

# Organization of the Petroleum Exporting Countries

# Monthly Oil Market Report

***December 2008***

*Feature Article:*  
***Present economic situation points to oil market imbalance  
over the coming months***

<i>Oil market highlights</i>	<i>1</i>
<i>Feature article</i>	<i>3</i>
<i>Crude oil price movements</i>	<i>5</i>
<i>The oil futures market</i>	<i>9</i>
<i>Commodity markets</i>	<i>11</i>
<i>Highlights of the world economy</i>	<i>18</i>
<i>World oil demand</i>	<i>23</i>
<i>World oil supply</i>	<i>30</i>
<i>Product markets and refinery operations</i>	<i>37</i>
<i>The tanker market</i>	<i>41</i>
<i>Oil trade</i>	<i>44</i>
<i>Stock movements</i>	<i>55</i>
<i>Balance of supply and demand</i>	<i>58</i>



# *OPEC Monthly Oil Market Report*

## *Publishing Schedule for 2009*

---

*Thursday, 15 January*  
*Friday, 13 February*  
*Friday, 13 March*  
*Wednesday, 15 April*  
*Wednesday, 13 May*  
*Friday, 12 June*  
*Tuesday, 14 July*  
*Tuesday, 11 August*  
*Tuesday, 15 September*  
*Tuesday, 13 October*  
*Wednesday, 11 November*  
*Tuesday, 15 December*

## Oil Market Highlights

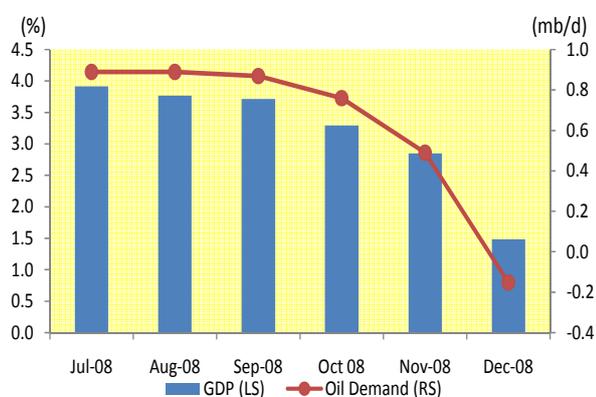
- The downward movement for the OPEC Basket continued for the fifth consecutive month, dominated by the bleak economy. Reports that some nations had moved into recession and the plunge in equity markets to a five-year low triggered fears of further oil demand destruction. In November, the OPEC Reference Basket averaged 28% or \$19.40/b lower to stand at \$49.76/b. The downward trend continued into December. The worsening economy and weak demand continued to weigh on market direction while lower OPEC exports in November lent stability to the marketplace. In daily terms, the Basket in December fell to \$36.67/b, the lowest level since January 2005, before strengthening to \$42.53/b on 15 December.
- The forecast for the global economy in 2009 has been slashed by 1.4 pp to 1.5% as the major OECD regions slip deeper into recession and growth everywhere else slows markedly. Following downward revisions, US growth in 2009 is now forecast at -1.3%, Euro-zone growth at -1.0%, and Japanese growth at -1.7%. Developing Countries are now expected to grow at 3.7% while China's growth forecast now stands at 7.0% in 2009 while India's GDP growth is expected to moderate to 5.8%. The US is officially in recession since December 2007, making the current recession already longer than the previous two. US labour market conditions have taken a turn for the worse in November, with a drop of more than half a million in payrolls. The unemployment rate at 6.7% is already higher than the peak reached in the aftermath of the 2001 recession. US retail sales continued to fall for the fifth month in a row. In the Euro-zone and Japan, recent economic indicators point to a deepening of the recessionary conditions as exports and industrial production slumped. In China, exports declined for the first time in seven years in November and industrial production growth fell sharply.
- The worsening world economy is expected to have a strong impact on oil demand next year especially in the OECD countries. The forecast calls for a contraction in the first half of the year, resulting from a huge decline in OECD oil demand. OECD oil demand is forecast to show an average decline of 1.3 mb/d y-o-y in the first half of 2009. World oil demand growth will be boosted mainly by China, the Middle East and Other Asia which is estimated at 0.6 tb/d or 78% of total non-OECD forecast oil demand growth next year. The deteriorating economies in OECD countries are estimated to reduce total world oil demand by 0.15 mb/d or 0.2% for 2009 to average 85.7 mb/d. Should the world economic situation show further deterioration and the winter prove to be warmer than expected, then oil demand might show a further decline.
- Non-OPEC oil supply is expected to increase by 0.1 mb/d in 2008 following a downward revision of 110 tb/d from last month's assessment. The main contributors to the revision are the USA and FSU countries. In 2009, non-OPEC oil supply growth is expected to increase by 0.6 mb/d over the current year. This represents a downward revision of 100 tb/d, the bulk of which comes from Russia, USA and Australia. OPEC NGLs and non-conventional oils are expected to add 0.6 mb/d in 2009 following an increase of 0.5 mb/d in 2008. In November, OPEC crude production averaged 31.1 mb/d, according to secondary sources, representing a drop of 740 tb/d from the previous month.
- With the completion of refinery maintenance and resumption of normal operation by refineries, particularly in the US, following hurricane disruptions in the US Gulf, product market sentiment has changed significantly. This combined with falling product demand due to further deterioration in world economic growth has exerted downward pressure on product prices and refining economics. Due to lower demand projections for various barrel components, the current bearish sentiment of the product markets may continue in the coming months, putting more pressure on both crude and product prices. While the cold weather in the Atlantic Basin may provide some support for crude prices, it would not be enough to switch the bearish market sentiment.
- Spot chartering of tankers for the months of November and December was higher than in the previous month due to seasonal considerations. Part of tanker hiring activities for December was also done in November due to the expected lull in market activities in the upcoming holiday season. However, actual liftings of crude oil (excluding product exports) from OPEC loading ports were down by about 0.8 mb/d in November. Consequently, spot rates for transportation of crude and products declined sharply as the fall in demand for transportation began to be felt across the board in every category of tankers.
- US commercial oil stocks surged 16 mb in November to reach the highest level since September 2007. Crude oil stocks in the US rose for the fourth consecutive month to display an overhang of more than 15 mb above the five-year average while product inventories increased 7.3 mb. In Europe (EU-15 plus Norway) total oil stocks added 3.3 mb in November to stand at around 1,118 mb. In Japan, commercial oil stocks rose for the fourth consecutive month in October to hit more than 204 mb, the highest level since November 2006. Taking into consideration sluggish demand in OECD, inventories are very comfortable in all three regions.
- The demand for OPEC crude in 2008 is expected to average 31.6 mb/d, a decline of 0.7 mb/d from the previous year. In 2009, the demand for OPEC crude is expected to average 30.2 mb/d, a drop of 1.4 mb/d from the current year.



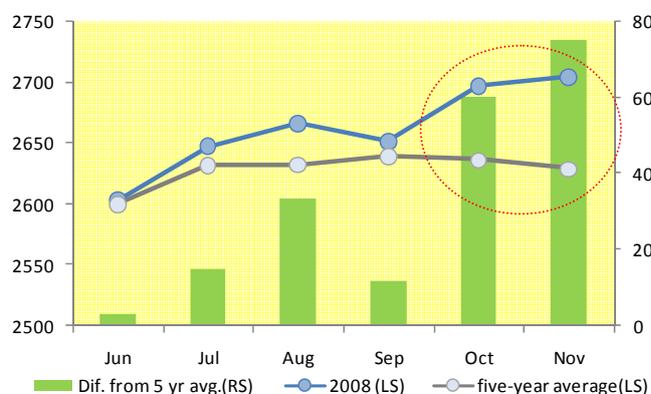
## Present economic situation points to oil market imbalance over the coming months

- Initial expectations of a brief and contained financial crisis following the onset of the US subprime crisis have proven to be overly optimistic. In 2008, the foundations of the world financial system were shaken and while emergency measures eventually averted the worst possible outcome, credit and equity markets have not yet stabilized. However, the spillovers from the financial sector to the real economy have become stronger, leading to a sharp global downturn. Until mid-2008, there was some hope that a partial decoupling of emerging market economies, particularly in Asia and Latin America, would help the world economy bridge a recession in OECD countries. However, the last few months have demonstrated the degree of inter-connectedness of the globalised world. Through financial market contagion, the fall in trade and reduced FDI (Foreign Direct Investment) flows and short-term portfolio outflows, the currencies and economies of emerging markets have increasingly come under pressure.
- While global economic growth in 2008 is estimated to reach a still respectable 3.6%, the world in 2009 is moving toward much lower growth of 1.5% due to the deepening and widening of the financial crisis. OECD countries are expected to see negative growth of 0.8% from 1.3% this year, while developing countries' expansion will slow to 3.7% from 5.5%. Chinese growth is forecast to moderate to 7% from 9.5% this year, mainly due to the contraction in exports. In response to the worsening economic outlook, monetary and fiscal policy measures to support growth and ease the credit crisis have been quite forceful both in OECD and in Emerging Markets. These measures may not succeed in reversing the recession, but they may help to avoid a deeper and longer downturn.

**Graph 1: Revision in world GDP & oil demand growth 2008**



**Graph 2: OECD commercial oil inventories, 2008 (mb)**



- 2008 has been a year of sharp revisions to the world oil demand forecast. Indeed, oil demand growth has been slashed from initial estimate of 1.3 mb/d to negative growth of about 0.1 mb/d as actual data became available. The deteriorating state of the global economy has been the main driver of oil demand destruction. Although the recent drop in oil prices should have eased pressure on oil demand, the sharp acceleration of the financial crisis since mid-September and spreading consequences across the globe have more than offset the impact of lower prices on oil demand growth. Given the worsening performance and strong contraction in global manufacturing, oil demand in 2009 is currently forecast to contract a further 0.2 mb/d (see **Graph 1**).
- This year, non-OPEC supply has also been subject to downward revisions from an initial forecast of 0.9 mb/d to around 0.1 mb/d. Many factors have contributed to these revisions, mainly hurricane disruptions in the Gulf of Mexico and pipeline outages in Central Asia, which have lasted longer than expected. Heavy maintenance in North Sea, increased export duties in Russia, and larger than expected decline rates particularly in Mexico have also contributed to limit the growth in non-OPEC supply in 2008. In 2009, non-OPEC supply growth is expected to reach 0.6 mb/d, partly reflecting a recovery from this year's poor performance. The ongoing return of disrupted production and new field start-ups will contribute to improve the growth in non-OPEC supply next year. However, the current environment of lower prices poses challenges for some upstream projects, particularly for non-conventionals, indicating potential downside risks.
- Given negative growth in world oil demand and positive growth in non-OPEC supply, the demand for OPEC crude is projected to decline sharply in 2009, falling 1.4 mb/d to average 30.2 mb/d. Moreover, in the first quarter of 2009, the demand for OPEC crude is expected to see a sharp drop of 2.3 mb/d from the same quarter in the previous year. As a result, the recently agreed OPEC production levels will be higher than the demand for OPEC crude, which would lead to a contra-seasonal build in the first quarter and further stockbuilds over the next two quarters. The most recent data already confirmed this trend, with OECD stocks in October and the preliminary data for November indicating a contra-seasonal build, to the highest level since December 2006 and currently more than 75 mb above the five year average (see **Graph 2**). Reflecting the sharp fall in demand, OECD stocks currently stand at 56.3 days of forward cover, around four days more than the average for the last five years. Given the prevailing situation in the market, this surplus could rise even higher if demand growth continues to contract. Furthermore, the contango price structure in the market provides additional incentive for holding stocks, as is evident by the increasing use of floating storage, which currently stands at 45 mb for crude oil.
- The growing imbalance in the oil market over the coming quarters will lead to a much higher overhang in inventories, if the global recession deepens. This presents a real challenge for all market participants and will be the main focus of discussion at the Ministerial Meeting in Oran, Algeria, on 17 December 2008.



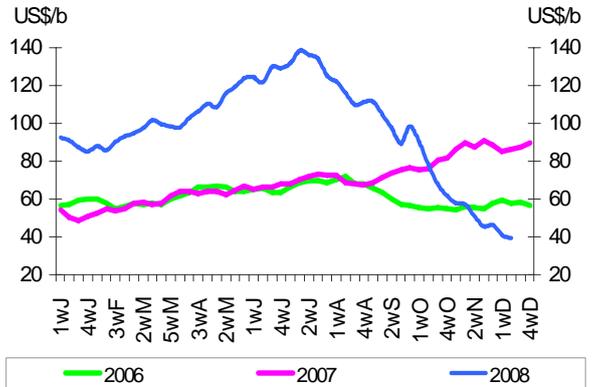
# Crude Oil Price Movements

**Financial crisis continued to erode demand amid further declines in the equity market**

## OPEC Reference Basket

The crude oil market had a turbulent start to the month in November amid weakening demand and a strengthening US dollar while the perception of lower supply from a Mideast major balanced sentiment. The ongoing perception of a recession due to the weakening economy continued to dominate the bearish market sentiment. The OPEC Reference Basket plunged in the fourth day of the first week by almost 7% to close the first period down 81¢ lower on average at \$56.83/b. The volatility continued into the second week. While lower allocations from the Middle East and China's stimulus bailout plan were foreseen to lend support, reports from the IEA and the EIA revising down oil demand growth forecasts revived market bearishness. Speculation of a further OPEC production cut at a Consultative Meeting in Cairo lifted sentiment, although a plunge in the equity market revived fears that sustained economic weakness would dent petroleum demand. In the second week, the Basket plunged by an average of nearly 11% or \$6.08/b to \$50.75/b.

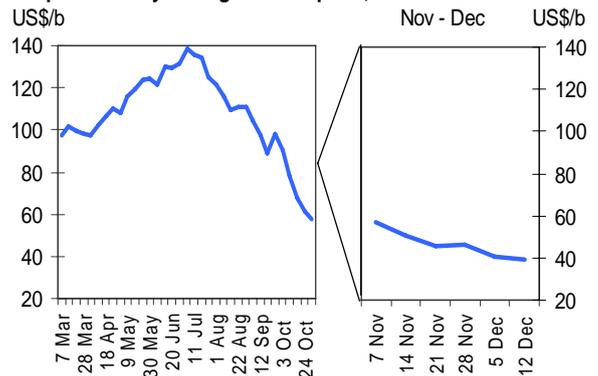
**Graph 1: OPEC Reference Basket - weekly spot crude**



The outlook for the oil market worsened as financial crisis spread globally with the equity market taking the lead. In the third week, signs of a recession emerging in some countries maintained the bearish market momentum. The Basket averaged the third week down by another 10.5% or \$6.41/b to \$45.40/b after plunging to the lowest level since 17 February 2005. In the fourth week, however, the market sentiment turned bullish amid the passage of a stimulus plan to shore up the battered economy with the petroleum complex closely tracking the equity market. Speculation over a potential OPEC supply cut kept the market firm while a lack of consumer confidence remained a factor in demand growth. The Basket closed the fourth week with an average of \$46.03/b, representing a gain of 63¢ or 1.4% after peaking in the week at \$47.47/b.

On a monthly basis, the downward movement continued for the fifth consecutive month in November, dominated by the deteriorating US economy. Signs that some nations had slipped into recession and the fall in equity markets to a five-year low triggered fears of further demand destruction. The bears dominated despite the stimulus package injecting new capital into the economy, lower interest rates and expectations of lower OPEC production. The market also softened on forecasts from the IEA and the EIA for lower petroleum demand growth amid already slowing procurement as refineries cut throughput on weak margins. A rebound in the US dollar against major currencies also led investors to exit the futures market. In November, the Basket averaged 28% or \$19.40/b lower at \$49.76/b. In the first two weeks in December, the downward trend continued as OPEC kept production steady during consultations in Cairo. The economic downturn and weak demand continued to weigh on market direction. Supply reductions from a Mideast major and lower OPEC exports in November lent stability in the marketplace. In December, the Basket continued to fall, reaching \$42.53/b on 12 December, the lowest level since mid-February 2005.

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

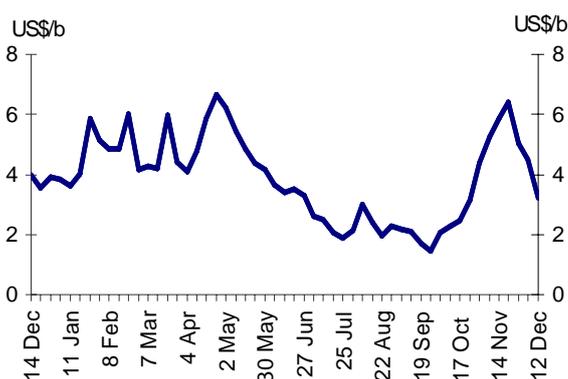


**Softer demand for seasonal fuels triggered crude oil stock-builds in Cushing, Oklahoma**

**US market**

Light crude came under pressure on weak demand amid economic woes and a weakening outlook while refinery outages left more barrels in the market. The comfortable level of seasonal fuels added to market calmness in the first week. The WTI/WTS spread widened by 87¢ to \$5.27/b. In the second week, continued demand destruction in a deepening US economic turndown pressured light grades in the domestic market. The larger-than-expected build in gasoline stocks also added to the bearish sentiment for light grades. The WTI/WTS spread averaged \$5.86/b or 59¢ wider in the second week. In the third week, the bearish sentiment for light grades continued on soft demand for light-end products while crude stocks rose in Cushing, Oklahoma. The WTI/WTS spread was 55¢ wider at \$6.41/b after peaking at \$7/b, the widest in a year. Light crude firmed in the fourth week on the forecast for a drop in distillate inventories amid a cold spell in the US Northeast. The narrowing transatlantic spread also added to market bullishness. Another healthy build in crude stocks at Cushing and draws in distillate inventories supported the light grades. The WTI/WTS spread narrowed in the final week by \$1.36/b to average \$5.05/b. In November, WTI averaged \$57.12/b, representing a fall of \$19.50/b or over 25%. However, the premium to WTS increased by \$2.71/b to \$5.65/b, the widest since last year.

**Graph 3: WTI spread to WTS, 2007-2008**



**Tight supply of rival grade supported North Sea crude while mounting storage on the high seas lent support**

**North Sea market**

The North Sea crude market emerged on a persistent weak note amid the disposal of prompt regional cargoes. Lower supply from Russia supported Forties crude on the North Sea market; however, lower refining margins continued to pressure light sweet grades. The Brent discount to WTI in the first week was nearly unchanged at \$4.70/b. The bearishness continued into the second week with ample December supply seen on the horizon. Limited demand for distillate-rich grades kept the sentiment at the weakest level. The Brent discount to WTI in the second week averaged \$1.15 wider to \$5.85/b. Market sentiment changed in the third week as refining margins improved while the transatlantic arbitrage spreads widened. However, supply remained plentiful and there was evidence that some sellers had booked VLCCs for storage rather than accepting lower differentials, which weighed on the market. The WTI premium to Brent in the third week was \$1.95/b narrower at \$3.90/b after bottoming to \$2.22/b, the narrowest daily and weekly average since August. Ample supply and weaker margins pressured North Sea crude. However, a cold snap amid emerging demand for distillates kept the grade from a further deterioration. The Brent discount to WTI was 12¢ wider at \$3.76/b in the fourth week. Brent averaged in November \$19.36/b or 23% lower at \$52.51/b, yet the discount to WTI declined 14¢ to \$4.61/b, the narrowest level in three months.

**Graph 4: WTI premium to Dated Brent, 2007-2008**



**An improved fuel oil crack spread on the back of a cold snap supported Urals crude**

**Mediterranean market**

Tighter supplies and quality concerns weighed on Azeri Light crude values, although weak refinery margins kept the grade under pressure. Nonetheless, Urals discount to Brent narrowed over the first weekly period by 44¢ to 4¢/b, amid weak North Sea crude. Continued worsening refining margins and limited demand exerted pressure on differentials. This was despite a sharp cut in Russian November oil exports as tax cuts fell short of levels sought by loss-making producers. Urals discount to Brent average was \$1.06/b wider at 1.10/b in the second week. The

**Reduced supplies and an improved fuel oil crack spread improved on the back of lower outright prices**

pressure continued as buyers adopted a “wait-and-see” stance amid more plentiful supplies. Nonetheless, emerging winter demand lent support to the sour grade while the fuel oil crack spread firmed. In the third week, the Brent premium to Urals narrowed 5¢ to \$1.05/b. Refining margins strengthened as demand for fuel oil emerged amid cold weather. The Urals discount to Brent was 37¢ narrower in the final week at 68¢/b. In November, Urals averaged \$51.79/b for a drop of \$18.72/b or 26.5%, while the discount to Brent was 64¢ narrower at 72¢/b.

***Middle Eastern market***

The oil market in the Middle East emerged on a steady note while awaiting retroactive OSPs and tighter allocations. Lower price differentials by a Mideast producer dramatically reduced rival grades flowing eastward. The Brent premium to Dubai averaged the first week at \$2.57/b or \$1.60/b narrower. In the second week, sentiment continued to weaken despite lower allocations and demand uncertainties continued to weigh on the market. The arrival of Western fuel oil cargoes pressured the market. The Brent/Dubai spread averaged the third week at

\$1.60/b, down 97¢. Market sentiment was even weaker on slow demand as refiners cut utilization rates. Prolonged negotiations by a Mideast supplier of condensate also added to the mounted pressure on regional grades. However, easing outright prices and the fuel oil crack spread improving from a six-week low inspired a buying spree. The Brent premium to Dubai was \$1.08/b wider at \$2.68/b. In the final weekly period, the market emerged on a slow note amid fulfilled January allotment while unsold barrels remained. Sentiments firmed on tighter supply as the OPEC cut was digested with further potential cuts foreseen on the horizon. The Dubai discount to Brent was \$1.13/b wider at \$3.81/b. In November, Dubai averaged \$49.84/b, a drop of \$17.98/b or 26.5%, with the discount to Brent averaging the month at \$2.67/b, compared to \$4.05/b in October.

**Graph 5: Dated Brent spread to Dubai, 2007-2008**

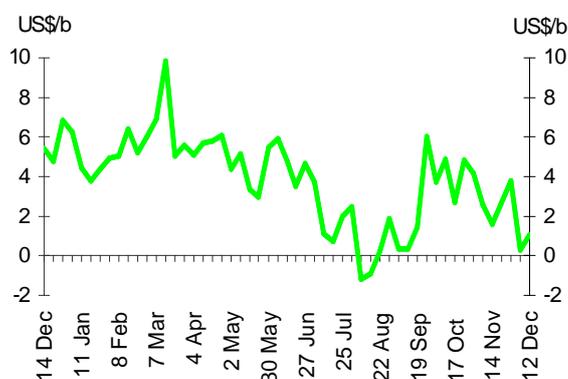


Table 1: OPEC Reference Basket and selected crudes, US\$/b

	<b>Change</b>			<b>Year-to-Date</b>	
	<b>Oct 08</b>	<b>Nov 08</b>	<b>Nov/Oct</b>	<b>2007</b>	<b>2008</b>
<b>OPEC Reference Basket</b>	<b>69.16</b>	<b>49.76</b>	<b>-19.40</b>	<b>67.57</b>	<b>99.40</b>
Arab Light	69.14	50.09	-19.05	67.27	100.15
Basrah Light	67.99	49.11	-18.88	65.03	96.94
BCF-17	65.86	40.37	-25.49	60.29	91.61
Bonny Light	74.57	56.11	-18.46	73.59	105.70
Es Sider	71.22	51.86	-19.36	69.79	101.70
Girassol	70.63	51.76	-18.87	69.06	100.54
Iran Heavy	66.33	47.55	-18.78	65.44	96.33
Kuwait Export	65.88	47.13	-18.75	64.83	96.00
Marine	68.94	50.58	-18.36	67.77	99.61
Minas	76.80	56.48	-20.32	71.80	105.87
Murban	71.52	53.05	-18.47	71.37	103.98
Oriente	60.57	40.17	-20.40	60.24	90.40
Saharan Blend	73.02	53.86	-19.16	73.11	104.07
<b>Other Crudes</b>					
Dubai	67.82	49.84	-17.98	66.92	98.58
Isthmus	71.96	49.77	-22.19	65.90	100.35
T.J. Light	69.58	47.44	-22.14	64.04	97.30
Brent	71.87	52.51	-19.36	70.98	102.43
W Texas Intermediate	76.62	57.12	-19.50	70.66	105.19
<b>Differentials</b>					
WTI/Brent	4.75	4.61	-0.14	-0.32	2.76
Brent/Dubai	4.05	2.67	-1.38	4.06	3.85

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

## The Oil Futures Market

**Forecasts of destruction in petroleum demand while the US dollar strengthened prompted speculators to bet price lower**

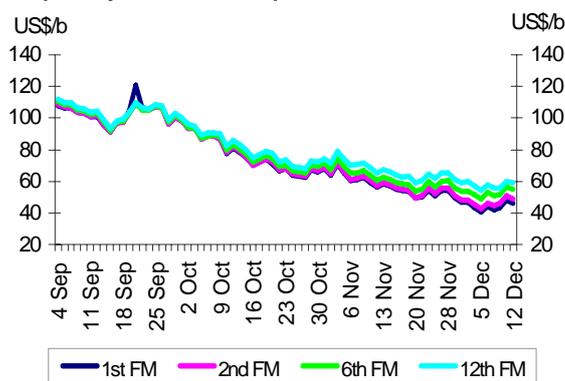
The petroleum futures market sentiment continued to weaken on the perception of slower demand growth amid a plunge in economic growth and stronger US dollar. Nymex WTI averaged the first weekly period down \$2.20 at \$67.14/b, but closed at \$70.53/b for a gain of \$7.80/b on the US Election Day while news filtered in about lower supply from Saudi Arabia. However, the bleak economy and strengthening of the US dollar dominated the bearishness. The CFTC reported in the **first weekly** period that non-commercials have furthered net shorts by 2,100 lots to 10,500 contracts. In contrast, open interest volume was inflated by 52,200 to 1,125,400 lots on rising spreads, the widest level in eight weeks. With options included, open interest deflated by a marginal 22,200 lots to less than 3.2 million contracts. Yet, non-commercial net positions were inflated by 6,500 to 78,900 contracts.

In the **second weekly** period, the CFTC reported that non-commercials increased net short positions by a hefty 42,400 to almost 53,000 contracts, a level last seen on 15 November 2005, amid a hefty rise in short positions despite the slight rise in long volume. Open interest volume was 29,400 wider at 1,154,700 contracts. Most of the increment was on the back of rising non-commercial shorts. With options included, open interest volume inflated by a significant 131,400 lots to set a record above 3.3 million contracts amid a significant increase of commercials while spreading restored healthily to near 1.5 million contracts. Moreover, net non-commercial longs were inflated by 1,700 to 80,500 lots amid a rise in the latter at a faster rate than shorts. Nymex WTI front month contracts closed the weekly period at \$59.33/b, down \$11.20/b to average the week down by \$5.37/b at \$61.77/b. Despite more evidence of OPEC cuts and China's fund injection plan, sentiment was dominated by bearish factors such as the strengthening of the US dollar, an unexpected build in gasoline stocks, a plunge in equity markets and mounting fears of a recession denting petroleum demand.

In the **third weekly** period, continued forecasts for lower demand growth and a slide in the financial system flared economic woes. Nymex WTI front month contracts closed the period at \$54.39/b, down \$4.94/b to average \$56.16/b or down by \$5.61/b. The CFTC report revealed that non-commercials flipped net short positions by a hefty 64,000 to almost 11,000 lots net long, for the first time in four weeks. Nonetheless, the changes came on the back of a hefty drop in short positions by some 72,000 lots while longs depleted by 7,800 lots. Thus, open interest dropped by 32,100 to 1,122,600 contracts. With options included, open interest volume dropped by a significant 519,200 to 2.8 million lots, the lowest level in nine weeks. Most of the drop was on the back of spreading, which was down by some 304,200 lots, and commercials, which were around 215,000 lots lower. Net longs rose a healthy 14,300 to 94,900 contracts, the widest level since 1 July when prices were over the \$140/b range.

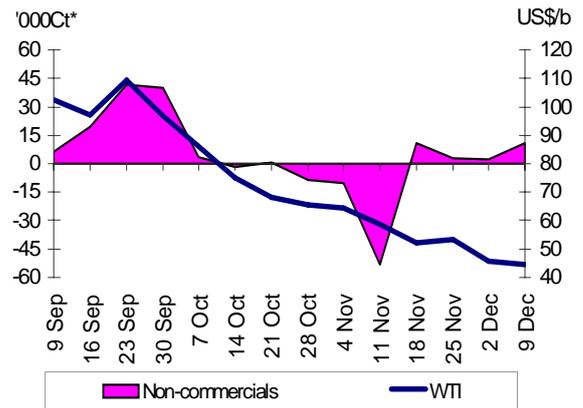
In the **final weekly** period, the CFTC reported that non-commercials reduced net long positions by 8,300 to 2,700 contracts amid liquidation of longs while shorts increased. Nonetheless, open interest volume was nearly unchanged at just 2,000 lots lower, but remained well above the 1.1 million level. With options included, although the non-commercial net long positions were down by 2,700 to 92,200 contracts, open interest volume was inflated by a healthy 100,500 to over 2.9 million contracts amid a healthy increase in commercials and spreading. The Nymex WTI prompt month contract closed the fourth weekly period down by \$3.62/b at \$50.77/b to average \$51.69/b for a loss of \$4.47/b. Despite the stimulus package planned by the incoming US administration and speculation of further OPEC cuts amid a sideline meeting at the OAPEC conference in Cairo, a weakening economy and the plunge in equity markets dominated the market on prospects of petroleum demand destruction.

Graph 6: Nymex WTI futures prices, 2008



On a **monthly basis**, although the CFTC reported the closing period in November at net long, the weekly average was at 12,400 lots net short, wider than the previous monthly average by almost 11,000 lots and 72,000 lots down from a year ago. Open interest volume was at 1,130,900 contracts, 59,200 higher than October, yet 309,400 contracts below last year. Nonetheless, with options included, open interest weekly average was down by 12,700 at 3,062,400 lots in November, but was 469,500 lots higher than last year. In contrast, non-commercial net positions averaged 86,600 lots long, some 26,500 higher than in October, yet 56,100 lots lower than last year. The Nymex WTI front month contract averaged \$57.03/b in November for a drop of \$16.69/b or over 25% lower. The market digested some bullishness including lower OPEC supplies and announced stimulus plans from China and the incoming US administration. However, the weak demand outlook by major institutions on lower economic growth as recession emerged in some countries dominated the bearishness in the marketplace. A plunge in the equity market while the US dollar strengthened prompted more speculative support for the downward price trend.

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

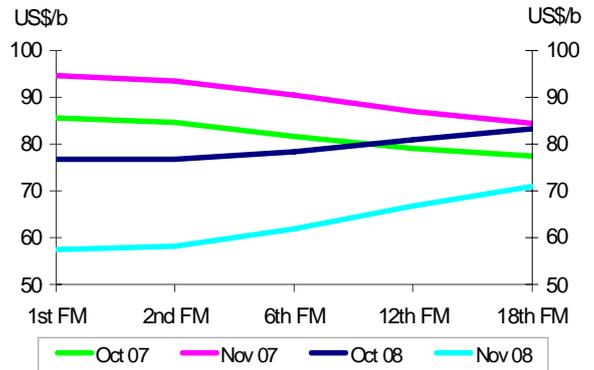


**Generally lower refinery run rates on weak demand and poor margins supported the contango to widen amid rising crude stocks**

**The Forward Structure**

The contango on the forward curve widened in November with the 1<sup>st</sup>/2<sup>nd</sup> month spread averaging 81¢/b versus 10¢/b in October. 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> month were at \$4.61/b, \$9.56/b and \$13.76/b for an increase of \$2.98/b, \$5.39/b and \$7.17/b respectively. This compares to 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 last year of 96¢/b, \$4.13/b, \$7.70/b and \$10.20/b in backwardation. Although refinery runs are around 0.2 mb/d higher than the October average, weakening demand prompted poorer refinery margins and slower refinery runs amid outages some 0.5 mb/d lower than last year.

**Graph 8: Nymex WTI forward curve**



# Commodity Markets

Commodity prices sank 16.8% in November on falling demand resulting from the worsening economic situation in the OECD and the impact on China

## Trends in selected commodity markets

Commodity prices declined 16.8% in November m-o-m after plummeting the previous month by 21.2% (see Table 2 and Graph 9). The drop in the IMF commodity price index during October and November on monthly basis were the largest since the publication of the index in 1992. The adoption of an urgent policy response in an attempt to stop a major economic recession has proved to be unsuccessful with the USA government acknowledging that the economy is in recession and the whole set of economic and financial indicators continue to show poor performance for the global economy. Analysts are forecasting that the global economic recession will be deeper and longer than initially thought. The downward revision to the economic growth forecast for China and Asia added to the bearish panorama for commodity prices as lower demand seems to be the key factor in explaining the severe and rapid downtrend in commodity prices as the strong positive correlation between commodity prices and global GDP is well known. In other words, the decline in commodity prices during November was due to a further weakening in global demand, credit constraints and appreciation of the dollar (up 4% versus the euro). In the first week of December, the contraction of employment in USA added to this gloomy macroeconomic panorama and suggested that a sustainable recovery in commodity prices may not be possible in the near term. Although the pace of decline in some commodities as metals and grains has slowed significantly in monthly terms in November and early December. Some authorities as the World Bank argue that the commodity boom that began in 2003 until the first half of 2008 seems to have ended abruptly with the slowing of economic growth at the end of the cycle aggravated by the severe financial crisis. This commodity boom was unique in magnitude and duration compared to other since the beginning of 20<sup>th</sup> century (see Table below). Despite these peculiarities for the World Bank, we are in the presence of just other economic cycle, stressing that last period of increasing oil prices lasted 10 years after declining and that the current period of 10 years increase in crude oil prices has come to an end. Other observers like Barclays suggest that if commodity prices continue to decline during the first half of 2009, they may increase again in the long-term on lower supply. In this context, the decline commodity demand this year and in 2009 is expected to lead to a gloomy outlook for commodities over the short term.

## Features of major commodity booms

<u>Common features</u>	<u>1915-17</u>	<u>1950-57</u>	<u>1973-74</u>	<u>2003-08</u>
Rapid global real growth (average annual percent)	—	4.8	4.0	3.5
Major conflict and geopolitical uncertainty	World War I	Korean War	Yom Kippur War, Vietnam War	Iraq conflict
Inflation	Widespread	Limited	Widespread	Limited second round effects
Period of significant infrastructure investment	World War I	Postwar rebuilding in Europe and Japan	Not a period of significant investment	Rapid buildup of infrastructure in China
Centered in which major commodity groups	Metals, agriculture	Metals, agriculture	Oil, agriculture	Oil, metals, agriculture
Initial rise observed in prices of:	Metals, agriculture	Metals	Oil	Oil
Preceded by extended period of low prices or investment	No	World War II destroyed much capacity	Low prices and a supply shock	Extended period of low prices
Percent increase in prices (previous trough to peak)	34	47	59	131
Years of rising prices prior to peak	4	3	2	5
Years of declining prices prior to trough	4	11	19	—

Source: World Bank

— Not available

The milder fall in commodity prices during November can largely be explained by the halving of the declining growth in non-energy commodity prices, as energy prices and especially crude prices continue declining at almost the same pace. During the first week of December some unlikely sustainable recovery took place in industrial metals and some grains.

As in last October, the **energy commodity index** (crude oil, natural gas and coal) was the worst performer in November m-o-m (21.3%). **Crude oil prices** (the averaged petroleum spot price) continued sinking dramatically by 25.7% m-o-m (40.8% lower than a year early) with no visible and sustainable improve in early December.

**Henry Hub gas price** experienced a recovery compared to the previous month. This declined only 0.6% which compared favorably to the drop of 11.6% m-o-m in October. The recovery in natural gas prices relies on US cold temperatures which fostered prices close to 7 US\$/MMBtu. Nevertheless, this bullish factor was weighed by the severity of the macroeconomic problems and the gloomy outlook for 2009. High inventories owing to increased production also added pressures on HH natural gas. The medium-term outlook for this natural gas looks bearish due to several factors namely, forecasted lower consumption in 2009 due to economic recession.

**Coal prices edged down 14.6 in November driven by the same factors that led to a plunge in prices in the previous month**, namely slow global demand – including dropping power production and weakening industrial demand in China – together with better supply conditions in major exporting of this commodity.

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

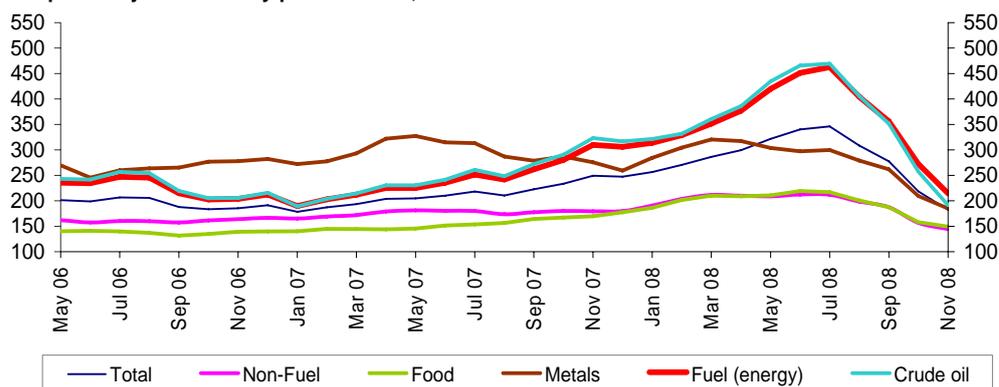
	% Change			% Change
	<u>Sep/Aug</u>	<u>Oct/Sep</u>	<u>Nov/Oct</u>	<u>Nov 08/Nov 07</u>
Commodity	-10.0	-21.2	-16.8	-27.0
Non-Energy	-5.6	-16.3	-7.8	-19.5
Energy	-11.9	-23.5	-21.3	-30.8
Crude	-13.3	-26.8	-25.7	-40.8
Natural Gas	-7.6	-11.6	-0.6	-5.8
Coal	-5.3	-28.0	-14.6	9.0
Agriculture*	-5.0	-16.7	-7.2	na
Food	-6.6	-15.7	-5.5	-11.9
Grains	-3.6	-17.5	-8.7	na
Com	-0.5	-21.8	-10.2	-4.0
Wheat	-10.3	-19.7	-4.4	-29.5
Soybean Oil	-10.5	-22.4	-9.9	-26.3
Soybeans	-6.3	-20.0	0.7	-7.1
Sugar	-4.9	-5.8	-9.2	-25.8
Industrial Metals	-6.2	-19.9	-11.7	-32.8
Aluminium	-8.6	-15.9	-12.5	-25.9
Copper	-8.6	-29.8	-23.8	-46.4
Nickel	-7.0	-31.7	-11.3	-64.7
Zinc	0.6	-25.3	-10.3	-54.2
Steel products*	-0.9	-1.0	-12.5	na
Gold*	-1.1	-2.8	-5.7	na
Silver*	-16.4	-14.5	-5.4	na
Fertilizers*	-3.1	-18.6	-16.2	na

*na Not available*

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

*\* World Bank Index*

Graph 9: Major commodity price indexes, 2006-2008

**Commodity Price Index, 2000 = 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.

**Industrial metals plunged 12.7% on the continuing severe decline in industrial production with negative demand indicators and rising inventories**

**Non-energy commodities dipped 7.8% in November m-o-m, down 19.5% from the year ago. The industrial metal price index reported a drop of 12% m-o-m in November for the seventh consecutive month standing at 32.83% lower than the same month last year. Metal plummeted in November 40% since last April and this is the sharpest price decline since February 1980. The unprecedented decline in metal prices suggests that the market is pricing in a deterioration in market fundamentals even worse than that recorded during the Great Depression.**

**Since October, prices across the whole metal complex were severally hit by the economic and financial turmoil that led to an important drop in production and weaker demand from construction, transport and other sectors on demand for raw materials. The worsening of all macro, economic and financial indicators with the global recession already acknowledged, falling industrial production, depressed demand, amid considerable inventory builds and the dollar appreciation against the Euro, continued exerting pressures on industrial metals whose are the most closely linked to the performance of the industrial GDP. As in last October, the high level of inventories and the move of the forward curve into contango reflected weaker metal fundamentals. Industrial metal prices drop was less severe in early December despite the accumulation of negative economic and financial indicators which may be explained by the fact that the market moved very quickly at an early moment to price in expectations of further deterioration in market conditions.**

**Copper prices reported another dramatic and unprecedented 23.8% m-o-m drop in November. Copper was the biggest loser in November as the falling trend in the two latest months is the worst since 1980. The three-month forward curve moved into contango at the end of October. Rising inventories and slowing demand in China together with expectations of a severe world economic recession were the determining factors in the free fall of coal prices. A look at the performance of non-commercials suggests that, following the massive long-liquidation in the last three months, copper was favoured by non-commercials with shorts experiencing a slight rise. The bearish outlook for copper has led producers to consider output adjustments.**

**Aluminum prices decreased 12.5% m-o-m in November – 25.96% lower down from the year ago level – on rapid slow of demand from the construction and transport sectors and amounting LME stocks. Aluminum has been greatly affected by the worsening situation in the automotive industry that reduced US demand for this metal and the non approval of the rescue package by the government. Chinese demand forecast has been downgraded and demand is expected to grow by 15% y-o-y or 7% lower than was previously forecast. LME inventories surged from 1,500,000 tonnes to more than 1,700,000 tonnes, their highest level since 1995. Despite the more drastic**

effort of producers to reduce output, the latest data flowing from China was not encouraging, reporting aluminum production remained the same on a yearly basis (8.2%), which represents bad news as China is the world's largest producer country. Furthermore, even if these cuts materialize, there are still some new capacities coming to the market.

**Nickel prices lost 11.3% m-o-m which compared favorably to the near 32% decline in the previous month but nickel prices were 64.7% lower than a year earlier.** The market remained very volatile and the third-month cash spread was in contango, rising to \$335/tonne in early November, before ending at \$210/tonne. Continued declining demand from the stainless steel sector exerted downward pressures on the demand side as Chinese major producers cut production in October by 50% as a result of deteriorating demand conditions. The inventory rise at the LME has been more moderate due to the output cuts in October and November compared to last September. With the deeper problems in the automotive and construction sectors and lower demand for stainless steel, the outlook for the steel and the nickel markets remains bearish. Indeed, steel production is estimated to drop 30% during this quarter.

**Zinc prices posted a 10.3% loss in November, being 54.2% lower than a year ago** on rising inventories and weak demand in particular from the automotive industry in Asia and OECD countries. The metal faces further output cuts in an effort of producers to support prices. Chinese mines and refineries closures took place in the second half of November. Strong output cuts seem to have offset the negative impact of demand on inventory levels as these remained steady at near 180,000 tonnes despite no demand for zinc. It is estimated that at current prices half of the major producers are unprofitable, so further output cuts are expected in the near term.

**The World Bank's agricultural price index decreased 7.2% in November, the fifth consecutive monthly drop.** The same factors that led to a near 16.77% decline in November continued to weigh on agricultural prices: weakening demand, severe fall in crude oil prices, investor risk aversion and better supply outlook. The decline in the IMF food price index slowed markedly from 20% m-o-m in October to 7.2% in November which was due to the relatively better performance of corn, wheat and soybeans. In general the slower negative growth in November may suggest that some of the commodity prices already reached the bottom or are near to reach it. Soybeans grew slightly by 0.7% in November after having fallen 19.7% in the last October on forecast for a drop in soybean production which supported soybean prices in early November. Wheat dropped 4% in November which compared favorably with the 20% fall in October as a result of still strong demand partly offsetting the impact of record crops. Corn negative growth also more than halved in November (10.2%) compared to 21.8% in October m-o-m despite concern on the weaker demand including slackening feed demand and difficulties in the US ethanol industry. The worst performers in the agricultural spectrum in November were palm kernel oil and coconut oil (close substitutes) whose prices fell 30% and 15.9% respectively due to weaker demand. Groundnut oil fell 17.7% owing to severe declining demand in Europe and removal of the export ban in Senegal. Cotton prices edged down 11.8% due to weak demand from important textile producers as China, India and Pakistan. Sugar also dropped.

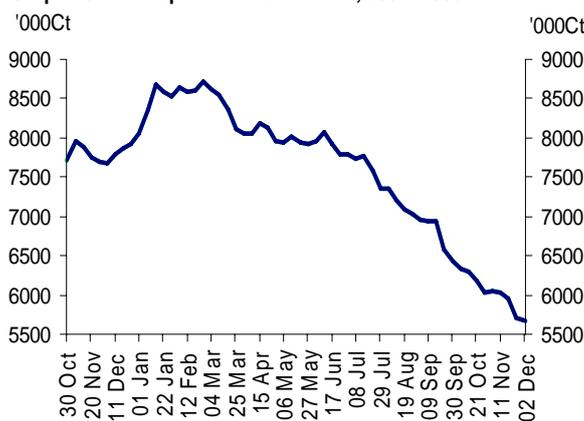
**Gold price declined further 5.7% m-o-m in November. The strengthening of the dollar and weaker jewelry demand dropped sharply during the first half of 2008 continued to weigh on the metal price.**

**Open interest in major US commodity markets declined but at a slower pace as the sharp decline in commodity prices slowed in November**

#### Investment flow into commodities

**CFTC data indicated that the open interest volume (OIV) declined by 277,000 contracts to 5,970,000 m-o-m** in major US commodity markets, a milder decline compared to last October in line with an amelioration of the hefty commodity price decline in November and despite spread view of a deep and long global economic recession (see *Table 3 and Graphs 10, 11 and 12*). Net longs also declined at a slower pace in November. Net length as a percentage of OIV for the US commodity markets was 1.9% in November compared to 3% in the previous October and 6% in September.

**Graph 10: Total open interest volume, 2007- 2008**



Source: CFTC

**Agriculture** OIV dropped 162,000 to 3,184,000 contracts in November. A drop in short non-commercials of 19,000 contracts to 445,000 contracts was combined with a fall of 79,000 contracts to 636,000 contracts in longs, which lead to an increase of 60,000 contracts to 191,000 contracts in the net longs. The net length of non-commercials as percentage of OIV dropped at a much more moderate pace in November (6%) compared to 11% in September and 7.5% in October. Tactical investors were restrained, especially in soybean oil and corn.

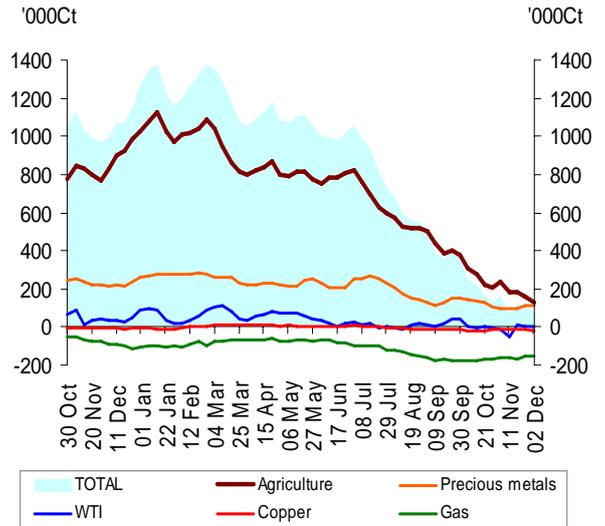
**Precious metals** OIV dropped by 36,000 contracts to 424,000 contracts in November m-o-m. The non-commercial net length was at 24% as a percentage of OIV (see *Graph 12*). Non-commercial net longs in this commodity group experienced a further and deeper decline of 25,000-contract in November compared to last October. Gold non-commercial net length was near the low last seen in June 2007.

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

	Net Positions		Long Positions		Short positions		Open Interest	
	Change		Change		Change		Change	
	Nov 08	Nov/Oct	Nov 08	Nov/Oct	Nov 08	Nov/Oct	Nov 08	Nov/Oct
Crude Oil	-12	-11	187	14	199	25	1131	59
Natural Gas	-160	12	88	-86	248	-98	744	-113
Agriculture	191	-60	636	-79	445	-19	3184	-162
Corn	58	-54	194	-25	136	29	974	-20
Soybean Oil	-4	-8	21	-9	25	-1	253	-6
Soybeans	26	-8	56	-14	30	-6	313	-39
Sugar	96	4	152	-9	56	-13	635	-28
Precious Metals	102	-25	165	-12	63	13	424	-36
Copper	-16	2	7	1	23	-1	77	-4
Livestocks	7	6	104	0	97	-6	410	-21
<b>Total</b>	<b>112</b>	<b>-76</b>	<b>1187</b>	<b>-162</b>	<b>1075</b>	<b>-86</b>	<b>5970</b>	<b>-277</b>

**Natural gas (Nymex)** open interest fell 113,000 contracts to 744,000 contracts in November m-o-m. A decline in longs and shorts prompted a slight in the net-length as percentage of the OIV which is at the high level of -21.5%. The concern of a severe economic recession expected in 2009 has caused uncertainty in the futures markets with the six-month Nymex curve kept on flattening in November.

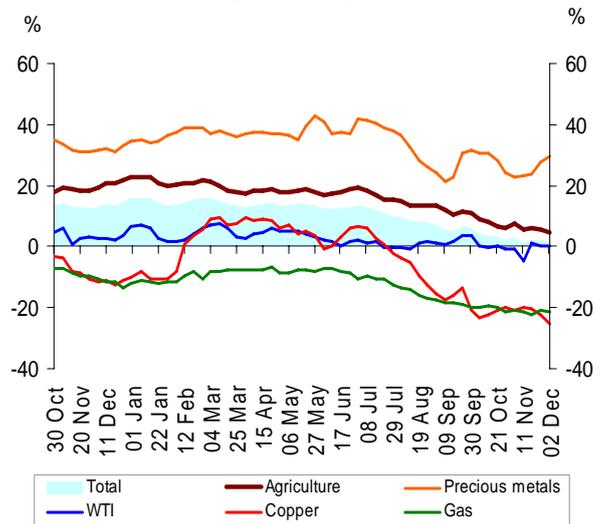
**Graph 11: CFTC net length by commodity group, 2007-2008**



Source: CFTC

**The still hefty drop in copper prices in November** encouraged a reduction in OIV of 4,000 contracts to 71,000 contracts in the same month. An increase in long non-commercial similar to the fall in shorts resulting in non-commercial futures net positions as percentage of the OIV staying at the high level of minus -20.7%.

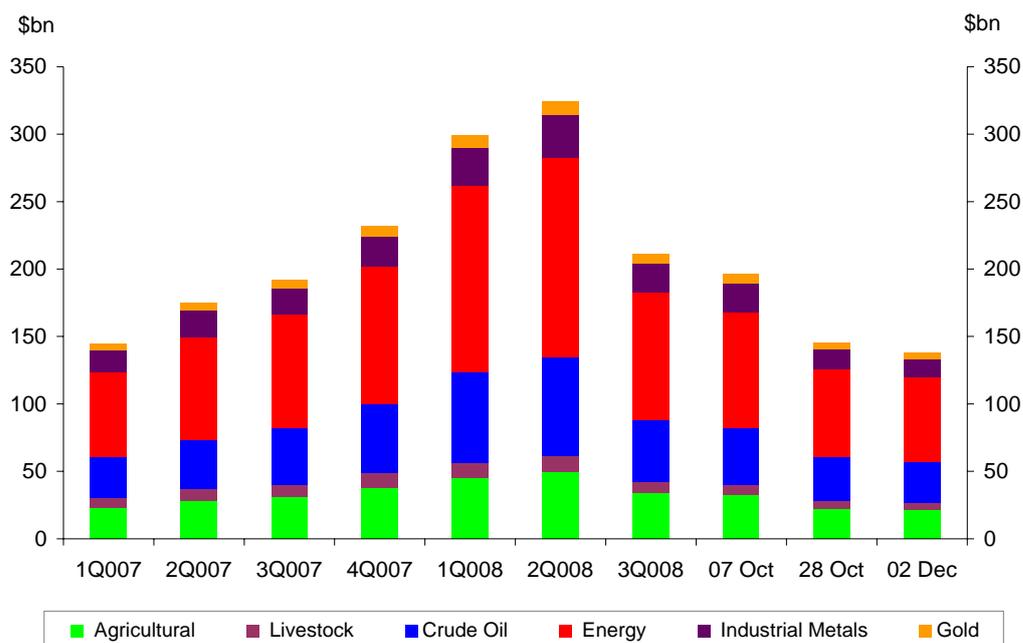
**Graph 12: CFTC net length as % of open interest, 2007-2008**



Source: CFTC

After showing their worse ever performance in October 2008, commodity-linked ETPs saw an inflow of about \$700 mn in November with energy being the most favoured (\$550 mn) followed by precious metals (4,230 mn). On the contrary, agriculture experienced further but smaller withdrawals of \$54 mn. While no trend can be identified, it may be inferred that risk aversion among retail investors may have begun to recede in those commodity markets that are perceived to be of better value.

Our estimates of the investment inflow into commodities indicate a much lower 1.9% decline in investment in the two major commodity investment indices (S&PGSCI and DJCI) on 2 December compared to 28 October — an investment outflow of 2.2 bn compared to 4.1 bn in October. The moderation in the outflow of passive investors in commodity indices took place across all the sectors (see **Graph 13**).

**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		
	Nov 08	Oct 08	Sep-08	Nov 08	Oct 08	Sep-08
Base	0.0	-29	-12.3	0.0	-8.0	0.0
Precious	290.0	-137	2,939.7	2.0	-10.0	-1.0
Agriculture	-29.0	-265	-417.7	0.0	-5.0	0.0
Energy	487.0	-720	971.6	-35.0	-95.0	72.0
Broad-based	-9.0	-454	-161.5	-1.0	-7.0	-15.0
<b>Total</b>	<b>739.0</b>	<b>-1605</b>	<b>3,319.6</b>	<b>-34.0</b>	<b>-125.0</b>	<b>56.0</b>

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

	Long ETP Flows				Short ETP Flows			
	10 Dec	12 Nov	05 Nov	15 Oct	10 Dec	12 Nov	05 Nov	15 Oct
Base	5.3	0.9	0.4	-3.0	-8.3	2.8	4.5	0.1
Precious	6.2	-108.7	-3.3	140.2	-2.2	0.2	2.2	0.8
Agriculture	5.8	-14.5	-31	-65.9	-4.3	2.7	-2.5	-0.6
Energy	75.6	5.2	-23	-11.9	-7.7	-13.2	-6.2	-30.7
Broad-based	0.5	-4	1	-1.8	0.9	-1.7	-1.2	1.1
<b>Total</b>	<b>93.4</b>	<b>-117.4</b>	<b>57.1</b>	<b>57.6</b>	<b>-21.6</b>	<b>-9.1</b>	<b>-3.2</b>	<b>-29.3</b>

Source: Barclays.

## Highlights of the World Economy

### Economic growth rates 2008-2009, %

	World	OECD	USA	Japan	Euro-zone	China	India
2008	3.6	1.3	1.3	0.1	1.1	9.5	7.0
2009	1.5	-0.8	-1.3	-1.7	-1.0	7.0	5.8

#### Industrialised countries

##### United States of America

#### US economy sinks into recession with rapidly worsening labour markets

Conditions in the US economy continued to deteriorate in November. In particular, the labour market has taken a turn to the worse. Retail sales continued to fall for a fifth month in a row and surveys of the manufacturing and services sectors point to a deepening of the economic contraction. The US is now officially in recession since December 2007, as announced by the National Bureau of Economic Research (NBER). At 12 months, the current recession is longer than the two previous ones. Despite the significant policy steps already undertaken by authorities in the US and worldwide to address the crisis, ranging from rapid cuts in interest rates to committing massive funds to the banking system worldwide, market turbulence has not been subdued. US equities continued to fall erasing around \$7.6 trillion of investor wealth in the US and an estimated \$31 trn worldwide, with the Dow Jones Wilshire 5000, the widest index of US stocks, dropping 44% from a record high in October 2007.

While it is expected that the new administration will quickly put a huge stimulus package in place in early 2009, reportedly between \$500-700bn and equivalent to 4-5% of US GDP, it is not expected that this will bring the recession to halt. It may, however, shorten the duration and lessen the depth of the downturn and lay the foundations for future growth. UBS economists have estimated that global fiscal commitments amount so far to 1.5% of global GDP, still below the 2% advocated by IMF economists. The incoming US administration has pledged to undertake the largest new investment in roads, bridges and public buildings since Eisenhower's administration half-century ago, and to create an estimated 2.5 mn jobs in the next two years. The costs already incurred to support the banking system as well as the added cost of the fiscal package, despite the obvious necessity of both, have begun raise fears about the resulting ballooning of the US budget deficit. This is beginning to put downward pressure on the US currency which has recently benefited from a return of safe-haven status. The US Treasury announced that the budget deficit has already risen to a record \$401.6 bn in the first two months of the current fiscal year.

However, there seems to be no other alternatives to support the economy since the US consumer is not expected to provide any impetus for growth in 2009. In the past years strong US consumer spending acted as an engine for US and world growth, but it has been at the expense of deterioration in consumers' balance sheets. The corresponding low level of household saving, which fell to near zero levels, coupled with rising household indebtedness, was sustainable only as long as house prices and equity values kept rising. With the sharp fall in both home and equity values, the danger of a sudden increase in personal savings, as households struggle to establish sound balance sheets, is evident, as this may trigger an abrupt contraction in global demand and contribute to a deepening of the global recession. Moreover, the rising US unemployment rate will depress spending further in coming months.

The US economy is losing jobs at an accelerating pace, with payrolls falling by more than half a million in November (553,000 of which 370,000 in services industries), the fastest pace since 1974, bringing the total loss to 1.91 mn jobs this year. The unemployment rate now stands at 6.7%, the highest level since 1993 and already higher than the peak reached in the aftermath of the 2001 recession. It is expected that the unemployment rate will rise further in coming months. November witnessed the 11th consecutive drop in payrolls. The drop in employment was a key factor in NBER's timing of the start of the current recession in December 2007 when payrolls peaked. On the positive side, one notes that workers' average hourly wages rose 0.4% in November m-o-m. month or 3.7% higher than in November 2007.

Meanwhile, manufacturing contracted in November at the steepest rate in 26 years. The Institute for Supply Management's factory index dropped to 36.2 from 38.9 while service industries contracted the most since records began in 1997, with the ISM index of non-manufacturing businesses, which make up almost 90% of the economy, falling to 37.3 from 44.4 in October. A

reading below 50 indicates contraction. Moreover, durable goods orders excluding defense and aircraft, a key indicator of future investment, fell 4.6% m-o-m in October.

US retail sales fell 1.8% in November for the fifth consecutive month, but the drop was smaller than the record 2.8% in the previous month. The fall was led mainly by a sharp decline in gasoline sales (a record -15% due to a drop of more than \$1/gallon in the average price of gasoline) and in auto and auto parts sales (-2.8%) while gains were recorded at electronic and department stores, as consumers took advantage of discounts by retailers. Excluding gasoline, retail sales fell only by 0.2%, the smallest drop since May. Surprisingly, consumer confidence rose somewhat in November reflecting the temporary relief to household budgets from the fall in gasoline prices. Year-on-year sales were down by 7% in November with sales of autos/parts dropping 25%.

US auto sales in November were at the worst level in more than 26 years as banks restricted access to credit and financially stressed consumers postponed purchases of big-ticket items. The difficulties faced by the "Big Three" US companies General Motors, Ford and Chrysler came to a head after the US Senate turned down the plans approved by the Congress to offer short-term loans amounting to \$14bn to help GM and Chrysler avoid impending bankruptcy. The Outgoing administration has signaled that it would resort to using money in the \$700 bn TARP program to shore up the auto giants. According to a study published by the Center for Automotive Research, a bankruptcy of the three auto companies would result in massive increase in unemployment of between 2.5-3.5 mn, including 1.4 mn in related industries, given the strong linkages of the car industry to other industries and sectors in the economy.

The fed has almost exhausted the possibilities of interest rate cuts, although there is some expectation of yet another 50 basis points cut in the benchmark rate at the Fed's meeting December 15-16. This would bring the federal funds rate down to 0.5%. Moreover, the Fed is contemplating other unorthodox measures such as buying longer-term Treasury securities to ease the credit impasse. On the positive side one notes that recent Fed announcement that it would be willing to spend up to \$600bn to buy mortgage-based securities and debt issued by government sponsored enterprises, primarily Fannie Mae and Freddie Mac, has resulted in a drop in the 30-year mortgage rate to below 6%, which all the cuts in short-term interest rates had failed to induce.

Overall, the US economy is expected to contract by 1.3% in 2009 from a positive 1.3% growth this year.

#### *Japan*

Recent indicators point to a deepening of the Japanese recession. 3Q08 GDP growth was revised down sharply to -1.8% from an initial estimate of 0.4% contraction. In line with expectations, the latest Quarterly Bank of Japan "Tankan Report" indicated that sentiment among Japan's largest manufacturers had fallen sharply. The measure dropped to -24 from -3 in the previous quarter, the largest drop in 34 years, where a negative reading indicates pessimists outweigh optimists. The report signaled that investment plans would be trimmed and employment reduced. Large companies indicated they plan to cut spending by 0.2% in the fiscal year ending March 2009 and job cuts have already been announced by companies such as Sony, Toyota and Mazda following a drop in exports. Similarly, sentiment among large non-manufacturers fell to minus 9 from 1, the first negative reading in five years. The government and the Bank of Japan have also downgraded their assessments of the economy in November.

Exports tumbled 7.7% y-o-y in October, the fastest pace in seven years. It was notable that shipments to Asia, the destination of almost half of Japan's exports fell for the first time since 2002. Among the negative factors affecting the Japanese economy is the surge in the yen which has pressured exports already suffering from a drop in demand due to the global downturn. The yen has risen to 13-year highs in December, reaching ¥89.3/\$ on December 12. Moreover, industrial production fell 3.1% in October m-o-m, after a rise of 1.1% in September. Moreover, companies surveyed by the Trade Ministry revealed plans to reduce output by a large 6.4% in November and 2.9% in December.

In addition, Japanese machinery orders fell in October as a result of lower export demand. Orders, considered a key indicator of capital spending in the next three to six months, fell 4.4% from the previous month, when they rose 5.5%. Orders from abroad slumped 37% representing the biggest drop in five years. Moreover, November bankruptcies increased 5.27% from year ago levels.

#### **Tankan report paints gloomy picture of Japanese economy**

However, Japan's unemployment rate unexpectedly fell in October to 3.7% from 4.0% in September. The labor force shrank by 150,000 as people stopped looking for jobs. The ratio of jobs available to each applicant also fell to 0.80, the lowest ratio since May 2004.

Although consumer price inflation moderated further in October, with prices excluding fresh food rising 1.9% y-o-y in October from 2.3% in September, consumer spending is not expected to improve. Retail sales slumped in October by 0.6% and household spending fell 3.8% from a year earlier. Consumer confidence had already slipped below 30 for the first time in October and it fell further in November to a fresh all-time low of 28.4, as a result of falling wages (-0.1% y-o-y in October for the first time this year) and the news of increasing layoffs. Consumers are expected to reduce spending further because of concerns about job security even as the risk of inflation disappears.

On the fiscal policy response, the 5 trillion yen (\$53 bn) package announced by the government in October is considered very modest. However, despite pressure to increase spending, Japan is hampered by the huge government debt of more than 170% of GDP limiting the governments' ability to implement a larger fiscal stimulus package. Meanwhile, the Bank of Japan which had lowered interest rates for the first time in seven years in October to 0.3%, is not expected to resort to another cut soon although the option is still open, despite the limited impact a further reduction would have given the near-zero level of interest rates.

Overall, the Japanese economy is forecast to contract at the pace of 1.7% in 2009 following an estimated growth of 0.1% this year.

#### *Euro-zone*

#### **Euro-zone outlook deteriorates further as manufacturing drops to record lows and industrial production and retail sales fall**

As in the other OECD regions, the Euro-zone outlook has deteriorated sharply in the past month, as industrial production declined, confidence fell to near-record lows and exports slumped. Trade, previously the main driver of growth, has turned into a negative factor in 3Q08 GDP with net exports subtracting 0.5% percentage points from growth. The ECB forecasts the 15-nations economy may shrink around 0.5% in 2009 and gradually recover in the second half of next year, but other recent forecasts predict the drop will be at least twice as steep.

In October, industrial production fell a seasonally adjusted 1.2% m-o-m in the euro area following a 1.8% drop in the previous month. Compared with October 2007, industrial production declined by 5.3%. In individual countries, IP fell 2.7% in France, 2.0% in Germany and 1.2% in Italy, m-o-m. Over year ago levels, industrial production declined by 5.3%. The main drop was in durable consumer goods (-8.4%), intermediate goods (-7.4%) and capital goods (-5.2%). In October 2008, the most significant falls were registered in Spain (-12.8%), Ireland (-10.0%), and France (-7.5%).

The PMI surveys show the manufacturing index compiled by Markit Economics falling to 35.6 in November from 41.1 in October, the lowest level since the survey was initiated in 1998 and below the threshold measure of 50 for the sixth month in a row. The services PMI gauge also remained in negative territory falling to 43.3 from 45.8 in October. Moreover, the Bloomberg purchasing managers index for retail sales, based on a panel of over 1000 retailers, showed European retail sales fell the most in at least five years in November. The index declined to 41 in November from 44 in October, also remaining below the 50 limit that indicates contraction for the sixth consecutive month.

Separately, the European Commission's Euro-zone economic sentiment indicator, an index of executive and consumer sentiment, dropped to 74.9 in November from 80.0 in October. The November decline was bigger-than-expected and takes the index to the lowest level since August 1993. Inflation in the Euro-zone dropped to its lowest level in over a year in November, falling 1.1 percentage points from the previous month to stand at 2.1% y-o-y. It is expected that inflation will drop below the ECB's target rate of 2% in the coming months. With inflation falling, the ECB resorted to a relatively large 75 basis point cut in early December, bringing the ECB refinancing rate to 2.5%. While there are calls for further cuts, the ECB in its usual cautious approach may take time to gauge the effects of the previous cuts before embarking on another cut which is likely to be smaller than the previous one.

The Euro-zone seasonally-adjusted unemployment rate stood at 7.7% in October 2008, compared with 7.6% in September and 7.3% in October 2007. Eurostat estimates 12 mn were unemployed

in October 2008. Compared with September 2008, the number of persons unemployed increased 225,000 in the euro area. Compared with October 2007, unemployment went up by 810,000.

In Germany, the IFO business climate survey saw its second largest monthly fall on record in November. But the ZEW Center for European Economic Research's business sentiment index of investor and analyst expectations rose unexpectedly for the second month in November to minus 45.2 from minus 53.5 in November. The improvement is attributed the German parliament's approval of the government's 32 bn euro (\$41 bn) stimulus plan on December 5 and the ECB's 75 basis points cut in interest rates. These measures, combined with falling oil prices and a weaker euro, appear to have counterbalanced fears of a global recession. The European Commission also announced a €200bn (\$266 bn) package, tantamount to 1.5% of Eurozone GDP, aimed at restoring confidence and stimulating investment.

Overall, the Euro-zone economy is forecast to contract by 1.0% in 2009 following a 1.1% growth this year.

#### *Former Soviet Union*

Economic growth in Russia fell to its slowest rate in three years in the third quarter, at 6.2%, the State Statistics Service reported early this month. Actual GDP growth in the quarter missed the government's forecast of 7.1%, driven by significantly slower growth in the construction, retail, transport and communications sectors. The decline continued a slide from 8.5% GDP growth in the first quarter and 7.5% in the second, and if the trend continues the number for the year could be in the 6% range. Russian authorities have already allocated over US\$200 billion in a package of rescue measures to the economy and spent tens of billions of dollars to stabilize the Rouble exchange rate. This has put pressure on Russia's gold and foreign exchange reserves, the world's third largest, which have shrunk by a quarter in the last four months to around \$450 billion. More problems may face the Russian economy next year with energy production already stagnant and export volumes declining. Russia's crude oil exports fell by 5.9% during the first eight months this year. Steel exports are set to plummet as China has turned from a steel importer to a major exporter. Domestic demand will decline with construction falling. Commodities, which represent roughly a quarter of Russia's GDP, cannot possibly expand next year, but they may contract somewhat, especially steel production and construction materials.

Kazakhstan's GDP grew 3.9% year-on-year in January-September, a sharp decline from the average annual growth of 10% recorded since the beginning of the decade. The government predicts GDP growing at 5.0% this year. Falling prices for Kazakhstan's key exports have put its tenge (domestic currency) under pressure. The central bank has intervened heavily to effectively peg the tenge to the dollar at around 120 tenge/\$ since last year.

According to the Ukrainian government real GDP growth in Ukraine may have actually slowed down to 3.5-4% in the first ten months of 2008, lower than the previous forecast of a 5.8% growth. The slowdown is a result of contraction in production because of narrowing of external markets, reduction in domestic demand due to restrictions in credit, freezing of companies' own resources in stocks of finished products, and forced repayment of credits in the absence of refinancing possibilities.

#### *Developing Countries*

China's industrial production grew at the weakest pace in almost a decade as export growth collapsed, increasing pressure on the government to do more to revive the slumping economy. Industrial output rose by just 5.4% in November from a year earlier, down from October's 8.2% growth, according to the National Bureau of Statistics. This is the smallest monthly expansion since February 2002. Chinese authorities plan to increase money supply by 17% in 2009 as part of the new measures to face the global slowdown. In this respect the government has taken a number of measures to boost domestic demand and cope with the downturn, including repeated interest-rate cuts and a four trillion Yuan (586-billion-dollar) stimulus package announced last month. Exports fell unexpectedly in November for the first time in seven years. Auto sales in November were down 16% from a year earlier. Sudden contraction in external demand will slow China's economic growth, although the government's stimulus plan should limit the downturn.

India's industrial production declined in October for the first time in more than 15 years as weaker domestic demand and waning exports force companies to cut production. Investor sentiment has also been shaken by terror attacks in Mumbai. Inflation in India fell to a

**Russian economy  
grew by just 6.2%  
in 3Q08**

**Kazakhstan and  
Ukraine cut their  
economic growth  
estimate for the first  
10 months of 2008**

**China's industrial  
production grew by  
only 5.4% in  
November, down from  
8.2% in October**

seven-month low by four-tenths of a percentage point to 8%. Lower food prices have eased India's inflation, giving more room for rate cuts to spur an ailing economy.

Brazil's economic growth unexpectedly accelerated to 1.8% in the third quarter from the second, as the country showed signs of resisting the global downturn. The expansion of the gross domestic product was faster than the 1.6% expansion in the second quarter, the government's statistics agency reported. Inflation in Brazil eased unexpectedly in November amid a slowing economy and dwindling consumer confidence, reinforcing the view that the central bank has room to hold interest rates.

**Saudi Arabia's central bank cut its key interest rate and reduced the level of reserves of commercial banks**

#### ***OPEC Member Countries***

To encourage lending, Saudi Arabia's central bank has cut its key interest rate and reduced the level of reserves commercial banks are required to hold. The bank cut the repo rate by 1 percentage point to 3% and the reserve requirement to 7% from 10%. Saudi inflation eased to 10.4% in September from 10.9% the previous month and a record 11.1% in July. Lower oil prices are slowing growth and easing inflation in all Middle East countries.

Venezuela's annual inflation rate fell more than expected in November as an economic slowdown curtailed consumption. Monthly inflation as measured by the central bank's new national consumer price index, which monitors prices across the country, was 2.3% in November. Food price inflation rose the most, with the index in November up by 3.8% in Caracas, and a massive 46.9% from the same month a year earlier. Prices for hotels and restaurants accelerated 2.2% last month and 50% in the last 12 months, according to the Central Bank.

**US dollar appreciates further in November but the five-month upward trend may be over**

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

Continuing the trend of the previous three months, the US dollar moved up further in November, appreciating against all of the major currencies in the modified Geneva I + US dollar basket with the exception of the Japanese yen. The dollar rose 4.3% versus the euro, 10.0% against the pound sterling and 4.3% versus the Swiss franc, but fell 3.6% vis-à-vis the yen. Against the modified Geneva I + US dollar basket, the dollar posted a gain of 2.6% in November compared to a 3.1% rise in October and an 11.4% increase since July 2008. The US currency averaged \$1.2731/€ in November from \$1.3305/€ in October.

The US dollar's recovery, which started in mid-July, continued through November but slowed down versus the euro while accelerating against the troubled pound sterling. However, a peak seemed to have been reached in late November and the dollar has weakened somewhat since then, falling in December to reach \$1.334/€ on 12 December. The recent depreciation may be due to market fears of the costs of the massive bailouts and the expected rise in the US budget deficit. The Japanese yen rose further vis-à-vis the dollar on continued deleveraging and unwinding of "carry trades". The yen stood at 89.3¥/\$ on 12 December. The near-term direction of the US dollar is increasingly uncertain as the economic outlook worsens in practically all world regions, but especially within OECD countries. Currency markets volatility is expected to remain high.

In November, the OPEC Reference Basket dropped by \$19.4/b or 28.1% to \$49.76/b from \$69.16/b in October. In real terms (base June 2001=100), after accounting for inflation and currency fluctuations, the Basket price fell \$11.8/b or 26.2% to \$33.27/b from \$45.09/b. The dollar appreciated by 2.6%, as measured against the import-weighted modified Geneva I+US dollar basket, while inflation eroded the value of the barrel by less than 0.1%.\*

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

# World Oil Demand

**World oil demand to fall by 0.15 mb/d in 2009**

## World oil demand in 2009

The worsening world economy is expected to have a large impact on oil demand next year, especially in the OECD countries. Our forecast indicates a contraction in the first half of the year resulting from a huge decline in OECD oil demand. OECD oil demand is forecast to show an average decline of 1.3 mb/d y-o-y in the first half of 2009. However, this decline will shrink to half in the second part of the year as the world economy shows a better performance. The majority of the decline will be related to the decline in US oil demand. Although the picture will be enhanced in the second half of the year, OECD will maintain its oil demand contraction showing a decline of 1.0 mb/d in 2009.

World oil demand growth will be boosted mainly by China, the Middle East, and Other Asia and is estimated at 0.6 tb/d or 78% of total non-OECD forecast oil demand growth in 2008.

The deteriorating economies in OECD countries **are estimated to reduce total world oil demand by 0.15 mb/d or 0.2% for 2009 to average 85.7 mb/d.**

**Table 5: 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>	Change 2009/08	
							<u>Volume</u>	<u>%</u>
North America	24.30	23.91	23.93	23.25	23.79	23.72	-0.58	-2.39
Western Europe	15.22	14.88	14.59	15.12	15.32	14.98	-0.24	-1.61
OECD Pacific	8.16	8.63	7.59	7.44	8.36	8.00	-0.15	-1.90
<b>Total OECD</b>	<b>47.67</b>	<b>47.41</b>	<b>46.11</b>	<b>45.81</b>	<b>47.46</b>	<b>46.70</b>	<b>-0.98</b>	<b>-2.05</b>
Other Asia	9.34	9.38	9.56	9.19	9.56	9.42	0.09	0.93
Latin America	5.74	5.60	5.84	5.98	5.90	5.83	0.09	1.62
Middle East	6.84	6.97	7.04	7.31	7.00	7.08	0.24	3.57
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>25.72</b>	<b>25.52</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	0.94	0.97	0.01	1.44
China	8.01	8.26	8.46	8.43	8.13	8.32	0.31	3.92
<b>Total "Other Regions"</b>	<b>13.10</b>	<b>13.31</b>	<b>13.35</b>	<b>13.64</b>	<b>13.57</b>	<b>13.47</b>	<b>0.37</b>	<b>2.84</b>
<b>Total world</b>	<b>85.83</b>	<b>85.88</b>	<b>85.04</b>	<b>85.05</b>	<b>86.76</b>	<b>85.68</b>	<b>-0.15</b>	<b>-0.18</b>
Previous estimate	<b>86.19</b>	<b>87.12</b>	<b>85.74</b>	<b>85.77</b>	<b>88.09</b>	<b>86.68</b>	<b>0.49</b>	<b>0.57</b>
Revision	<b>-0.36</b>	<b>-1.25</b>	<b>-0.70</b>	<b>-0.72</b>	<b>-1.33</b>	<b>-1.00</b>	<b>-0.64</b>	<b>-0.75</b>

Totals may not add due to independent rounding.

## OECD – North America

**North America to decline by 0.9 mb/d in 1Q09**

With the sharp downturn in the US, there will be two major products affected 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 contraction in driving mileage within the US. Another factor that is affecting gasoline demand is the nation-wide movement to smaller, more efficient vehicles. The expected negative effect on gasoline will be to some degree reduced by low gasoline prices.

Gasoline prices in the US have already reached a low that has not been seen since 2004. These low gasoline prices are expected to cut the decline from the current 3.5% in 2008 to only approximately 0.5%, presenting a rebound of 0.26 mb/d.

Furthermore, a strong cut in industrial production will have a drastic negative impact on the usage of naphtha, diesel and fuel oil. It is anticipated that industrial fuel will show a decline of around 2% next year. Given the negative GDP, total US oil consumption is forecast to decline by around 0.4 mb/d in 2009.

North America's oil demand decline is expected to bottom out at around 0.9 mb/d in the first quarter of 2009 and then bounce back to 0.3 mb/d in the last quarter.

**Table 6: First and second quarter world oil demand comparison for 2009, mb/d**

	<u>1Q08</u>	<u>1Q09</u>	Change 2009/08		<u>2Q08</u>	<u>2Q09</u>	Change 2009/08	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	24.84	23.91	-0.93	-3.74	24.53	23.93	-0.60	-2.45
Western Europe	15.20	14.88	-0.32	-2.11	14.88	14.59	-0.29	-1.95
OECD Pacific	8.87	8.63	-0.24	-2.72	7.82	7.59	-0.23	-2.94
<b>Total OECD</b>	<b>48.90</b>	<b>47.41</b>	<b>-1.49</b>	<b>-3.05</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	8.26	0.29	3.64	8.17	8.46	0.29	3.55
<b>Total "Other Regions"</b>	<b>12.98</b>	<b>13.31</b>	<b>0.33</b>	<b>2.54</b>	<b>13.02</b>	<b>13.35</b>	<b>0.34</b>	<b>2.59</b>
<b>Total world</b>	<b>86.68</b>	<b>85.88</b>	<b>-0.81</b>	<b>-0.93</b>	<b>85.40</b>	<b>85.04</b>	<b>-0.36</b>	<b>-0.42</b>

Totals may not add due to independent rounding.

**Table 7: Third and fourth quarter world oil demand comparison for 2009, mb/d**

	<u>3Q08</u>	<u>3Q09</u>	Change 2009/08		<u>4Q08</u>	<u>4Q09</u>	Change 2009/08	
			<u>Volume</u>	<u>%</u>			<u>Volume</u>	<u>%</u>
North America	23.75	23.25	-0.50	-2.11	24.09	23.79	-0.30	-1.25
Western Europe	15.34	15.12	-0.22	-1.43	15.47	15.32	-0.15	-0.97
OECD Pacific	7.53	7.44	-0.09	-1.20	8.42	8.36	-0.06	-0.71
<b>Total OECD</b>	<b>46.62</b>	<b>45.81</b>	<b>-0.81</b>	<b>-1.74</b>	<b>47.97</b>	<b>47.46</b>	<b>-0.51</b>	<b>-1.06</b>
Other Asia	9.09	9.19	0.10	1.10	9.44	9.56	0.12	1.22
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	6.74	7.00	0.26	3.86
Africa	3.09	3.13	0.04	1.30	3.21	3.25	0.05	1.43
<b>Total DCs</b>	<b>25.11</b>	<b>25.61</b>	<b>0.50</b>	<b>1.99</b>	<b>25.18</b>	<b>25.72</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	0.92	0.94	0.02	2.18
China	8.10	8.43	0.32	4.01	7.78	8.13	0.35	4.50
<b>Total "Other Regions"</b>	<b>13.25</b>	<b>13.64</b>	<b>0.39</b>	<b>2.94</b>	<b>13.14</b>	<b>13.57</b>	<b>0.43</b>	<b>3.27</b>
<b>Total world</b>	<b>84.97</b>	<b>85.05</b>	<b>0.08</b>	<b>0.09</b>	<b>86.30</b>	<b>86.76</b>	<b>0.46</b>	<b>0.53</b>

Totals may not add due to independent rounding.

#### **Other OECD regions**

#### **Total OECD demand to fall 0.8 mb/d in 2009**

The other two OECD regions are also expected to show a decline in oil demand next year due to low economic activities. Like the USA, transport and industrial fuel will be the major drivers behind contracting oil use in both regions. As a result of shrinking economies, oil demand will be in the red for the whole year. However, as the economy improves in the second half, the decline in oil demand will shrink as well. The Big Four in Europe (the UK, Germany, France and Italy) are forecast to have most of the decline in oil usage in Europe next year which is estimated at 0.23 mb/d. In the Pacific, Japan's oil demand is expected to continue its decline as a result of not only a slowing economy but also an aging Japanese population and the movement to smaller and more efficient vehicles. It is anticipated that other countries in the Pacific will to a certain degree accelerate the major decline in Japanese oil demand. The OECD Pacific's oil demand decline is forecast at 0.1 mb/d which represents half of the decline in European oil demand.

In 2009, the decline in total OECD oil demand is forecast at 0.8 mb/d y-o-y to average 47 mb/d.

**Demand in the Developing Countries to grow at a slower 0.54 mb/d; China to increase by 0.36 mb/d**

### *Non-OECD*

The depressed developed world economy will spill over to a certain degree into Developing Countries. Thus, the Developing Countries' oil demand growth is forecast at 0.54 mb/d y-o-y in 2009, down by one third 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. Middle East oil demand growth is expected to lose 16% of its annual average growth.

China's oil demand is expected to closely track its GDP in 2009. Slowing economic activities should ease oil consumption, hence oil demand growth is forecast at 0.36 mb/d y-o-y. China's retail prices are not expected to see any changes as far as the final consumers are concerned. The new January tax increase will be evened out by a reduction in other fees. Agricultural activities are expected to maintain diesel demand growth as in 2008. In total, non-OECD oil demand growth is forecast at 1.0 mb/d in 2009. Should the world economic situation deteriorate further, then oil demand could decline more sharply.

**World oil demand in to decline by 66 tb/d in 2008**

### *World oil demand in 2008*

The financial crisis is having its effect on oil demand not only in the USA but also in major OECD countries. Following the first half of the year when high oil prices depressed petroleum product demand, the sharp downturn in the US economy reduced the country's oil demand by around 1.5 mb/d in the second half of the year. The financial crisis spilled over into the rest of the world, which resulted in a strong decline in oil consumption. **With such a huge decline in the US oil demand, the OECD oil demand is forecast to fall by 1.5 mb/d y-o-y in 2008.** Furthermore, the economic trouble has spilled out to non-OECD countries; hence, oil demand growth showed a 16% or 0.25 mb/d decline in the second half of the year.

**Table 8: 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>	<u>Change 2008/07</u>	
							<u>Volume</u>	<u>%</u>
North America	25.53	24.84	24.53	23.75	24.09	24.30	-1.23	-4.82
Western Europe	15.30	15.20	14.88	15.34	15.47	15.22	-0.08	-0.54
OECD Pacific	8.35	8.87	7.82	7.53	8.42	8.16	-0.19	-2.28
<b>Total OECD</b>	<b>49.18</b>	<b>48.90</b>	<b>47.23</b>	<b>46.62</b>	<b>47.97</b>	<b>47.67</b>	<b>-1.50</b>	<b>-3.06</b>
Other Asia	9.12	9.32	9.49	9.09	9.44	9.34	0.22	2.40
Latin America	5.51	5.54	5.75	5.88	5.78	5.74	0.23	4.13
Middle East	6.50	6.75	6.81	7.05	6.74	6.84	0.34	5.19
Africa	3.09	3.19	3.11	3.09	3.21	3.15	0.06	1.83
<b>Total DCs</b>	<b>24.22</b>	<b>24.80</b>	<b>25.15</b>	<b>25.11</b>	<b>25.18</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	3.76
Other Europe	0.93	1.03	0.96	0.92	0.92	0.96	0.03	2.89
China	7.59	7.97	8.17	8.10	7.78	8.01	0.42	5.52
<b>Total "Other Regions"</b>	<b>12.50</b>	<b>12.98</b>	<b>13.02</b>	<b>13.25</b>	<b>13.14</b>	<b>13.10</b>	<b>0.60</b>	<b>4.76</b>
<b>Total world</b>	<b>85.90</b>	<b>86.68</b>	<b>85.40</b>	<b>84.97</b>	<b>86.30</b>	<b>85.83</b>	<b>-0.07</b>	<b>-0.08</b>
Previous estimate	85.90	86.68	85.42	85.28	87.39	86.19	0.29	0.33
Revision	0.00	0.00	-0.02	-0.31	-1.09	-0.36	-0.35	-0.41

*Totals may not add due to independent rounding.*

Thus, world oil demand forecast was revised down by 0.35 mb/d to **show a decline of 66 tb/d y-o-y in 2009 to average 85.8 mb/d.**

**Europe to fall 80 tb/d in 4Q08**

### *OECD Europe*

Demand for heating oil in Germany pushed the country's oil demand up by an excessive 10% or 0.25 mb/d in October y-o-y to average 2.5 mb/d. Cheap oil prices encouraged consumers to go ahead for the winter products preparation. It increased the heating oil by 0.23 mb/d or 50% y-o-y. Germany's oil consumption is the highest in Europe and any changes make a considerable difference in Europe's total oil demand. Slow economic activity, along with warm weather, moved Italian oil demand to the opposite of Germany. Italian October oil consumption declined by 3.8% y-o-y to average 1.7 mb/d. Gasoline consumption led losses, shaving off 13 tb/d of the country's total oil demand in October y-o-y.

As in other European countries, the UK oil usage has been on the decline and is expected to continue to do so until the end of the year. The UK declining gasoline consumption pressed the country's total oil demand down by 1% on September y-o-y to average 1.5 mb/d.

Although this winter did require more oil usage in the fourth quarter, especially in Germany, oil demand in OECD Europe is forecast to decline by 0.08 mb/d y-o-y to average 15.2 mb/d.

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

	<u>Oct 08</u>	<u>Oct 07</u>	<u>Change from Oct 07</u>	<u>Change from Oct 07 (%)</u>
Motor Gasoline	716	734	-18	-2.4
Aviation Fuels	102	118	-15	-13.0
Diesel Fuel Oil	483	529	-46	-8.6
Residual Fuel Oil	183	157	25	16.2
Other Products	258	279	-21	-7.6
<b>Total Products</b>	<b>1742</b>	<b>1816</b>	<b>-74</b>	<b>-4.1</b>

**Table 9: First and second quarter world oil demand comparison for 2008, mb/d**

			<u>Change 2008/07</u>				<u>Change 2008/07</u>	
	<u>1Q07</u>	<u>1Q08</u>	<u>Volume</u>	<u>%</u>	<u>2Q07</u>	<u>2Q08</u>	<u>Volume</u>	<u>%</u>
North America	25.68	24.84	-0.84	-3.27	25.40	24.53	-0.88	-3.44
Western Europe	15.23	15.20	-0.03	-0.22	14.95	14.88	-0.07	-0.46
OECD Pacific	8.91	8.87	-0.04	-0.49	7.87	7.82	-0.05	-0.65
<b>Total OECD</b>	<b>49.82</b>	<b>48.90</b>	<b>-0.92</b>	<b>-1.84</b>	<b>48.22</b>	<b>47.23</b>	<b>-1.00</b>	<b>-2.06</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>86.03</b>	<b>86.68</b>	<b>0.65</b>	<b>0.76</b>	<b>84.83</b>	<b>85.40</b>	<b>0.57</b>	<b>0.67</b>

Totals may not add due to independent rounding.

**Table 10: Third and fourth quarter world oil demand comparison for 2008, mb/d**

			<u>Change 2008/07</u>				<u>Change 2008/07</u>	
	<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	23.75	-1.79	-7.01	25.49	24.09	-1.40	-5.49
Western Europe	15.41	15.34	-0.07	-0.46	15.62	15.47	-0.16	-1.01
OECD Pacific	7.89	7.53	-0.36	-4.57	8.72	8.42	-0.30	-3.44
<b>Total OECD</b>	<b>48.84</b>	<b>46.62</b>	<b>-2.22</b>	<b>-4.55</b>	<b>49.83</b>	<b>47.97</b>	<b>-1.86</b>	<b>-3.73</b>
Other Asia	8.94	9.09	0.15	1.72	9.31	9.44	0.13	1.40
Latin America	5.65	5.88	0.23	4.14	5.61	5.78	0.18	3.12
Middle East	6.62	7.05	0.43	6.50	6.47	6.74	0.28	4.31
Africa	3.06	3.09	0.03	0.89	3.15	3.21	0.06	1.78
<b>Total DCs</b>	<b>24.26</b>	<b>25.11</b>	<b>0.84</b>	<b>3.48</b>	<b>24.54</b>	<b>25.18</b>	<b>0.64</b>	<b>2.61</b>
FSU	4.00	4.22	0.22	5.56	4.35	4.44	0.09	2.07
Other Europe	0.90	0.92	0.02	2.35	0.90	0.92	0.02	2.23
China	7.72	8.10	0.38	4.94	7.38	7.78	0.40	5.42
<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>13.14</b>	<b>0.51</b>	<b>4.04</b>
<b>Total world</b>	<b>85.72</b>	<b>84.97</b>	<b>-0.75</b>	<b>-0.88</b>	<b>87.01</b>	<b>86.30</b>	<b>-0.71</b>	<b>-0.81</b>

Totals may not add due to independent rounding.

**OECD Pacific to decline 190 mb/d****OECD Pacific**

Falling oil prices are not expected to make a large change in transport fuel demand within the Pacific. Japanese airlines already decided to pass the reduction to their end consumers starting in January. Japan oil demand plunged strongly in October by 12.5% reducing the country's total oil usage by slightly less than half a million barrels a day. Japan fourth quarter oil demand is expected to follow October's behavior and end up in a total y-o-y decline of 0.34 mb/d. South Korea, New Zealand, and Australia oil demand is in better shape than Japan; however it is not expected to make a big difference to the total Pacific oil demand situation. Due to the collapsing economic activities in Japan, the OECD Pacific oil demand forecast was revised down by 0.07 to show a total decline of 190 tb/d in 2008.

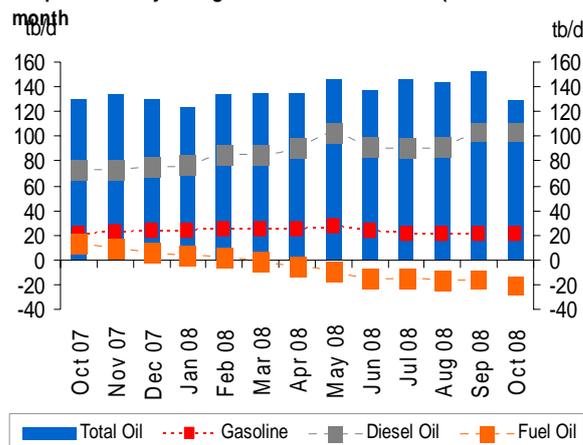
**Table 11: Japanese domestic sales, tb/d**

	<u>Oct 08</u>	<u>Change from Oct 07</u>	<u>Change from Oct 07 (%)</u>
Gasoline	950	-72	-7.0
Naphtha	750	-71	-8.7
Jet Fuel	102	-1	-1.2
Kerosene	197	-121	-38.0
Gas Oil	587	-51	-8.0
Other Products	637	-170	-21.0
Direct Use of Crude	158	5	2.9
<b>Total</b>	<b>3,382</b>	<b>-482</b>	<b>-12.5</b>

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

**India to grow 130 tb/b in 2008****Developing Countries**

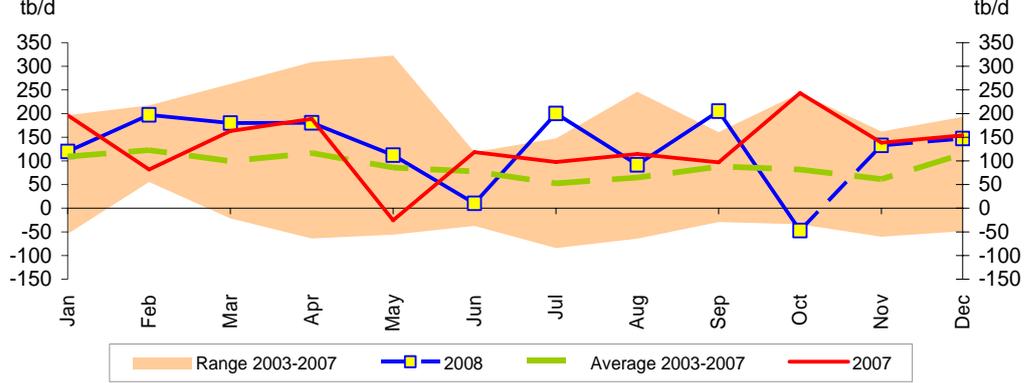
Indian oil demand has a cyclical behavior, which tends to even out to a certain degree by year end. Following September's high oil demand of plus 200 tb/d which was the highest in 2008, October Indian oil demand declined by 47 tb/d y-o-y caused by very weak diesel oil consumption. Indian oil demand has not seen negative performance since May of last year. Overall, the country's oil demand is expected to grow within our early forecast in the year forecast of 0.13 mb/d.

**Graph 14: Yearly changes in Indian oil demand (12 month)****Table 12: Indian oil demand by main products, tb/d**

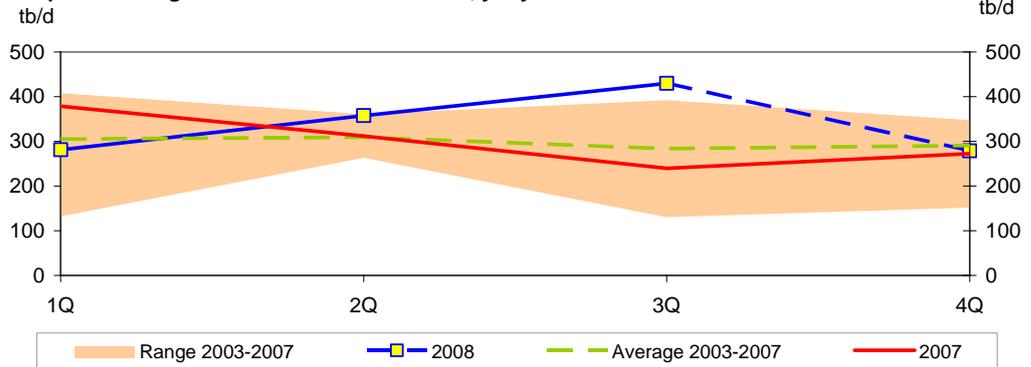
	<u>Oct 08</u>	<u>Sep 08</u>	<u>Jan 08 - Oct 08</u>	<u>Difference to Jan 07 - Oct 07</u>	<u>%</u>
LPG	376	384	374	15	4.3
Motor Gasoline	259	251	252	20	8.5
Jet Kero	292	307	295	5	1.8
Gas Diesel Oil	954	1,035	1,061	102	10.7
Residual Fuel Oil	350	328	321	-20	-5.7
Other Products	422	568	556	2	0.3
<b>Total Oil Demand</b>	<b>2,653</b>	<b>2,874</b>	<b>2,860</b>	<b>125</b>	<b>4.6</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**

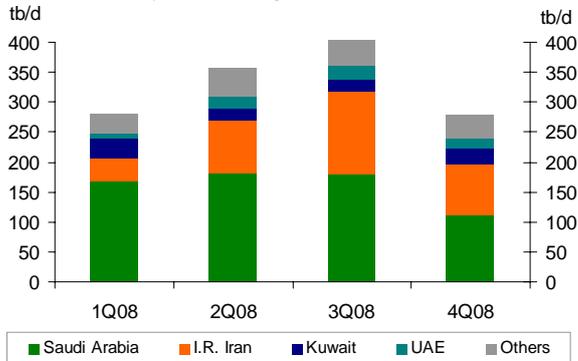


**Graph 16: Changes in Middle East oil demand, y-o-y**



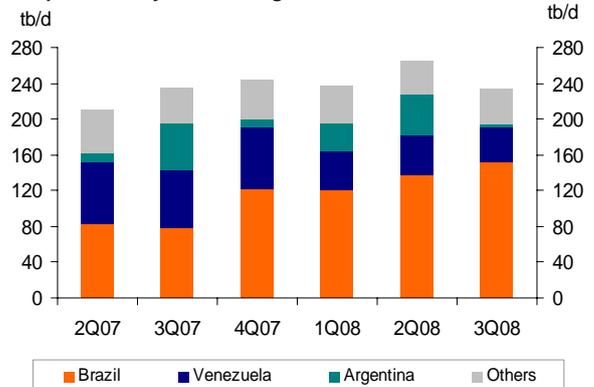
Strong economic activities along with controlled petroleum products retail prices with the Middle East, the region oil demand is forecast to achieve a health growth of 0.34 mb/d y-o-y in 2009 to average 6.8 mb/d. Middle East oil demand growth is the second strongest after China in world wide.

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



Brazil, Venezuela, and Argentina have pushed Latin America oil demand to grow strongly this year achieving 0.23 mb/d y-o-y or 4% growth. Latin America is expected to have the third strongest regional growth worldwide.

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



As a result of firm demand in Other Asia, Latin America, and the Middle East, Developing Countries oil demand growth is forecast to reach 0.8 mb/d in 2008 y-o-y to average 25 mb/d.

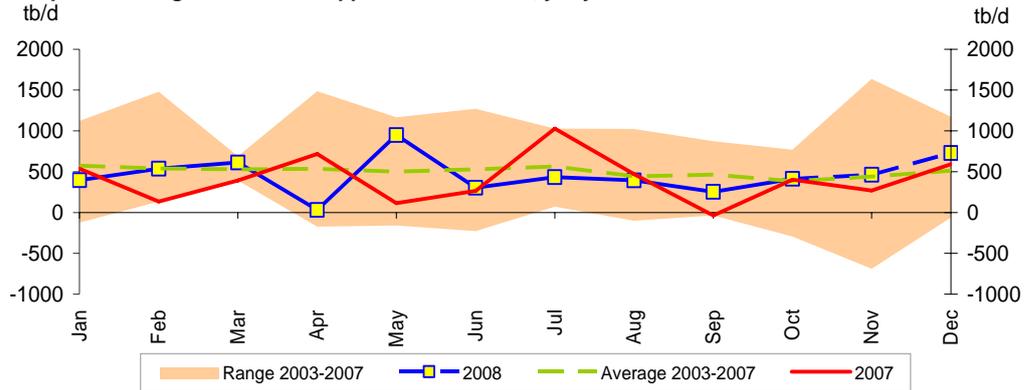
Due to the recent world financial crisis, Other Asia fourth quarter is forecast to be the weakest quarter in 2008. However, because of the strong oil consumption in the first three quarters, Other Asia oil demand will stay healthy as expected to achieve a growth of 0.22 mb/d to average 9.3 mb/d.

**China seen growing at 420 tb/d this year**

**Other Regions**

Having passed the high stock affect of the Olympics, China's crude imports hiked 28% in October y-o-y to average around 3 mb/d. Jet fuel imports increased by 18% as a result of growing air travel in the fourth quarter of this year. Taking advantage of lower oil prices, China's apparent oil demand hiked 5.9% or 412 tb/d in October y-o-y to average 7.4 mb/d. Slow oil demand is anticipated in November; hence the country oil demand growth is forecast at 420 tb/d y-o-y in 2008.

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



# World Oil Supply

**Non-OPEC growth revised down 110 tb/d to 0.1 mb/d**

## Non-OPEC

### Forecast for 2008

Non-OPEC supply is estimated to increase by 110 tb/d to average 49.6 mb/d over 2007, following a downward revision of around 110 tb/d compared with last month's assessment. Downward revisions were made in the US, UK, Mexico, Australia, Brazil, Russia and Azerbaijan. The fourth quarter witnessed a significant downward revision of around 500 tb/d to reach 49.9 mb/d, an increase of 1.1mb/d over the previous quarter, with production estimated at 48.8 mb/d. Upward revisions in the past three quarters of this year were taking into account the recent updates to actual data. On a quarterly basis, new OPEC supply is estimated at 49.7 mb/d, 49.9 mb/d, 48.8 mb/d and 49.9 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	13.75	14.08	14.12	-0.19
Western Europe	5.23	5.21	5.04	4.77	4.97	5.00	-0.24
OECD Pacific	0.60	0.58	0.63	0.64	0.71	0.64	0.04
<b>Total OECD</b>	<b>20.14</b>	<b>20.04</b>	<b>20.06</b>	<b>19.17</b>	<b>19.76</b>	<b>19.76</b>	<b>-0.38</b>
Other Asia	2.72	2.76	2.67	2.70	2.84	2.74	0.02
Latin America	3.88	4.00	4.06	4.12	4.17	4.09	0.21
Middle East	1.66	1.64	1.65	1.64	1.63	1.64	-0.02
Africa	2.71	2.77	2.78	2.81	2.81	2.79	0.08
<b>Total DCs</b>	<b>10.97</b>	<b>11.16</b>	<b>11.17</b>	<b>11.27</b>	<b>11.45</b>	<b>11.26</b>	<b>0.30</b>
FSU	12.52	12.62	12.68	12.42	12.70	12.60	0.08
Other Europe	0.15	0.14	0.14	0.14	0.14	0.14	0.00
China	3.77	3.81	3.88	3.85	3.91	3.86	0.09
<b>Total "Other regions"</b>	<b>16.44</b>	<b>16.57</b>	<b>16.70</b>	<b>16.41</b>	<b>16.75</b>	<b>16.61</b>	<b>0.17</b>
<b>Total Non-OPEC production</b>	<b>47.54</b>	<b>47.78</b>	<b>47.92</b>	<b>46.85</b>	<b>47.97</b>	<b>47.63</b>	<b>0.08</b>
Processing gains	1.92	1.95	1.95	1.95	1.95	1.95	0.03
<b>Total Non-OPEC supply</b>	<b>49.46</b>	<b>49.73</b>	<b>49.87</b>	<b>48.80</b>	<b>49.92</b>	<b>49.58</b>	<b>0.11</b>
Previous estimate	49.43	49.69	49.75	48.72	50.42	49.65	0.22
Revision	0.04	0.03	0.12	0.07	-0.51	-0.07	-0.11

## OECD

**Total OECD to decline by 0.34 mb/d**

Total OECD oil supply in 2008 is expected to reach 19.8 mb/d, a decline of almost 0.4 mb/d compared to the previous year and downward revision of 70,000 b/d from the previous report. The second quarter was revised slightly upwards, while the third and fourth quarters were revised lower by 77 tb/d and 216 tb/d, respectively. North America is estimated to fall around 190 tb/d over the previous year to average 14.12 mb/d. The OECD Pacific is also revised down by 18 tb/d to a total of 0.64 mb/d, an increase of 40 tb/d. No revision occurred in Western Europe oil supply which remains almost unchanged at 5.0 mb/d for a drop of 0.2 mb/d from 2007.

**Graph 20: OECD's quarterly production**



**US supply in 2008  
revised down 26 tb/d**

**USA**

Oil supply in the **USA** is expected to reach 7.5 mb/d, 20 tb/d higher than the 2007 figure, with a slight downward revision of 26 tb/d from the last assessment. The main revision came from the fourth Quarter 2008 indicating about 100 tb/d from the previous estimated figure in the last Monthly Oil Market Report. The recovery of oil supply production in the Gulf of Mexico from the effect of hurricanes Gustav and Ike appears to be slower than expected and this has been the reason behind downward revision in fourth quarter 2008. As of December, the Minerals Management Service reported that around 194 tb/d or 14.9% of oil production is still shut in. In December, additional growth is expected to come from recovery of the Gulf of Mexico, and the ramping up for production from new fields, in particular BP's Thunder Horse, as well as increased production from Alaska following maintenance. Preliminary figures for November indicate that US oil supply averaged 7.6 mb/d, or 0.34 mb/d higher than the October level.

**Canada and Mexico**

**Canadian** oil supply for 2008 is estimated at 3.4 mb/d, an increase of 90 tb/d over 2007, unchanged from the last Monthly Oil Market Report assessment. However, the downward revision in the fourth quarter of 2008 was offset by the upward revision in actual data of the third quarter 2008. On a quarterly basis, production stands at 3.33 mb/d, 3.45 mb/d, 3.40 mb/d and 3.44 mb/d, respectively. The production data available for November at 3.43 mb/d is slightly higher than the October level – this level is almost the same as our level estimate for the fourth quarter 2008.

In 2008, **Mexican** oil supply is expected to average at 3.2 mb/d, a decline of 0.3 mb/d over the 2007 level, this being a downward revision of 19 tb/d from the previous Monthly Oil Market Report. The fourth quarter was revised down by 75 b/d reflecting up to date information for October and preliminary data for November. These changes reflect a faster than expected decline in Cantarell production. The latest production data available from November indicates that Mexican oil supply averaged 3.1 mb/d, slightly increase from October level.

**Western Europe**

Total oil supply in **Western Europe** is expected to average 5.0 mb/d, a decline of 0.24 mb/d over the previous year, unchanged from last month's assessment. The actual reported data indicates a downward revision of 90 tb/d in the third Quarter from the UK and Denmark, however, the fourth quarter showed an upward revision, coming mainly from Norway.

**Norway**

**Oil supply from Norway  
improved in November**

In **Norway**, oil production is expected to decline by 0.1 mb/d averaging 2.45 mb/d with an approximate 23 tb/d upward revision in comparison to the previous assessment. The fourth Quarter 2008 saw a main upward revision by 80 tb/d to average 2.53 mb/d. These changes are due to actual field production being higher than expected. The preliminary data for November indicated an increase of 30 tb/d to a total of 2.56 mb/d. This supports the expected increase in the fourth quarter of 2008.

Oil supply from the **UK** is expected to decline by 150 tb/d from the previous year to average 1.54 mb/d, about a 17 tb/d downward revision from last month's estimate. The downward revision came from the third Quarter 2008 as an adjustment taking into account the actual reported data, resulting from a heavier than expected impact from maintenance activities during the summer period.

**Asia Pacific**

**Australia estimate  
revised down**

Oil supply in this group is estimated to average 0.64 mb/d which represents an increase of 40 tb/d over 2007 and a downward revision of 18 tb/d compared to last month's assessment. On a quarterly basis, Asian Pacific oil supply is estimated at 0.58 mb/d, 0.63 mb/d, 0.64 mb/d and 0.71 mb/d, respectively.

**Australia's** oil supply is estimated to average at 0.53 mb/d, representing a slight increase of 10 tb/d over last year's figure and a downward revision of 18 tb/d, with the bulk of the revision coming from the fourth Quarter 2008. The downward revisions came on the back of the expectation of lower than previously expected ramp-ups. On a quarterly basis, Australia's oil supply is estimated at 0.47 mb/d, 0.53 mb/d, 0.54 mb/d and 0.59 mb/d, respectively. The preliminary figure for November indicates a production of 0.58 mb/d, slightly above October.

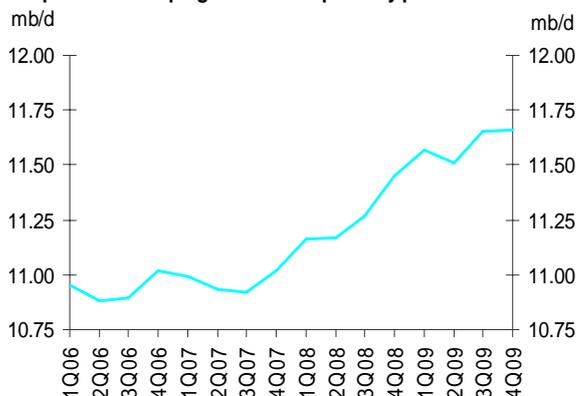
**Developing Countries to increase with the bulk of the growth came from Latin America**

**New Zealand's** oil supply is expected to add around 30 tb/d over the 2007 figure to reach 0.11 mb/d, unchanged from the previous Monthly Oil Market Report estimate.

**Developing Countries**

Oil supply in this group is expected to reach a production level of 11.26 mb/d, which represents a growth of 0.3 mb/d over last year's figure and an upward revision of 45 tb/d compared with last month's assessment. The first three quarters showed an upward revision, while the fourth quarter indicates a downward revision. On a quarterly basis, Developing Countries' oil supply is expected to average 11.16 mb/d, 11.17 mb/d, 11.27 mb/d and 11.45 mb/d, respectively.

**Graph 21: Developing Countries' quarterly production**



**Other Asia** oil production is expected to reach 2.74 mb/d, 20 tb/d more than the 2007 figures and a downward revision of around 11 mb/d from the last assessment. Malaysia's third quarter production underwent an upward adjustment reflecting the actual data, while Vietnam's figure for the fourth quarter 2008 was revised downward by 68 tb/d. On a quarterly basis, other Asian supply is expected to average 2.76 mb/d, 2.67 mb/d, 2.70 mb/d and 2.84 mb/d, respectively.

**Latin American** oil supply is expected to average at 4.1 mb/d, an increase of 0.21 mb/d over 2007, unchanged from our last assessment. On a quarterly basis output averaged at 4.00 mb/d, 4.06 mb/d, 4.12 mb/d and 4.17 mb/d, respectively. Brazil and Columbia are the only growth contributors with around 0.15 mb/d and 0.05 mb/d, respectively. The preliminary figures for November indicates Brazil growing by 50 tb/d due to a monthly gain from Roncador field, which recovered from technical problems in October.

The **Middle East** oil supply is estimate to fall by 20 tb/d over the 2007 figure to average 1.64 mb/d, indicating a lower estimate by 33 tb/d. The downward revision came from Oman in the fourth quarter 2008, offsetting the slight upward revision from Syria. On a quarterly basis, Middle East supply stands at 1.64 mb/d, 1.65 mb/d, 1.64 mb/d and 1.63 mb/d, respectively.

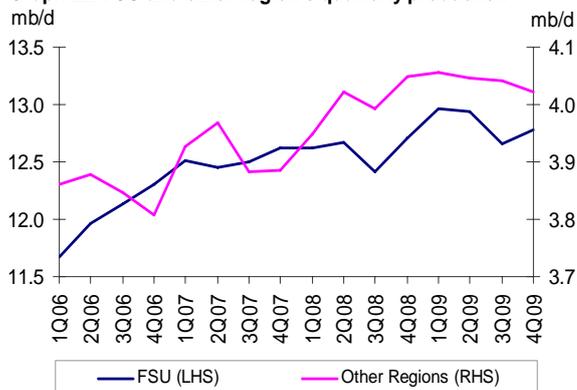
Oil supply in **Africa** is expected to average at 2.79 mb/d having increased by 80 tb/d over the previous year and representing upward revisions reflecting the adjustment of historical data. The quarterly distribution indicates a production of 2.77 mb/d, 2.78 mb/d, 2.81 mb/d and 2.81 mb/d, respectively.

**FSU, Other Regions**

**FSU region revised lower**

Oil supply in **FSU** is expected to average 12.6 mb/d in 2008, representing a growth of around 80 tb/d over 2007 and a downward revision of 53 tb/d from the last assessment. On a quarterly basis, FSU supply is expected to average 12.62 mb/d, 12.68 mb/d, 12.42 mb/d and 12.70 mb/d, respectively. Other Europe is expected to stay flat from 2007 at 0.14 mb/d, while China is estimated to grow by 90 tb/d to reach a level of around 3.86 mb/d, unchanged from the previous Monthly Oil Market Report's assessment.

**Graph 22: FSU and other region's quarterly production**



**Continued slow down  
growth in Russia****Russia**

**Russia** is expected to average 9.80 mb/d, which represents a drop of 60 tb/d and a downward revision of about 27 tb/d from the last Monthly Oil Market Report. The fourth quarter was revised downward by 100 tb/d, reflecting that actual production figures were lower than had been anticipated. Indeed, preliminary data from November showed that production fell by about 40 tb/d from the October level. Output from Gazprom Neft, Lukoil and TNK-BP saw a decline in production lagging behind the earlier expectations. Surgutneftegas was also reported falling by 0.3 %. Output has averaged at 9.79 mb/d for the first eleven months around 0.8% lower than for the same period in 2007.

**Caspian**

Oil supply from **Kazakhstan** is estimated to average 1.42 mb/d, an increase of 70 tb/d, unchanged from the previous estimate of the last Monthly Oil Market Report. Preliminary data for November indicates a growth of 100 tb/d reaching 1.47 mb/d, almost in line with our forecast for the fourth quarter 2008. On a quarterly basis, Kazakh supply is expected to stand at 1.42 mb/d, 1.44 mb/d, 1.33 mb/d and 1.48 mb/d, respectively.

**Azerbaijan** oil supply is estimated to average at 0.87 mb/d, an increase of 60 tb/d, a downward revision from the previous Monthly Oil Market Report by around 30 tb/d. The bulk of this revision occurred in the fourth quarter of 2008 in light of the latest actual data from October and preliminary data for November. The increase of 40 tb/d in November was less than initially expected reflecting the long recovery in outage in offshore Azerbaijan's Central Azeri field.

**Forecast for 2009****Non-OPEC supply in  
2009 revised down by  
100 tb/d to 0.6 mb/d**

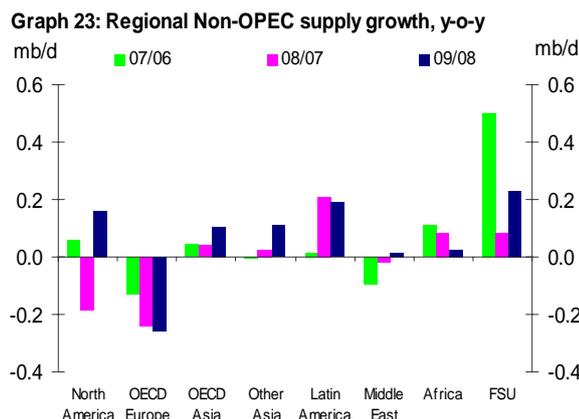
**Non-OPEC supply in 2009** is expected to average 50.22 mb/d, an increase of 0.6 mb/d over 2008, following a downward revision of 100 tb/d. On a quarterly basis, non-OPEC supply is forecast at 50.65 mb/d, 50.18 mb/d, 49.82 mb/d and 50.24 mb/d respectively

**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 09/08</u>
North America	14.12	14.37	14.17	14.23	14.35	14.28	0.16
Western Europe	5.00	4.93	4.77	4.51	4.73	4.74	-0.26
OECD Pacific	0.64	0.77	0.75	0.75	0.71	0.75	0.10
<b>Total OECD</b>	<b>19.76</b>	<b>20.07</b>	<b>19.69</b>	<b>19.49</b>	<b>19.79</b>	<b>19.76</b>	<b>0.00</b>
Other Asia	2.74	2.88	2.80	2.86	2.87	2.85	0.11
Latin America	4.09	4.23	4.27	4.33	4.28	4.28	0.19
Middle East	1.64	1.65	1.66	1.66	1.66	1.66	0.02
Africa	2.79	2.81	2.78	2.81	2.86	2.82	0.02
<b>Total DCs</b>	<b>11.26</b>	<b>11.57</b>	<b>11.51</b>	<b>11.65</b>	<b>11.66</b>	<b>11.60</b>	<b>0.34</b>
FSU	12.60	12.96	12.94	12.66	12.78	12.83	0.23
Other Europe	0.14	0.14	0.14	0.14	0.14	0.14	0.00
China	3.86	3.91	3.91	3.90	3.88	3.90	0.04
<b>Total "Other regions"</b>	<b>16.61</b>	<b>17.02</b>	<b>16.99</b>	<b>16.70</b>	<b>16.80</b>	<b>16.88</b>	<b>0.27</b>
<b>Total Non-OPEC production</b>	<b>47.63</b>	<b>48.66</b>	<b>48.20</b>	<b>47.84</b>	<b>48.25</b>	<b>48.23</b>	<b>0.61</b>
Processing gains	1.95	1.98	1.98	1.98	1.98	1.98	0.03
<b>Total Non-OPEC supply</b>	<b>49.58</b>	<b>50.65</b>	<b>50.18</b>	<b>49.82</b>	<b>50.24</b>	<b>50.22</b>	<b>0.64</b>
Previous estimate	49.65	50.81	50.30	49.98	50.48	50.39	0.74
Revision	-0.07	-0.17	-0.12	-0.15	-0.25	-0.17	-0.10

**Revisions to the 2009 forecast**

Total OECD oil supply is seen to average 19.76 mb/d, flat compared with the 2008 figure. North America, USA and Canada will contribute to the growth, while Mexico is expected to decline. The three countries indicated a downward revision of the previous month assessment, with the bulk of the revision came from US. US supply is expected to average 7.76 mb/d, an increase of 250 tb/d over the previous year. Canada's oil supply is expected to average 3.49 mb/d, a rise of 0.1 mb/d; however, this growth is likely to be revised down further as some projects in Alberta will not be economically beneficial in the face of lower crude oil prices. Mexico's oil supply may average 3.03 mb/d, a drop of 160 b/d from the current year, due to the continued decline of the giant Cantarell field. OECD Western Europe is projected to average 4.74 mb/d, a decline of 0.26 mb/d from the previous year, an upward revision of 35 tb/d from the last assessment. Norwegian oil supply is forecast to average 2.34 mb/d, a loss of 0.12 mb/d due to the decline of mature fields and expectation of heavy maintenance as well as extended shutdowns planned for the Statfjord North field in Norway. UK oil supply is expected to average 1.38 mb/d, a decline of 0.16 mb/d from the current year as a result of heavy seasonal maintenance shutdowns. Oil supply in OECD Pacific is expected to average 0.75 mb/d for growth of 0.1 mb/d over the current year. Oil production in Australia is seen edging higher by 70 tb/d to average 0.61 mb/d. This represents a downward revision of 48 tb/d from the previous assessment, reflecting the expected delays in some projects due to financial limitations.



Oil supply in Developing Countries is forecast to average 11.60 mb/d, representing a gain of 0.34 mb/d. The main contributors to this growth are Latin America and other Asia which are expected to increase by 0.19 mb/d and 0.11 mb/d respectively, while Africa and the Middle East are forecast to increase slightly by around 20 tb/d. Brazil's oil supply is seen averaging 2.53 mb/d, a gain of 0.24 mb/d over the current year. The forecast for Developing Countries was broadly unchanged compare to the previous assessment as an upward revision to Africa offset a downward revision in other Asia and Latin America. FSU is expected to average 12.83 mb/d, an increase of 0.23 mb/d. The bulk of this increase should come from Azerbaijan with 0.21 mb/d followed by Kazakhstan with 0.09 mb/d, while Russia is expected to continue to fall by 0.08 mb/d. This is despite the implementation of production facilities at Sakhalin-2 which should increase output in 2009. The main downward revision came from Russian production, which was lowered by 0.1 mb/d.

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

OPEC NGLs and non-conventional oils are estimated to average 4.63 mb/d in 2008, representing a gain of 0.42 mb/d over the previous year. In 2009, OPEC NGLs and non-conventional oils are projected to increase a further 0.62 mb/d over the current year to average 5.24 mb/d

**OPEC NGLs to grow by 620 tb/d in 2009**

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

	2006	2007	Change				2008	Change	2009	Change
			07/06	1Q08	2Q08	3Q08				
<b>Total OPEC</b>	<b>4.07</b>	<b>4.21</b>	0.14	4.44	4.60	4.64	<b>4.63</b>	0.42	<b>5.24</b>	0.62

**OPEC production declined 740 tb/d in November to average 31.1 mb/d**

### OPEC crude oil production

Total OPEC crude oil production in November averaged 31.10 mb/d, representing a decline of around 740 tb/d over the previous month. This is in line with the decision taken to reduce production as of November. OPEC production excluding Iraq averaged 28.78 mb/d in November, a drop of 785 tb/d from the previous month.

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

	<u>2007</u>	<u>4Q07</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Nov/Oct</u>
Algeria	1,360	1,386	1,396	1,401	1,401	1,403	1,388	1,360	-27.5
Angola	1,660	1,777	1,873	1,897	1,845	1,761	1,854	1,888	33.2
Ecuador	507	509	508	502	503	501	505	505	-0.5
Indonesia	844	841	862	859	852	851	843	843	-0.3
Iran, I.R.	3,855	3,907	3,934	3,884	3,917	3,898	3,878	3,808	-70.0
Iraq	2,089	2,330	2,301	2,387	2,329	2,209	2,276	2,322	45.7
Kuwait	2,464	2,508	2,535	2,582	2,600	2,596	2,543	2,465	-78.8
Libya, S.P.A.J.	1,710	1,741	1,751	1,730	1,683	1,721	1,729	1,693	-36.7
Nigeria	2,125	2,158	2,044	1,857	1,955	1,992	1,943	1,903	-40.2
Qatar	807	825	839	851	859	853	843	811	-32.5
Saudi Arabia	8,654	8,921	9,057	9,176	9,460	9,369	9,189	8,797	-392.1
UAE	2,504	2,427	2,587	2,609	2,603	2,602	2,528	2,408	-120.0
Venezuela	2,392	2,395	2,385	2,360	2,339	2,350	2,321	2,301	-20.0
<b>Total OPEC</b>	<b>30,970</b>	<b>31,726</b>	<b>32,070</b>	<b>32,095</b>	<b>32,347</b>	<b>32,104</b>	<b>31,841</b>	<b>31,102</b>	<b>-739.7</b>
<b>OPEC excl. Iraq</b>	<b>28,881</b>	<b>29,396</b>	<b>29,769</b>	<b>29,708</b>	<b>30,018</b>	<b>29,896</b>	<b>29,565</b>	<b>28,780</b>	<b>-785.3</b>

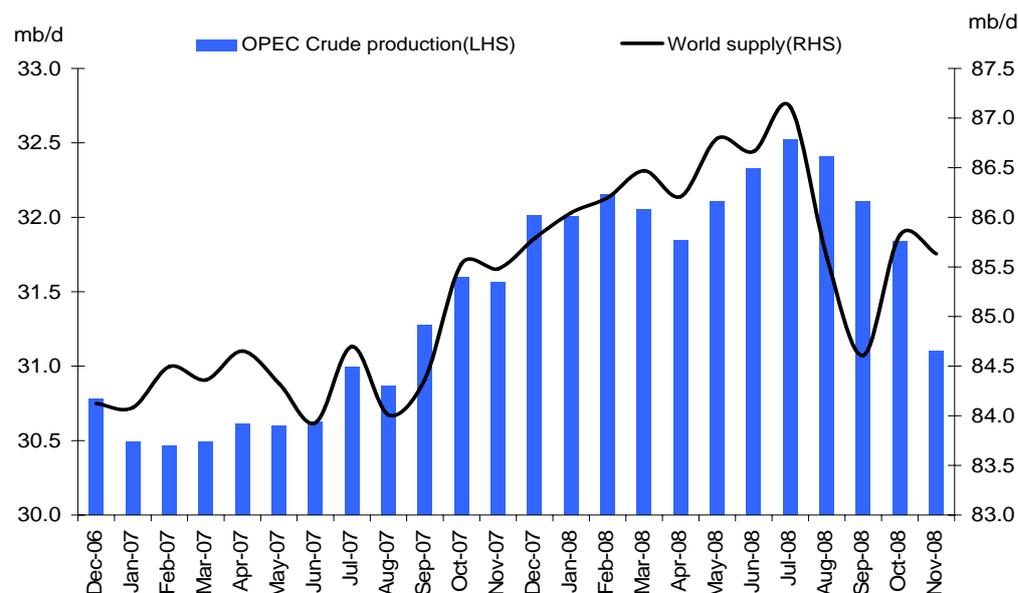
Totals may not add due to independent rounding.

### World Oil Supply

**World oil supply is estimate at 85.79 mb/d in November, a decline of 190 tb/d**

Preliminary figures indicate that world oil supply averaged 85.79 mb/d in November, a decline of 0.19 mb/d from the previous month after a significant increase in October. The decline was mainly due to drop in OPEC production which outpaced the growth in non-OPEC supply. This implies a drop in the OPEC's share from 37.0% in October to around 36.2% in November. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production from secondary sources.

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



**FSU net oil exports in 2008 estimated to rise 420 tb/d to 8.99 mb/d**

**FSU net exports of crude and products**

FSU net oil exports in 2008 are estimated to average 8.47 mb/d, a decline of 70tb/d from this year. On a quarterly basis, the actual data indicate net oil exports at 8.19 mb/d in the third quarter and averaging 8.26 mb/d in the fourth quarter. The forecast for 2009 shows FSU net oil exports averaging 8.66 mb/d, which represents an increase of 190,000 b/d over estimated figure of 2008.

**Current trends**

Actual figures for the month of September indicate that crude exports from the FSU averaged 6.02 mb/d, around 530 tb/d more than in August. Preliminary October data shows an average of 5.95 mb/d, representing a decline of 65 tb/d from the previous month. Russian pipeline exports were up 92 tb/d, driven mainly by the exports from the Black Sea which increased by 277 tb/d, while Baltic exports witnessed a decline of 157 tb/d. The CPC pipeline transfer increased by about 105 tb/d in October over the previous month. After increasing in September following the return from an explosion, the BTC pipeline has been operating at a reduced capacity of 850 tb/d. However, it is expected to resume shipments of 1 mb/d by the year end.

**Table 17: FSU estimated net oil exports (historical and forecast), mb/d**

	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>	<u>Year</u>	<u>Growth (y-o-y)</u>
2005	7.45	7.69	7.77	7.85	7.69	0.37
2006	7.88	8.31	8.19	8.03	8.10	0.42
2007	8.64	8.74	8.50	8.27	8.54	0.43
2008 (estimate)	8.65	8.79	8.19	8.26	8.47	-0.07
2009 (forecast)	8.96	9.02	8.39	8.27	8.66	0.19

**Table 18: Recent FSU exports of crude and products by source, mb/d**

	<u>2006</u>	<u>2007</u>	<u>1Q08</u>	<u>2Q08</u>	<u>3Q08</u>	<u>Sep 08</u>	<u>Oct 08*</u>
<b>Crude</b>							
<b>Russian pipeline</b>							
Black Sea	1,288	1,360	1,224	1,345	1,226	1,140	1,357
Baltic	1,553	1,645	1,530	1,678	1,539	1,604	1,453
Druzhba	1,288	1,122	1,130	1,053	1,034	1,071	1,088
<b>Total***</b>	<b>4,129</b>	<b>4,127</b>	<b>3,884</b>	<b>4,076</b>	<b>3,817</b>	<b>3,837</b>	<b>3,929</b>
<b>Other routes</b>							
Russian rail	313	290	296	342	260	276	256
Russian - Far East	84	247	209	204	214	234	289
Kazak rail	31	15	17	18	17	18	18
CPC pipeline	661	701	624	709	632	620	725
<b>Caspian</b>	<b>396</b>	<b>249</b>	<b>191</b>	<b>196</b>	<b>148</b>	<b>157</b>	<b>153</b>
<i>of which</i>							
Supsa (AIOC) - Georgia	114	0	0	0	0	0	0
Batumi - Georgia	177	138	105	121	81	64	86
<b>Total**</b>	<b>1,702</b>	<b>2,234</b>	<b>2,110</b>	<b>2,348</b>	<b>2,052</b>	<b>2,179</b>	<b>2,022</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>6,015</b>	<b>5,950</b>
<b>Products</b>							
<b>All routes</b>							
Fuel oil	861	861	1,085	1,131	1,232	1,038	977
Gasoil	841	675	855	787	757	826	716
Others	662	642	975	694	671	688	627
<b>Total</b>	<b>2,364</b>	<b>2,178</b>	<b>2,916</b>	<b>2,612</b>	<b>2,661</b>	<b>2,552</b>	<b>2,320</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>8,567</b>	<b>8,270</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.

# Product Markets and Refinery Operations

Deterioration of world economy has dampened product market sentiment and further eroded refining margins across the globe

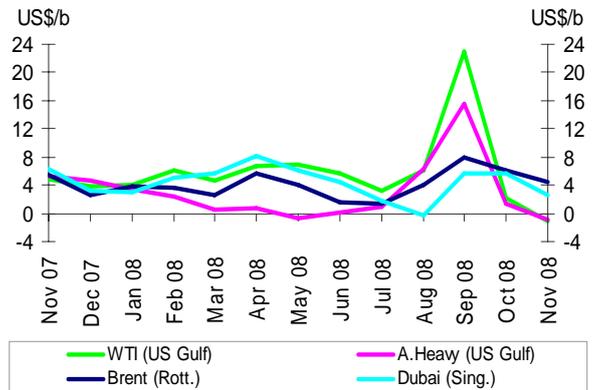
With the approach of the winter season, the bearish sentiment of the product market was expected to mitigate and to provide support for product prices and refining economics. But the continued deterioration of world economic growth further undermined product demand and prices, exerting pressure on refining margins. The current bearish sentiment of the product markets may continue over the next months due to the fragile outlook for different product demand, comfortable product stocks and idle refining capacity across the globe.

However, a possible cold snap in the Atlantic Basin may temporarily limit further deterioration of product and crude prices in the short term, but will not be able to significantly change the present bearish market sentiment.

As Graph 25 shows, refining margins for WTI crude on the US Gulf Coast slid by \$3.39/b to reach minus \$1.18/b from \$2.21/b in October. The market in Europe followed suit and refining margins for Brent crude oil in Rotterdam also fell to \$4.35/b from \$6.14/b in the previous month.

In Asia, most refiners are seeking export opportunities to dispose of light product outputs as regional demand has slowed, adversely affecting the crack spreads of different products. With such bearish fundamental developments, refining margins for Dubai crude oil in Singapore slipped by \$3.09/b to \$2.61/b in November.

Graph 25: Refining margins



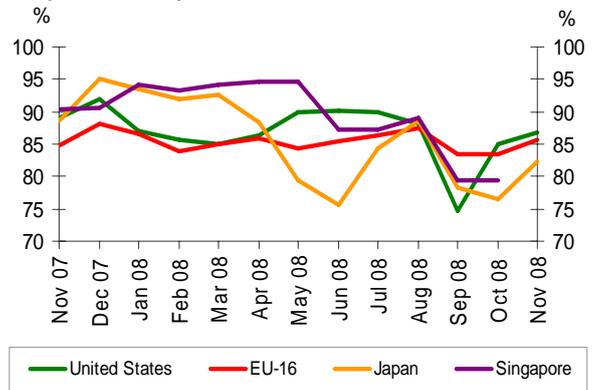
Refinery throughput improved in November but remained lower than its typical level

## Refinery operations

Following the completion of autumn maintenance schedules, refiners usually significantly increase their throughput levels in November in order to build distillate stocks and meet increasing demand over the winter season. This year, due to poor refining margins and declining demand for various products, refiners have not followed typical patterns and their operation levels have yet to surge significantly.

As Graph 26 shows, US refinery utilization rates in November increased by 1.7% to reach 86.8% from 85.1% the previous month, but they are still 3% less than in the same month last year. In Europe, refinery utilization rates rose by 2.1% in November to 85.7% from 83.6% in the previous month. In Asia, refinery throughputs declined in some countries including China, but surged in Japan versus the previous month. Refinery utilization rates in Japan soared by 5.7% to 82.3% from 76.6% in October.

Graph 26: Refinery utilization rates



Looking forward, given the deteriorating demand situation resulting from fragile world economic growth and poor refining margins, there is risk that refinery runs will be trimmed further in the coming months. Potential discretionary cuts by refiners could lead to higher crude inventories and a further weakening of fundamentals in the coming months.

**The US product markets continued to lose ground in November**

**US market**

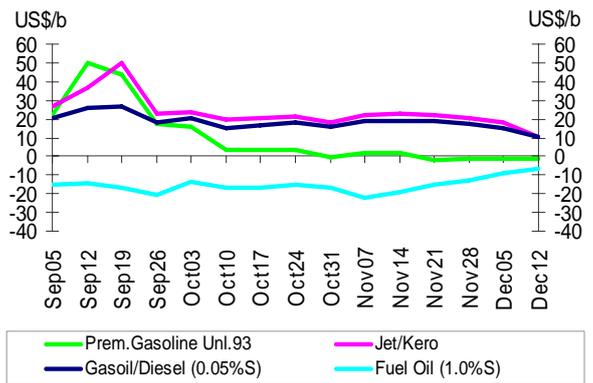
Continuing decline in demand and higher domestic production dominated the US product market, exacerbating the bearish sentiment of the product market. These circumstances along with comfortable product stock levels put pressure on prices and significantly narrowed the crack spread of light distillate products.

As **Graph 27** indicates, the crack spread for premium gasoline on the US Gulf Coast versus WTI crude slipped to negative territory from late October and declined further in November. Due to seasonal factors and the continuing economic recession, the present situation of the gasoline market is likely to remain in the near future.

Distillate prices and crack spreads also fell amid ample supply and slowing demand. The gasoil crack spread versus WTI crude narrowed to around \$14/b in early December from above \$18/b over the same period of last month (see **Graph 27**). The jet fuel market also lost ground as demand from airlines declined. Distillate market sentiment may improve over the next months if refinery throughputs are trimmed and weather temperatures follow typical seasonality.

Despite the weakness of the top and middle part of the barrel complex, the market for fuel oil was strong in November as currently fuel oil prices are lower than natural gas prices, which has encouraged many utility plants to switch from natural gas to fuel oil. In line with these developments, the low-sulphur fuel oil discount versus WTI reached minus \$10/b in the week ending 5 December from minus \$22/b in early November. Looking ahead, the present situation of the fuel oil market may be sustained next month.

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

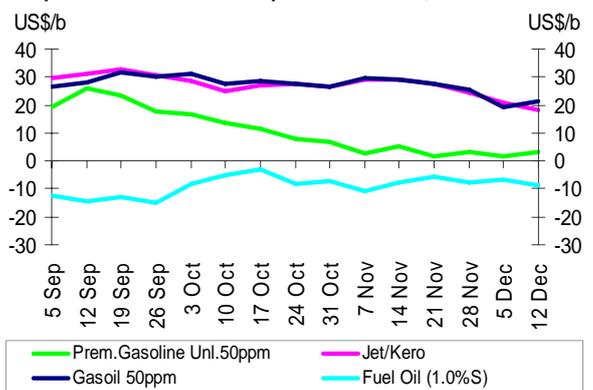


**Arbitrage cargoes from different markets led to distillate stocks in Europe**

**European market**

Higher regional refinery output — with the bulk of exported cargoes from the US, Russia and Asia — have eased middle distillate supply concerns in Europe and gasoil differentials weakened in the spot market. The gasoil crack spread against Brent crude oil on the Rotterdam market also fell compared to the previous month, but was still around \$19/b (see **Graph 28**). The recent lower purchases by German households could further undermine distillate product markets in the near future unless the European winter turns out to be colder than expected.

**Graph 28: Rotterdam crack spreads vs. Brent, 2008**



The European gasoline market looks gloomier amid ample supply, lack of arbitrage opportunities to the US and declining demand. Gasoline cracks in the swap market as a proxy for future direction of the market sentiment remains in negative territory up to the end of next year. Apart from the gasoline market, naphtha prices and cracks also remained in the negative area due to a lack of demand from petrochemical plants. The current bearish development in the European light distillate market may persist over the coming months.

With regard to fuel oil, export opportunities to Asia lifted fuel oil prices and narrowed its discount versus crude oil. The low-sulphur fuel oil market (LSFO) improved further due to

### Asian product market's weakness compounded in November

higher demand from utility plants and shipping industries for bunker purposes. The low-sulphur crack spread versus Brent crude oil narrowed from minus \$10/b in early November to around minus \$6/b in early December (see *Graph 28*). LSFO fundamentals in Europe would remain tight amid increasing demand for bunker and seasonal inland demand.

#### Asian market

**Slowing demand in tandem with economic slowing and limited arbitrage opportunities to other markets undermined Asian product market sentiment and exerted pressure on prices.**

Among light products, the naphtha market improved slightly in the latter part of November, but remained fundamentally weak due to high stocks and lack of buying interest from petrochemical units.

Apart from naphtha, gasoline market also weakened further due to sluggish regional demand and resuming exports by China. The gasoline crack spread versus Dubai crude oil in the Singapore market slid significantly to almost minus \$5/b in November from around \$10/b in the previous month (see *Graph 29*).

Given limited export opportunities to Europe and slowing demand in China, middle distillate fundamentals in the Asian market have also eased, forcing some refiners unseasonably to trim their throughputs in the latter part of November. Following these developments, the gasoil crack spread against Dubai crude fell to \$23/b in the week ending 5 December from about \$26/b over the same period last month. The current situation in the distillate market may ease further in the next months, as regional demand may continue deteriorating in the coming months.

As far as the fuel oil market is concerned, due to the arrival of long-haul shipments, risk of further rising of stockpiles emerged in the market, exerting more pressure both on fuel oil prices and margins. Following these developments, trade in the swap market has also slowed and high-sulphur fuel oil crack spread versus Dubai crude slid to about minus \$14/b on average in November from about minus \$6/b in the previous month. Looking ahead, due to the absence of Chinese demand, the Asian fuel oil market may remain weak into next month.

Graph 29: Singapore crack spreads vs. Dubai, 2008

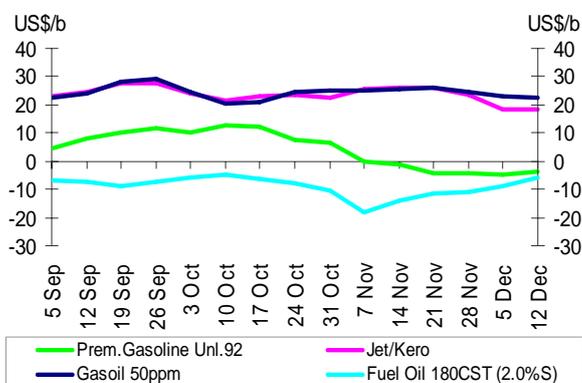


Table 19: Refined product prices, US\$/b

	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Change Nov/Oct</u>
<b>US Gulf (Cargoes):</b>				
Naphtha	119.67	70.78	48.04	-22.74
Premium gasoline (unleaded 93)	140.24	80.50	57.73	-22.77
Regular gasoline (unleaded 87)	131.33	74.99	51.21	-23.78
Jet/Kerosene	139.24	97.03	79.52	-17.51
Gasoil (0.05% S)	127.14	93.66	76.28	-17.38
Fuel oil (1.0% S)	86.94	60.62	39.75	-20.87
Fuel oil (3.0% S)	82.12	56.17	32.93	-23.24
<b>Rotterdam (Barges FoB):</b>				
Naphtha	111.21	69.23	39.87	-29.36
Premium gasoline (unleaded 10 ppm)	120.10	82.48	55.77	-26.71
Premium gasoline (unleaded 95)	105.79	73.35	49.60	-23.75
Jet/Kerosene	128.97	98.63	79.95	-18.68
Gasoil/Diesel (10 ppm)	127.29	100.15	80.38	-19.77
Fuel oil (1.0% S)	84.40	65.67	44.51	-21.16
Fuel oil (3.5% S)	81.22	54.12	31.54	-22.58
<b>Mediterranean (Cargoes):</b>				
Naphtha	92.57	56.67	31.86	-24.81
Premium gasoline (50 ppm)	119.15	84.00	56.96	-27.04
Jet/Kerosene	126.82	95.35	77.63	-17.72
Gasoil/Diesel (50 ppm)	126.54	98.56	78.67	-19.89
Fuel oil (1.0% S)	83.12	61.31	43.64	-17.67
Fuel oil (3.5% S)	81.69	54.87	29.70	-25.17
<b>Singapore (Cargoes):</b>				
Naphtha	91.89	51.04	28.98	-22.06
Premium gasoline (unleaded 95)	107.02	79.38	48.29	-31.09
Regular gasoline (unleaded 92)	104.75	77.07	47.38	-29.69
Jet/Kerosene	121.42	89.97	75.01	-14.96
Gasoil/Diesel (50 ppm)	121.57	90.00	75.13	-14.87
Fuel oil (180 cst 2.0% S)	88.23	59.99	36.14	-23.85
Fuel oil (380 cst 3.5% S)	87.77	59.08	35.13	-23.95

Table 20: Refinery operations in selected OECD countries

	Refinery throughput <i>mb/d</i>				Refinery utilization <i>%</i>			
	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Nov/Oct</u>	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Nov/Oct</u>
<b>USA</b>	13.05	14.84	15.15	0.31	74.8	85.1	86.8	1.7
<b>France</b>	1.74	1.65	1.70	0.05	90.1	85.3	88.2	2.9
<b>Germany</b>	1.92	2.21 R	2.21	0.00	79.5	91.6 R	91.6	0.0
<b>Italy</b>	1.73 R	1.77	1.83	0.06	73.9 R	75.6	78.1	2.5
<b>UK</b>	1.61	1.58 R	1.61	0.03	86.5	84.9 R	86.5	1.6
<b>Euro16</b>	11.72 R	11.70 R	12.03	0.33	83.5 R	83.4 R	85.7	2.3
<b>Japan</b>	3.64 R	3.56	3.83	0.27	78.2	76.6	82.3	5.7

R Revised since last issue.

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

## The Tanker Market

**Spot chartering was up considerably during November due to seasonal considerations. However, tanker loadings were down as OPEC production adjustments began to be felt in actual lifting schedules.**

During November and December, the tanker market is usually strongly influenced by seasonal considerations rather than supply and demand. This year, however, the influence of the seasonal factors has coincided with OPEC's decision to reduce production considerably which, as expected, resulted in a declining trend in tanker spot rates. However, in order to avoid the effect of the lull which usually occurs in tanker fixing activities during the second half of December, all hiring and fixing of tankers for the two months of November and December were concentrated in November. As a result, the overall chartering activities for tankers remained unchanged compared to the level of October, despite the expected fall in demand for tanker hiring due to a reduction in OPEC production. For long-haul routes from the Middle East where seasonal considerations play an even bigger role, despite the fall in actual crude oil production, the chartering of tankers in spot market for loading in the months of November and December increased by almost 0.7 mb/d to the Eastern and 0.2 mb/d to west of Suez destinations.

As expected, actual sailings from OPEC ports in November decreased by about 0.8 mb/d to an estimated level of 22.2 mb/d. Compared to the same month last year, the fall in sailings originating in OPEC Member Countries showed an even bigger drop of 1.1 mb/d or nearly 5%.

Tanker arrivals in the major consuming areas during November, which were influenced by the production levels and loadings of previous months, showed in fact a slight rise. Tanker arrivals in the US during November stayed almost unchanged while arrivals in Europe were up by about 120,000 b/d compared to October. However, it should be mentioned that these numbers come on top of the big rise in arrival figures in October which in the case of the US were about 1.0 mb/d higher than in September.

**Table 21: Tanker chartering, sailings and arrivals, mb/d**

	<u>Sep 08</u>	<u>Oct 08</u>	<u>Nov 08</u>	<u>Change Nov/Oct</u>
<b>Spot Chartering</b>				
All areas	18.33	18.74	18.90	0.16
OPEC	11.82	11.92	11.95	0.04
Middle East/east	5.07	4.45	5.14	0.69
Middle East/west	1.58	1.32	1.54	0.22
<b>Sailings</b>				
OPEC	23.13	23.00	22.20	-0.80
Middle East	17.43	17.23	16.55	-0.68
<b>Arrivals</b>				
US Gulf Coast, US East Coast, Caribbean	7.15	8.23	8.24	0.01
North West Europe	7.91	7.99	8.11	0.12
Euromed	4.70	4.68	4.75	0.07

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

**Crude oil spot freight rates continued the downward movement on slowing tonnage demand**

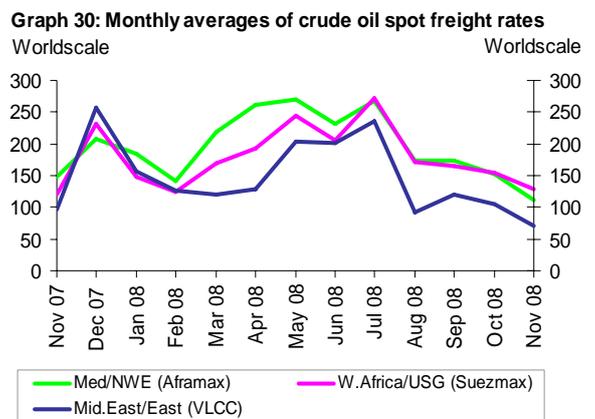
The tanker freight market continued the downward movement with a heavier decline in November than in the previous month. Freight rates on all reported routes dropped with the dirty freight rates declining on average more than the clean freight rates. The overall oil market sentiment continued to influence the tanker freight market both on the fundamental and non-fundamental aspects. The tanker freight market in the fourth quarter of 2008 seems to be heading towards a sharp decline, compared with previous years. While the fourth quarter is generally characterized by the first demand increase due to seasonality, however, this year it appears that the global economic situation will prevail over seasonality as a supportive factor for freight rates. The ongoing decline of global oil demand, especially in most OECD countries, is creating a situation where charterers are capitalizing in further pressing freight rates and owners, thus far, could accommodate lower rates due to the sharp decline in bunker prices. Bunker prices, which roughly account for about 50% of the operational costs of tanker voyages, declined from a peak of about \$800/metric tonne (mt) in mid-July to \$250/mt during the first half of November.

In November, the VLCC sector of the crude oil spot tanker freight market experienced the heaviest decline among all other sectors compared to the previous month. On average, VLCC spot freight rates dropped 28% in November from previous month. From the East, VLCC spot freight rates remained steady after declining at the end of the previous month. Spot freight rates from West Africa were relatively better compared to the East, which prompted owners to ballast to West Africa. However, this movement pressured the prices in West Africa where VLCC spot freight rates were on a gradual decline. The strong general sentiments of slowing global demand coupled with the OPEC cut and low price bunker fuels remained the key for spot freight movements. Increasing piracy concerns in November as well as the evident rise in floating storage interests in different markets could have played a role in preventing freight rates from sliding down further.

VLCC spot freight rates on the Middle East/eastbound route averaged 31% lower in November compared to the previous month. The decline in demand from Asian consumers was the main factor driving spot freight rates lower. On this route, the recession worries coupled with OPEC cut in November further supported the bearish market sentiment. On the other hand, tonnage availability continued to increase with many owners opting to ballast to West Africa in the hope of better rates. Additionally, many Asian refiners announcing cuts in their runs or keeping their runs at a lower level, further pressured rates, as some were trying to re-let the previously fixed tonnage. On an annual basis, VLCC spot freight rates for the Middle East/eastbound long-haul route indicating a drop of 27%, a sharp decline from 68% higher in December compared to the previous year.

Spot freight rates for VLCCs moving volumes from West Africa to the East started in November at a better point than from the Middle East. However, with the generally bearish market sentiment as well as the building tonnage list, as owners relocated from the Middle East, spot freight rates remained on the gradual downward movement and dropped 20% in November compared to a month ago. The unrest also was among the negative developments in November as different producers announced *force majeure*, which in turn reduced tonnage demand. VLCC spot freight rates on the West Africa to the East route fell 4% compared to the same month last year.

Suezmax spot freight rates followed the general market trend of decline and dropped on average 15% in November compared to the previous month. Among the dirty markets, Suezmax spot freight rates experienced the smallest decline in November. Suezmax spot freight rates for tankers moving from West Africa to the US Gulf Coast decreased 17% in November from the previous month, the lowest level since February 2008. Suezmax crude spot freight rates went through the same cycle as the VLCC rates in the area. Suezmax trading on the North-West



Europe to the US East and Gulf Coast routes experienced a drop in spot freight rates of around 14% in November from the previous month, with shipping delays as well as increasing floating storage interest partially limiting the losses. On an annual basis, the Suezmax sector presented the only annual growth in spot freight rates with average reported Suezmax spot freight rates indicating an increase of 3% in November compared to the same period last year.

The Aframax sector went through the same downward movement as other dirty market sectors in November. On average, the Aframax spot freight rates on the reported routes declined 24% in November compared to the previous month. The reported East of Suez Aframax route was in a better position than the West of Suez routes in terms of spot freight decline. Spot freight rates on the Indonesia/US West Coast route decline 8% in November compared to the previous month. The decline came on the back of lower tonnage demand, however, fuel oil activities to China provided some support, yet rates declined to the lowest level since March 2008. Aframax West of Suez spot freight rates from the Caribbean to the US decreased 36% and by 26% from the Mediterranean in November compared to the previous month. The effect of slower US demand and activities, where many Aframax were utilized for lightering operations, were the main factors negatively affecting

spot freight rates for voyages from the Caribbean. Similarly, the weak demand and the effect of lower production and exports from the Mediterranean reduced freight rates in November. On an annual basis, Aframax spot freight rates declined 13% in November.

**Table 22: Spot tanker crude freight rates, Worldscale**

	Size 1,000 DWT	Sep 08	Oct 08	Nov 08	Change Nov/Oct
<b>Crude</b>					
Middle East/east	230-280	119	105	70	-34
Middle East/west	270-285	92	86	61	-26
West Africa/east	260	97	94	75	-19
West Africa/US Gulf Coast	130-135	165	154	129	-26
NW Europe/USEC - USGC	130-135	159	138	119	-19
Indonesia/US West Coast	80-85	184	175	161	-14
Caribbean/US East Coast	50-55	274	204	130	-74
Mediterranean/Mediterranean	80-85	183	162	120	-41
Mediterranean/North-West Europe	80-85	173	152	110	-41

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

**Clean tanker rates followed the declining trend on weak tonnage demand**

In November, the clean tanker spot freight market continued the downward trend with an average decline of 19% compared to the previous month. East of Suez spot freight rates experienced the largest decline among clean spot freight rates, declining 28% on average in November compared to the previous month. Spot freight rates for voyages from the Middle East toward eastern destinations dropped 26% in November from the previous month, mainly on the back of slow tonnage demand. The ongoing situation of lower refinery runs in addition to weakening global demand as well as low naphtha activities all negatively affected tonnage demand. Additionally, the continuing fall of oil and product prices kept traders away from the market. On the other hand, the growing tonnage list coupled with lower bunker fuel prices pressured owners to accept lower spot freight rates, as many fear that their vessels will be idle. The situation was similar for voyages from Singapore to Asian destinations, where average clean spot freight rates dropped 29% in November from the previous month. Despite the monthly decline, both routes registered an annual growth of 32% in spot freight rates in November compared to the previous year.

West of Suez clean spot freight rates also declined in November, yet at a slower pace than the East of Suez losing on average 15% when compared to the previous month. Upcoast voyages from the Caribbean dropped 12% in November from the previous month, mainly on the back of lower tonnage demand. Clean tanker spot freight rates for tankers moving volumes from North-West Europe to the US declined 13% in November from the previous month marking the lowest level since September 2007. The decline in US product demand coupled with the building tonnage list drove the monthly decline. Mediterranean clean spot freight rates followed the same trend with average rates falling 18% in November. The various delays were not enough to support the falling rates, as the weakening general sentiments prevail over any positive factor. On an annual basis, clean spot freight rates remained steady in November while West of Suez clean spot freight rates experienced a drop of 17%.

**Table 23: Spot tanker product freight rates, Worldscale**

	Size 1,000 DWT	Sep 08	Oct 08	Nov 08	Change Nov/Oct
<b>Products</b>					
Middle East/east	30-35	353	328	242	-86
Singapore/east	30-35	325	328	233	-95
Caribbean/US Gulf Coast	38-40	337	236	208	-28
NW Europe/USEC - USGC	33-37	325	210	184	-27
Mediterranean/Mediterranean	30-35	301	264	216	-48
Mediterranean/North-West Europe	30-35	311	274	226	-48

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

# Oil Trade

## OECD net oil imports declined by 1.0% in September

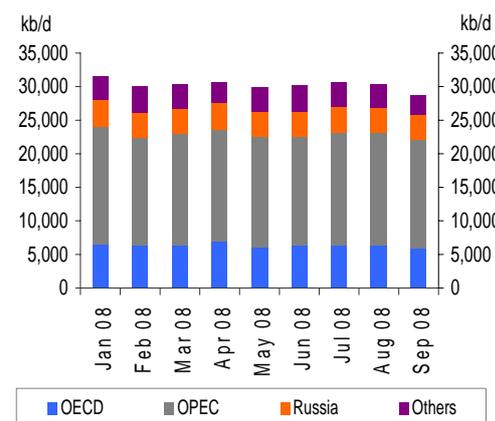
### OECD

OECD crude oil imports in September averaged 28.62 mb/d, indicating a decline of 1.75 mb/d or 5.7% compared to the previous month according to the latest published data. September crude oil imports were also 6.5% lower than a year earlier. Lower OECD crude oil imports in September are driven by lower imports by countries such as the USA, down by 18.3%, and Japan, down by 2.5% from the previous month, which offset increases in France and Italy. For the first nine months of 2008, OECD countries imported an average of 30.25 mb/d, slightly lower than the average crude oil imports during the same period last year of around 30.50 mb/d. During the first nine months there was no annual growth in imports and with the current pessimistic economic outlook, especially in the OECD area, we could see a negative annual growth around 0.8% consolidating towards the end of the year.

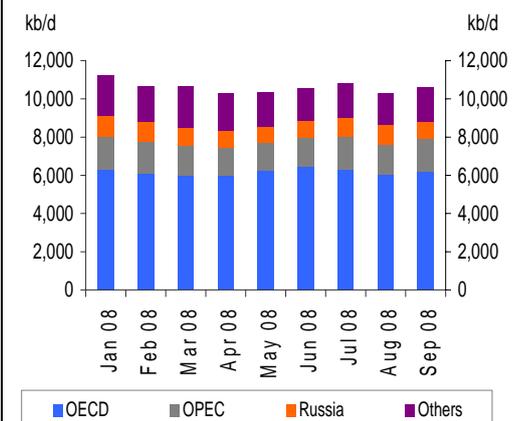
The decline in OECD's crude oil imports in September is attributed mainly to lower imports from outside the OECD. OECD countries imported on average 22.66 mb/d of crude oil from outside the OECD area in September, indicating a decline of 1.39 mb/d or 5.8% compared to the previous month. The decline is mainly attributed to lower crude oil imports from Nigeria by 354,000 b/d, Kuwait by 334,000 b/d, and Venezuela by 294,000 b/d. Colombia and Russia declined by 107,000 b/d and 157,000 b/d respectively, compared to the previous month. Crude oil imports from within the OECD area were at 5.97 mb/d in September, indicating a drop of 5.6% or 357,000 b/d compared to the previous month. Canada, Norway, Mexico and the UK respectively are the top OECD crude oil suppliers to the OECD area in September. For the first nine months of 2008, crude oil imports from outside the OECD area averaged 23.91 mb/d, indicating annual growth of 0.8% compared to the same period last year, while imports from within the OECD area averaged 6.34 mb/d, indicating an annual decline of 6.5%.

OECD product imports in August rose by 329,000 b/d or 3.2% compared to the previous month to average 10.61 mb/d. September product imports were also 0.1% lower than a year earlier. Average OECD product imports for the first nine months of 2008 were at 10.61 mb/d, indicating very low annual growth of 0.1% compared to the same period last year. About 58% of OECD product imports in September were supplied from within the OECD area, and 42% from outside. The 329,000 b/d increase in OECD product imports was the result of a rise of 185,000 b/d in imports from outside OECD and 144,000 b/d higher imports from within the OECD. Product imports from outside the OECD area declined by 4.7% during the first nine months of 2008 compared to the same period last year, while imports from within OECD countries increased by 3.9% over the same period.

Sources of OECD crude oil imports



Sources of OECD product imports



On the export side, OECD crude oil exports averaged 5.35 mb/d in September, indicating a substantial decrease of 10.5% or 626,000 b/d compared to the previous month, yet were 20.2% or 1.36 mb/d lower compared to September 2007. The decrease of the UK crude oil exports by 187,000 b/d and Canada by 142,000 b/d can be attributed to the lower OECD crude oil exports in September, both compared to the previous month. Average crude oil exports for the OECD countries in the first nine months of 2008 were 6.0 mb/d, about 803,000 b/d or 11.8% lower than in the same period last year.

OECD product exports in September were about 9.71 mb/d, some 551,000 b/d or 5.4% lower than in the previous month. Increases in product exports of the USA of 183,000 b/d, Canada of 73,000 b/d and Japan of 33,000 b/d were offset by declines in exports in Mexico by 100,000 b/d and Netherlands by 53,000 b/d. On a y-o-y basis, OECD product exports in September were about 7.8% higher than in September 2007. OECD product exports for the first nine months of 2008 were 9.71 mb/d, some 653,000 b/d or 7.2% higher than in the same period last year. The decrease in OECD product exports in September compared to the previous month is attributed to the higher decrease in exports outside the OECD area by 643,000 b/d, which was partially offset by an increase in product exports within the OECD of 92,000 b/d or 1.4% compared to the previous month and 2.2% on a y-o-y basis.

Accordingly, OECD net oil imports in September averaged 24.18 mb/d, indicating a decline of 1.0% or 238,000 b/d compared to the previous month and 5.3% compared to September 2007. At the same time, net oil imports for the first nine months of 2008 averaged 25.14 mb/d, indicating a 0.3% annual decline compared to the same period in 2007. During the first nine months of 2008, OECD net crude oil imports were 24.23 mb/d, up by 2.4% or 563,000 b/d compared to the same period in 2007, while net product imports were 0.9 mb/d, down by 42%, or 639,000 b/d compared to the same period last year. Net crude oil imports from outside the OECD were 22.39 mb/d in September, down by 1.4 mb/d or 6% compared to the previous month, while net crude oil imports from within the OECD area were 885,000 b/d, up by 300,000 b/d or 52% compared to the previous month.

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

	<u>Jul 08</u>	<u>Aug 08</u>	<u>Sep 08</u>	<u>Change Sep/Aug</u>
Crude oil	25,288	24,394	23,275	-1119
Total products	601	25	905	880
<b>Total crude and products</b>	<b>25,889</b>	<b>24,419</b>	<b>24,180</b>	<b>-238</b>

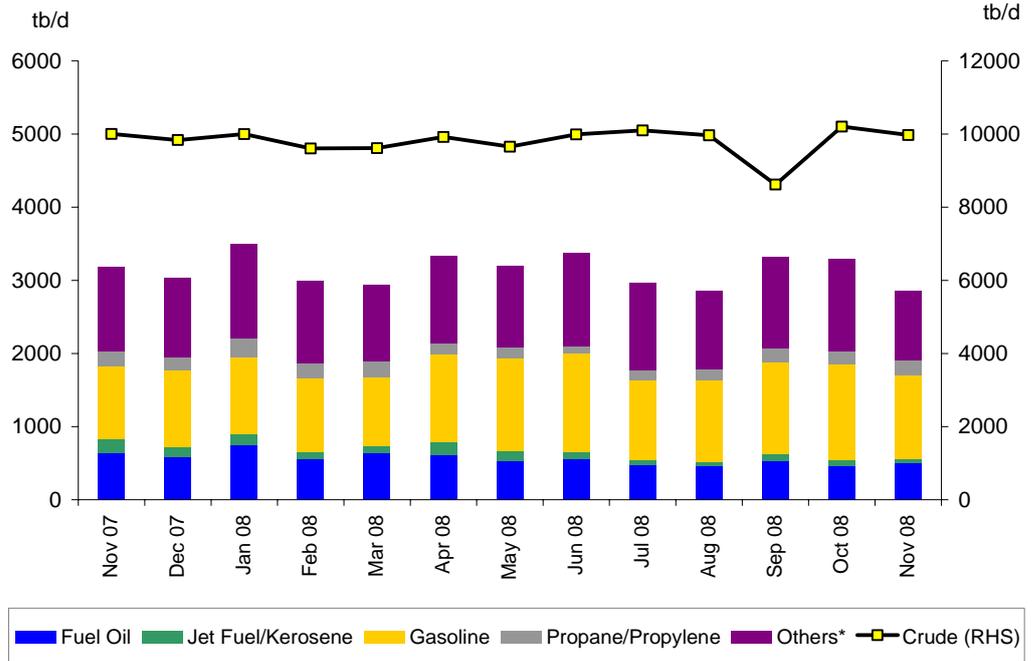
Saudi Arabia was the top OECD crude oil supplier in September with a 14.9% share, up from 14.2% in the previous month, followed by Russia with 12.6%, up from 12.4% in the previous month. Canada supplied 6.9% and Iran 6.3%. Altogether, OPEC Member Countries supplied 56.6% of total OECD crude oil imports in September, up from 55.3% in the previous month. At the same time, OPEC Member Countries supplied about 16.2 mb/d of crude oil to OECD countries in September, representing 72% of total OECD imports from outside OECD. For products, OPEC Member Countries' share of total OECD product imports in September was 16.4%, up from 15.2% in the previous month. Algeria supplied 3.1%, Saudi Arabia 2.6%, UAE 2.5% and Kuwait 2.2%. OECD's top non-OPEC product supplier in August was the Netherlands with 12%, followed by the USA with 9.1% and Russia with 8.5%.

### USA

According to official data, US crude oil imports declined in November to average 9.97 mb/d, similar to the level in June. US crude oil imports in November were 2.2% or 0.23 mb/d lower compared to the previous month and 30,000 b/d or 0.3% lower than in the same month last year. Despite this decrease, average crude oil imports for the first eleven months of 2008 were 9.8 mb/d, a drop of 2.5% or 249,000 b/d from the same period last year. This decline can be attributed to the overall state and continuing slowing down of the US economy, which has affected the sales of almost all products.

**US crude oil imports declined in November to 9.97 mb/d, returning to import levels of mid-2008**

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

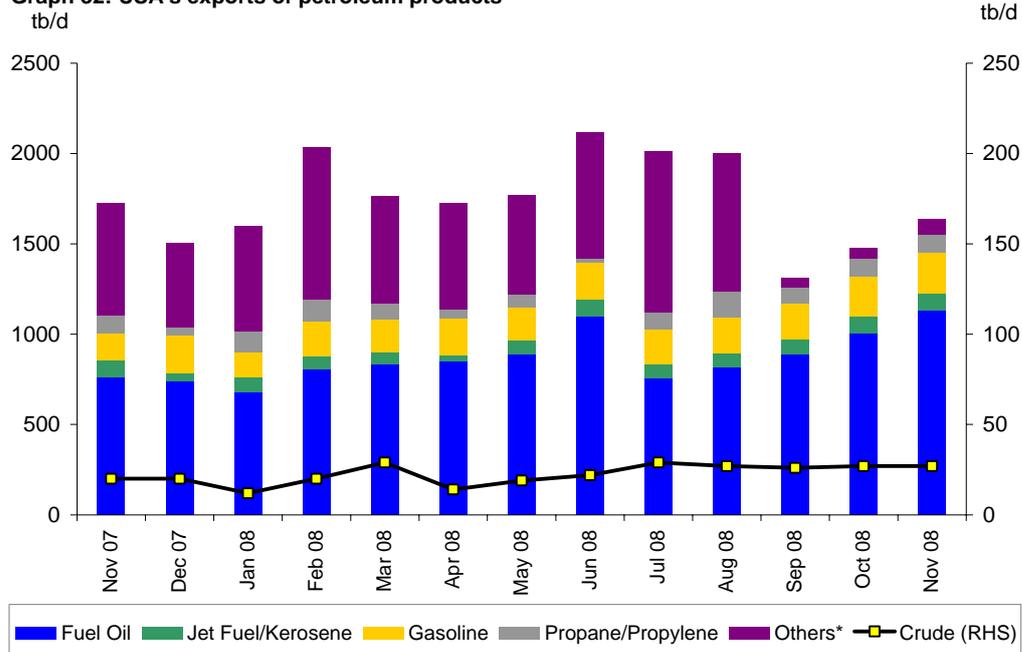


\*Others: Contains Natural Gas Liquids, Liquefied Refinery Gases (LRG's), Other Liquids and all Finished Petroleum Products except Gasoline, Jet Fuel/Kerosene, Fuel Oil and Propane/Propylene.

Similar to crude oil imports, US product imports also declined in November by 13.2% to average 2.86 mb/d, but they were also 10.3% lower than in November last year. Apart from residual fuel oil, almost all major product imports were lower in November than in the previous month. Finished motor gasoline imports dropped in November by 164,000 b/d or 54% compared to the previous month to reach 140,000 b/d. Average US gasoline imports for the first eleven months of 2008 dropped by 28% compared to the same period last year to average 327,000 b/d. Distillate fuel oil imports decreased in November by 28,000 b/d or 20% compared to the previous month to average 143,000 b/d. Average distillate fuel oil imports for the first eleven months of 2008 were 201,000 b/d indicating a drop of 109,000 b/d or 54% compared to the same period last year. In contrast, residual fuel oil imports increased in November by 66,000 b/d or 23% compared to the previous month, reaching about 359,000 b/d. In the first eleven months of 2008, the US imported 10% less residual fuel oil than in the same period last year. On average, US product imports declined by 354,000 b/d or 10.2% in the first eleven months of 2008 compared to the same period last year.

On the export side, US product exports increased by 162,000 b/d or 10.8% in November compared to the previous month to average 1.67 mb/d, representing a decrease of 80,000 b/d or 4.6% compared to their levels a year earlier. Average US product exports for the first eleven months of 2008 were 1.79 mb/d, indicating an increase of 393,000 b/d or 28.2% compared to the same period last 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 decreased by 7% in November compared to the previous month to reach about 11.14 mb/d. The 826,000 b/d decrease in net oil imports in November came as a result of the 229,000 b/d decrease in net crude oil imports and the 597,000 b/d decline in net product imports compared to the previous month. On a y-o-y basis, US net oil imports in November were 2.5% lower than in the same month last year. Average net oil imports for the first eleven months of 2008 were 11.11 mb/d indicating a drop of 1.0 m/d or 8.2% compared to the same period last year.

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

	Sep 08	Oct 08	Nov 08	Change Nov/Oct
Crude oil	8,368	10,176	9,947	-229
Total products	1,806	1,786	1,189	-597
<b>Total crude and products</b>	<b>10,174</b>	<b>11,962</b>	<b>11,136</b>	<b>-826</b>

**Canada remained the top US crude supplier, followed by Saudi Arabia**

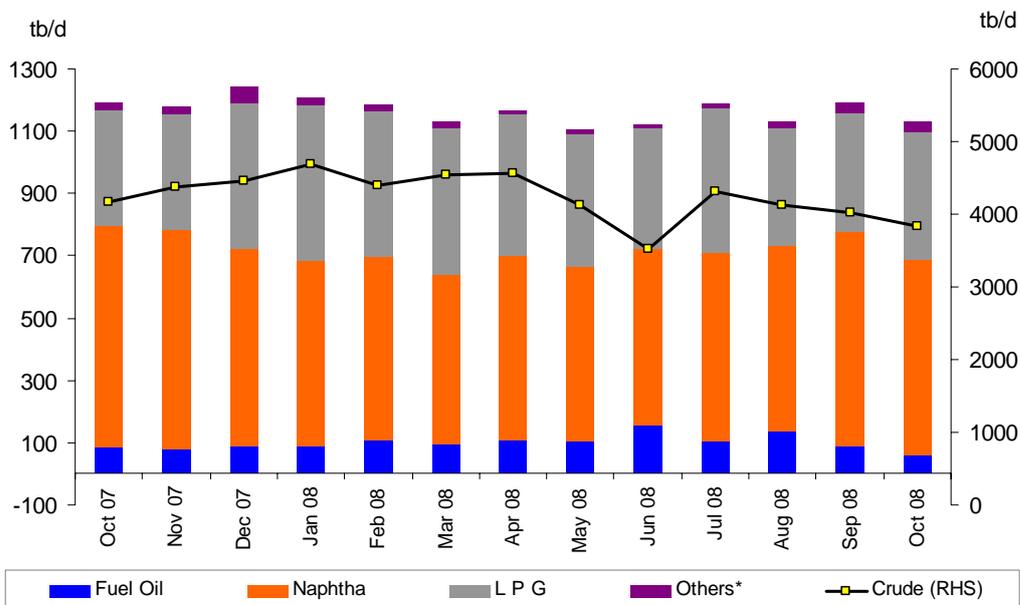
Canada was the top crude oil supplier to the US in September with a share of 22.9%, up from 17.8% in the previous month, followed by Saudi Arabia with 17.0%, up from 14.9% in the previous month. Venezuela and Mexico came next with 11.23% and 10.59% respectively. Altogether, OPEC Member Countries supplied 54.11% of total US crude oil imports in September, down from 56.6% in the previous month. For product imports, Canada became the top product supplier to the US in September with a share of 14.3%, up from 13.2% in the previous month. Russia was next with a share of 12%, down from 13.3% in the previous month, followed by the Virgin Islands with 11.11%. For OPEC Member Countries, Algeria supplied 10.89% of total US oil product imports in September, followed by Venezuela with 3.48% and Nigeria with 2.67%. Altogether OPEC Member Countries supplied 18.65% of US product imports in September, down from 20.4% in the previous month. For US product exports in September, Mexico was again the top importer with a share of 18.63%, up from 16.9% in the previous month, followed by Canada with 16.55% and Japan with 5.62%. Altogether, OPEC Member Countries imported 3.0% of total US product exports in September, down 0.5% in the previous month. Venezuela imported 1.46% and Nigeria 0.85%.

**Japan's net oil imports declined in October by 4.8% supported by lower crude oil imports**

**Japan**

According to official data, Japan's crude oil imports in October averaged 3.84 mb/d, indicating a decline of 4.8% or 192,000 b/d compared to the previous month and of 7.7% or about 0.32 mb/d compared to October 2007. Falling crude oil imports are in line with the current falling rates of oil product sales in this country which has been going on for several months by now. Despite these month-to-month and y-o-y declines, in the first ten months of 2008 Japan's crude oil imports averaged 4.21 mb/d, indicating annual growth of 5.1% or 204,000 b/d compared to the same period last year.

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



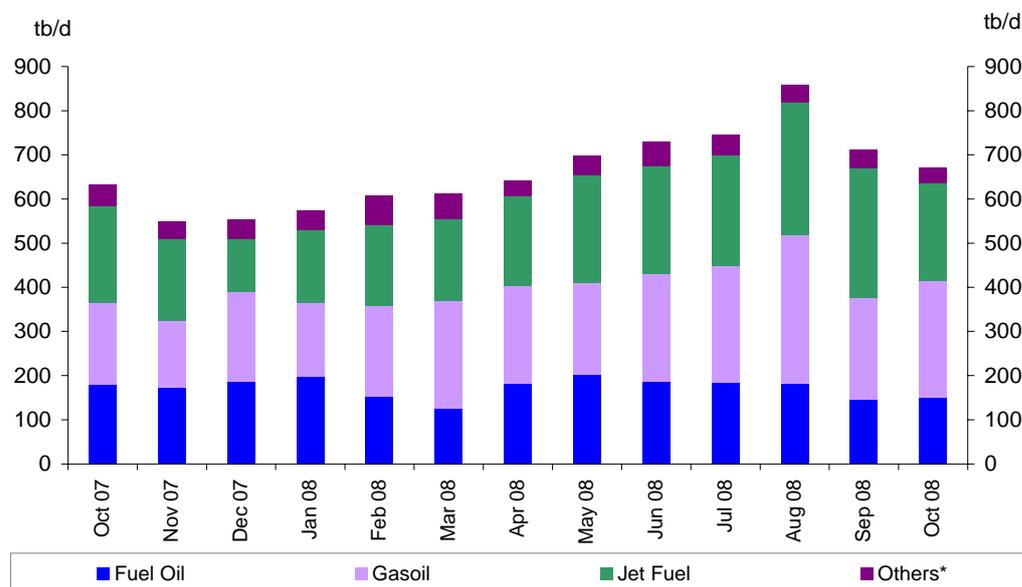
\*Others: Contains Gasoline, Jet Fuel, Kerosene, Gasoil, Asphalt and Paraffin Wax.

Japan's product imports in October declined by 63,000b/d or 5.3% compared to the previous month to average about 1.13 mb/d, displaying an annual decline of 5.4% compared to the previous year. Japan mainly imports three products: naphtha, LPG and fuel oil, which constituted more than 97% of its total monthly product imports in October. Average LPG imports in October were 410,000 b/d, 23,000 b/d or 6% higher than in the previous month and about 9.4% higher than a year earlier. In the first ten months of 2008, Japan imported an average of 435,000 b/d of LPG, steady compared to last year's average in the same period. Naphtha imports averaged 628,000 b/d in October, 8.5% or 58,000 b/d lower than in the previous month and 12% lower than a year earlier. Naphtha imports in the first ten months of 2008 averaged 596,000 b/d, a decline of 9% from the same period last year. Fuel oil imports in October were 59,000 b/d, down by 30,000 b/d or 34% from the previous month, and by 29% compared to a year earlier. Fuel oil imports in the first ten months of 2008 averaged 104,000 b/d, an increase of 56% over the same period last year. Naphtha imports constituted 56% of Japan's total products imports in October, LPG 36% and fuel oil 5%. Total product imports in the first ten months of 2008 averaged 1.15 mb/d, representing a decline of 3.4% compared to the same period last year.

Similarly, Japan's product exports in October declined by 5.8% compared to the previous month, but were 6% higher than a year earlier, averaging 668,000 b/d. Gasoil, jet fuel and fuel oil are Japan's main product exports which together constituted about 95% of the country's total product exports in October. Gasoil exports in October were about 263,000 b/d, up by 14% or 33,000 b/d compared to the previous month and by 41% compared to October 2007. During the first ten months of 2008, Japan exported an average of 239,000 b/d of gasoil, a substantial 56% increase over the same period last year. Jet fuel exports in October were about 222,000 b/d, 25% or 72,000 b/d lower compared to the previous month, but were 2% higher compared to a year earlier. Jet fuel exports in the first ten months of 2008 averaged 230,000 b/d, 14% higher than in the same period last year. Fuel oil exports in October were about 151,000 b/d, 4% higher than in the previous month, but were 15% lower than a year earlier. In the first ten months of

2008, Japan exported an average of 170,000 b/d of fuel oil, unchanged compared to the same period last year. Gasoil exports constituted 39% of Japan's total product exports in October, jet fuel 33% and fuel oil 23%. Japan exported lower quantities of gasoline, kerosene, lubricating oil, asphalt and LPG in October, totaling 35,000 b/d. Average product exports in the first ten months of 2008 were 681,000 b/d, indicating annual growth of 20% or 113,000 b/d compared to the same period in 2007.

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



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

As a result, Japan's net oil imports in October were about 4.3 mb/d, indicating a decline of 215,000 b/d or 4.8% compared to the previous month and of 8.9% compared to the previous year. Average net oil imports in the first ten months of 2008 were 4.69 mb/d indicating a 1.1% increase compared to the same period in 2007. Japan's net product imports in the first ten months of 2008 declined to 472,000 b/d from 625,000 b/d during the same period last year. This was mainly due to the 20% increase in its exports over the same period.

**Table 26: Japan's crude and product net imports/(exports), tb/d**

	<u>Aug 08</u>	<u>Sep 08</u>	<u>Oct 08</u>	<u>Change</u> <u>Oct/Sep</u>
Crude oil	4,132	4,029	3,837	-192
Total products	276	481	459	-23
<b>Total crude and products</b>	<b>4,408</b>	<b>4,511</b>	<b>4,296</b>	<b>-215</b>

### Saudi Arabia was again Japan's top crude supplier

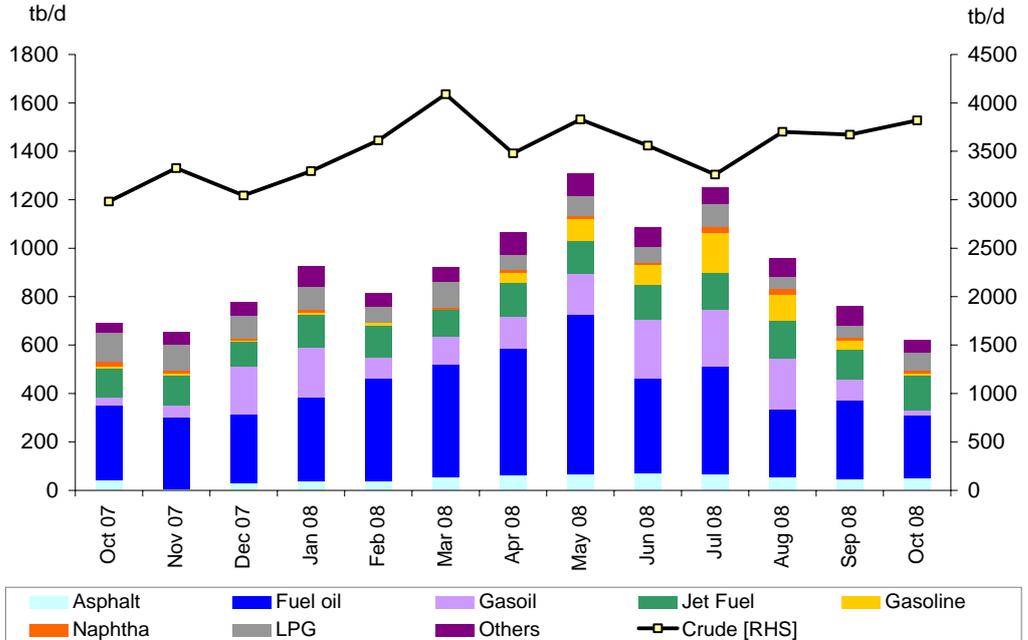
Saudi Arabia was once again Japan's top crude oil supplier in October, supplying 31.9% of Japan's crude oil imports, up from 24.3% in the previous month. The UAE's share was 22.4%, down from 24.8% in the previous month. Iran supplied 13.7% of Japan's crude oil imports in October, up from 10.8% in the previous month, while Qatar's share was 8.5%, down from 12.1% in the previous month. OPEC Member Countries supplied 88.9% of Japan's crude oil imports in October, up from 88.2% in the previous month. Top non-OPEC crude oil suppliers in October include Russia with 4%, up from 3.5% in the previous month, and Sudan with 2%. On the product side, preliminary data indicate that the US was Japan's top supplier in October with 13.9%, followed by the Kuwait with 11.8% and Saudi Arabia with 11.7%. Altogether, OPEC Member Countries supplied 49.5% of Japan's product imports in October, down from 57.4% in the previous month. In addition to the US, top non-OPEC product suppliers in October include South Korea with 7.6% and Malaysia with 4.4%.

**China's net oil imports increased by 2.4% in October, but were 21% higher than a year earlier**

**China**

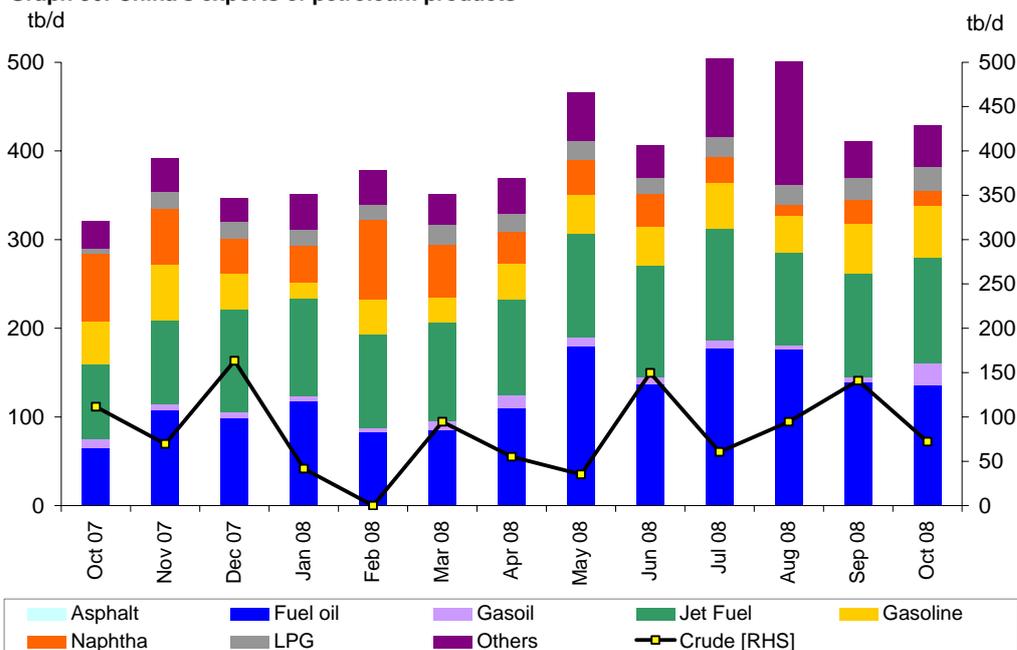
According to Chinese official data, China's crude oil imports increased in October to reach 3.82 mb/d, about 4% or 148,000 b/d higher than in the previous month, but were much higher by 28% compared to October 2007. Average crude oil imports for the first ten months of 2008 were 3.63 mb/d, indicating some 0.34 mb/d or 10.2% annual growth over the same period last year. On the other hand, China's crude oil production in October was 5% higher compared to the previous month, averaging 3.87 mb/d. China's October crude oil production was about 50,000 b/d higher than the country's crude oil imports in the same month.

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



China's product imports declined in October for the third consecutive month to average 0.61 mb/d, the lowest average for several years, indicating a decline of 96,000 b/d or 14% compared to the previous month and 11% compared to a year earlier. Apart from minor increases in jet fuel, LPG and asphalt, imports of all major products dropped in October compared to the previous month. China imported about 8,000 b/d of gasoline in October, down from 33,000 b/d in the previous month. Jet fuel imports in October reached about 144,000 b/d, up from 122,000 b/d in the previous month. Naphtha imports in October were about 10,000 b/d, down from 15,000 b/d in the previous month. Gasoil imports declined sharply in October to reach 20,000 b/d, a substantial decline from 82,000 b/d in the previous month and 214,000 b/d in August. China imported about 261,000 b/d of fuel oil in October, about 37% less than in the previous month. Despite this decline, the share of China's fuel oil imports to its total product imports increased from 41% in the previous month to 43% in October. Imports of LPG averaged 76,000 b/d in October, up from 44,000 b/d in the previous month. Imports of asphalt averaged about 255,000 metric tonnes in October, up from 235,000 metric tonnes in the previous month. Altogether, China imported an average of 0.97 mb/d of products in the first ten months of 2008, indicating annual growth of 6.3% over the same period last year. In October, fuel oil imports accounted for 43% of China's total product imports, jet fuel for 23%, LPG for 12%, gasoil for 3%, naphtha for 2% and gasoline for 1%.

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

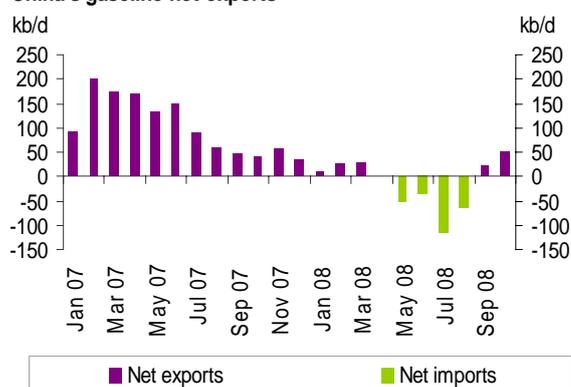


On the export side, China's crude oil exports in October were 72,000 b/d, down from 141,000 b/d in the previous month. About 80% of China's crude oil exports in October were destined to Japan and 20% to both the US and North Korea. Average crude oil exports for the first ten months of 2008 were 75,000 b/d, about 8% higher than in the same period last year.

China's product exports in October were 0.43 mb/d, about 7% higher compared to the previous month, but slightly more than 30% higher than in October 2007. The drop in naphtha exports did not offset increases in other product exports in this month. Average product exports for the first ten months of 2008 were about 0.4 mb/d, an increase of 4% over the same period last year.

Fuel oil exports in October were 135,000 b/d, steady compared to the previous month. Exports of jet fuel in October were about 119,000 b/d, up from 111,000 b/d in the previous month. Gasoline exports were 57,000 b/d, up from 54,000 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 in May 2008. In September, China switched back to be a net gasoline exporter. Net gasoline exports in October were about 50,000 b/d, compared to 22,000 b/d in the previous month. China's naphtha exports in October were about 16,000 b/d, down from 25,000 b/d in the previous month. Gasoil exports in October were 26,000 b/d, up from 6,000 b/d in the previous month. China exported 28,000 b/d of LPG in October, up from 24,000 b/d in September. Fuel oil exports accounted for 32% of China's total product exports in October, jet fuel for 28%, gasoline for 13%, gasoil for 6% and naphtha for 4%.

**China's gasoline net-exports**



China's naphtha exports in October were about 16,000 b/d, down from 25,000 b/d in the previous month. Gasoil exports in October were 26,000 b/d, up from 6,000 b/d in the previous month. China exported 28,000 b/d of LPG in October, up from 24,000 b/d in September. Fuel oil exports accounted for 32% of China's total product exports in October, jet fuel for 28%, gasoline for 13%, gasoil for 6% and naphtha for 4%.

With net crude oil imports of 3.75 mb/d and net product imports at 185,000 b/d, China's net oil imports in October were 3.93 mb/d, an increase of 2.4% or 91,000 b/d over the previous month, but 21% higher than a year earlier. Higher net oil imports in October raised China's average net oil imports for the first ten months of 2008 to about 4.12 mb/d, an increase of 10% over the same period last year.

**Table 27: China's crude and product net imports/(exports), tb/d**

	<u>Aug 08</u>	<u>Sep 08</u>	<u>Oct 08</u>	<u>Change Oct/Sep</u>
Crude oil	3,607	3,531	3,748	217
Total products	555	311	185	-126
<b>Total crude and products</b>	<b>4,162</b>	<b>3,842</b>	<b>3,933</b>	<b>91</b>

**Saudi Arabia was China's top crude supplier followed by Angola and Iran**

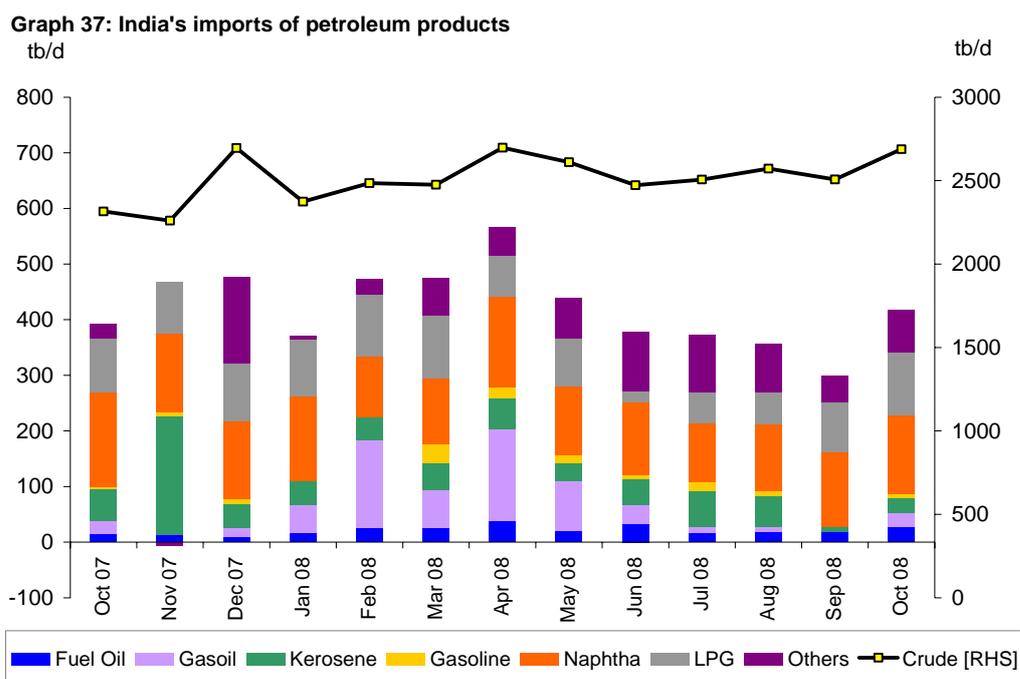
Once again, Saudi Arabia was China's top crude oil supplier in October with a share of 23.4%, down from 27.1% in the previous month. Angola was next with 15.5%, down from 14.3% in the previous month. Iran's share of China's total crude oil imports in October was 10.9%, down from 12.7% in the previous month. Altogether, OPEC Member Countries supplied 64.2% of China's crude oil imports in October, down from 64.9% in the previous month. Top non-OPEC crude oil suppliers in October include Oman with 9.6%, Russia with 5.7% and Sudan with 4.3%.

**India's net oil imports increased in October by 13.8%**

#### **India**

According to preliminary data, India's crude oil imports in October increased by 182,000 b/d or 7.2% compared to the previous month to reach about 2.69 mb/d, indicating an increase of 13.2% y-o-y compared to October 2007. India's crude oil imports in the first ten months of 2008 averaged 2.58 mb/d, an increase of 7.4% or 177,000 b/d over the same period last year, supported by strong domestic fuel oil sales throughout the year, even though they declined in October on a y-o-y basis for the first time in seventeen months. Higher crude oil imports in 2008 are also attributed to higher overseas purchases by Essar Oil and Reliance Industries (export-oriented companies).

India's product imports in October surged by 39.4% compared to the previous month, mainly due to the fact that product imports in September were at their lowest level since February 2007. Product imports in October averaged 0.42 mb/d, about 6.3% higher than a year earlier, although India's domestic product sales declined in October by about 1.7% over the same period. Imports of all major products were higher in October compared to a year earlier. After a month without gasoil imports in September, India resumed its gasoil imports in October with an average of about 26,000 b/d. This came at a time when gasoil sales in October increased by 6% compared to a double digit growth recorded in the previous month on lower off-take by industrial users. Due to the state control of gasoil prices in India, prices of alternative naphtha and fuel oil were lower in October and therefore private power generators are expected to switch back against gasoil and hence lower gasoil imports over the coming months are expected unless gasoil prices go down. In the first ten months of 2008, India imported an average of 61,000 b/d of gas oil, some 27% higher than in the same period last year. Gasoline imports reached about 8,000 b/d in October up from no imports in the previous month, in line with the 10% annual increase in gasoline domestic sales in October.

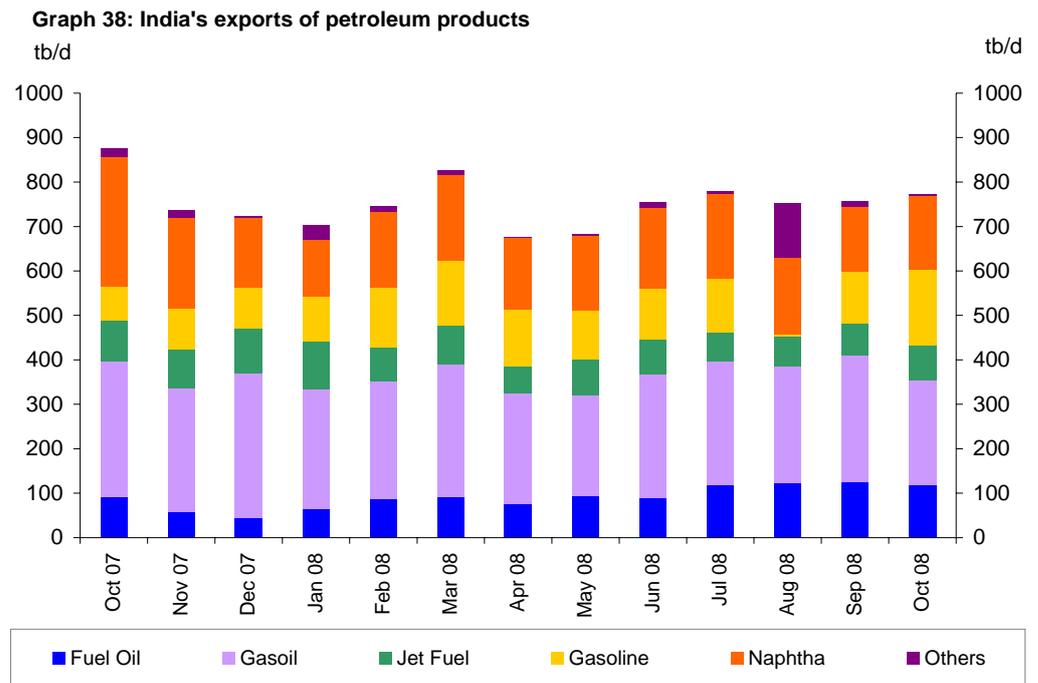


LPG imports in October averaged 113,000 b/d compared to about 89,000 b/d in the previous month. Average LPG imports in the first ten months of 2008 were about 82,000 b/d, almost steady compared to a year earlier. India imported an average of 141,000 b/d of naphtha in October, about 5% higher than in the previous month, but 17% lower than a year earlier. Fuel oil imports in October averaged 27,000 b/d, up from 17,000 b/d in September, and kerosene imports were about 25,000 b/d, up from 11,000 b/d in September. Altogether, India imported an average of 0.41 mb/d of products during the first ten months of 2008, almost steady compared to the same period last year.

**Table 28: India's crude and product net imports/(exports), tb/d**

	<u>Aug 08</u>	<u>Sep 08</u>	<u>Oct 08</u>	<u>Change Oct/Sep</u>
Crude oil	2,573	2,507	2,688	182
Total products	-395	-457	-356	101
<b>Total crude and products</b>	<b>2,177</b>	<b>2,050</b>	<b>2,332</b>	<b>282</b>

On the export side, India's total product exports of 774,000 b/d in October were 2.3% higher compared to the previous month, but were 12% lower than a year earlier. Declines in gasoil and fuel oil exports were more than offset by increases in gasoline, naphtha and jet fuel exports. Fuel oil exports in October averaged 117,000 b/d, down from 125,000 b/d in the previous month. In the first ten months of 2008, India exported 44% more fuel oil than in the same period last year. Jet fuel exports were at 76,000 b/d in October, 4% higher compared to the previous month, yet 19% lower than a year earlier. Gasoil exports in October averaged 243,000 b/d, a decline of 14% from the previous month and 20% lower than in October 2007. In the first ten months of 2008, India exported an average of 267,000 b/d of gasoil, about 2% lower than in the same period last year. For the second month in a row, gasoline exports increased substantially in October, averaging 172,000 b/d, up from about 116,000 b/d in September. Average gasoline exports during the first ten months of 2008 were 32% higher than in the same period last year. Naphtha exports were at 166,000 b/d in October, up from 146,000 b/d in the previous month. Naphtha exports during the first ten months of 2008 were 30% lower than in the same period last year. Altogether, India exported an average of 745,000 b/d of oil products during the first ten months of 2008, about 7.2% or 58,000 b/d lower than in the same period last year.



As a result, India's net oil imports in October averaged 2.33 mb/d, displaying an increase of 13.8% or 282,000 b/d compared to the previous month, and also 23.2% higher than a year earlier. The increase in net oil imports is attributed to an 182,000 b/d increase in net crude oil imports and a 101,000 b/d increase in net product imports. In the first ten months of 2008, India's net oil imports averaged 2.25 mb/d, 11.6% or 233,000 b/d higher than the same period in 2007.

## Stock Movements

**US commercial oil stocks are at their highest level since September 2007, with crude experiencing a strong contra-seasonal build**

### USA

US commercial oil stocks surged 16 mb in November to reach 1,014 mb, their highest level since September 2007 (see *Graph 39*). The build was shared to some extent between crude oil and products.

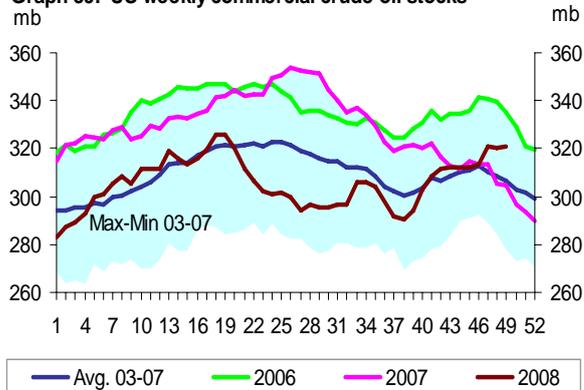
However, crude oil increased for the fourth consecutive month. They rose 8.6 mb, the same level as in the previous month, to move above 302 mb for the first time since August 2007. More than 17 mb were added to stocks between end-September and end-November this

year, whereas a year ago they lost more than 12 mb during the same period of time. Now crude oil inventories are higher than a year ago and display an overhang of more than 15 mb over the average of the previous five years while in June they were 27 mb below the average. The strong recovery in US crude oil stocks is attributed to the imbalance between supply and demand resulting from weaker demand and rising supply.

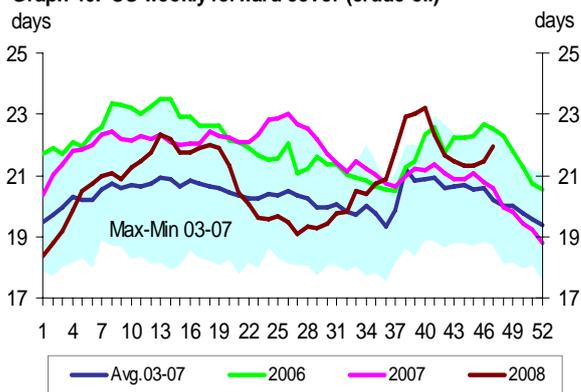
Following the same trend, product inventories increased 7.3 mb to stand at 694 mb, the same level as year earlier. Product components witnessed a mixed pattern with gasoline stocks increasing 2.8 mb, the second rise in a row, to stand at almost 199 mb, but remained low compared to the seasonal level. In contrast to gasoline, distillate stocks lost 0.5 mb to offset the gain of the previous month and stood at 127.4 mb. The small build in gasoline stocks and a drop in distillates are attributed to lower imports due to sluggish demand for gasoline and diesel as well expectation for lower heating oil demand. At these levels, both gasoline and distillate stocks are already comfortable relative to demand. Jet fuel oil inventories recovered from their strong decline of the previous two months and increased by more than 2 mb to approach 39 mb while residual fuel oil stocks lost 1.4 mb to register 37.5 mb.

The latest data show that US commercial stocks continued their upward trend to surge 6.7 mb in the week-ending 5 December. Supported by a jump in refinery runs, distillate and gasoline were behind this build with 9.3 mb while other products retreated. Distillate stocks rose 5.6 mb to stand at 130.6 mb and gasoline stocks increased 3.7 mb to 202.7 mb. Crude oil stocks also increased but by a smaller rate of 0.3 mb to stand at 320.8 mb keeping the overhang with the five-year average at 15 mb or 5%. US commercial oil stocks remained at high levels with gasoline and distillate stocks 2 days, half a day and 2.3 days higher than the five-year average when expressed in terms of forward demand cover (see *Graph 40*).

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



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



**Table 29: US onland commercial petroleum 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>	<u>05 Dec 08</u> <sup>2</sup>
<b>Crude oil</b>	303.3	311.9	320.5	8.6	299.5	320.8
Gasoline	189.5	196.1	198.9	2.8	204.8	202.7
Distillate fuel	127.2	127.9	127.4	-0.5	134.8	130.6
Residual fuel oil	39.0	38.9	37.5	-1.4	38.8	38.0
Jet fuel	37.5	36.7	38.9	2.2	40.2	39.3
<b>Total</b>	<b>1,002.9</b>	<b>998.2</b>	<b>1,014.1</b>	<b>15.9</b>	<b>994.3</b>	<b>1,017.9</b>
SPR	702.4	701.8	701.8	0.0	695.5	701.8

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

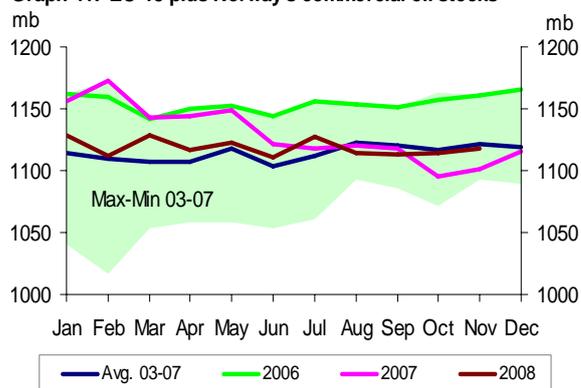
*Source: US Department of Energy's Energy Information Administration.*

**Western Europe**

**EU-15 plus Norway total oil inventories are at the five-year average but at healthy levels when considering weak demand**

In Europe (EU-15 plus Norway), total oil stocks continued to follow their seasonal trend adding 3.3 mb in November to stand at around 1,118 mb, the highest level since last July (see **Graph 41**). However, European total oil stocks are hovering around the five-year average and remained above last year's level for the second consecutive month. At this level inventories are very comfortable, representing an overhang of 16 mb compared to November 2007 and just 4 mb below the average of the previous five years.

**Graph 41: EU-15 plus Norway's commercial oil stocks**



Crude oil inventories rose by 2.3 mb to 477 mb, the highest level since last June. This build, which took place despite an increase in refinery runs, was attributed to lower exports to US markets due to limited arbitrage opportunities, as demand in USA is shrinking. Additionally, ample supply within the region coming from North Sea and African crudes contributed to the build in European inventories. Despite the fact that crude oil inventories are 4 mb below last year's level, lower current and expected demand left stocks very comfortable. With the exception of August, crude oil inventories have been moving alongside the five-year average since February.

**Table 30: Western Europe's 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>	474.3	474.3	476.6	2.3	480.2
Mogas	119.9	120.1	120.3	0.2	123.7
Naphtha	28.2	29.9	29.9	0.0	28.6
Middle distillates	373.9	374.8	376.0	1.2	357.0
Fuel oils	116.7	115.1	114.7	-0.5	112.3
<b>Total products</b>	<b>638.7</b>	<b>639.9</b>	<b>640.8</b>	<b>0.9</b>	<b>621.5</b>
<b>Total</b>	<b>1,113.0</b>	<b>1,114.2</b>	<b>1,117.5</b>	<b>3.3</b>	<b>1,101.7</b>

*Source: Argus, Euroilstock.*

Helped by increasing supply from refineries, product inventories are rising albeit at a slow rate. Stocks rose 1 mb to stand at 461 mb with gasoline inventories inching up slightly to remain at around 120 mb for the third consecutive month. The minor build of 0.2 mb was due to rising exports to the Middle East, West Africa and the USA rather than high domestic demand. At 120 mb, European inventories are below the lower end of the five-year average and the November 2007 level, but due to weaker demand, they remain comfortable in terms of forward demand cover.

On the distillate side, in addition to increasing production from refineries, imports from Russia as well as Asia Pacific added 1.2 mb or the equivalent of 40,000 b/d to European middle distillate stocks to approach 376 mb, which implies an overhang of 11 mb with the five-year average and

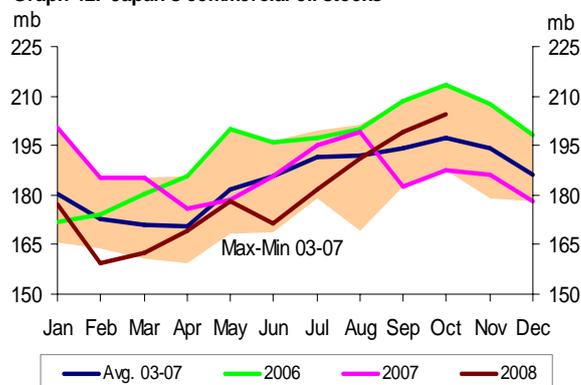
20 mb over November 2007. However, contrary to the previous year, distillate stocks have been within the upper half of the five-year range for the second month in a row. Residual fuel oil stocks lost 0.5 mb to stand at around 115 mb whereas naphtha stocks remained unchanged at nearly 30 mb, but they are both better than their respective levels a year earlier.

### Japan

**At 204.4 mb, Japan's inventories are now heading towards the upper limit of the five-year range**

Japan's commercial oil stocks continued their upward trend to increase for the fourth consecutive month and hit more than 204 mb, the highest level since November 2006. With the exception of June, Japan's commercial oil stocks have increased in every month since last March. With this build, commercial oil stocks have added more than 45 mb between February and October this year whereas in 2007 they remained almost flat over the same period. **At 204.4 mb, inventories are above the five-year average but heading towards the upper limit of the five-year range.**

Graph 42: Japan's commercial oil stocks



The build was once again driven by crude which accounted for more than 60% of the total increase of 5.4 mb. Following the cumulative build of more than 10 mb over September and October, crude oil stocks moved above 110 mb, the highest level since summer 2007. Despite this recovery, crude oil stocks are still suffering from a strong decline in the first quarter of 2008 and remain slightly below the five-year average with just 3 mb or 3% compared to around 20 mb in March. The build in Japan's commercial crude oil inventories was due to low demand from refineries which continued to operate at a rate of around 77% during September and October, almost 5 percentage points lower than a year earlier. This build took place despite a drop in imports confirming lower demand from refineries.

Table 31: Japan's commercial oil stocks\*, mb

	Aug 08	Sep 08	Oct 08	Change Oct 08/Sep 08	Oct 07
<b>Crude oil</b>	100.3	107.4	110.6	3.3	103.2
Gasoline	14.4	12.9	13.8	0.8	11.7
Naphtha	11.8	13.8	14.8	1.0	13.0
Middle distillates	43.1	44.3	44.7	0.3	40.3
Residual fuel oil	21.4	20.6	20.6	0.0	18.8
<b>Total products</b>	90.8	91.6	93.8	2.1	83.9
<b>Total**</b>	<b>191.0</b>	<b>199.0</b>	<b>204.4</b>	<b>5.4</b>	<b>187.1</b>

\* At end of month.

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

Source: METI, Japan.

Contrary to crude oil stocks which are at the five year-range, product inventories continued to hover at the upper end of the five-year range. With a build of 2.1 mb, product stocks stood at 94 mb at end-October, the highest level in two years. They displayed a surplus of 11 mb or 12% against the average of the previous five years as well as against the year earlier level. Both gasoline and distillate inventories are very comfortable when the weak demand is taken into consideration, implying a healthy forward demand cover. Assisted by an upward trend since end-February 2008, distillate inventories are approaching 45 mb, the highest level since November 2006. Not only gasoline and distillate stocks which are comfortable but other components also, particularly naphtha, saw inventories culminate to an extremely high level of nearly 15 mb.

For November, preliminary data show that total Japanese commercial oil inventories retreated slightly with products dropping around 6 mb and crude oil increasing around 3 mb as a result of lower refinery throughput and lower production from refineries. However, despite this drop, Japanese commercial oil inventories remained comfortable, particularly considering the expectations of lower future demand.

# Balance of Supply and Demand

**Required OPEC crude production for 2008 has been revised down to 31.63 mb/d**

## Estimate for 2008

The supply/demand balance for 2008 has been revised down to reflect lower demand and lower supply expectations. The demand for OPEC crude in 2008 is now forecast at 31.63 mb/d, a decline of 0.7 mb/d from 2007 and following a downward revision of 200,000 b/d. On a quarterly basis the demand for OPEC crude is estimated at 32.51 mb/d, 30.92 mb/d, 31.53 mb/d and 31.57 mb/d for the first, second, third, and fourth quarters, respectively. However, required crude for the fourth quarter of 2008 is now estimated to be 0.5 mb/d lower than last month's assessment.

**Table 32: Summarized supply/demand balance for 2008, mb/d**

	2007	1Q08	2Q08	3Q08	4Q08	2008
(a) World Oil Demand	85.90	86.68	85.40	84.97	86.30	85.83
Non-OPEC Supply	49.46	49.73	49.87	48.80	49.92	49.58
OPEC NGLs and non-conventionals	4.21	4.44	4.60	4.64	4.81	4.63
(b) Total Supply excluding OPEC Crude	53.68	54.17	54.47	53.44	54.73	54.20
<b>Difference (a-b)</b>	<b>32.22</b>	<b>32.51</b>	<b>30.92</b>	<b>31.53</b>	<b>31.57</b>	<b>31.63</b>
OPEC crude oil production <sup>(1)</sup>	30.97	32.07	32.09	32.35		
Balance	-1.25	-0.44	1.17	0.82		

(1) Selected secondary sources.

Totals may not add due to independent rounding.

## Forecast for 2009

Based on a substantial downward revision in world oil demand, demand for OPEC crude is expected to average 30.22 mb/d, a downward revision of around 0.7 mb/d from last month's report. The quarterly distribution shows that demand for OPEC crude is now expected to be 30.19 mb/d in the first quarter, 29.71 mb/d in the second, 29.88 mb/d in the third and 31.08 mb/d in the fourth. The demand of OPEC crude in the first quarter 2009 is estimated to show a strong decline of around 2.3 mb/d compared to the same period this year.

**Table 33: Summarized supply/demand balance for 2009, mb/d**

	2008	1Q09	2Q09	3Q09	4Q09	2009
(a) World Oil Demand	85.83	85.88	85.04	85.05	86.76	85.68
Non-OPEC Supply	49.58	50.65	50.18	49.82	50.24	50.22
OPEC NGLs and non-conventionals	4.63	5.04	5.15	5.34	5.44	5.24
(b) Total Supply excluding OPEC Crude	54.20	55.69	55.33	55.17	55.67	55.46
<b>Difference (a-b)</b>	<b>31.63</b>	<b>30.19</b>	<b>29.71</b>	<b>29.88</b>	<b>31.08</b>	<b>30.22</b>

Totals may not add due to independent rounding.

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

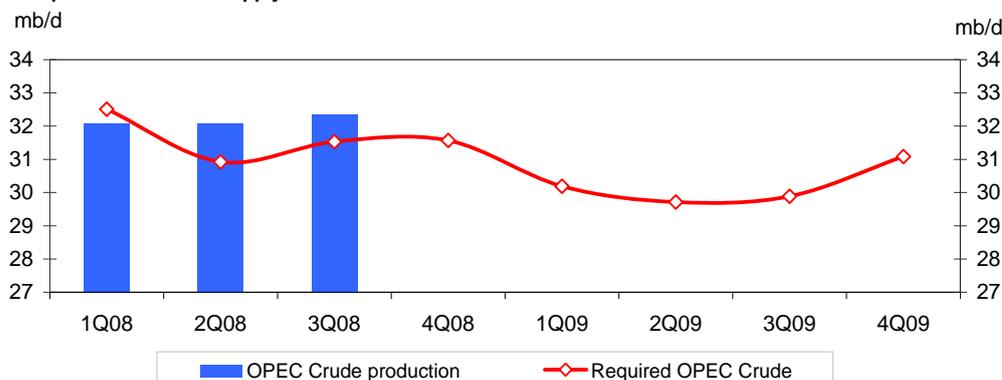


Table 34: World oil demand/supply balance, mb/d

	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>World demand</b>														
<b>OECD</b>														
North America	49.4	49.8	49.6	49.2	48.9	47.2	46.6	48.0	47.7	47.4	46.1	45.8	47.5	46.7
Western Europe	25.4	25.6	25.4	25.5	24.8	24.5	23.8	24.1	24.3	23.9	23.9	23.3	23.8	23.7
Pacific	15.5	15.7	15.7	15.3	15.2	14.9	15.3	15.5	15.2	14.9	14.6	15.1	15.3	15.0
DCs	8.5	8.6	8.5	8.3	8.9	7.8	7.5	8.4	8.2	8.6	7.6	7.4	8.4	8.0
FSU	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
Other Europe	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
China	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
China	6.5	6.7	7.2	7.6	8.0	8.2	8.1	7.8	8.0	8.3	8.5	8.4	8.1	8.3
(a) Total world demand	82.5	83.9	84.9	85.9	86.7	85.4	85.0	86.3	85.8	85.9	85.0	85.1	86.8	85.7
<b>Non-OPEC supply</b>														
<b>OECD</b>														
North America	21.3	20.5	20.2	20.1	20.0	20.1	19.2	19.8	19.8	20.1	19.7	19.5	19.8	19.8
Western Europe	14.6	14.1	14.2	14.3	14.3	14.4	13.8	14.1	14.1	14.4	14.2	14.2	14.4	14.3
Pacific	6.2	5.7	5.4	5.2	5.2	5.0	4.8	5.0	5.0	4.9	4.8	4.5	4.7	4.7
DCs	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.8	0.8	0.8	0.7	0.7
FSU	10.5	10.8	10.9	11.0	11.2	11.2	11.3	11.5	11.3	11.6	11.5	11.7	11.7	11.6
Other Europe	11.1	11.5	12.0	12.5	12.6	12.7	12.4	12.7	12.6	13.0	12.9	12.7	12.8	12.8
China	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
China	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
Processing gains	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
Total non-OPEC supply	48.4	48.5	48.9	49.5	49.7	49.9	48.8	49.9	49.6	50.6	50.2	49.8	50.2	50.2
OPEC NGLs + non-conventional oils	3.9	4.1	4.1	4.2	4.4	4.6	4.6	4.8	4.6	5.0	5.1	5.3	5.4	5.2
OPEC NGLs + non-conventional oils	52.3	52.5	52.9	53.7	54.2	54.5	53.4	54.7	54.2	55.7	55.3	55.2	55.7	55.5
(b) Total non-OPEC supply and OPEC NGLs	30.6	31.6	31.4	31.0	32.1	32.1	32.3							
OPEC crude oil production (secondary sources)	82.9	84.2	84.4	84.6	86.2	86.6	85.8							
Total supply	0.4	0.3	-0.5	-1.3	-0.4	1.2	0.8							
Balance (stock change and miscellaneous)														
OECD closing stock levels (mb)	2538	2585	2667	2566	2567	2603	2651							
Commercial	1450	1487	1499	1524	1530	1529	1522							
SPR	3988	4072	4165	4090	4097	4131	4173							
Total	905	958	916	943	936	929	895							
Oil-on-water														
<b>Days of forward consumption in OECD</b>														
Commercial onland stocks	51	52	54	54	54	56	55							
SPR	29	30	30	32	32	33	32							
Total	80	82	85	86	87	89	87							
<b>Memo items</b>														
FSU net exports	7.3	7.7	8.1	8.5	8.7	8.8	8.2	8.3	8.5	9.0	9.0	8.4	8.3	8.7
(a) - (b)	30.1	31.3	32.0	32.2	32.5	30.9	31.5	31.6	31.6	30.2	29.7	29.9	31.1	30.2

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

**Table 35: World oil demand/supply balance: changes from last month's table †, mbd**

	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>World demand</b>														
OECD	-	-	-	-	-	-	-0.3	-1.0	-0.3	-0.9	-0.4	-0.5	-1.2	-0.7
North America	-	-	-	-	-	-	-0.3	-0.6	-0.2	-0.5	-0.1	-0.3	-0.6	-0.4
Western Europe	-	-	-	-	-	-	-	-0.2	-	-0.2	-0.1	-0.1	-0.3	-0.2
Pacific	-	-	-	-	-	-	-	-0.3	-0.1	-0.2	-0.2	-	-0.3	-0.2
DCs	-	-	-	-	-	-	-	-	-	-0.2	-0.2	-0.2	-0.1	-0.2
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-0.1
(a) Total world demand	-	-	-	-	-	-	-0.3	-1.1	-0.4	-1.2	-0.7	-0.7	-1.3	-1.0
<b>World demand growth</b>	-	-	-	-	-0.01	-0.02	-0.28	-1.09	-0.35	-1.25	-0.68	-0.41	-0.24	-0.64
<b>Non-OPEC supply</b>														
OECD	-	-	-	-	-	-	-0.1	-0.2	-0.1	-0.1	-	-	-0.1	-0.1
North America	-	-	-	-	-	-	-	-0.2	-	-0.1	-	-	-0.1	-0.1
Western Europe	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
DCs	-	-	-	-	-	0.1	0.1	-	-	-	-	-	-	-
FSU	-	-	-	-	-	-	-	-0.2	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	-	0.1	0.1	-0.5	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2
<b>Total non-OPEC supply growth</b>	-	-	-	0.04	-	0.08	0.03	-0.55	-0.11	-0.20	-0.24	-0.23	0.26	-0.10
OEPEC NGLs + non-conventionals	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1
(b) Total non-OPEC supply and OPEC NGLs	-	-	-	-	-	-	-0.1	-0.6	-0.1	-0.3	-0.2	-0.3	-0.4	-0.3
<b>OEPEC crude oil production (secondary sources)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total supply</b>	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
<b>Balance (stock change and miscellaneous)</b>	-	-	-	-	0.1	0.2	-	-	-	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>														
Commercial	-	-	-1.2	-8	-	-	2	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Total	-	-	-1.2	-8	-	-	4	-	-	-	-	-	-	-
Oil-on-water	-	-	-	-2	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>														
Commercial onland stocks	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	1.9	-	-	-	-	-	-	-
<b>Memo items</b>														
FSU net exports	-	-	-	-	-	-	-	-0.2	-	-0.1	-0.1	-	-0.1	-0.1
(a) - (b)	-	-	-	-	-	-0.1	-0.3	-0.5	-0.2	-1.0	-0.5	-0.4	-0.9	-0.7

† This compares Table 34 in this issue of the MOMR with Table 34 in the November 2008 issue. This table shows only where changes have occurred.

Table 36: 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	
Closing stock levels mb																									
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	2,595	2,648	2,758	2,667	2,595	2,655	2,647	2,566	2,567	2,603	2,651	
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	
Western Europe	915	915	934	962	930	913	925	936	915	942	915	942	934	937	935	948	962	941	936	932	930	960	963	950	
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	
OECD SPR	1,411	1,450	1,487	1,499	1,524	1,423	1,429	1,435	1,450	1,462	1,494	1,487	1,487	1,487	1,493	1,495	1,499	1,507	1,506	1,520	1,524	1,530	1,529	1,522	
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	
Western Europe	374	377	407	412	421	371	366	367	377	376	401	405	407	407	411	412	412	412	415	413	423	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	
OECD total	3,921	3,988	4,072	4,165	4,090	3,881	3,967	4,006	3,988	3,995	4,106	4,072	4,072	4,072	4,141	4,253	4,165	4,102	4,162	4,167	4,090	4,097	4,131	4,173	
Oil-on-water	882	905	958	916	943	906	891	894	905	934	931	926	958	962	971	972	916	936	905	923	943	936	929	895	
Days of forward consumption in OECD																									
OECD onland commercial	51	51	52	54	54	51	52	51	50	52	53	52	51	53	54	55	54	54	54	54	53	52	54	56	55
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	53	
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	
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	51	
OECD SPR	29	29	30	30	32	30	29	28	28	30	30	30	29	31	30	30	30	31	31	31	31	32	33	32	
North America	25	27	27	27	29	26	26	26	26	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	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	48	
OECD total	79	80	82	85	86	81	81	79	78	82	83	82	80	84	84	85	84	85	85	84	84	87	89	87	

Table 37: 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	20/08	30/08	40/08	2008	08/07	10/09	20/09	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	7.22	7.47	7.52	0.02	7.72	7.74	7.73	7.85	7.76	0.24	0.24	0.24	
Canada	3.07	3.03	3.20	0.17	3.34	3.32	3.34	3.34	3.32	0.12	3.33	3.45	3.40	3.44	3.41	0.09	3.47	3.43	3.47	3.58	3.49	0.08	0.08	0.08	
Mexico	3.83	3.77	3.69	-0.08	3.58	3.49	3.45	3.33	3.49	-0.21	3.29	3.13	3.13	3.17	3.19	-0.29	3.17	3.01	3.02	3.02	3.03	3.03	-0.16	-0.16	
North America	14.56	14.14	14.24	0.11	14.38	14.41	14.22	14.20	14.30	0.06	14.25	14.38	13.75	14.08	14.12	-0.19	14.37	14.17	14.23	14.35	14.35	14.28	0.16	0.16	0.16
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	2.53	2.45	-0.10	2.43	2.33	2.18	2.39	2.34	2.34	-0.12	-0.12	
UK	2.10	1.89	1.71	-0.18	1.79	1.75	1.49	1.72	1.69	-0.02	1.69	1.64	1.44	1.54	1.54	-0.15	1.46	1.41	1.33	1.32	1.38	1.38	-0.16	-0.16	
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	0.28	0.28	-0.03	0.31	0.30	0.27	0.29	0.29	0.01	0.01	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	0.71	0.73	0.04	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.00	
Western Europe	6.18	5.74	5.37	-0.37	5.50	5.29	4.95	5.29	5.23	-0.13	5.21	5.04	4.77	4.97	5.00	-0.24	4.93	4.77	4.51	4.73	4.74	4.74	-0.26	-0.26	
Australia	0.52	0.53	0.51	-0.02	0.51	0.54	0.54	0.51	0.53	0.02	0.47	0.53	0.54	0.59	0.53	0.03	0.63	0.61	0.61	0.61	0.57	0.61	0.07	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	0.13	0.11	0.03	0.14	0.14	0.14	0.14	0.14	0.14	0.03	0.03	
OPEC Pacific	0.57	0.58	0.56	-0.02	0.57	0.61	0.63	0.61	0.60	0.04	0.58	0.63	0.64	0.71	0.64	0.04	0.71	0.75	0.75	0.71	0.71	0.75	0.10	0.10	
Total OPEC	21.31	20.45	20.17	-0.28	20.45	20.22	19.79	20.11	20.14	-0.03	20.04	20.06	19.17	19.76	19.76	-0.38	20.07	19.69	19.49	19.79	19.76	19.76	0.00	0.00	
Brunei	0.21	0.21	0.22	0.01	0.20	0.18	0.19	0.19	0.19	-0.03	0.19	0.16	0.17	0.18	0.17	-0.02	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.00	
India	0.79	0.76	0.79	0.03	0.82	0.81	0.81	0.82	0.82	0.02	0.83	0.81	0.82	0.82	0.82	0.00	0.81	0.79	0.82	0.84	0.82	0.00	0.00		
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	0.83	0.79	0.02	0.82	0.79	0.80	0.79	0.80	0.01	0.01		
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	0.35	0.35	0.01	0.36	0.36	0.36	0.36	0.36	0.01	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	0.30	0.37	0.33	-0.02	0.41	0.39	0.40	0.40	0.40	0.07	0.07		
Asia others	0.18	0.26	0.26	0.01	0.27	0.27	0.27	0.26	0.27	0.00	0.28	0.28	0.28	0.30	0.28	0.02	0.30	0.30	0.30	0.30	0.30	0.02	0.02		
Other Asia	2.66	2.68	2.72	0.04	2.73	2.69	2.71	2.76	2.72	0.00	2.76	2.67	2.70	2.84	2.74	0.02	2.88	2.80	2.86	2.87	2.85	0.11	0.11		
Argentina	0.80	0.78	0.77	0.00	0.77	0.77	0.76	0.75	0.76	-0.01	0.77	0.77	0.76	0.77	0.77	0.00	0.72	0.71	0.70	0.69	0.71	-0.06	-0.06		
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	2.37	2.30	0.05	2.47	2.52	2.59	2.55	2.53	0.24	0.24		
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	0.60	0.59	0.05	0.61	0.61	0.61	0.61	0.61	0.02	0.02		
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	0.16	0.16	0.16	0.16	0.00	0.00		
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	0.28	0.28	0.00	0.27	0.27	0.27	0.27	0.27	-0.01	-0.01		
Latin America	3.55	3.77	3.86	0.09	3.88	3.88	3.88	3.88	3.88	0.02	4.00	4.06	4.12	4.17	4.09	0.21	4.23	4.27	4.33	4.28	4.28	0.19	0.19		
Bahrain	0.21	0.21	0.21	0.00	0.21	0.21	0.21	0.21	0.21	0.00	0.21	0.21	0.21	0.21	0.21	0.00	0.21	0.21	0.21	0.21	0.21	0.00	0.00		
Oman	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	0.79	0.80	0.80	0.81	0.80	0.06	0.06		
Syria	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	0.37	0.37	0.37	0.37	0.37	0.02	0.02		
Yemen	0.41	0.41	0.37	-0.03	0.35	0.34	0.33	0.33	0.34	-0.04	0.31	0.31	0.30	0.29	0.30	-0.03	0.29	0.28	0.27	0.27	0.28	-0.03	-0.03		
Middle East	1.90	1.85	1.75	-0.10	1.69	1.67	1.65	1.63	1.66	-0.09	1.64	1.65	1.64	1.63	1.64	-0.02	1.65	1.66	1.66	1.66	1.66	0.02	0.02		
Chad	0.16	0.18	0.16	-0.02	0.16	0.15	0.15	0.15	0.15	-0.01	0.15	0.15	0.15	0.15	0.15	0.00	0.15	0.15	0.15	0.15	0.15	0.00	0.00		
Congo	0.24	0.24	0.25	0.01	0.25	0.25	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	0.35	0.31	0.04	0.04		
Egypt	0.71	0.70	0.67	-0.02	0.67	0.67	0.67	0.67	0.67	0.00	0.68	0.68	0.70	0.71	0.69	0.02	0.69	0.69	0.69	0.67	0.68	-0.01	-0.01		
Equatorial Guinea	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	-0.01		
Gabon	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	0.02		
South Africa	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	-0.01		
Sudan	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	0.50	0.52	0.02	0.50	0.50	0.51	0.51	0.50	-0.01	-0.01		
Africa other	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	0.39	0.38	0.03	0.40	0.39	0.40	0.43	0.41	0.03	0.03		
Africa	2.36	2.52	2.60	0.09	2.71	2.69	2.68	2.75	2.71	0.11	2.77	2.78	2.81	2.81	2.79	0.08	2.81	2.78	2.81	2.86	2.82	0.02	0.02		
Total DCs	10.48	10.82	10.94	0.12	10.99	10.93	10.92	11.02	10.97	0.03	11.16	11.17	11.27	11.45	11.26	0.30	11.57	11.51	11.65	11.66	11.66	0.34	0.34		
FSU	11.14	11.55	12.02	0.47	12.51	12.45	12.45	12.62	12.52	0.50	12.62	12.68	12.42	12.70	12.60	-0.06	12.96	12.94	12.78	12.66	12.83	0.23	0.23		
Russia	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	9.89	9.80	-0.06	9.88	9.79	9.66	9.58	9.73	-0.08	-0.08		
Kazakhstan	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	1.48	1.42	0.07	1.53	1.54	1.40	1.55	1.51	0.09	0.09		
Azerbaijan	0.31	0.44	0.65	0.21	0.85	0.86	0.81	0.92	0.86	0.21	0.96	1.03	0.82	0.87	0.92	0.06	1.08	1.14	1.12	1.17	1.13	0.21	0.21		
FSU others	0.47	0.44	0.42	-0.02	0.44	0.42	0.44	0.46	0.44	0.02	0.46	0.46	0.46	0.46	0.46	0.02	0.47	0.47	0.47	0.47	0.47	0.01	0.01		
Other Europe	0.17	0.16	0.15	-0.01	0.15	0.15	0.15	0.14	0.15	-0.01	0.14	0.14	0.14	0.14	0.14	0.00	0.14	0.14	0.14	0.14	0.14	0.00	0.00		
China	3.50	3.64	3.69	0.06	3.78	3.82	3.73	3.75	3.77	0.07	3.81	3.88	3.85	3.91	3.86	0.09	3.91	3.91	3.90	3.88	3.90	0.04	0.04		
Non-OPEC production																									



## Contributors to the *OPEC Monthly Oil Market Report*

### Editor-in-Chief

Hasan M. Qabazard, Director, Research Division  
email: [hqabazard@opec.org](mailto:hqabazard@opec.org)

### Editor

Mohammad Alipour-Jeddi, Head, Petroleum Market Analysis Department  
email: [majeddi@opec.org](mailto:majeddi@opec.org)

### Analysts

Crude Oil Price Movements  
*and* Oil Futures Market  
Commodity Markets

Fayez Al-Nassar  
e-mail: [fal-nassar@opec.org](mailto:fal-nassar@opec.org)  
Dr. O. López-Gonzalez  
e-mail: [olopez@opec.org](mailto:olopez@opec.org)

Highlights of the World Economy

Mohamed El-Shahati  
email: [melshahati@opec.org](mailto:melshahati@opec.org)

Claude Clemenz  
email: [cclenz@opec.org](mailto:cclenz@opec.org)

World Oil Demand

Esam Al-Khalifa  
email: [ekhalifa@opec.org](mailto:ekhalifa@opec.org)

World Oil Supply

Haidar Khadadeh  
email: [hkhadadeh@opec.org](mailto:hkhadadeh@opec.org)

Product Markets and Refinery  
Operations

Safar Keramati  
email: [skeramati@opec.org](mailto:skeramati@opec.org)

The Tanker Market *and* Oil Trade

Osam Abdul-Aziz  
Email: [oabdul-aziz@opec.org](mailto:oabdul-aziz@opec.org)

Stock Movements

Brahim Aklil  
email: [baklil@opec.org](mailto:baklil@opec.org)

Technical and editorial team

Aziz Yahyai  
email: [ayahyai@opec.org](mailto:ayahyai@opec.org)  
Douglas Linton  
email: [dlinton@opec.org](mailto:dlinton@opec.org)

### Data services

Fuad Al-Zayer, Head Data Services Department ([fzayer@opec.org](mailto:fzayer@opec.org))  
Puguh Irawan ([pirawan@opec.org](mailto:pirawan@opec.org)), Ramadan Janan ([rjanan@opec.org](mailto:rjanan@opec.org))  
Monika Psenner (World Economy), Firouz Azarnia (Product, Refinery, & Tanker),  
Hannes Windholz (Oil Trade), Pantelis Christodoulides (World Oil Demand, Stock  
Movements), Sheela Kriz (Crude Oil Prices),

### Production, design and circulation

Ada Fritsch, Jennett Paulich, Andrea Birnbach, Gabriele Berger, Evelyn Oduro-Kwateng

*Unless separately credited, material may be reproduced without permission, but kindly mention OPEC as source.*



## OPEC Basket average price

US\$ per barrel

↓ down 19.40 in November	<b>November 2008</b>	49.76
	October 2008	69.16
	Year-to-date	99.40

## November OPEC production

in million barrels per day, according to secondary sources

Algeria	1.36	SP Libyan AJ	1.69
Angola	1.89	Nigeria	1.90
Ecuador	0.50	Qatar	0.81
Indonesia	0.84	Saudi Arabia	8.80
IR Iran	3.81	UAE	2.41
Iraq	2.32	Venezuela	2.30
Kuwait	2.46	<b>TOTAL</b>	<b>31.10</b>

## 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	54.2	Non-OPEC supply	55.5
<b>Difference</b>	<b>31.6</b>	<b>Difference</b>	<b>30.2</b>

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

## Stocks

**Ample supply and sluggish demand pushed OECD commercial stocks to 2,700 mb, implying more than 56 days of forward demand cover compared to a seasonal average of 52 days.**

## World economy

**World GDP growth revised down to 3.6% in 2008 and 1.5% for 2009.**