80 tb/d from the current 2008 level, which represents a downward revision of 25 tb/d from the previous month's assessment. On a quarterly basis, total oil supply is estimated to average 0.74 mb/d, 0.72 mb/d, 0.73 mb/d and 0.70 mb/d, respectively.

**Australian** oil supply is anticipated to average 0.60 mb/d in 2009, indicating an increase of around 70 tb/d over the 2008 current figure, representing a minor downward revision of 5 tb/d from the previous month's level. The downward revision came on the back of project startup and ramp-up delays. On a quarterly basis, production stands at 0.62 mb/d, 0.60 mb/d, 0.61 mb/d, and 0.57 mb/d, respectively.

**New Zealand's** oil supply forecast was revised down for 2009 on the back of the startup delays for the Maari project.

#### *Developing Countries*

**DC supply estimated to average 12.71 mb/d in 2009**

**Developing Countries (DCs)** oil supply is anticipated to average 12.71 mb/d in 2009, indicating an increase of 0.44 mb/d from the current 2008 estimate, an upward revision of around 60 tb/d from previous month's assessment. Among the regions, the Middle East supply forecast experienced a downward revision while both Africa and Latin America were revised up and Other Asia forecast remained relatively unchanged. Brazil maintained its position on the top of the gainer's list followed by Vietnam, among the DC group. On a quarterly basis, total oil supply in DCs is expected to stand at 12.61 mb/d, 12.58 mb/d, 12.82 mb/d and 12.84 mb/d, respectively.

**Other Asia** is foreseen to increase by 0.15 mb/d in 2009 over the current 2008 level to average 3.91 mb/d, relatively unchanged from last month's assessment. Indonesia is now included in the Other Asia group. Despite the steady state, there were upward and downward revisions to India and Vietnam forecasts, respectively. India oil supply is now projected to increase by around 30 tb/d in 2009 over the current 2008 level supported by the expected startup of the Mangala project. Vietnam oil supply is estimated to average 0.36 mb/d in 2009, a growth of around 50 tb/d from the current 2008

**Graph 22: Developing Countries' quarterly production**

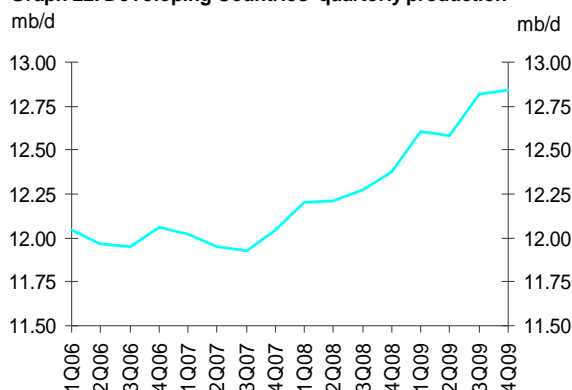


figure. The forecast increase in Vietnam is supported by the ramp-up of the Song Doc project that started production in 2008. Indonesia oil supply is also expected to increase in 2009 by around 20 tb/d from the 2008 level. On a quarterly basis, Other Asia supply is estimated to average 3.90 mb/d, 3.83 mb/d, 3.94 mb/d and 3.96 mb/d, respectively.

**Latin America forecast revised up and Brazil down**

Oil production from **Latin America** is projected to average 4.31 mb/d in 2009, an increase of around 0.23 mb/d over the current 2008 level, indicating an upward revision of 37 tb/d since last month's estimate. Despite the downward revision of 52 tb/d from last month's assessment for Brazil growth forecast, it maintained the highest growth of 0.20 mb/d among Latin American producers with an average of 2.48 mb/d. The downward revision came on the back of expected delays of projects startup and ramp-up. Argentina, Colombia, Trinidad and Tobago oil forecasts were revised up due to improved performance and expected better ramp-up. On a quarterly basis, Latin America supply stands at 4.21 mb/d, 4.28 mb/d, 4.39 mb/d and 4.36 mb/d, respectively.

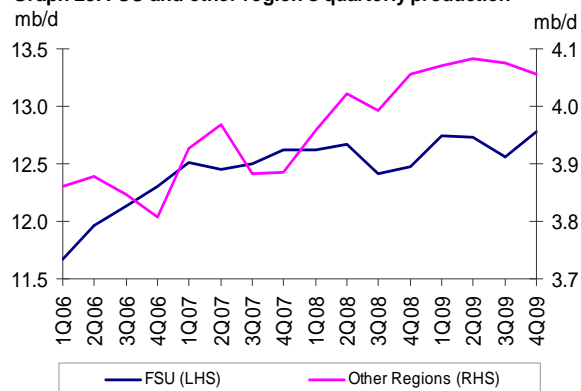
**Middle East** oil supply is estimated to decline by around 10 tb/d over the current 2008 figure to average 1.63 mb/d in 2009, representing a downward revision by 25 tb/d from last month's evaluation. The downward revision came from Oman on expectation of lower project ramp-ups. Oman is now expected to average 0.76 mb/d in 2009. Syria oil supply experienced an upward revision of 15 tb/d, supported by the expected ramp-up of the Khurbet East development. On a quarterly basis, Middle East group production stands at 1.63 mb/d in all quarters.

**Africa** is forecast to increase by 70 tb/d in 2009 over the current 2008 level to average 2.86 mb/d, showing an upward revision of around 47 tb/d from the previous month's assessment. Chad, Egypt, and Sudan supply forecasts were revised up on the back of new data. The Congo remains to have the highest increase among the group supported by the Moho-Bilondo development that is expected to continue ramp-up to the plateau during 2009. On a quarterly basis, Africa production stands at 2.86 mb/d, 2.84 mb/d, 2.86 mb/d and 2.89 mb/d, respectively.



**FSU, Other Regions**

Oil supply from the **FSU** is foreseen to average 12.70 mb/d in 2009, a growth of 0.15 mb/d over the current 2008 figure, which represents a downward revision of around 132 tb/d from last month's estimate. Russia, Kazakhstan, and Azerbaijan supply forecasts experienced a downward revision. On a quarterly basis, total oil supply in the FSU is forecast to average 12.74 mb/d, 12.73 mb/d, 12.56 mb/d and 12.78 mb/d, respectively. China oil supply is expected to increase by around 60 tb/d to average 3.93 mb/d in 2009 over the current 2008 level. Other Europe group is expected to remain flat over 2008 at 0.14 mb/d.

**Graph 23: FSU and other region's quarterly production**

**Russia oil supply expected to decline by 110 tb/d in 2009**

**Russia**

**Russia** is projected to decline by around 110 tb/d over the current 2008 figure to average 9.67 mb/d in 2009, representing a downward revision of 54 tb/d from last month's assessment. Despite the expected new volumes from developments such as Verkhnechonsk, Uvat, and Yuzhno-Khlyuchu, as well as year-round production of Sakhalin II, the current oil price environment has pressured many operators to considerably cut their capex in 2009, which is going to have an effect on supply in 2009 and beyond. Moreover, in certain wells that require maintenance to continue or increase production, the operators might delay maintenance until a better economical outcome can be achieved for those certain wells. Accordingly, Russian oil supply forecast for 2009 may well be changed in the future as more information becomes available. On a quarterly basis, Russian oil supply is estimated to average 9.74 mb/d, 9.66 mb/d, 9.63 mb/d and 9.66 mb/d respectively. Preliminary data indicates that December production stood at 9.74 mb/d.

**Kazakhstan supply to average 1.48 mb/d in 2009, a gain of 70 tb/d**

**Caspian**

**Kazakhstan** oil supply is forecast to average 1.48 mb/d in 2009 indicating an increase of around 70 tb/d over the current 2008 level, and a downward revision of 25 tb/d compared to the previous month's estimate. The downward revision came on the back of reports suggesting that some operators plan to cut production as low oil prices make it unprofitable to sustain current production levels in view of transportation and operation costs. However, it was reported that the government will reduce its crude oil export duty to zero, which may provide some relief to the operator, and hence require a change to the forecast. On a quarterly basis, Kazakh supply is expected to stand at 1.51 mb/d, 1.51 mb/d, 1.38 mb/d and 1.52 mb/d, respectively.

**Azerbaijan supply to increase by 180 tb/d**

Oil supply from **Azerbaijan** is foreseen to grow by around 0.18 mb/d in 2009 over the current 2008 level to average 1.08 mb/d which represents a downward revision of 53 tb/d from last month's assessment. Partial recovery of the Central Azeri platform was reported, yet the return of full capacity is still not available. Therefore, further revisions might be necessary in the future as more information becomes available. On a quarterly basis, Azerbaijan oil supply stands to average 1.03 mb/d, 1.09 mb/d, 1.08 mb/d and 1.12 mb/d, respectively.

**China**

**China** oil supply is expected to average 3.93 mb/d in 2009, representing growth of around 60 tb/d from the current 2008 level, following an upward revision of 30 tb/d from previous month's assessment. The startup of production from platform B in the Peng Lai phase II project as well as the expectation for Platform E and D to be commissioned supported the upward revision. On a quarterly basis, China supply is expected to average 3.93 mb/d, 3.94 mb/d, 3.93 mb/d and 3.91 mb/d respectively.

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

OPEC NGLs and non-conventional oils are estimated to average 4.43 mb/d in 2008, representing growth of 0.4 mb/d over the previous year. In 2009, OPEC NGLs and non-conventional oils are projected to increase by 0.59 mb/d over the current 2008 level to average 5.03 mb/d. For comparison reasons, Indonesia NGL and non-conventional oils were included in non-OPEC supply for all periods in this month's report.

**Table 15: OPEC NGLs + non-conventional oils, 2006-2009**

	Change							Change		Change	
	<u>2006</u>	<u>2007</u>	<u>07/06</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>4Q08</u>	<u>2008</u>	<u>08/07</u>	<u>2009</u>	<u>09/08</u>
<b>Total OPEC</b>	<b>3.89</b>	<b>4.03</b>	0.14	4.26	4.42	4.46	4.59	<b>4.43</b>	0.40	<b>5.03</b>	0.59

*Note: Indonesia has been excluded for comparison purpose.*

**OPEC crude oil production**

According to secondary sources, OPEC total crude oil production (which includes Indonesian production) averaged 30.28 mb/d in December, which is 834 tb/d lower than the November figure. Supply from most OPEC Member Countries declined, with Iran, and Kuwait showing individual declines of more than 100 tb/d, while Saudi Arabia shows a decline of more than 500 tb/d. Production from Angola, Nigeria, and Iraq experienced increases in December over the previous month. OPEC production not including Iraq stood at 27.95 mb/d, a decline of 846 tb/d from the November level.

**Table 16: OPEC crude oil production based on secondary sources, 1,000 b/d**

	<u>2007</u>	<u>2008</u>	<u>2Q08</u>	<u>3Q08</u>	<u>4Q08</u>	<u>Oct 08</u>	<u>Nov08</u>	<u>Dec 08</u>	<u>Dec/Nov</u>
Algeria	1,360	1,392	1,401	1,401	1,369	1,388	1,365	1,355	-10.0
Angola	1,660	1,882	1,897	1,845	1,911	1,853	1,894	1,986	91.7
Ecuador	507	504	502	503	501	503	503	499	-3.5
Indonesia	844	854	859	852	843	843	843	843	0.0
Iran, I.R.	3,855	3,881	3,884	3,917	3,790	3,878	3,808	3,683	-125.0
Iraq	2,089	2,331	2,387	2,329	2,306	2,276	2,315	2,328	12.5
Kuwait	2,464	2,541	2,582	2,600	2,448	2,543	2,461	2,339	-122.0
Libya, S.P.A.J.	1,710	1,712	1,730	1,683	1,687	1,728	1,693	1,640	-52.5
Nigeria	2,125	1,950	1,857	1,955	1,942	1,942	1,903	1,980	76.8
Qatar	807	840	851	859	810	843	811	777	-34.2
Saudi Arabia	8,654	9,114	9,176	9,460	8,759	9,206	8,814	8,258	-555.5
UAE	2,504	2,557	2,609	2,603	2,430	2,528	2,405	2,357	-48.3
Venezuela	2,392	2,342	2,360	2,339	2,286	2,321	2,301	2,237	-63.7
<b>Total OPEC</b>	<b>30,970</b>	<b>31,899</b>	<b>32,095</b>	<b>32,347</b>	<b>31,083</b>	<b>31,853</b>	<b>31,115</b>	<b>30,282</b>	<b>-833.7</b>
<b>OPEC excl. Iraq</b>	<b>28,881</b>	<b>29,568</b>	<b>29,708</b>	<b>30,018</b>	<b>28,777</b>	<b>29,577</b>	<b>28,800</b>	<b>27,954</b>	<b>-846.2</b>

*Totals may not add due to independent rounding.*

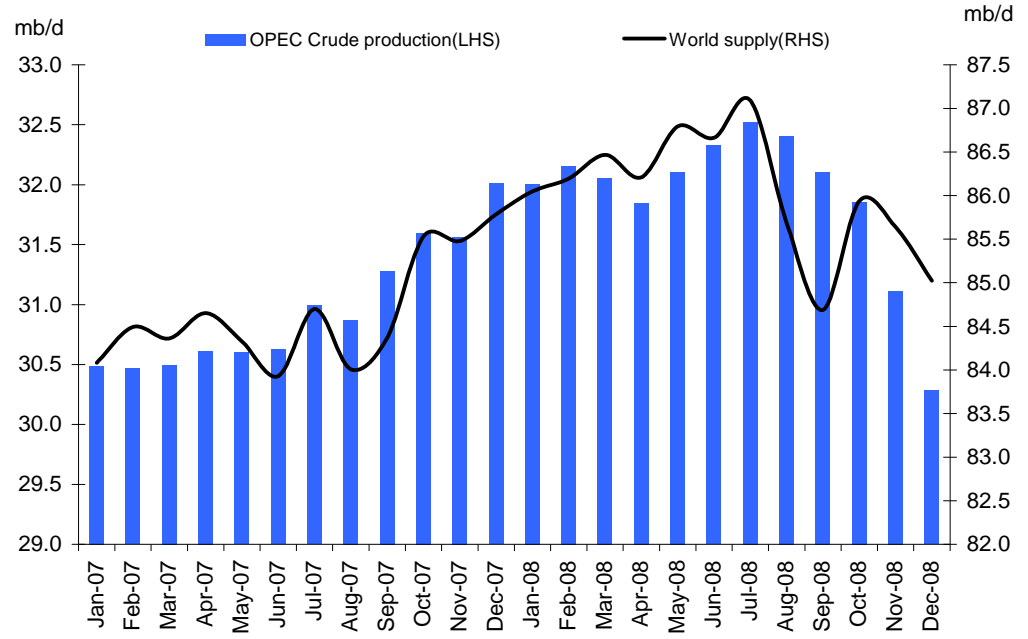
**World Oil Supply**

Preliminary figures indicate that world oil supply declined 0.62 mb/d in December from the previous month to averaged 85.02 mb/d. Non-OPEC supply experienced an increase of more than 0.2 mb/d while OPEC crude fell sharply. OPEC crude oil's share in global production remained relatively steady at 36% in December. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production stems from secondary sources.

**OPEC crude output averaged 30.3 mb/d in December, representing a decline of over 830 tb/d**

**Global supply estimated at 85.0 mb/d in December**

**Graph 24: OPEC and World oil supply**

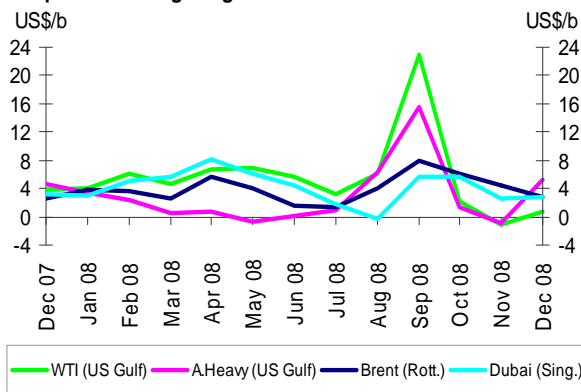


# Product Markets and Refinery Operations

**Product markets and refinery operations showing mixed signals**

A combination of a cold snap across the Western hemisphere with unseasonable cuts by refiners and lower cost of crude provided support for product prices and refining economics over the last few weeks. However, the recent positive developments in product markets may not last long as the recessionary outlook for the world economy may deteriorate product demand further and exert pressure on refining economics as soon as the present weather impact has disappeared.

Graph 25: Refining margins



Despite the recent improvements, refining margins still appear unhealthy and would have a negative impact on downstream industry investment. As Graph 25 shows, refining margins for WTI crude on the US Gulf Coast rose to \$0.65/b in December from minus \$1.18/b in November. The market in Europe did not follow suit and margins for Brent crude oil in Rotterdam fell to \$2.79/b from \$4.35/b in the previous month.

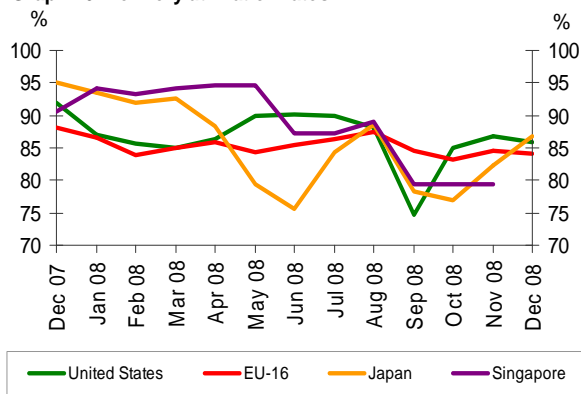
In Asia, positive developments on the naphtha and fuel oil market have offset bearish movements in the middle of the barrel components, supporting refining economics. Following these developments, refining margins for Dubai crude oil in Singapore increased by about 8 ¢/b to \$2.73/b from \$2.61/b in November. Since over a million barrels of new refining capacity will come on line in 2009, refining margins are expected to remain weak over the coming months.

**Refinery utilization rates increased in Japan but fell marginally in the Atlantic Basin in December**

## Refinery operations

Refiners usually maximize their throughputs during the driving and heating seasons. However, due to a host of factors, namely slowing demand across all products, increasing non-petroleum liquid in the light and middle distillate product pool and unhealthy refining margins, refiners did not follow the same trend in December.

Graph 26: Refinery utilization rates



As Graph 26 shows, refinery utilization rates in the US declined by 1% compared to the previous month, to reach 85.8% from 86.8% in November. This represents a 6% decline from the same month last year. In Europe, refinery utilization rates fell slightly by 0.6% in December to 84.1% from 84.7% in the previous month. In Asia, refinery throughputs improved compared to the previous month but are still far from typical seasonal levels. Refinery utilization rates in Japan rose by 4.1% to reach 86.8% from 82.7% in November.

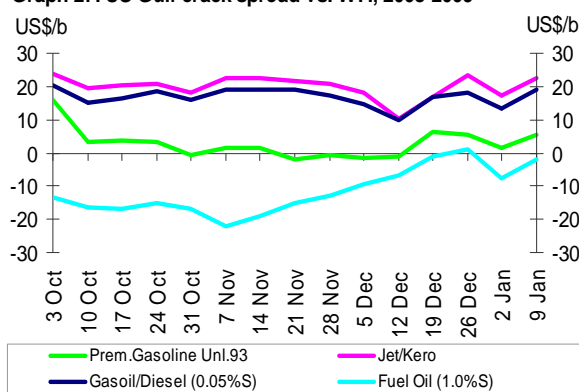
Looking ahead, due to the prolonged economic recession and its adverse impacts on demand along with increasing refining capacity, it is expected that the effective idle refining capacity will increase with the end of the winter season. There is also the risk of more discretionary cuts by refiners amid persisting weak demand. This would lead to higher crude inventories and weakness of market fundamentals in the future.

The US product prices were stronger in December due to unprecedented seasonal cuts by refiners

### US market

Unseasonable cuts by refiners have lifted product prices in the US, but amid continuation of slowing demand, product market sentiment in the US appears fundamentally weak. This situation has led to counter-seasonal stock building for middle distillate, encouraging refiners to export diesel to Europe. Following the increase of discretionary cuts by refiners, gasoline prices in the US improved as well, widening arbitrage opportunities for European cargoes.

Graph 27: US Gulf crack spread vs. WTI, 2008-2009



As Graph 27 indicates, crack spread for premium gasoline on the US Gulf Coast versus WTI crude surged from negative territory to above \$4/b in December. Despite the recent positive movements, the gasoline market is not expected to remain strong in the future due to continuation of fragile economic conditions.

Distillate prices also improved due to persisting cold weather and continuation of exports to Europe. Gasoil crack spread versus WTI crude remained around \$15/b last month (see Graph 27). Higher demand from South America and increasing jet fuel portion in heating oil and ultra light sulfur diesel (ULSD) pool has compounded jet/kero market sentiment lifting its spread versus crude oil. Considering unseasonable refinery throughput cuts, projection for a cold winter and persisting export opportunities to Europe, the distillates market is expected to stay relatively strong in the coming months.

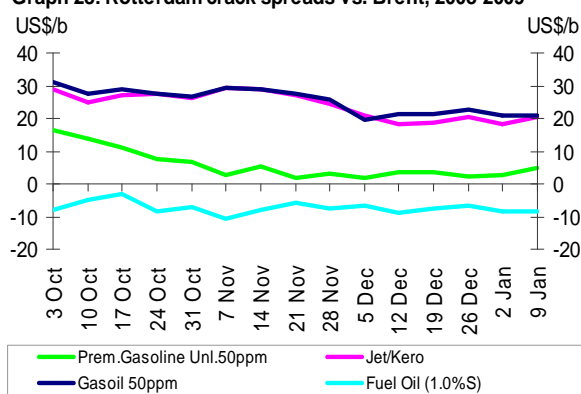
Fuel oil market performance in the US was very good in December due to increasing fuel oil consumption in utility plants as a substitution for natural gas and persisting frigid weather in the US Northeast. In line with these developments, the low sulfur fuel oil discount versus WTI crude narrowed significantly. The present situation of the US fuel oil market may remain in the next month.

### European market

European product market performance was relatively weak in December

Slowing demand in tandem with recessionary outlook for the economy has further undermined product market sentiment in Europe and encouraged refiners to cut throughputs. The cold weather in the last two weeks, along with the escalation of the gas supply dispute between Russia and the Ukraine, have strengthened the very short-term outlook for fuel oil and middle distillates market, but it is not expected to last long. Following these developments, the gasoil crack spread remained around \$20/b (see Graph 28). The bleak economic outlook had a greater effect on the jet/fuel market and its spread versus Brent crude fell to \$18/b in December from above \$25/b in the last month.

Graph 28: Rotterdam crack spreads vs. Brent, 2008-2009



The European gasoline market also remains lackluster due to limited arbitrage opportunities to the US and declining demand. Gasoline crack movements were steady at around \$2/b. Apart from the gasoline market, the European naphtha market was muted in December. However, recent arbitrage to Asia provided some support to the European naphtha market. Looking ahead, the current bearish fundamentals for light distillates are expected to persist in the future.

As far as fuel oil market is concerned, limited export opportunities to Asia have led to further fuel oil stocks build and exerted pressure on fuel oil prices. But, as mentioned earlier, the intensifying gas dispute between Russia and Ukraine and a recent cold spell across Europe has encouraged Europeans to search for alternative fuels and supported fuel oil prices over the last two weeks. The low sulfur crack spread against Brent crude oil remained around minus \$6/b in December (see *Graph 28*).

**Asian market**

**Asian naphtha market sentiment improved in December**

There were mixed signals in the Asian market in December. Market conditions improved for the top and bottom of the barrel components, but remained relatively weak for the middle distillates.

Among the light products, the naphtha market situation changed significantly due to lower supply from India and higher demand from petrochemical units, especially from South Korea and China. Following these developments, naphtha cracks reverted to premium after flipping to discount in recent months. The positive developments in the Asian naphtha market have encouraged European traders to send arbitrage cargoes to Asia.

Apart from naphtha, the gasoline market also improved amid refinery outages in Indonesia and stronger regional demand. Gasoline crack spread against Dubai crude oil in the Singapore market narrowed to minus 20 ¢/b early January 2009 from about minus \$4.50/b in the last month (see *Graph 29*).

Given limited export opportunities to Europe and persisting slowing demand outlook, middle distillate fundamentals in the Asian market have also lost part of their previous strength. Among the middle of the barrel components, the jet/kero market was affected further and its prices fell to the lowest level in nearly four years. Following these developments, the gas oil crack spread versus Dubai crude slid to \$20/b in the week ending 2 January from about \$24/b over the same period of the previous month.

With regard to fuel oil, Asian market performances were relatively strong due to lower arbitrage cargoes, raising the possibility of less fuel oil exports from Iran and Saudi Arabia in the coming months and higher demand by Chinese teapot refineries. High sulfur fuel oil crack spread versus Dubai crude narrowed on average to minus \$5/b in December from about minus 14/b the previous month. Looking ahead, amid the arrival of more arbitrage cargoes in January and lower demand from the offshore and onshore industries, the current sentiment of the Asian fuel oil market is expected to ease in the next month.

Graph 29: Singapore crack spreads vs. Dubai, 2008-2009

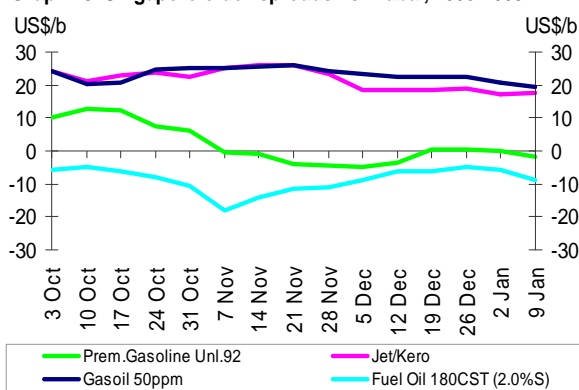


Table 17: Refined product prices, US\$/b

		<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change Dec/Nov</u>
<b>US Gulf (Cargoes):</b>					
Naphtha		70.78	48.04	33.20	-14.84
Premium gasoline	(unleaded 93)	80.50	57.73	43.25	-14.48
Regular gasoline	(unleaded 87)	74.99	51.21	39.65	-11.56
Jet/Kerosene		97.03	79.52	58.04	-21.48
Gasoil	(0.05% S)	93.66	76.28	55.88	-20.40
Fuel oil	(1.0% S)	60.62	39.75	30.45	-9.30
Fuel oil	(3.0% S)	56.17	32.93	36.51	3.58
<b>Rotterdam (Barges FoB):</b>					
Naphtha		69.23	39.87	33.53	-6.34
Premium gasoline	(unleaded 10 ppm)	82.48	55.77	46.33	-9.44
Premium gasoline	(unleaded 95)	73.35	49.60	38.97	-10.63
Jet/Kerosene		98.63	79.95	59.70	-20.25
Gasoil/Diesel	(10 ppm)	100.15	80.38	62.38	-18.00
Fuel oil	(1.0% S)	65.67	44.51	32.67	-11.84
Fuel oil	(3.5% S)	54.12	31.54	26.78	-4.76
<b>Mediterranean (Cargoes):</b>					
Naphtha		56.67	31.86	26.29	-5.57
Premium gasoline	(50 ppm)	84.00	56.96	45.78	-11.18
Jet/Kerosene		95.35	77.63	58.73	-18.90
Gasoil/Diesel	(50 ppm)	98.56	78.67	60.72	-17.95
Fuel oil	(1.0% S)	61.31	43.64	34.94	-8.70
Fuel oil	(3.5% S)	54.87	29.70	23.42	-6.28
<b>Singapore (Cargoes):</b>					
Naphtha		51.04	28.98	30.90	1.92
Premium gasoline	(unleaded 95)	79.38	48.29	40.97	-7.32
Regular gasoline	(unleaded 92)	77.07	47.38	38.80	-8.58
Jet/Kerosene		89.97	75.01	58.90	-16.11
Gasoil/Diesel	(50 ppm)	90.00	75.13	62.97	-12.16
Fuel oil	(180 cst 2.0% S)	59.99	36.14	34.00	-2.14
Fuel oil	(380 cst 3.5% S)	59.08	35.13	33.27	-1.86

Table 18: Refinery operations in selected OECD countries

	Refinery throughput				Refinery utilization			
	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Dec/Nov</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Dec/Nov</u>
	<i>mb/d</i>				<i>%</i>			
<b>USA</b>	14.84	15.15	14.97	-0.18	85.1	86.8	85.8	-1.0
<b>France</b>	1.74 R	1.70	1.63	-0.07	90.2 R	88.2	84.1	-4.1
<b>Germany</b>	2.21	2.23 R	2.17	-0.06	91.6	92.4 R	89.6	-2.8
<b>Italy</b>	1.72 R	1.80 R	1.77	-0.03	73.5 R	77.1 R	75.6	-1.5
<b>UK</b>	1.53 R	1.53 R	1.55	0.02	82.4 R	82.5 R	83.7	1.2
<b>Euro16</b>	11.68 R	11.88 R	11.83	-0.05	83.2 R	84.7 R	84.1	-0.6
<b>Japan</b>	3.58 R	3.83	4.04	0.21	77.0 R	82.3	86.8	4.5

R Revised since last issue.

Sources: OPEC statistics; Argus; Euroilstock Inventory Report; IEA.

## The Tanker Market

**Global and OPEC spot fixtures and OPEC sailings declined in December; while arrivals to the US also fell due to lower US crude imports**

OPEC spot fixtures declined by 4% in December compared to the previous month to reach 10.91 mb/d, according to preliminary data. The decline was due to lower OPEC fixtures from the Middle East which dropped by 17%, while OPEC fixtures from outside the Middle East were 12% higher. Within the Middle East, spot fixtures towards East displayed a decline of 16%, while those towards the West dropped by 19%. The Middle East/East spot fixtures ended the month at 4.09 mb/d, down from 4.88 mb/d in November, while the Middle East/West route ended the month at 1.10 mb/d, down from 1.36 mb/d. On a y-o-y basis, OPEC spot fixtures in December indicated a decline of 21% compared to the same month a year ago, while average spot fixtures for the year 2008 were steady compared to the previous year, declining marginally by 0.6%. Similarly, global spot fixtures declined in December by 11% compared to the previous month to stand at 15.91 mb/d, but were about 19% lower compared to the same month a year ago.

Sailings from OPEC were 6% lower in December, at 20.9 mb/d, down from 22.2 mb/d in the previous month, and were also 11% lower than in the same month a year ago. Middle East sailings in December were at 15.05 mb/d, about 9% lower than at the previous month and 14% lower than at a year earlier. Crude oil arrivals in the USA declined by 4% in December compared to the previous month. Crude oil trade figures indicate that US crude oil imports declined in December by 3.3% or 328,000 b/d compared to November, supporting the decline in crude arrivals. Similarly, crude arrivals to North-West Europe, the Mediterranean and Japan were all lower in December compared to November.

**Table 19: Tanker chartering, sailings and arrivals, mb/d**

	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change Dec/Nov</u>
<b>Spot Chartering</b>				
All areas	18.74	17.92	15.91	-2.01
OPEC	11.92	11.33	10.91	-0.42
Middle East/east	4.45	4.88	4.09	-0.79
Middle East/west	1.32	1.36	1.10	-0.26
<b>Sailings</b>				
OPEC	23.00	22.20	20.90	-1.30
Middle East	17.23	16.55	15.05	-1.50
<b>Arrivals</b>				
US Gulf Coast, US East Coast, Caribbean	8.23	8.24	7.92	-0.32
North West Europe	7.99	8.11	7.80	-0.31
Euromed	4.68	4.75	4.56	-0.19

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

**Dirty tanker spot freight rates increased in December supported by a surge in Aframax rates, especially to the west of Suez**

The crude oil tanker market rebounded in December despite the ongoing global economic crisis that hit tonnage demand over the previous months and despite the bearish sentiment in the market that resulted from OPEC's decision in December to take extra barrels out of the market. For the tanker market, December is usually an active month and spot freight rates usually firm at this time of the year, but this time the support was different. A major support to spot freight rates in December is attributable to the contango structure in crude markets which has spurred some market participants to store their crude at sea. Reports indicated that VLCCs were being used as storage in the Middle East, the USGC, Asia and the North Sea. Some estimates put the number of VLCCs currently tied up in storage at more than 40 VLCCs which makes more than 8% of the global fleet. Another support is attributed to a combination of stormy weather and port closures to the west of Suez that pushed spot freight rates for both Suezmax and Aframax vessels to very high levels compared to the previous four months. Bad weather conditions made it difficult to navigate the Turkish Straits, while a strike at the ports of Fos/Lavera for a good part of the month caused further bottlenecks and hit tonnage availability in the market.



Taking the top three vessel categories into consideration and their nine main reported routes, spot freight rates for crude oil tankers increased by 36% in December compared to the previous month, yet were 34% lower than at December 2007. It should be noted that it was in December 2007 when freight rates started their upward movement, a process which continued almost continuously until July 2008. Despite the softening of freight rates during the second half of the year, average crude oil spot freight rates for the year 2008 were 42% higher than in 2007. The Aframax sector to the west of Suez witnessed the highest surge in freight rates in December and was the main reason behind the substantial increase in average crude oil freight rates for the month, followed by Suezmax and then VLCC sectors.

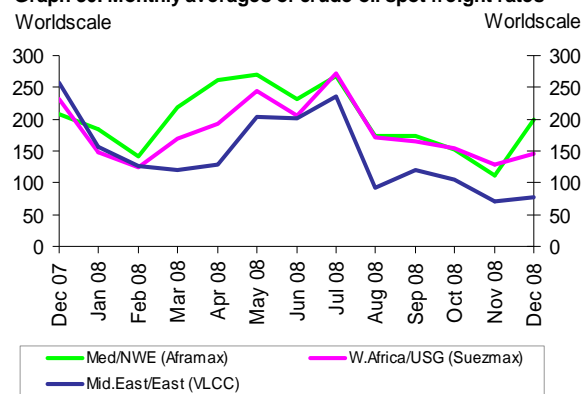
The VLCC spot freight rates displayed an average increase of 3% in December over the previous month. Spot freight rates for VLCCs trading on the long haul route from the Middle East to the East, which dropped by 33% in November from September, increased by 10% in December over the previous month. Most of the increases in freight rates on this route took place during the second week of the month as charterers were rushing to cover third decade of the month cargoes before Christmas and New Year's holiday. Towards the end of the month, freight rates eased remarkably, especially with the sentiment shifting on news of OPEC's decision to reduce production further starting from January 2009. Spot freight rates on this route started the month at around WS75, climbing to WS87 in the second week and then ending the month at WS68. On a y-o-y basis, spot freight rates for the route were 70% lower than in December 2007, but once again that was mainly due to the exceptionally high rate during the base year.

Middle East to the West spot freight rates closed the month with a decline of 11% in December compared to the previous month. It was the only VLCC route that witnessed a drop in its freight rates over the period. During the month, freight rates on this route were ranging between WS50 and WS60, ending the month at an average of WS54, the lowest monthly average in 2008. Although this rate is much lower than in the same month last year, average spot freight rates for this route for the year 2008 were 48% higher than in the previous year.

On the other hand, VLCC spot freight rates for voyages from West Africa to the East were within WS80s throughout the month, ending at an average of WS83, an increase of 9% over the previous month. Strong December Suezmax spot freight rates in this region were an influential factor in the general firmness of this market. On an annual basis, West Africa to the East route spot freight rates displayed a decline of 50% in December compared to the same month last year, but the average rate for 2008 was still 54% higher than in 2007.

Suezmax spot freight rates for voyages to the US from West Africa and North West Europe increased in December by an average of 14% compared to the previous month. Freight rates for Suezmaxes west of Suez were firming during the first half of the month as a result of lengthening delays through the Bosphorus, strikes in France and weather-related delays in a number of key Mediterranean ports in addition to the contango in crude prices as well as the open Brent WTI arbitrage. The end of the strike in mid-December together with news of lower exports of Azeri crude from the Turkish Mediterranean port Ceyhan put an end to the upward trend in Suezmax freight rates which began declining towards the end of the month. Relatively similar weekly fluctuations in freight rates for both Suezmax routes were evident in December. From West Africa to the US Gulf, Suezmax spot freight rates ended the month at an average of WS146, about 14% higher than at the previous month. The increase was similar for North West Europe to the US route. On an annual base, Suezmax average freight rates for both routes displayed a decline of 36% in December, compared to the same month the year before, but the average for 2008 was 44% higher than in 2007.

**Graph 30: Monthly averages of crude oil spot freight rates**



Average Aframax spot freight rates for the four reported routes were 57% higher in December compared to the previous month. To the east of Suez, the Indonesia to USWC Aframax route was steady throughout the month mainly due to ample tanker availability in the market. As mentioned above, the situation was completely different to the west of Suez where freight rates for the Caribbean's to the USEC route surged by 104% compared to the previous month, averaging WS265. In the Mediterranean, freight rates on both cross Med/Med to North West Europe routes were following the same pattern of weekly fluctuations over the month, surging during the first two weeks, and then easing towards the end of the month upon the end of the strike at the port of Fos/Lavera which had severely affected the market. Freight rates on both Mediterranean routes ended the month at WS204 for the cross Mediterranean route and WS199 for the Med/North West Europe route, the highest since August 2008, up by 70% and 81% respectively compared to the previous month. On average, Aframax spot freight rates for the four reported routes were 37% higher in 2008 compared to 2007.

**Table 20: Spot tanker crude freight rates, Worldscale**

<i>Crude</i>	Size	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	Change
	1,000 DWT				<u>Dec/Nov</u>
Middle East/east	230-280	105	70	77	6
Middle East/west	270-285	86	61	54	-7
West Africa/east	260	94	75	83	8
West Africa/US Gulf Coast	130-135	154	129	146	17
NW Europe/USEC - USGC	130-135	138	119	136	17
Indonesia/US West Coast	80-85	175	161	157	-4
Caribbean/US East Coast	50-55	204	130	265	134
Mediterranean/Mediterranean	80-85	162	120	204	84
Mediterranean/North-West Europe	80-85	152	110	199	88

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

**East of Suez clean spot freight rates were lower, while west of Suez rates were generally steady**

Contrary to crude oil freight rates, the clean tanker market indicated a drop of 9% on average in December compared to the previous month for all the six East and West of Suez reported routes. The market was much weaker to the East of Suez, especially in the Middle East to East route where freight rates dropped by 34% compared to the previous month. Freight rates for the Singapore to East route also dropped by 24% in December compared to the previous month despite the increased movement of middle distillate cargoes into Japan and South Korea during the first half of the month that stopped rates from falling further. As a result, average East of Suez clean spot freight rates were 27% lower in December compared to the previous month and were 36% lower compared to the same month last year, yet average spot freight rates on this market were 24% higher in 2008 than in 2007.

West of Suez clean freight rates were generally steady in December compared to the previous month with a marginal increase ranging between 1% and 2% for all the four reported routes in this market. Healthy movements of gas oil out of the US West Coast to Chile was behind keeping freight rates steady throughout the month in the Caribbean to US route. Despite that clean freight rates declined by 20% in this route compared to December 2007, average rates for the year 2008 were 16% higher. The widening gasoline arbitrage from Europe to the US boosted the clean trans-Atlantic freight during the first half of December. During the second half, exports to the US were thin, but good arbitrage for taking gasoline to West Africa and the Middle East kept freight rates firm, ending the month at an average of WS187, an increase of 2% over the previous month. The Lavera strike in the Mediterranean did not seem to have a similar effect on clean freight rates in this region as that for the Aframax crude oil freight rates. Rates remained fairly steady throughout the month for both the Med/Med and Med/North West Europe routes as demand for tonnage was not too healthy and activities were relatively low. Both routes increased by a margin of 2% each in December compared to the previous month, ending with an average of WS220 and WS230 respectively. Altogether, average West of Suez clean spot freight rates were steady in December compared to the previous month, but were 20% lower than in December 2007. For the year 2008, average west of Suez clean freight rates increased 8% over the previous year. For both East and West of Suez, average clean spot freight rates were 13% higher in 2008.

**Table 21: Spot tanker product freight rates, Worldscale**

<i>Products</i>	<b>Size</b>	<b><u>Oct 08</u></b>	<b><u>Nov 08</u></b>	<b><u>Dec 08</u></b>	<b>Change</b>
	<i>1,000 DWT</i>				<b><u>Dec/Nov</u></b>
Middle East/east	30-35	328	242	159	-83
Singapore/east	30-35	328	233	188	-45
Caribbean/US Gulf Coast	38-40	236	208	211	3
NW Europe/USEC - USGC	33-37	210	184	187	3
Mediterranean/Mediterranean	30-35	264	216	220	4
Mediterranean/North-West Europe	30-35	274	226	230	4

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

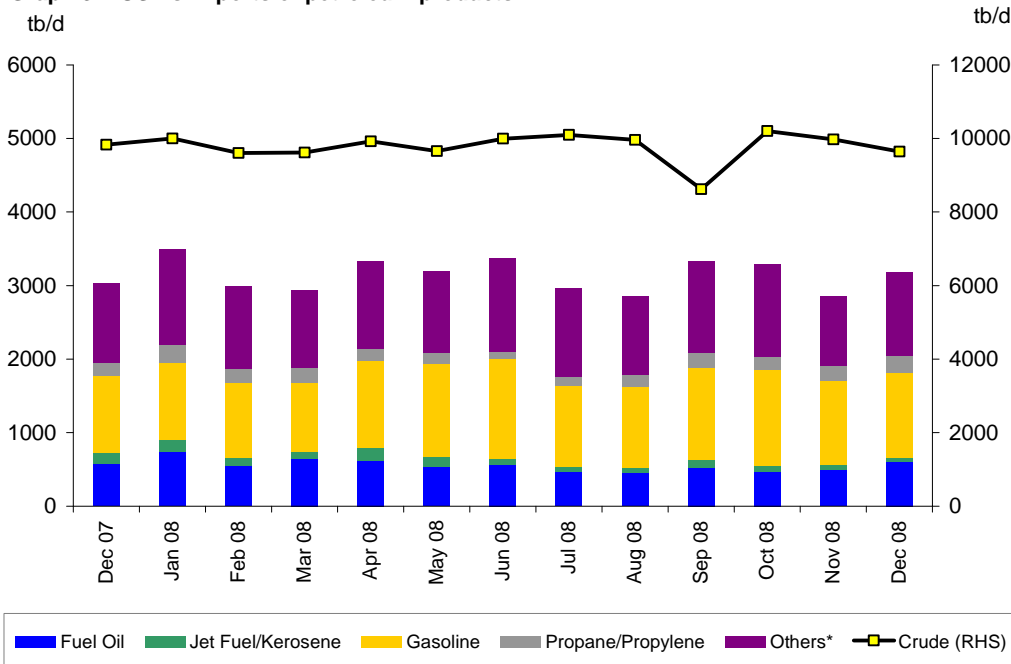
# Oil Trade

**US net oil imports increased in December by 2.7% compared to the previous month backed by higher product imports and lower exports**

## USA

According to official data, US crude oil imports in December declined for the second month in a row to average 9.65 mb/d. Crude oil imports to the US were 3.3% or 328,000 b/d lower than in the previous month and 358,000 b/d or 1.9% lower than in the same month in 2007. Average crude oil imports for the year 2008 were 9.77 mb/d, a decline of 2.5% or 252,000 b/d from the previous year. This decline is attributable to the overall state of the slowing US economy which hit sales for all products except gasoil.

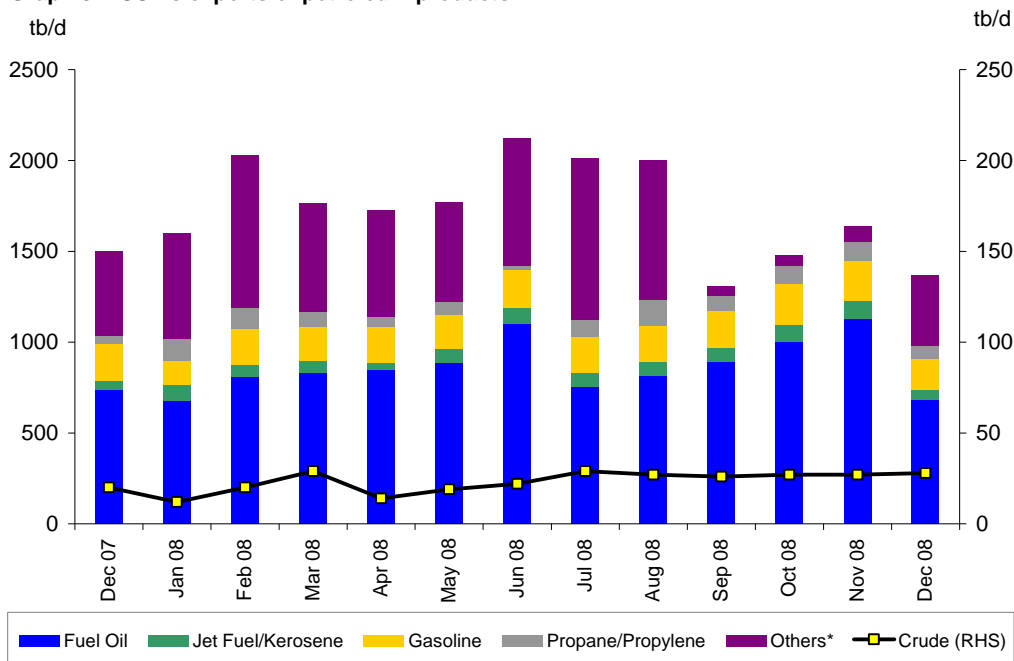
**Graph 31: USA's imports of petroleum products**



\*Others: Contains Natural Gas Liquids, Liquefied Refinery Gases (LRG's), Other Liquids and all Finished Petroleum Products except Gasoline, Jet Fuel/Kerosene, Fuel Oil and Propane/Propylene.

Contrary to crude oil imports, US product imports in December increased by 12% or 328,000 b/d compared to the previous month to average 3.18 mb/d and were 4.9% higher than in the previous year. All major product imports were higher in December than in the previous month. Finished motor gasoline imports increased in December by 34,000 b/d or 24% compared to the previous month to reach 174,000 b/d. Average US gasoline imports for the year 2008 also dropped by 25% compared to the previous year to average 308,000 b/d. Distillate fuel oil imports increased in December by 57,000 b/d or 40% compared to the previous month to average 200,000 b/d. Average distillate fuel oil imports for the year 2008 were 201,000 b/d, indicating a drop of 103,000 b/d or 34% compared to the previous year. Residual fuel oil imports increased in December by 43,000 b/d or 12% compared to the previous month, reaching about 402,000 b/d. For the year 2008, the US imported 5% less residual fuel oil than in the previous year. Jet fuel imports in December averaged 62,000 b/d, about 5% higher than in the previous month. Jet fuel imports were 53% lower than in 2007, averaging 102,000 b/d.

On the export side, US product exports declined by 300,000 b/d or 18% in December compared to the previous month to average 1.37 mb/d. This represents a decline of 155,000 b/d or 10% compared to a year earlier. US average product exports for the year 2008 were at 1.76 mb/d, indicating an increase of 356,000 b/d or 25% compared to the previous year.

**Graph 32: USA's exports of petroleum products**

Others: Contains Natural Gas Liquids, Liquefied Refinery Gases (LRG's), Other Liquids and all Finished Petroleum Products except Gasoline, Jet Fuel/Kerosene, Fuel Oil and Propane/Propylene.

As a result, US net oil imports increased in December by 2.7% over the previous month to reach 11.44 mb/d. The 299,000 b/d increase in net oil imports in December came as a result of the 329,000 b/d decline in net crude oil imports and the 628,000 b/d increase in net product imports compared to the previous month. On a y-o-y basis, US net oil imports in December were 0.9% higher than in the previous year.

**Table 22: USA crude and product net imports/(exports), tb/d**

	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change Dec/Nov</u>
Crude oil	10,176	9,947	9,618	-329
Total products	1,786	1,189	1,817	628
<b>Total crude and products</b>	<b>11,962</b>	<b>11,136</b>	<b>11,435</b>	<b>299</b>

### Canada top supply to US in October, followed by Saudi Arabia

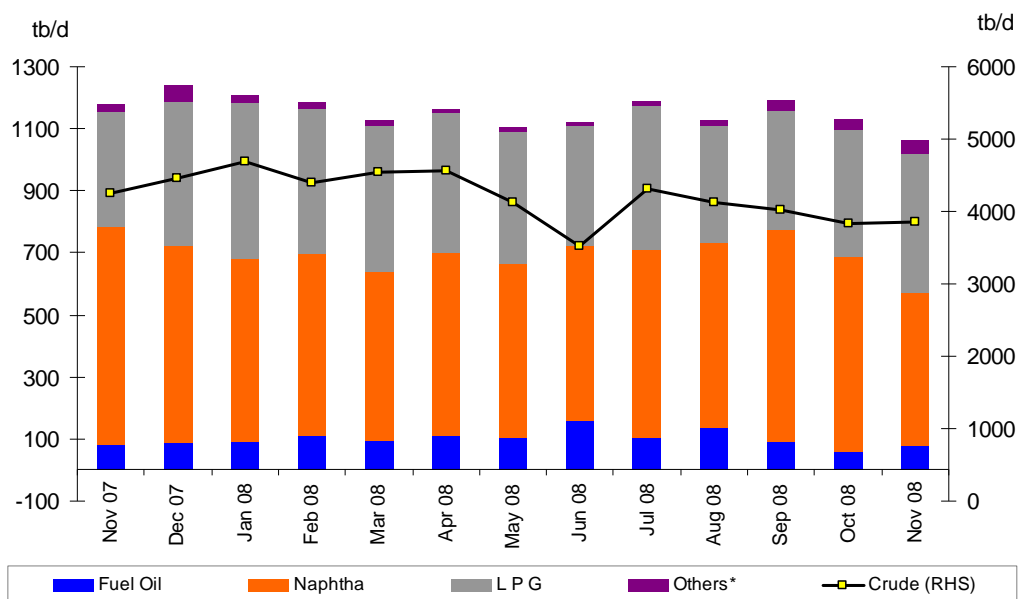
Canada was the top crude oil supplier to the US in October with a share of 20.4%, down from 22.9% in the previous month, followed by Saudi Arabia with 14.2%, down from 17% in the previous month. Mexico and Venezuela came next with 12.4% and 10.2%, respectively. Altogether, OPEC Member Countries supplied 52.7% of total US crude oil imports in October, down from 54.1% in the previous month. For product imports, once again Canada was the top product supplier to the US in October with a share of 16.8%, up from 14.3% in the previous month. Russia was next with a share of 9.1%, down from 12% in the previous month, followed by the Virgin Islands with 8.6%. For OPEC Member Countries, Algeria supplied 8.1% of total US oil product imports in October, down from 10.9% in the previous month, followed by Venezuela with 4.4% and Libya with 1.7%. Altogether, OPEC Member Countries supplied 18% of US product imports in October, down from 18.7% the previous month. For US product exports, Canada was the top importer in October with a share of 19.5%, up from 16.6% the previous month. Mexico was next with 14.3%, down from 18.6%, and the Netherlands with 7.6%. Altogether, OPEC Member Countries imported 3.9% of total US product exports in October, up from 2% the previous month. Ecuador imported 2.2% and Venezuela 1.7%.

**Japan's net oil imports declined in November by 3.4% supported by higher oil product exports and lower imports**

**Japan**

Japan's crude oil imports in November averaged 3.85 mb/d, steady compared to the previous month, but 9.2%, or about 0.39 mb/d lower compared to November 2007, according to official data. With this volume of imports, Japan was the world's second-biggest crude importer in November overtaking China. Japan's crude oil imports for the first eleven months of 2008 averaged 4.18 mb/d, indicating annual growth of 3.7%, or 151,000 b/d compared to the same period in 2007. This growth comes despite the falling rates of domestic oil product sales as a result of ageing population and shift towards cleaner energy in this country and lower industrial activity as a result of the slowing global economy. Higher crude imports in Japan are mainly attributable to increasing volumes of oil product exports.

**Graph 33: Japan's imports of petroleum products**



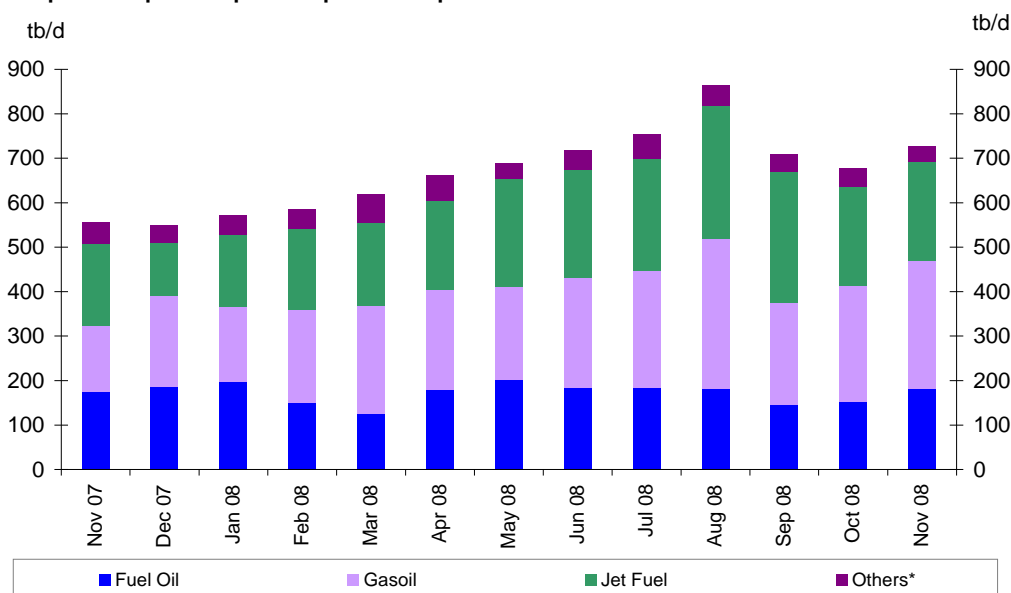
\*Others: Contains Gasoline, Jet Fuel, Kerosene, Gasoil, Asphalt and Paraffin Wax.

Japan's product imports in November declined by 65,000 b/d or 5.7% compared to the previous month, to average about 1.06 mb/d, displaying an annual decline of 9.9% compared to the year before. Japan mainly imports three products, naphtha, LPG and fuel oil, which constituted about 96% of its total monthly product imports in November. Average LPG imports in November were about 448,000 b/d, an increase of 37,000 b/d or 9% over the previous month and about 22% higher than a year earlier. For the first eleven months of 2008, Japan imported an average of 436,000 b/d of LPG, almost steady compared to the previous year's average for the same period. Naphtha imports averaged 489,000 b/d in November, the lowest average in more than two years, indicating about 22%, or 140,000 b/d lower than the previous month and 31% lower than a year earlier. Naphtha imports for the first eleven months of 2008 averaged 587,000 b/d, a decline of 11% over the same period a year earlier. Fuel oil imports in November were at 81,000 b/d, up by 23,000 b/d, or 39% from the previous month, and almost steady compared to a year earlier. Fuel oil imports for the first eleven months of 2008 averaged 102,000 b/d, an increase of 51% over the same period a year earlier. Naphtha imports counted for 46% of Japan's total products imports in November, with LPG representing 42% and fuel oil about 8%. Total product imports for the first eleven months of 2008 averaged 1.15 mb/d, a decline of 3.9% from the same period a year before.

Japan's product exports in November increased by 14% compared to the previous month, and by 40% compared to the same month of the previous year, to average 762,000 b/d. Gasoil, jet fuel and fuel oil are Japan's main product exports which together accounted for about 91% of the country's total product exports in November. Gasoil exports in November were about 289,000 b/d, an increase of 10% or 27,000 b/d, compared to the previous month, and a gain of 93% compared to November 2007. During the first eleven months of 2008, Japan exported an average of 244,000 b/d of gasoil, a substantial 59% increase over the same period in 2007. Jet fuel exports in November were about 222,000 b/d, steady compared to the previous month, but 21% higher than at a year earlier. Jet fuel exports for the first eleven months of 2008 averaged 229,000 b/d, an increase of 14% over the same period a year earlier. Fuel oil exports in November were about

181,000 b/d, an increase of 19% over the previous month and 4% higher than a year earlier. For the first eleven months of 2008, Japan exported an average of 171,000 b/d of fuel oil, unchanged compared to the same period in 2007. Gasoil exports accounted for 38% of Japan's total product exports in November, with jet fuel representing 29% and fuel oil 24%. Japan exported lower quantities of gasoline, kerosene, lubricating oil, asphalt and LPG in October, totaling 70,000 b/d. Average product exports for the first eleven months of 2008 were about 688,000 b/d, indicating an annual growth of 22% or 122,000 b/d over the same period in 2007.

**Graph 34: Japan's exports of petroleum products**



\*Others: Contains LPG, Gasoline, Naphtha, Kerosene, Lubricating Oil, Asphalt and Paraffin

As a result, Japan's net oil imports in November were about 4.15 mb/d, indicating a decline of 147,000 b/d or 3.4% compared to the previous month and 15% compared to a year earlier. Average net oil imports for the first eleven months of 2008 were 4.64 mb/d, steady compared to the same period in 2007. Japan's net product imports for the first eleven months of 2008 declined to 457,000 b/d from 626,000 b/d in the same period a year earlier. This is mainly due to the 22% increase in exports over the same period.

**Table 23: Japan's crude and product net imports/(exports), tb/d**

	Sep 08	Oct 08	Nov 08	Change Nov/Oct
Crude oil	4,029	3,837	3,848	11
Total products	481	459	301	-158
<b>Total crude and products</b>	<b>4,511</b>	<b>4,296</b>	<b>4,149</b>	<b>-147</b>

### Saudi Arabia remains Japan's top crude supplier

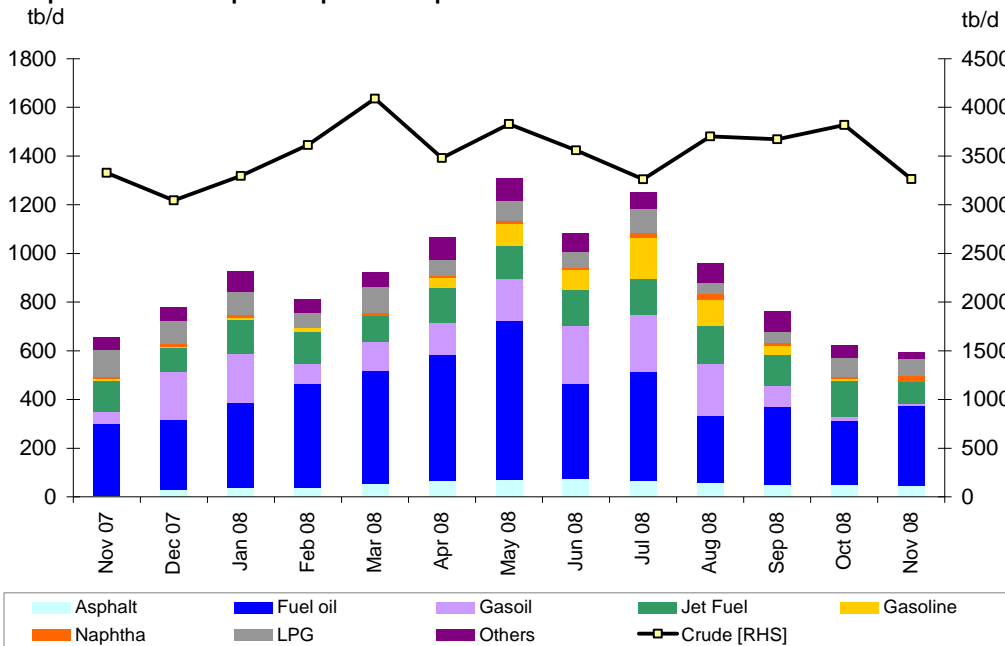
Saudi Arabia was once again Japan's top crude oil supplier in November, supplying 29.4% of Japan's crude oil imports, down from 31.9% in the previous month. The UAE share was 22.3%, steady compared to the previous month. Qatar supplied 12.1% of Japan's crude oil imports in November, up from 8.5% in the previous month, while Iran's share was 11.1%, down from 13.7% in the previous month. OPEC Member Countries supplied 88% of Japan's crude oil imports in November, down from 88.9% in the previous month. Top non-OPEC crude oil suppliers in November include Russia with 3.8%, down from 4% in the previous month, and Oman with 1.9%. On the product side, preliminary data indicates that the US was Japan's top supplier in November with 13.5%, followed by Kuwait with 12.7% and Saudi Arabia with 11.9%. Altogether, OPEC Member Countries supplied 52% of Japan's product imports in November, up from 49.5% the previous month. In addition to the US, top non-OPEC product suppliers in November include South Korea with 8.6% and Singapore with 5.3%.

**China's net oil imports in November reached its lowest average in 2008 backed by a 15% decline in crude oil imports**

**China**

China's crude oil imports declined in November to reach 3.26 mb/d, according to official data, about 15% or 556,000 b/d lower than in the previous month, and by 2% compared to the same month last year. Average crude oil imports for the first eleven months of 2008 were at 3.6 mb/d, indicating 0.3 mb/d or 9% annual growth over the same period a year ago. On the other hand, China's crude oil production in November was steady compared to the previous month, averaging 3.88 mb/d. China's November crude oil production was about 62,000 b/d higher than the country's crude oil imports in the same month.

**Graph 35: China's imports of petroleum products**

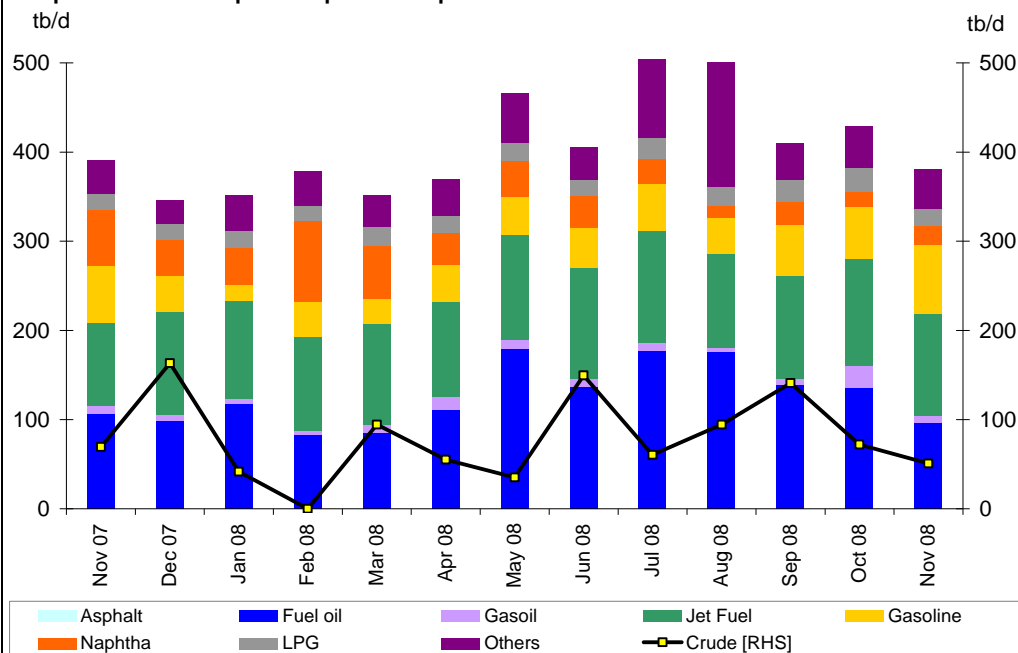


Similarly, China's product imports declined in November for the fourth month in a row to average 0.6 mb/d, the lowest average in several years, indicating a decline of 26,000 b/d or 4% from the previous month and 9% compared to a year earlier. Increases in fuel oil and naphtha imports were more than offset by declines in gasoline, jet fuel and LPG imports. For the first time in 2008, there were no gasoline imports in November compared to about 8,000 b/d in the previous month. Jet fuel imports in November dropped to 90,000 b/d from about 145,000 b/d in the previous month. Naphtha imports in November were about 24,000 b/d, up from 10,000 b/d in the previous month. Gasoil imports declined sharply in November to reach 10,000 b/d from 20,000 b/d in the previous month. For the first eleven months of 2008, China imported an average of 152,000 b/d of gasoil and 56,000 b/d of gasoline, up from 19,000 b/d and 6,000 b/d respectively during the same period in the previous year.

China imported about 330,000 b/d of fuel oil in November, about 15% higher than in the previous month. The share of China's fuel oil imports to its total product imports increased in November from 43% in the previous month to 55%. Imports of LPG averaged 70,000 b/d in November, down from 76,000 b/d in the previous month. Imports of asphalt were about 219,000 metric tonnes in November, down from 235,000 metric tonnes in the previous month. Altogether, China imported an average of 0.94 mb/d of products in the first eleven months of 2008, indicating an annual growth of 5.9% over the same period in 2007. In November, fuel oil imports accounted for 55% of China's total product imports, jet fuel 15%, LPG 12%, naphtha 4%, and gas oil 2%.



**Graph 36: China's exports of petroleum products**

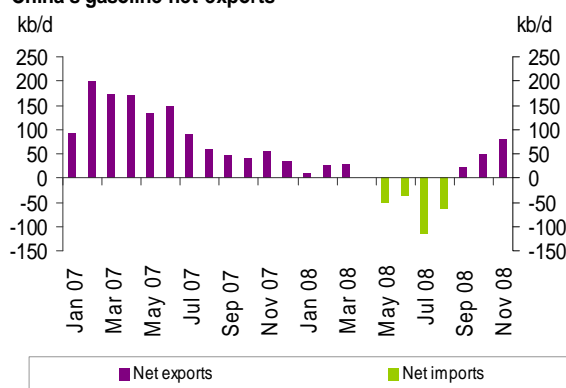


On the export side, China's crude oil exports in November were at 51,000 b/d, down from 72,000 b/d in the previous month. About 42% of China's crude oil exports in November destined to the Indonesia, 39% to Japan and 19% to North Korea. Average crude oil exports for the first eleven months of 2008 were at 72,000 b/d, about 5% higher than in the same period in 2007.

China's product exports in November were at 0.39 mb/d, about 10% lower compared to the previous month, and 2% lower than at November 2007. Drops in exports of gas oil, fuel oil and LPG more than offset increases in other products exports in this month. Average product exports for the first eleven months of 2008 were about 0.4 mb/d, about 4% higher than in the same period in 2007.

Fuel oil exports in November were at 97,000 b/d, down from 135,000 b/d in the previous month. Exports of jet fuel in November were about 115,000 b/d, down from 120,000 b/d in the previous month. Gasoline exports were at 77,000 b/d, up from 58,000 b/d in the previous month. Typically, China is a major gasoline exporter in Asia. In its preparation for the Olympics, the country turned into a net gasoline importer for four successive months starting from May 2008. In September, China switched back to be a net gasoline exporter. Net gasoline exports in November reached 77,000 b/d, compared 50,000 b/d in the previous month. China's naphtha exports in November were about 21,000 b/d, up from 16,000 b/d in the previous month. Gasoil exports in November were 7,000 b/d, down from 26,000 b/d in the previous month. China exported 20,000 b/d of LPG in November, down from 28,000 b/d in October. Jet fuel exports accounted for 30% of China's total product exports in November, fuel oil 25%, gasoline 20%, naphtha and LPG 5% each.

**China's gasoline net-exports**



**Table 24: China's crude and product net imports/(exports), tb/d**

	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Change Nov/Oct</u>
Crude oil	3,531	3,748	3,214	-534
Total products	351	192	211	18
<b>Total crude and products</b>	<b>3,882</b>	<b>3,940</b>	<b>3,424</b>	<b>-516</b>

With net crude oil imports at 3.21 mb/d and net product imports at 211,000 b/d, China's net oil imports in November were at 3.42 mb/d, the lowest in 2008. Net oil imports in November were 13% or 516,000 b/d lower than in the previous month, and about 3% lower than at a year earlier. Lower net oil imports in November brought China's average net oil imports for the first eleven months of 2008 to about 4.07 mb/d, 9% higher than in the same period of the previous year.

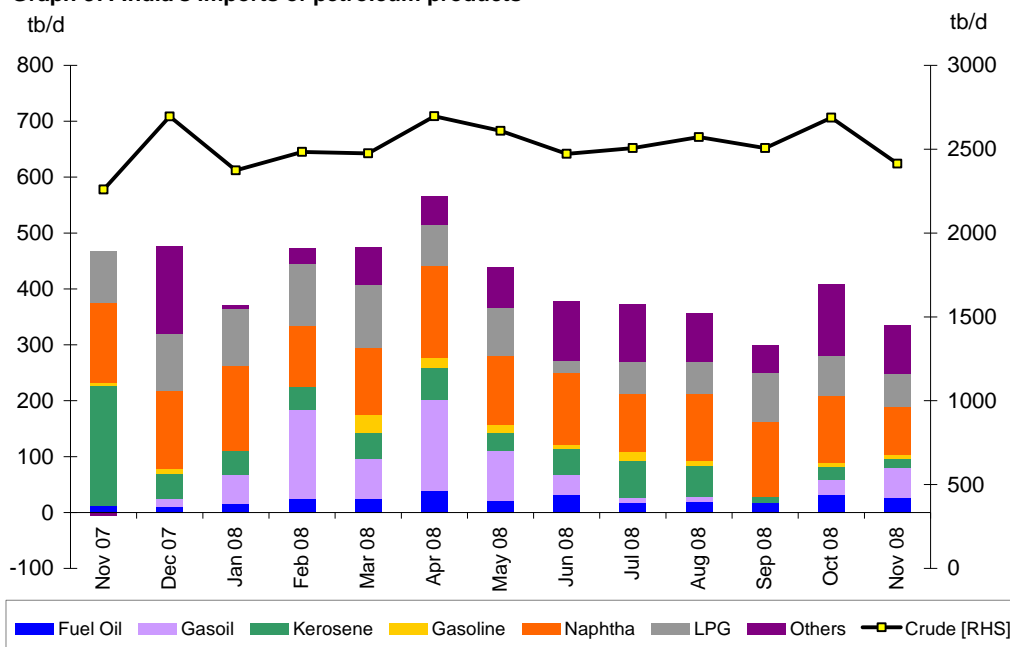
Saudi Arabia remained China's top crude oil supplier in November with a share of 28.7%, up from 23.4% in the previous month. Angola was next with 15.4%, steady compared to the previous month. Iran's share of China's total crude oil imports in November was 8.8%, down from 10.9%, in the previous month. Altogether, OPEC Member Countries supplied 62.6% of China's crude oil imports in October, down from 64.2% in the previous month. Top non-OPEC crude oil suppliers in November include Sudan with 8%, Russia with 6.8% and Oman with 5.6%.

**India**

According to preliminary data, India's crude oil imports in November declined by 274,000 b/d or 10.2% compared to the previous month to reach about 2.41 mb/d, indicating a y-o-y increase of 7.9% compared to the same month of the previous year. India's crude oil imports for the first eleven months of 2008 averaged about 2.57 mb/d, an increase of 7.4% or 177,000 b/d over the same period 2007, supported by strong domestic fuel sales throughout the year, which increased by 2% in November compared to a year earlier. Higher crude oil imports in 2008 are also contributed to higher overseas purchases by export-oriented Essar Oil and Reliance Industries.

**India's net oil imports declined in November by 10.8% supported by lower crude oil imports**

**Graph 37: India's imports of petroleum products**



India's product imports in November declined by 17.9% compared to the previous month to average 0.34 mb/d, about 27% lower compared to the year before. Apart from gasoil, imports of all major products were lower in November compared to the previous month. Gasoil imports in November averaged about 52,000 b/d, almost double the amount in October. This came at a time when gasoil sales in India increased in November by 8.8% on a y-o-y basis compared to 6.3% the previous month. For the first eleven months of 2008, India imported an average of 60,000 b/d of gasoil, some 38% higher than in the same period in the previous year.

Gasoline imports in November were almost steady compared to the previous month at about 7,000 b/d. This came at a time when gasoline domestic sales increased by 5.8% in November compared to a year earlier. LPG imports in November averaged about 60,000 b/d compared to about 72,000 b/d in the previous month. Average LPG imports for the first eleven months of 2008 were about 82,000 b/d, compared to 76,000 b/d a year earlier. India imported an average of 85,000 b/d of naphtha in November, about 30% lower than the previous month, and 40% lower than a year earlier. Average naphtha imports for the first eleven months of 2008 were at 124,000 b/d, about 14% lower than a year earlier. Fuel oil imports in November averaged 27,000 b/d, down from 31,000 b/d in October, while kerosene imports were about 17,000 b/d, down from 24,000 b/d in the previous month. Altogether, India imported an average of 0.41 mb/d in products during the first eleven months of 2008 compared to 0.42 mb/d in the same period of the previous year.

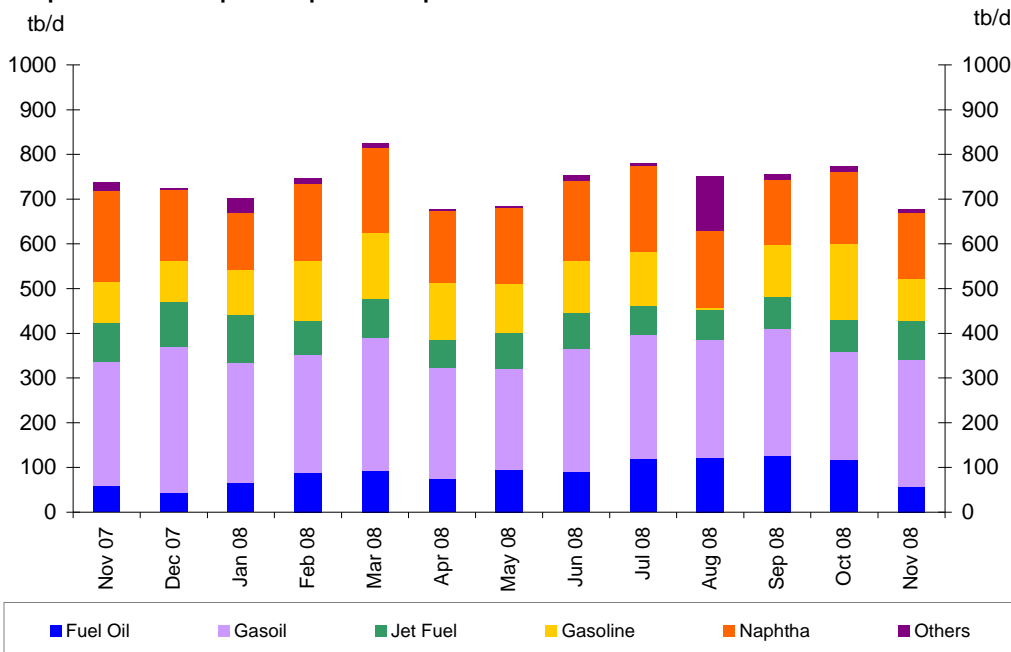
**Table 25: India's crude and product net imports/(exports), tb/d**

	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Change Nov/Oct</u>
Crude oil	2,507	2,688	2,414	-274
Total products	-457	-365	-342	23
<b>Total crude and products</b>	<b>2,050</b>	<b>2,324</b>	<b>2,072</b>	<b>-252</b>

On the export side, India's total product exports of 678,000 b/d in November were 12.4% lower compared to the previous month, and 7.9% lower than a year earlier. Increases in gasoil and jet fuel exports were more than offset by declines in gasoline, naphtha and fuel oil exports. Fuel oil exports in November averaged 56,000 b/d, down from 117,000 b/d in the previous month. For the first eleven months of 2008, India exported 40% more fuel oil than the same period a year earlier. Jet fuel exports were at 87,000 b/d in November, 14% higher compared to the previous month. Gasoil exports in November averaged 303,000 b/d, an increase of 25% over the previous month. For the first eleven months of 2008, India exported an average of 270,000 b/d of gasoil, steady compared to the same period a year earlier.

Gasoline exports declined in November to average about 96,000 b/d, down from 172,000 b/d in the previous month. Average gasoline exports during the first eleven months of 2008 were about 113,000 b/d, an increase of 29% over the same period a year earlier. Naphtha exports were at 149,000 b/d in November, down from 166,000 b/d in the previous month. Naphtha exports during the first eleven months of 2008 were 30% lower than in the same period a year ago. Altogether, India exported an average of 739,000 b/d of oil products during the first eleven months of 2008, representing a decline of 7.3% or 58,000 b/d over the same period in the previous year.

**Graph 38: India's exports of petroleum products**



As a result, India's net oil imports in November averaged 2.01 mb/d, displaying a decline of 10.8% or 252,000 b/d compared to the previous month, but were 5.5% higher compared to a year earlier. The decline in net oil imports is attributable to a 274,000 b/d decline in net crude oil imports and a 23,000 b/d increase in net product imports. For the first eleven months of 2008, India's net oil imports averaged 2.23 mb/d, an increase of 11%, or 221,000 b/d over the same period in 2007.

**FSU crude oil exports declined by 5% in November backed by lower Russian pipeline exports; product exports were marginally higher**

***FSU net exports of crude and products***

FSU crude oil exports in November declined by 298,000 b/d or 5% compared to the previous month to average 5.65 mb/d. The decline is mainly attributed to lower Russian pipeline crude exports during the month which dropped by 512,000 b/d or 13% compared to October. About 355,000 b/d of the decline on the Black Sea route, 65,000 b/d through the Baltic and 85,000 b/d through Druzhba. Russian crude oil exports by rail also fell by 24% or 130,000 b/d in November compared to the previous month to average about 415,000 b/d. Both Kazak rail and CPC pipeline crude exports were steady in November from the previous month, totaling 736,000 b/d. Caspian crude oil exports averaged 249,000 b/d in November, representing a 63% or 96,000 b/d increase over the previous month.

FSU oil product exports increased in November by 65,000 b/d or 3% compared to the previous month to average 2.39 mb/d. The gains are mainly attributable to the 9% increase in gasoil exports over the month, while fuel oil exports were marginally higher and exports of other products were steady compared to the previous month. In total, FSU crude oil and product exports averaged 8.04 mb/d in November, indicating a 2.8% or 233,000 b/d decline from the previous month.

<b>Table 26: Recent FSU exports of crude and products by source, mb/d</b>							
	<u>2006</u>	<u>2007</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>Oct 08</u>	<u>Nov 08*</u>
<b>Crude</b>							
<b>Russian pipeline</b>							
Black Sea	1,288	1,360	1,224	1,345	1,226	1,357	1,002
Baltic	1,553	1,645	1,530	1,678	1,539	1,453	1,388
Druzhba	1,288	1,122	1,130	1,053	1,034	1,088	1,003
<b>Total***</b>	<b>4,129</b>	<b>4,127</b>	<b>3,884</b>	<b>4,076</b>	<b>3,817</b>	<b>3,929</b>	<b>3,417</b>
<b>Other routes</b>							
Russian rail	313	290	296	342	260	256	212
Russian - Far East	84	247	209	204	214	289	203
Kazak rail	31	15	17	18	17	17	18
CPC pipeline	661	701	624	709	632	725	718
<b>Caspian</b>	<b>396</b>	<b>249</b>	<b>191</b>	<b>196</b>	<b>148</b>	<b>153</b>	<b>249</b>
<i>of which</i>							
Supsa (AIOC) - Georgia	114	0	0	0	0	0	59
Batumi - Georgia	177	138	105	121	81	86	127
<b>Total**</b>	<b>1,702</b>	<b>2,234</b>	<b>2,110</b>	<b>2,348</b>	<b>2,052</b>	<b>2,021</b>	<b>2,236</b>
<b>Total crude exports</b>	<b>5,831</b>	<b>6,362</b>	<b>5,994</b>	<b>6,425</b>	<b>5,869</b>	<b>5,951</b>	<b>5,653</b>
<b>Products</b>							
<b>All routes</b>							
Fuel oil	861	861	1,085	1,131	1,232	977	987
Gasoil	841	675	855	787	757	716	781
Others	662	642	975	694	671	627	617
<b>Total</b>	<b>2,364</b>	<b>2,178</b>	<b>2,916</b>	<b>2,612</b>	<b>2,661</b>	<b>2,320</b>	<b>2,385</b>
<b>Total oil exports</b>	<b>8,195</b>	<b>8,540</b>	<b>8,910</b>	<b>9,037</b>	<b>8,530</b>	<b>8,271</b>	<b>8,038</b>

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

\* Preliminary.

\*\* Total incl. BTC, Atasu-Alashankou and tanker shipments from Kaliningrad to Ventspils.

\*\*\* Total incl. exports to China.

# Stock Movements

**US commercial oil inventories at highest level since mid-2007 following a contra-seasonal build in the fourth quarter**

## USA

US commercial oil stocks increased further in December, the third build in a row, representing a contra-seasonal build in the fourth quarter. Total inventories rose by 1.9 mb to hit 1,016 mb, the highest since September 2007. However, if we consider just crude oil, gasoline and distillate stocks, the build would be much higher with more than 23 mb, as other products witnessed a stock draw. During the previous five years (2003-2007) US commercial oil stocks dropped on average by 33 mb during the fourth quarter while in

2008 they increased by more than 13 mb. This contra-seasonal build is driven essentially by weaker demand and a steep contango in the future markets. With the exception of September, due to the effect of hurricanes Gustav and Ike, US commercial oil inventories have increased since the end of the first quarter to gain more than 63 mb against a typical seasonal build of 13 mb.

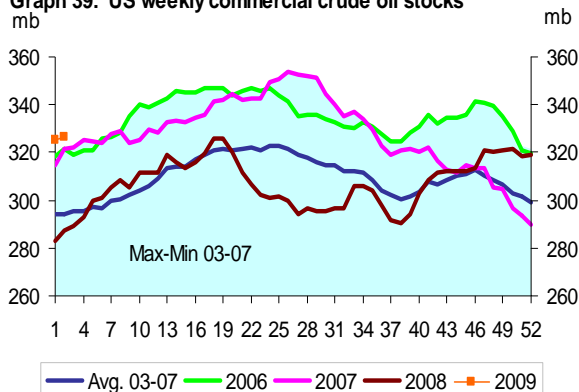
A drop in crude imports did not prevent crude oil stocks from building. The rise was driven by a drop in refinery throughput, reflecting lower demand. In addition to weaker demand from refineries, low prices and steep contango also encouraged inventory gains. However, crude oil inventories added a further 4 mb to move beyond 324 mb, representing a gain of 38 mb over a year ago and 30 mb or 10% over the five-year average. This build was the fifth in a row and resulted in a contra-seasonal build of 21 mb in the fourth quarter.

Following the same trend, gasoline and distillate stocks increased 9.2 mb and 10.2 mb, respectively, to stand at 208.1 and 137.6 mb. The build in those products was attributable to the increase in production, surge in imports and strong decline in exports. Nevertheless, despite the upward trend, US gasoline stocks remained below the five-year average but are very comfortable when expressed in terms of forward demand cover due to sluggish demand. On the other hand, distillate inventories recovered and moved within the upper end of the five-year range. In contrast to gasoline and distillates, both residual and jet fuel oil stocks fell below their seasonal ranges after a drop of 3.3 mb and 1.5 mb, respectively.

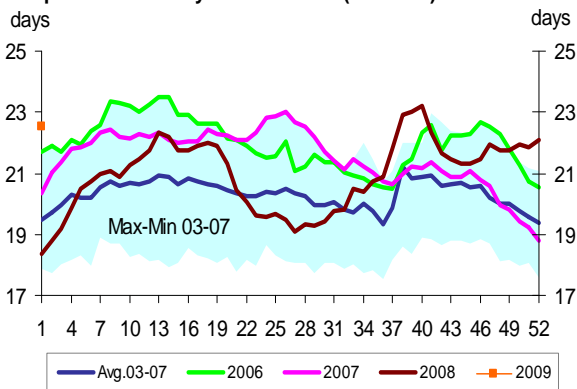
For January, the latest data shows US commercial oil inventories surged for the second week, adding 8.2 mb to move beyond 1,025 mb in the week ending 9 January, the highest level since late August 2007 (see **Graph 39**). Crude oil inventories rose 1.2 mb to stand at 326.6 mb, widening the overhang with the five-year average to almost 30 mb. However, the bulk of the build in US commercial oil stocks was attributable to distillates which surged 6.4 mb, the sixth build in a row, to hit 144.2 mb and move above the upper end of the five-year range. Gasoline stocks also increased by 2.1 mb and are now in line with the five-year average of 214 mb.

At these levels US commercial oil stocks are very comfortable with crude oil representing more than 3 days of forward cover, better than the average of the previous five years (see **Graph 40**) and distillates having 1.6 days, whereas gasoline stocks are in line with the five-year average. In addition, inventories at WTI delivery point of Cushing, Oklahoma, stood at a record level of 33 mb approaching maximum storage capacity, impacting the price of US benchmark crude.

**Graph 39: US weekly commercial crude oil stocks**



**Graph 40: US weekly forward cover (crude oil)**



The US Department of Energy announced it will resume the purchase of crude oil to fill the Strategic Petroleum Reserve (SPR) as oil prices have fallen significantly. To recall, the US Congress passed a law to suspend the filling of SPR in May 2008 until end December 2008 due to high prices at that time despite a measure in the Energy Policy Act requiring the reserves to be expanded to 1 billion barrels. The DOE would acquire around 25 mb in total. It consists of a purchase of about 12 mb of crude oil from the market, a recovery of the 5.5 mb loaned out to refiners after hurricanes Gustav and Ike, and finally 8.3 mb in the form of royalty-in-kind. With these 25 mb, SPR, which is currently at 702 mb, would reach its full capacity of 727 mb. Some sources say that purchases may resume in February.

**Table 27: US onland commercial petroleum stocks, mb**

	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change</u>		
				<u>Dec 08 /Nov 08</u>	<u>Dec 07</u>	<u>09 Jan 09</u> *
<b>Crude oil</b>	312.1	320.5	324.5	4.0	286.1	326.6
Gasoline	194.9	198.9	208.1	9.2	218.1	213.5
Distillate fuel	127.4	127.4	137.6	10.2	133.9	144.2
Residual fuel oil	39.7	37.5	34.2	-3.3	39.3	34.7
Jet fuel	38.6	38.9	37.4	-1.5	39.5	38.0
<b>Total</b>	<b>1,010.3</b>	<b>1,014.1</b>	<b>1,016.0</b>	<b>1.9</b>	<b>968.4</b>	<b>1,025.3</b>
SPR	701.8	701.8	701.8	0.0	696.9	701.9

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

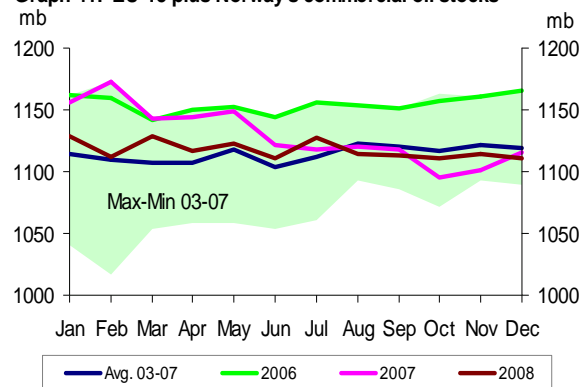
Source: US Department of Energy's Energy Information Administration.

#### Western Europe

**EU-15 plus Norway oil stocks fell 2.5 mb, driving by distillates on the back of cold weather.**

European (EU-15 plus Norway) total oil stocks dropped 2.5 mb in December, in line with the seasonal decline to stand at 1,111.2 mb, slightly below the five-year average. This led to a cumulative draw of 1.8 mb over the fourth quarter compared to a seasonal draw of 1.4 mb (see **Graph 41**). Distillates were the main contributors to the draw as demand rose on the back of cold weather in the region and a significant decline in exports.

Crude oil inventories also fell to stand at 473 mb, down 2.7 mb from the previous month but were in line with the five-year average and last year's level. However, the drop in European crude oil inventories does not indicate a lack of supply as stocks at sea are increasing. A steep contango in the market with prompt prices well below those of forward deliveries encouraged some companies like Vitol, Shell and BP to turn to floating storage. Many vessels were reported to be used for storage in Europe.

**Graph 41: EU-15 plus Norway's commercial oil stocks****Table 28: Western Europe's oil stocks, mb**

	<u>Oct 08</u>	<u>Nov 08</u>	<u>Dec 08</u>	<u>Change</u>	
				<u>Dec 08/Nov 08</u>	<u>Dec 07</u>
<b>Crude oil</b>	475.2	475.8	473.1	-2.7	476.2
Mogas	118.4	119.4	120.6	1.2	133.8
Naphtha	32.1	29.9	30.8	0.9	29.0
Middle distillates	370.3	374.9	368.7	-6.2	359.3
Fuel oils	114.5	113.7	118.0	4.3	116.3
<b>Total products</b>	<b>635.3</b>	<b>637.9</b>	<b>638.1</b>	<b>0.2</b>	<b>638.4</b>
<b>Total</b>	<b>1,110.5</b>	<b>1,113.7</b>	<b>1,111.2</b>	<b>-2.5</b>	<b>1,114.6</b>

Source: Argus, Euroilstock.

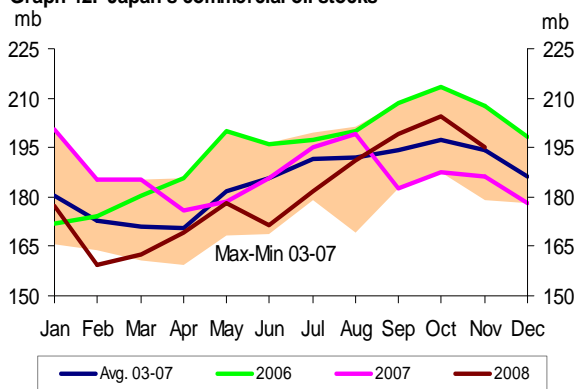
In contrast to crude oil, product stocks inched up 0.2 mb but the picture is mixed with distillates losing more than 6 mb and other products increasing. In addition to strong demand for heating oil due to cold snaps, lower production from refineries contributed to the sharp decline in distillates stocks which, however, at nearly 369 mb, remained in line with the five-year average and higher than a year ago. A surge in German heating oil stocks by consumers following a decline in prices combined with a drop in temperatures also impacting European distillate stocks. Gasoline inventories increased steadily by 1.2 mb to 120.6 mb but remained below the lower end of the five-year range. However, despite low gasoline stocks, some cargoes continue head toward the Middle East due to sluggish demand within Europe. Following the same trend, residual fuel oil inventories jumped 4.3 mb to 118 mb, the highest in the last five months. The surge was supported by strong supplies from Russia. Naphtha stocks gained almost 1 mb to stand slightly below 31 mb. Residual fuel oil inventories added a further 1.8 mb to approach 30 mb, the highest level since last April. Both residual fuel oil and naphtha stocks are 2 mb above their respective levels of a year ago.

**Japan's total commercial fell 9.2 mb in November, but remained comfortable due to weak demand**

**Japan**

Japan's commercial oil stocks reversed their upward trend and fell 9.2 mb to stand at 195.2 mb in November 2008 (see *Graph 42*). The drop which is in line with the seasonal trend was driven essentially by products which accounted for more than 70% in the total draw. However, despite this draw Japanese oil inventories remained above last year's level and the five-year average, thanks to a significant total build of nearly 33 mb over the previous four months.

**Graph 42: Japan's commercial oil stocks**



Crude oil stocks fell 2.7 mb, in line with the typical seasonal decline, to stand at nearly 108 mb, which corresponds to 4 mb or 4% higher than a year ago. The drop in crude oil stocks was due to a combination of the 3% decline in imports and an increase in refinery intake.

**Table 29: Japan's commercial oil stocks\*, mb**

	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Change</u> <u>Nov 08/Oct 08</u>	<u>Nov 07</u>
<b>Crude oil</b>	107.4	110.6	107.9	-2.7	104.1
Gasoline	12.9	13.8	13.8	0.0	11.9
Naphtha	13.8	14.8	12.0	-2.7	12.4
Middle distillates	44.3	44.7	41.4	-3.3	39.8
Residual fuel oil	20.6	20.6	20.1	-0.5	18.1
<b>Total products</b>	91.6	93.8	87.3	-6.5	82.2
<b>Total**</b>	<b>199.0</b>	<b>204.4</b>	<b>195.2</b>	<b>-9.2</b>	<b>186.3</b>

\* At end of month.  
 \*\* Includes crude oil and main products only.  
 Source: METI, Japan.

On the products side, the picture is mixed with gasoline remaining within the upper end of the five-year range and distillates at the lower end but both are comfortable given weakening domestic demand. However, gasoline inventories remained unchanged at 13.8 mb while distillates stocks lost 3.3 mb to stand at 41.4 mb, an increase of 1.5 mb over a year earlier. The fall was due to a jump in kerosene sales and lower production from refineries, and represents the first decline in nine months. Following the same trend, naphtha inventories fell 2.7 mb to 12 mb on the back of lower production and declining imports.

According to preliminary data, Japanese total commercial oil inventories fell further in December. Both crude and products saw losses. Crude oil inventories declined less than 2 mb while products fell around 2.5 mb with distillates contributing to the bulk of the draw. Despite the draw, Japanese commercial oil stocks remain at comfortable levels.



# Balance of Supply and Demand

**Required OPEC crude for 2008 is estimated at 30.8 mb/d, 0.5 mb/d down from 2007**

## Estimate for 2008

The demand for OPEC crude has been revised up slightly to reflect lower non-OPEC supply estimation. The demand for OPEC crude in 2008 is now forecast at 30.8 mb/d, a decline of 0.5 mb/d from 2007. On a quarterly basis, the demand for OPEC crude is estimated at 31.6 mb/d, 30.1 mb/d, 30.6 mb/d and 31.0 mb/d respectively..

**Table 30: Summarized supply/demand balance for 2008, mb/d**

	<u>2007</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>4Q08</u>	<u>2008</u>
<b>(a) World Oil Demand</b>	<b>85.89</b>	<b>86.68</b>	<b>85.39</b>	<b>84.95</b>	<b>86.32</b>	<b>85.84</b>
Non-OPEC Supply	50.49	50.78	50.91	49.87	50.70	50.57
OPEC NGLs and non-conventionals	4.03	4.26	4.42	4.46	4.59	4.43
<b>(b) Total Supply excluding OPEC Crude</b>	<b>54.52</b>	<b>55.04</b>	<b>55.33</b>	<b>54.33</b>	<b>55.29</b>	<b>55.00</b>
<b>Difference (a-b)</b>	<b>31.37</b>	<b>31.64</b>	<b>30.06</b>	<b>30.62</b>	<b>31.03</b>	<b>30.84</b>
OPEC crude oil production <sup>(1)</sup>	30.13	31.21	31.24	31.49	30.24	31.04
Balance	-1.24	-0.43	1.17	0.88	-0.79	0.21

(1) Selected secondary sources. Indonesia has been included in Non-OPEC supply for comparison purpose. Totals may not add due to independent rounding.

## Forecast for 2009

Demand for OPEC crude in 2009 is forecast to average 29.5 mb/d, a decline of 1.4 mb/d from the estimated figure of 2008. The quarterly distribution shows that demand for OPEC crude is now expected to be 29.6 mb/d in the first quarter, 29.1 mb/d in the second, 29.0 mb/d in the third and 30.2 mb/d in the fourth. The demand of OPEC crude in the first quarter 2009 is estimated to show a strong decline of around 2.0 mb/d compared to the same period this year.

**The forecast demand for OPEC crude in 2009 is 29.5 mb/d, a strong decline by 1.4 mb/d**

**Table 31: Summarized supply/demand balance for 2009, mb/d**

	<u>2008</u>	<u>1Q09</u>	<u>2Q09</u>	<u>3Q09</u>	<u>4Q09</u>	<u>2009</u>
<b>(a) World Oil Demand</b>	<b>85.84</b>	<b>85.82</b>	<b>84.99</b>	<b>85.03</b>	<b>86.79</b>	<b>85.66</b>
Non-OPEC Supply	50.57	51.39	50.99	50.88	51.34	51.15
OPEC NGLs and non-conventionals	4.43	4.82	4.93	5.13	5.22	5.03
<b>(b) Total Supply excluding OPEC Crude</b>	<b>55.00</b>	<b>56.22</b>	<b>55.92</b>	<b>56.01</b>	<b>56.56</b>	<b>56.18</b>
<b>Difference (a-b)</b>	<b>30.84</b>	<b>29.61</b>	<b>29.07</b>	<b>29.02</b>	<b>30.22</b>	<b>29.48</b>

Totals may not add due to independent rounding.

**Graph 43: Balance of supply and demand**

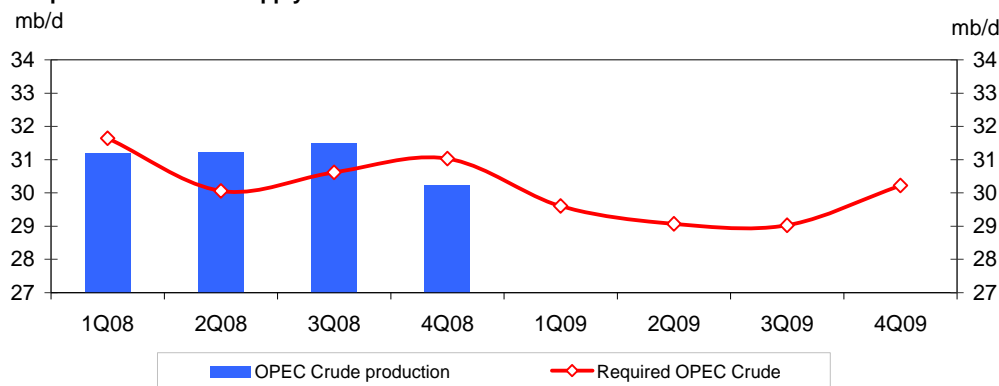


Table 32: World oil demand/supply balance, mb/d

	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>World demand</b>														
<b>OECD</b>	49.4	49.8	49.6	49.2	48.9	47.2	46.6	48.1	47.7	47.4	46.1	45.8	47.6	46.7
North America	25.4	25.6	25.4	25.5	24.8	24.5	23.8	24.3	24.4	23.9	23.9	23.3	24.0	23.8
Western Europe	15.5	15.7	15.7	15.3	15.2	14.9	15.3	15.5	15.2	14.9	14.6	15.1	15.4	15.0
Pacific	8.5	8.6	8.5	8.3	8.9	7.8	7.5	8.3	8.1	8.6	7.6	7.4	8.2	8.0
<b>DCs</b>	21.8	22.6	23.3	24.2	24.8	25.2	25.1	25.2	25.1	25.2	25.6	25.6	25.7	25.5
<b>FSU</b>	3.8	3.9	3.9	4.0	4.0	3.9	4.2	4.4	4.1	4.0	3.9	4.3	4.5	4.2
<b>Other Europe</b>	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0
<b>China</b>	6.5	6.7	7.2	7.6	8.0	8.2	8.1	7.7	8.0	8.2	8.4	8.4	8.0	8.3
<b>(a) Total world demand</b>	<b>82.5</b>	<b>83.9</b>	<b>84.9</b>	<b>85.9</b>	<b>86.7</b>	<b>85.4</b>	<b>85.0</b>	<b>86.3</b>	<b>85.8</b>	<b>85.8</b>	<b>85.0</b>	<b>85.0</b>	<b>86.8</b>	<b>85.7</b>
<b>Non-OPEC supply</b>														
<b>OECD</b>	21.3	20.5	20.2	20.1	20.0	20.1	19.2	19.8	19.8	20.0	19.6	19.4	19.7	19.7
North America	14.6	14.1	14.2	14.3	14.3	14.4	13.8	14.0	14.1	14.2	14.1	14.1	14.3	14.2
Western Europe	6.2	5.7	5.4	5.2	5.2	5.0	4.8	5.1	5.0	5.0	4.8	4.6	4.7	4.8
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7
<b>DCs</b>	11.6	11.9	12.0	12.0	12.2	12.2	12.3	12.4	12.3	12.6	12.6	12.8	12.8	12.7
<b>FSU</b>	11.1	11.5	12.0	12.5	12.6	12.7	12.4	12.5	12.5	12.7	12.7	12.6	12.8	12.7
<b>Other Europe</b>	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
<b>China</b>	3.5	3.6	3.7	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
<b>Processing gains</b>	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<b>Total non-OPEC supply</b>	<b>49.6</b>	<b>49.6</b>	<b>49.9</b>	<b>50.5</b>	<b>50.8</b>	<b>50.9</b>	<b>49.9</b>	<b>50.7</b>	<b>50.6</b>	<b>51.4</b>	<b>51.0</b>	<b>50.9</b>	<b>51.3</b>	<b>51.2</b>
<b>OECD NGLs + non-conventional oils</b>	<b>3.7</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	<b>4.3</b>	<b>4.4</b>	<b>4.5</b>	<b>4.6</b>	<b>4.4</b>	<b>4.8</b>	<b>4.9</b>	<b>5.1</b>	<b>5.2</b>	<b>5.0</b>
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>53.3</b>	<b>53.5</b>	<b>53.8</b>	<b>54.5</b>	<b>55.0</b>	<b>55.3</b>	<b>54.3</b>	<b>55.3</b>	<b>55.0</b>	<b>56.2</b>	<b>55.9</b>	<b>56.0</b>	<b>56.6</b>	<b>56.2</b>
<b>OEPC crude oil production (secondary sources)</b>	<b>29.6</b>	<b>30.7</b>	<b>30.5</b>	<b>30.1</b>	<b>31.2</b>	<b>31.2</b>	<b>31.5</b>	<b>30.2</b>	<b>31.0</b>					
<b>Total supply</b>	<b>82.9</b>	<b>84.2</b>	<b>84.4</b>	<b>84.6</b>	<b>86.3</b>	<b>86.6</b>	<b>85.8</b>	<b>85.5</b>	<b>86.0</b>					
<b>Balance (stock change and miscellaneous)</b>	<b>0.4</b>	<b>0.3</b>	<b>-0.5</b>	<b>-1.2</b>	<b>-0.4</b>	<b>1.2</b>	<b>0.9</b>	<b>-0.8</b>	<b>0.2</b>					
<b>OECD closing stock levels (mb)</b>														
Commercial	2538	2585	2667	2566	2567	2603	2651	2689						
SPR	1450	1487	1499	1524	1530	1529	1522	1521						
Total	3988	4072	4165	4090	4097	4131	4173	4209						
Oil-on-water	905	958	916	943	936	929	895	n.a.						
<b>Days of forward consumption in OECD</b>														
Commercial onland stocks	51	52	54	54	54	56	55	57						
SPR	29	30	30	32	32	33	32	32						
Total	80	82	85	86	87	89	87	89						
<b>Memo items</b>														
FSU net exports	7.3	7.7	8.1	8.5	8.7	8.8	8.2	8.0	8.4	8.7	8.8	8.3	8.3	8.5
(a) - (b)	29.2	30.4	31.1	31.4	31.6	30.1	30.6	31.0	30.8	29.6	29.1	29.0	30.2	29.5

Note: Totals may not add up due to independent rounding.  
n.a. Not available.

Note: Indonesia has been included in historical Non-OPEC supply for comparison purposes.

Table 33: World oil demand/supply balance: changes from last month's table †, mb/d

	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>World demand</b>														
OECD	-	-	-	-	-	-	-	0.2	-	-	-	-	0.2	-
North America	-	-	-	-	-	-	-	0.3	0.1	-	-	-	0.3	0.1
Western Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
DCs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
(a) Total world demand	-	-	-	-0.01	0.05	0.02	-0.03	0.02	0.02	-0.05	-0.05	-	-	-0.03
<b>World demand growth</b>														
<b>Non-OPEC supply</b>														
OECD	-	-	-	-	-	-	0.1	0.1	-	-0.1	-0.1	-	-0.1	-0.1
North America	-	-	-	-	-	-	0.1	-	-	-0.2	-0.1	-0.1	-0.1	-0.1
Western Europe	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-	-	-	-0.1	-	-	-	0.1	0.1	0.1
FSU	-	-	-	-	-	-	-	-0.2	-0.1	-0.2	-0.2	-0.1	-	-0.1
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	-	-	-	-0.2	-0.5	-0.3	-0.2	-	-	-0.1
Total non-OPEC supply growth	-	-	-	0.01	-	-	0.04	-0.25	-0.05	-0.30	-0.23	-0.05	0.28	-0.07
<b>OPEC NGLs + non-conventionals</b>														
(b) Total non-OPEC supply and OPEC NGLs	-	-	-	-	-	-	-	-0.3	-0.1	-0.3	-0.3	-	-	-0.2
<b>OPEC crude oil production (secondary sources)</b>														
Total supply	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Balance (stock change and miscellaneous)	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>														
Commercial	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil-on-water	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>														
Commercial onland stocks	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Memo items</b>														
FSU net exports	-	-	-	-	-	-	-	-0.2	-	-0.2	-0.2	-0.1	-	-0.1
(a) - (b)	-	-	-	-	-	-	-0.1	0.3	0.1	0.3	0.2	-	-	0.1

† This compares Table 32 in this issue of the MOMR with Table 34 in the December 2008 issue.

This table shows only where changes have occurred.

**Table 34: OECD oil stocks and oil on water at the end of period**

	2003	2004	2005	2006	2007	1004	2004	3004	4004	1005	2005	3005	4005	1006	2006	3006	4006	1007	2007	3007	4007	1008	2008	3008	4008	
<i>Closing stock levels mib</i>																										
OECD onland commercial	2,511	2,538	2,585	2,667	2,566	2,458	2,538	2,572	2,538	2,533	2,612	2,627	2,585	2,585	2,648	2,768	2,667	2,595	2,655	2,647	2,566	2,567	2,603	2,651	2,689	
North America	1,161	1,193	1,257	1,277	1,231	1,145	1,193	1,206	1,193	1,201	1,275	1,254	1,257	1,240	1,277	1,351	1,277	1,238	1,294	1,285	1,231	1,215	1,242	1,272	1,315	
Western Europe	915	915	934	962	930	913	925	936	915	942	915	942	934	937	935	948	962	941	936	932	930	960	953	950	958	
OECD Pacific	435	430	394	428	404	400	420	430	430	389	422	432	394	408	436	459	428	417	426	429	404	392	408	429	416	
OECD SPR	1,411	1,450	1,487	1,499	1,524	1,423	1,429	1,435	1,450	1,462	1,494	1,494	1,487	1,487	1,493	1,495	1,499	1,507	1,506	1,520	1,524	1,530	1,529	1,522	1,521	
North America	640	678	687	691	699	654	664	672	678	690	698	696	687	688	690	690	691	691	692	695	699	702	708	704	703	
Western Europe	374	377	407	412	421	371	366	367	377	376	401	405	407	407	411	412	412	412	415	413	423	421	424	417	414	
OECD Pacific	396	396	393	396	404	398	398	396	396	396	395	393	393	392	393	393	396	401	401	403	404	404	404	403	404	
<b>OECD total</b>	<b>3,921</b>	<b>3,988</b>	<b>4,072</b>	<b>4,165</b>	<b>4,090</b>	<b>3,881</b>	<b>3,967</b>	<b>4,006</b>	<b>3,988</b>	<b>3,995</b>	<b>4,106</b>	<b>4,121</b>	<b>4,072</b>	<b>4,072</b>	<b>4,141</b>	<b>4,253</b>	<b>4,165</b>	<b>4,102</b>	<b>4,162</b>	<b>4,167</b>	<b>4,090</b>	<b>4,097</b>	<b>4,131</b>	<b>4,173</b>	<b>4,209</b>	
Oil-on-water	882	905	958	916	943	906	891	894	905	934	931	926	938	962	971	972	916	936	905	923	943	936	929	895	n.a.	
<i>Days of forward consumption in OECD</i>																										
OECD onland commercial	51	51	52	54	54	51	52	51	50	52	53	52	51	53	54	55	54	54	54	53	52	54	56	55	57	
North America	46	47	49	50	51	46	47	47	47	47	50	49	50	49	50	53	50	49	51	50	50	50	52	52	55	
Western Europe	59	58	60	63	61	60	60	59	58	61	58	60	58	61	60	60	63	63	61	60	61	64	62	61	64	
OECD Pacific	51	50	46	51	50	51	51	49	45	48	52	49	42	52	55	52	48	53	54	49	46	50	54	52	48	
OECD SPR	29	29	30	30	32	30	29	28	28	30	30	30	29	31	30	30	30	31	31	30	31	32	33	32	32	
North America	25	27	27	27	29	26	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	28	29	30	29	
Western Europe	24	24	26	27	28	25	24	23	24	25	26	26	25	27	26	26	27	28	27	27	27	28	28	27	27	
OECD Pacific	46	46	46	47	50	50	49	45	42	49	49	45	42	50	49	45	44	51	51	46	46	52	54	49	47	
<b>OECD total</b>	<b>79</b>	<b>80</b>	<b>82</b>	<b>85</b>	<b>86</b>	<b>81</b>	<b>81</b>	<b>79</b>	<b>78</b>	<b>82</b>	<b>83</b>	<b>82</b>	<b>80</b>	<b>84</b>	<b>84</b>	<b>85</b>	<b>84</b>	<b>85</b>	<b>85</b>	<b>84</b>	<b>84</b>	<b>87</b>	<b>89</b>	<b>87</b>	<b>89</b>	

n.a. Not available.

Table 35: Non-OPEC supply and OPEC natural gas liquids, mb/d

	2004	2005	2006	06/05	10/07	2007	30/07	40/07	2007	07/06	10/08	2008	30/08	40/08	2008	08/07	10/09	2009	30/09	40/09	2009	09/08	Change	
USA	7.65	7.34	7.36	0.02	7.46	7.50	7.41	7.54	7.50	0.14	7.64	7.75	7.25	7.51	7.54	0.04	7.65	7.68	7.71	7.86	7.72	0.19		
Canada	3.07	3.03	3.20	0.17	3.34	3.32	3.36	3.34	3.32	0.12	3.33	3.45	3.43	3.45	3.41	0.10	3.46	3.42	3.46	3.52	3.47	0.05		
Mexico	3.83	3.77	3.69	-0.08	3.58	3.49	3.59	3.33	3.49	-0.21	3.29	3.18	3.13	3.09	3.17	-0.31	3.10	2.96	2.97	2.90	2.98	-0.19		
<b>North America</b>	<b>14.56</b>	<b>14.14</b>	<b>14.24</b>	<b>0.11</b>	<b>14.38</b>	<b>14.30</b>	<b>14.22</b>	<b>14.20</b>	<b>14.30</b>	<b>0.06</b>	<b>14.25</b>	<b>14.38</b>	<b>13.81</b>	<b>14.05</b>	<b>14.12</b>	<b>-0.18</b>	<b>14.22</b>	<b>14.05</b>	<b>14.14</b>	<b>14.28</b>	<b>14.17</b>	<b>0.05</b>		
Norway	3.19	2.97	2.78	-0.19	2.72	2.56	2.48	2.57	2.56	-0.22	2.51	2.39	2.38	2.52	2.45	-0.11	2.48	2.35	2.20	2.32	2.34	-0.11		
UK	2.10	1.89	1.71	-0.18	1.79	1.69	1.72	1.69	1.69	-0.02	1.69	1.49	1.40	1.55	1.57	-0.12	1.51	1.46	1.38	1.37	1.43	-0.14		
Denmark	0.39	0.38	0.34	-0.04	0.31	0.31	0.30	0.31	0.31	-0.04	0.28	0.28	0.27	0.27	0.28	-0.03	0.29	0.28	0.24	0.26	0.27	-0.01		
Other Western Europe	0.50	0.51	0.54	0.03	0.68	0.69	0.69	0.69	0.68	0.15	0.73	0.73	0.74	0.76	0.74	0.05	0.75	0.75	0.75	0.75	0.75	0.01		
Western Europe	<b>6.18</b>	<b>5.74</b>	<b>5.37</b>	<b>-0.37</b>	<b>5.50</b>	<b>5.29</b>	<b>4.95</b>	<b>5.29</b>	<b>5.23</b>	<b>-0.13</b>	<b>5.21</b>	<b>5.04</b>	<b>4.79</b>	<b>5.09</b>	<b>5.03</b>	<b>-0.20</b>	<b>5.03</b>	<b>4.84</b>	<b>4.57</b>	<b>4.71</b>	<b>4.79</b>	<b>-0.25</b>		
Australia	0.52	0.53	0.51	-0.02	0.51	0.53	0.54	0.51	0.53	0.02	0.47	0.53	0.54	0.60	0.53	0.01	0.62	0.60	0.61	0.57	0.60	0.07		
Other Pacific	0.05	0.05	0.05	0.00	0.06	0.06	0.09	0.11	0.08	0.03	0.11	0.10	0.10	0.11	0.11	0.03	0.12	0.12	0.12	0.12	0.12	0.02		
OECD Pacific	<b>0.57</b>	<b>0.58</b>	<b>0.56</b>	<b>-0.02</b>	<b>0.57</b>	<b>0.61</b>	<b>0.61</b>	<b>0.61</b>	<b>0.60</b>	<b>0.04</b>	<b>0.58</b>	<b>0.63</b>	<b>0.64</b>	<b>0.70</b>	<b>0.64</b>	<b>0.03</b>	<b>0.74</b>	<b>0.72</b>	<b>0.73</b>	<b>0.70</b>	<b>0.72</b>	<b>0.08</b>		
Total OECD	<b>21.31</b>	<b>20.45</b>	<b>20.17</b>	<b>-0.28</b>	<b>20.45</b>	<b>20.22</b>	<b>19.79</b>	<b>20.11</b>	<b>20.14</b>	<b>-0.03</b>	<b>20.04</b>	<b>20.06</b>	<b>19.24</b>	<b>19.84</b>	<b>19.79</b>	<b>-0.35</b>	<b>19.99</b>	<b>19.61</b>	<b>19.45</b>	<b>19.68</b>	<b>19.68</b>	<b>-0.11</b>		
Brunel	0.21	0.21	0.22	0.01	0.20	0.19	0.19	0.19	0.19	-0.03	0.19	0.16	0.17	0.17	0.17	-0.02	0.18	0.18	0.18	0.18	0.18	0.00		
India	0.79	0.76	0.79	0.03	0.82	0.82	0.81	0.82	0.82	0.02	0.83	0.81	0.82	0.83	0.82	0.01	0.84	0.82	0.86	0.89	0.85	0.03		
Indonesia	1.15	1.12	1.07	-0.05	1.03	1.02	1.01	1.03	1.02	-0.04	1.05	1.04	1.04	1.04	1.04	0.02	1.04	1.04	1.04	1.07	1.07	0.02		
Malaysia	0.79	0.77	0.76	-0.01	0.75	0.75	0.76	0.80	0.76	0.01	0.78	0.76	0.78	0.77	0.77	0.01	0.81	0.79	0.81	0.80	0.80	0.03		
Thailand	0.25	0.30	0.32	0.02	0.33	0.34	0.34	0.34	0.34	0.02	0.34	0.35	0.35	0.36	0.35	0.01	0.36	0.36	0.36	0.36	0.36	0.01		
Vietnam	0.42	0.39	0.37	-0.02	0.36	0.35	0.34	0.35	0.35	-0.02	0.34	0.31	0.29	0.32	0.31	-0.03	0.37	0.35	0.36	0.36	0.36	0.05		
Asia others	0.18	0.26	0.26	0.01	0.27	0.27	0.27	0.27	0.27	0.00	0.28	0.28	0.28	0.29	0.28	0.01	0.30	0.30	0.30	0.30	0.30	0.02		
<b>Other Asia</b>	<b>3.81</b>	<b>3.80</b>	<b>3.79</b>	<b>-0.01</b>	<b>3.76</b>	<b>3.70</b>	<b>3.72</b>	<b>3.79</b>	<b>3.74</b>	<b>-0.05</b>	<b>3.80</b>	<b>3.71</b>	<b>3.72</b>	<b>3.78</b>	<b>3.75</b>	<b>0.01</b>	<b>3.90</b>	<b>3.83</b>	<b>3.94</b>	<b>3.96</b>	<b>3.91</b>	<b>0.15</b>		
Argentina	0.80	0.78	0.77	0.00	0.77	0.76	0.76	0.75	0.76	-0.01	0.77	0.77	0.76	0.77	0.77	0.00	0.76	0.75	0.74	0.73	0.74	-0.02		
Brazil	1.80	1.98	2.11	0.12	2.15	2.15	2.16	2.14	2.15	0.04	2.23	2.28	2.31	2.30	2.28	0.13	2.38	2.46	2.55	2.54	2.48	0.20		
Colombia	0.54	0.53	0.54	0.01	0.53	0.53	0.54	0.55	0.54	0.00	0.57	0.59	0.61	0.63	0.60	0.06	0.63	0.63	0.65	0.65	0.64	0.04		
Trinidad & Tobago	0.16	0.18	0.18	0.00	0.16	0.16	0.16	0.15	0.16	-0.02	0.16	0.15	0.16	0.16	0.16	0.00	0.16	0.17	0.17	0.17	0.17	0.01		
L. America others	0.26	0.30	0.26	-0.03	0.26	0.27	0.27	0.28	0.27	0.00	0.27	0.28	0.28	0.29	0.28	0.01	0.29	0.29	0.29	0.29	0.29	0.01		
<b>Latin America</b>	<b>3.55</b>	<b>3.77</b>	<b>3.86</b>	<b>0.09</b>	<b>3.88</b>	<b>3.88</b>	<b>3.88</b>	<b>3.88</b>	<b>3.88</b>	<b>0.02</b>	<b>4.00</b>	<b>4.06</b>	<b>4.12</b>	<b>4.14</b>	<b>4.08</b>	<b>0.20</b>	<b>4.21</b>	<b>4.28</b>	<b>4.39</b>	<b>4.36</b>	<b>4.31</b>	<b>0.23</b>		
Bahrain	0.79	0.78	0.75	-0.03	0.73	0.72	0.71	0.70	0.71	-0.03	0.72	0.74	0.74	0.73	0.74	0.02	0.75	0.75	0.76	0.77	0.76	0.02		
Oman	0.49	0.45	0.42	-0.03	0.41	0.40	0.40	0.39	0.40	-0.02	0.39	0.39	0.39	0.39	0.39	-0.01	0.39	0.39	0.39	0.39	0.39	0.00		
Syria	0.41	0.41	0.37	-0.03	0.35	0.34	0.33	0.33	0.34	-0.04	0.31	0.31	0.31	0.31	0.31	-0.02	0.31	0.29	0.28	0.27	0.27	-0.03		
Yemen	1.90	1.85	1.75	-0.10	1.69	1.66	1.65	1.63	1.66	-0.09	1.64	1.65	1.64	1.63	1.64	-0.02	1.63	1.63	1.63	1.63	1.63	-0.01		
Middle East	<b>0.16</b>	<b>0.18</b>	<b>0.16</b>	<b>-0.02</b>	<b>0.16</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>-0.01</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.00</b>	<b>0.15</b>	<b>0.14</b>	<b>0.14</b>	<b>0.13</b>	<b>0.14</b>	<b>-0.01</b>		
Chad	0.21	0.25	0.24	0.03	0.25	0.23	0.24	0.25	0.24	0.00	0.26	0.26	0.26	0.27	0.26	0.02	0.29	0.29	0.30	0.30	0.31	0.04		
Congo	0.74	0.71	0.70	-0.02	0.67	0.67	0.67	0.67	0.67	0.00	0.68	0.68	0.69	0.71	0.69	0.02	0.72	0.71	0.71	0.69	0.71	0.02		
Egypt	0.30	0.36	0.37	0.01	0.36	0.37	0.37	0.37	0.37	0.00	0.38	0.38	0.38	0.38	0.38	0.01	0.38	0.37	0.37	0.36	0.37	-0.01		
Equatorial Guinea	0.25	0.25	0.25	0.00	0.25	0.25	0.25	0.25	0.25	0.00	0.24	0.24	0.24	0.24	0.24	-0.01	0.26	0.27	0.27	0.27	0.27	0.02		
Gabon	0.19	0.19	0.19	0.00	0.18	0.18	0.18	0.18	0.18	-0.01	0.17	0.17	0.17	0.17	0.17	-0.01	0.16	0.16	0.16	0.16	0.16	-0.01		
South Africa	0.30	0.34	0.40	0.06	0.50	0.50	0.48	0.51	0.50	0.10	0.52	0.52	0.52	0.51	0.52	0.02	0.51	0.51	0.52	0.52	0.51	-0.01		
Sudan	0.21	0.25	0.32	0.07	0.34	0.34	0.34	0.37	0.35	0.03	0.38	0.38	0.38	0.38	0.38	0.00	0.40	0.40	0.40	0.40	0.40	0.02		
Africa other	<b>2.36</b>	<b>2.52</b>	<b>2.60</b>	<b>0.09</b>	<b>2.71</b>	<b>2.69</b>	<b>2.68</b>	<b>2.75</b>	<b>2.71</b>	<b>0.11</b>	<b>2.77</b>	<b>2.78</b>	<b>2.80</b>	<b>2.82</b>	<b>2.79</b>	<b>0.03</b>	<b>2.86</b>	<b>2.84</b>	<b>2.86</b>	<b>2.86</b>	<b>2.86</b>	<b>0.07</b>		
<b>Africa</b>	<b>11.63</b>	<b>11.93</b>	<b>12.00</b>	<b>0.07</b>	<b>12.02</b>	<b>11.95</b>	<b>11.93</b>	<b>12.05</b>	<b>11.99</b>	<b>-0.02</b>	<b>12.21</b>	<b>12.21</b>	<b>12.28</b>	<b>12.38</b>	<b>12.27</b>	<b>0.28</b>	<b>12.61</b>	<b>12.58</b>	<b>12.82</b>	<b>12.84</b>	<b>12.71</b>	<b>0.44</b>		
Total DCs	11.14	11.55	12.02	0.47	12.02	12.45	12.50	12.62	12.52	-0.50	12.62	12.68	12.42	12.48	12.55	0.03	12.74	12.73	12.56	12.78	12.70	0.15		
FSU	9.19	9.44	9.65	0.21	9.87	9.83	9.89	9.87	9.87	0.22	9.78	9.74	9.81	9.79	9.78	-0.09	9.74	9.66	9.63	9.66	9.67	-0.11		
Russia	1.18	1.23	1.30	0.07	1.35	1.34	1.35	1.36	1.35	0.05	1.42	1.44	1.33	1.46	1.41	0.06	1.51	1.51	1.38	1.52	1.48	0.07		
Kazakhstan	0.41	0.44	0.45	0.21	0.85	0.86	0.81	0.92	0.86	0.02	0.96	1.03	0.82	0.77	0.89	0.03	1.03	1.09	1.08	1.12	1.08	0.18		
Azerbaijan	0.47	0.44	0.44	-0.02	0.44	0.42	0.45	0.46																

Table 36: World Rig Count

	Change										Change										Change Dec/Nov			
	2004	2005	05/04	10/06	20/06	30/06	4Q/06	2006	06/05	10/07	20/07	30/07	4Q/07	2007	07/06	10/08	20/08	30/08	Nov 08	Dec 08		2008		
USA	1,190	1,378	188	1,519	1,632	1,719	1,719	1,648	270	1,733	1,757	1,788	1,790	1,767	119	1,770	1,864	1,978	1,935	1,782	1,898	1,878	-153	
Canada	369	490	121	665	282	494	440	470	-20	532	139	348	356	344	-126	507	169	432	417	361	408	379	-56	
Mexico	110	107	-3	85	85	77	84	83	-24	90	88	96	93	92	9	96	106	103	107	111	106	103	4	
North America	1,669	1,975	306	2,269	1,999	2,290	2,243	2,200	225	2,355	1,984	2,232	2,240	2,203	3	2,373	2,139	2,512	2,459	2,254	2,411	2,359	-205	
Norway	17	17	0	19	20	16	9	16	-1	16	19	18	17	18	2	17	21	21	21	25	21	20	4	
UK	16	21	5	29	27	26	15	24	3	25	29	27	22	26	2	19	21	24	25	22	24	22	-3	
Western Europe	65	65	0	77	78	73	65	73	8	72	78	76	73	75	2	71	78	83	87	83	83	79	-4	
OECD Pacific	22	25	3	25	28	25	28	27	2	24	30	32	30	29	2	32	39	39	35	32	34	36	-3	
Total OECD	1,755	2,065	310	2,371	2,105	2,389	2,336	2,300	235	2,450	2,091	2,340	2,342	2,306	6	2,476	2,256	2,684	2,581	2,369	2,529	2,474	-212	
Other Asia	126	142	16	153	150	156	152	153	11	168	157	151	150	154	1	149	154	155	157	150	151	152	-7	
Latin America	116	129	13	137	151	153	153	149	20	183	178	173	181	178	29	181	181	181	198	187	197	192	-11	
Middle East	70	72	2	72	79	82	85	80	8	82	85	87	86	85	5	89	91	93	89	89	90	91	0	
Africa	51	54	3	59	62	68	77	67	13	75	80	88	88	83	16	84	90	97	89	97	94	91	8	
Total DCs	363	397	34	421	442	459	472	449	52	510	510	509	515	511	62	512	520	540	533	523	532	526	-10	
Non-OPEC Rig Count	2,120	2,465	345	2,794	2,549	2,850	2,806	2,751	286	2,950	2,593	2,842	2,850	2,808	57	3,006	2,795	3,192	3,134	2,910	3,081	3,019	-224	
Algeria	19	21	2	21	21	28	27	24	3	25	26	28	28	27	3	26	27	24	25	27	26	26	2	
Angola	3	3	0	4	4	4	4	4	1	5	4	3	5	4	0	5	6	5	6	6	5	5	0	
Ecuador	10	12	2	12	11	11	12	11	-1	12	10	11	10	11	0	7	9	12	12	13	13	10	1	
Indonesia	49	54	5	55	43	46	52	49	-5	49	56	60	64	57	8	64	67	65	61	61	62	65	0	
Iran	41	40	-1	40	45	47	45	44	4	51	51	51	50	50	6	50	50	50	51	50	51	50	-1	
Iraq	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
Kuwait	10	12	2	12	13	14	15	14	2	14	13	13	11	12	-2	12	11	12	13	11	12	12	-2	
Libya	10	9	-1	9	9	10	10	10	1	13	12	14	14	13	3	14	15	15	15	15	15	15	0	
Nigeria	8	9	1	10	9	10	10	10	1	8	7	8	10	8	-2	9	8	6	4	7	6	7	3	
Qatar	9	12	3	13	10	11	9	11	-1	11	12	13	14	13	2	11	12	11	13	10	11	11	-3	
Saudi Arabia	32	36	4	54	60	70	76	65	29	76	76	78	77	77	12	78	77	76	76	74	76	77	-2	
UAE	16	16	0	17	16	16	16	16	0	14	15	15	14	14	-2	12	12	13	12	14	12	12	2	
Venezuela	55	67	12	78	83	85	77	81	14	76	80	77	71	76	-5	82	81	77	80	78	81	80	-2	
OPEC Rig Count	262	291	29	325	324	352	355	339	48	354	362	371	368	362	23	372	375	366	368	366	370	370	-2	
Worldwide Rig Count*	2,382	2,756	374	3,119	2,873	3,202	3,161	3,090	334	3,304	2,955	3,213	3,218	3,170	80	3,378	3,170	3,558	3,502	3,276	3,451	3,389	-226	
of which:																								
Oil	877	959	82	1,069	1,060	1,169	1,156	1,114	155	1,266	1,155	1,257	1,288	1,239	125	1,374	1,320	1,443	1,419	1,405	1,436	1,393	-14	
Gas	1,486	1,777	291	2,035	1,802	2,016	1,983	1,959	182	2,017	1,782	1,934	1,906	1,910	-49	1,970	1,819	2,079	2,043	1,837	1,977	1,961	-206	
Others	20	22	2	14	13	18	21	16	-6	20	19	20	24	21	5	34	31	36	40	34	37	35	-6	

\*Excludes China and FSU.  
na - Not available.  
Source: Baker Hughes International & Secretariat's Estimates.  
Note: Totals may not add up due to independent rounding.

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## ***OPEC Basket average price***

*US\$ per barrel*

<b>↓ down 11.16 in December</b>	<b>December 2008</b>	38.60
	November 2008	49.76
	Annual 2008	94.45

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## ***December OPEC production***

*in million barrels per day, according to secondary sources*

<b>↓ down 0.83 in December</b>	<b>December 2008</b>	30.28
	November 2008	31.12

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## ***World economy***

***World GDP growth revised down to 3.4% in 2008. The forecast for 2009 has been reduced by a further 0.2 percentage points to 1.3% as major OECD regions slip deeper into recession and economic activity in Developing Countries and China slows sharply.***

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## ***Supply and demand***

*in million barrels per day*

<b>2008</b>		<b>2009</b>	
World demand	85.8	World demand	85.7
Non-OPEC supply	55.0	Non-OPEC supply	56.2
<b>Difference</b>	<b>30.8</b>	<b>Difference</b>	<b>29.5</b>

*Non-OPEC supply includes OPEC NGLs and non-conventional oils.  
Totals may not add due to independent rounding.*

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## ***Stocks***

***OECD commercial oil stocks witnessed a contra-seasonal build in the 4<sup>th</sup> quarter to stand close to 57 days of forward demand cover at end-December.***