

# OPEC bulletin

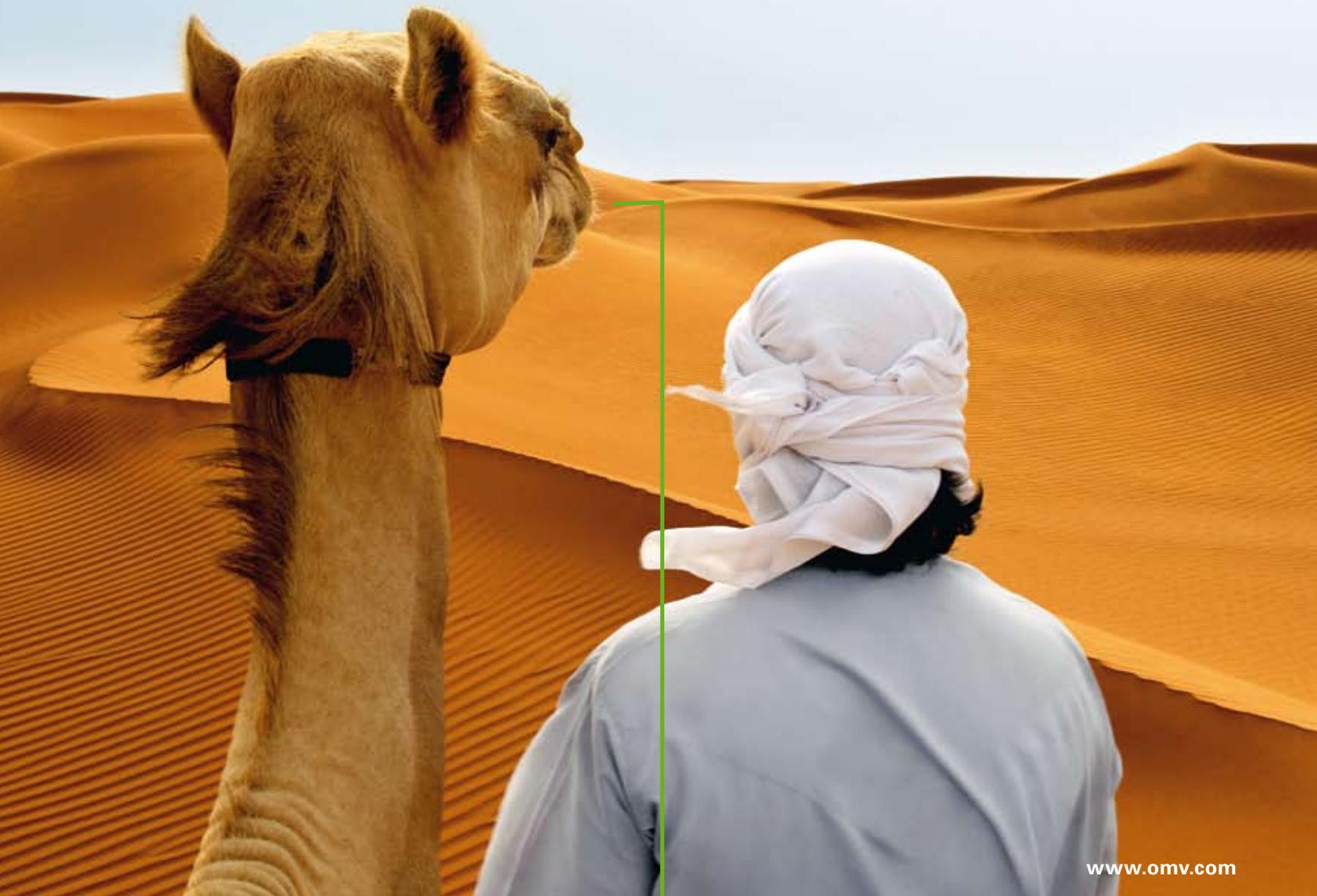
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# Getting to grips with price volatility

With half the summer gone, the oil price debate rages on.

Large international gatherings, such as the 11<sup>th</sup> International Energy Forum (IEF) in Rome, the 19<sup>th</sup> World Petroleum Congress in Madrid and, in between, the special meeting in Jeddah, called at short notice by Saudi Arabia, have dissected all the issues at hand. Yet, all the while, the price volatility persists, with the market 'bulls' continuing to dominate proceedings, basking in the limelight of a market rife with speculation.

The release of two separate publications on the oil outlook in early July – by OPEC and the International Energy Agency (IEA) – has added to the debate, especially with regard to the medium term.

Indeed, hardly a day goes by without some headline in the media announcing a significant new price movement, or revealing another so-called insight on price volatility.

This has all served to demonstrate once again the importance of oil to the day-to-day lives of most people on the planet – but, critically, not all people, notably those in the least-developed countries with, to date, little or no access to it – and the acceptance by all but the most diehard sceptics that this will remain the case for decades to come.

The diversity of views within industry, government and other specialist circles in the world about the reasons for the volatile price behaviour comes as no surprise. It reflects the nature of the global body politic and its interaction with the complexities and dynamics of the international oil industry – and all of this set in the context of oil's ubiquitous role in the global economy.

At the same time, however, the similarities in views outnumber the differences. There is a broad consensus that world energy demand will continue to rise for decades to come, fossil fuels will remain dominant, oil resources are plentiful, environmental issues in a carbon-con-

strained world  
Furthermore, the Jeddah  
IEF and OPEC – recognized the im-

Energy Meeting's concluding statement – issued jointly by Saudi Arabia, the IEA, the

In spite of all this, we cannot help feeling that the debate is beginning to lose its way and that it is in danger of becoming engulfed in familiar rhetoric from some influential consumers, with an unhelpful polarization of views creeping in.

Every study we have undertaken in this recent difficult period has made it clear that the market is well-supplied with crude, that fundamentals are sound and that other factors, notably speculation, dollar movements, geopolitical developments and downstream bottlenecks, are driving the volatility.

Why do some parties, therefore, persist in saying that the price volatility is really down to a misalignment of fundamentals? This flies in the face of reason, ignores the evidence and does not make sense to us.

As OPEC Conference President, Dr Chakib Khelil, told reporters recently: "How can one explain that the oil price fell by \$15/barrel in the space of two days, if, as they say, there is a lack of supply? The fact is, supply has not changed during these two days ... which means that the cause of the rise in crude prices is nothing to do with supply problems."

Furthermore, some consumers express concern about the medium-term outlook and claim that this sentiment is contributing to the volatility. However, when we provide assurances about the oil-supply situation over the next five or so years, highlighting in detail the investment that is actually being undertaken by our Member Countries, 'expert opinion' from some consumer circles publicly questions this, fuelling the volatility! How can they claim to know more about what is happening within our sovereign territories than we do?

Massive strides have been made in dialogue and cooperation over the past two decades in a global industry that is more integrated than ever and at a time of growing interdependence in the world at large.

We all know that, because of its important role in the global economy, oil remains a highly politicized commodity. However, this should not detract the industry at large and all the associated interests from taking a balanced, reasoned and constructive approach to handling a debate on an issue which lies at the heart of sound, sustained growth in the world economy and where the benefits should be shared by all countries, in accordance with the Millennium Development Goals. ■■

Meeting Report 4



Saudis host high-level meeting to discuss oil prices

- Concluding Joint Statement (p10)
- Reasons behind the Jeddah meeting (p12)
- King Abdullah announces help for poorer nations (p14)
- Naimi urges commitment, cooperation, courage (p16)
- UK's Brown proposes new way forward (p20)

Dialogue 24



EU-OPEC Energy Dialogue: Turning assumptions into facts

19<sup>th</sup> World Petroleum Congress 38



Madrid in motion



Book Launch 48



OPEC releases latest oil data and global outlook for petroleum



Cover

Pictured is the Wall Street bull, which is synonymous with the 'raging' speculation seen on today's global energy markets.  
Design: Elfi Plakolm

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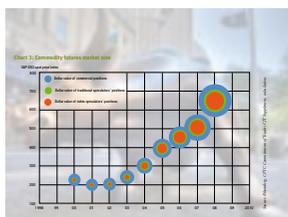
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OPEC is a permanent, intergovernmental Organization, established in Baghdad, September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective is to coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry. The Organization now comprises 13 Members: Qatar joined in 1961; Indonesia and SP Libyan AJ (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007); and Ecuador (joined the Organization in 1973, suspended its Membership in 1992, and rejoined in 2007); Gabon joined in 1975 and left in 1995.

## For the Record 54



US House acts to curb energy speculation

## Country Spotlight 60



New way for Norway

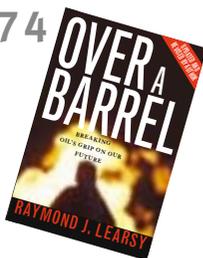


## BP Statistical Review 72

There is enough oil to go around

## Book Review 74

Foreign scapegoats



## OPEC Fund News 78



Zambia inaugurates first ever hospital for cancer disease

## Arts & Life 82



Euro 2008: Move over Mozart

## Market Review 86

## OPEC Publications 104

The OPEC Bulletin welcomes letters and comments on articles included in the Bulletin, as well as contributions on oil and energy issues in general.

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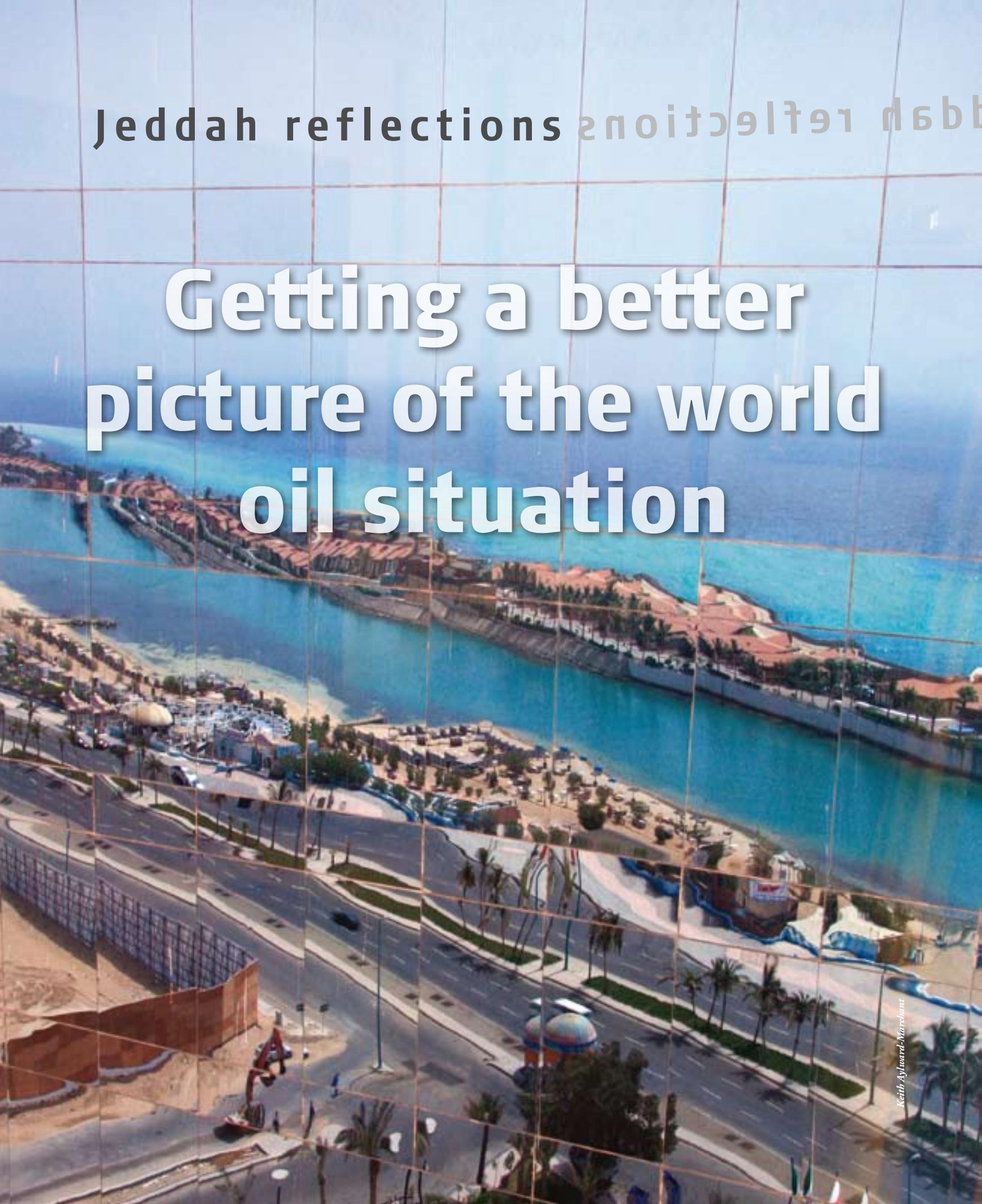
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Jeddah reflections

# Getting a better picture of the world oil situation





## Jeddah Energy Meeting

Oil producers and consumers meeting  
Jeddah, Saudi Arabia,  
June 22, 2008

### Saudis host high-level meeting to discuss prices

*With oil prices continuing to reach record high levels and with no apparent end in sight to the worrying volatility that has characterized global markets over the past year, Saudi Arabia called a meeting at short notice of top government and industry interests, representing both producers and consumers, in Jeddah on June 22, to examine the market's behaviour and discuss means of restoring calm and order. The OPEC Bulletin's **Keith Aylward-Marchant**, reports on this event, which attracted more than 60 delegations from across the world and has set in motion a series of follow-up activities.*



*Seated at the official opening ceremony are (l-r): Xi Jinping, Vice President of the People's Republic of China; King Abdullah Bin Abdulaziz Al-Saud, the Custodian of the Two Holy Mosques of Saudi Arabia; and Gordon Brown, Prime Minister of the United Kingdom.*

Organized by Saudi Arabia in just 12 days, and well-supported in international government and industry circles, the Jeddah Energy Meeting (JEM) witnessed a comprehensive exchange of views on the recent price behaviour, together with proposals to restore calm and order to the market.

At the end of the talks, a working group was convened to follow-up issues under discussion, and a further meeting was planned for London later in the year.

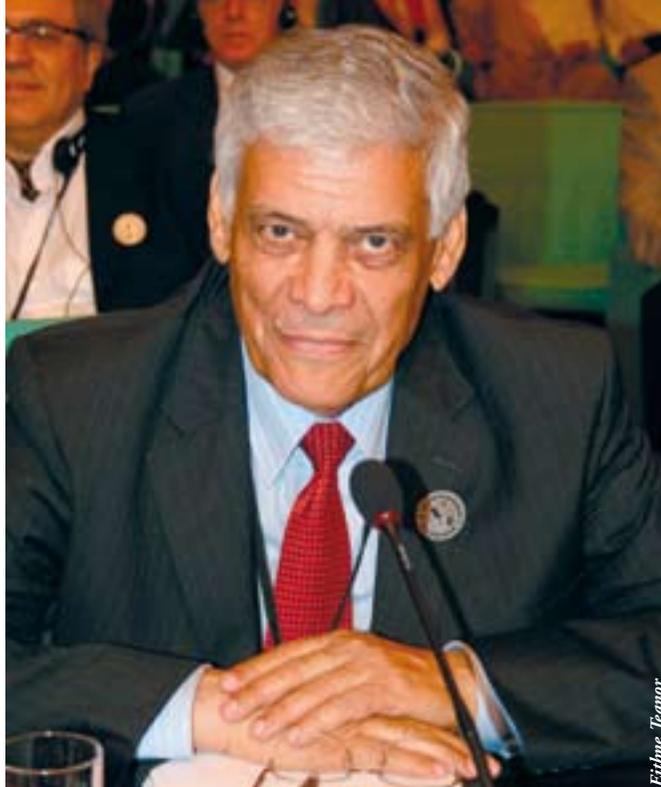
The meeting, held in Jeddah on the Red Sea coast on June 22, had the specific brief to “identify the causes and

consequences of the recent price behaviour and (suggest) areas of improvement for the efficient operation of the oil market,” as a specially prepared background paper put it.

It attracted to the city's Hilton Hall Conference Centre participants from 36 producing and consuming country governments, 19 national and international oil companies and seven intergovernmental organizations.

Under the patronage of the Custodian of the Two Holy Mosques, King Abdullah Bin Abdulaziz Al-Saud, the meeting was called by Saudi Arabia, at a time of continuing

*Left: This is a reflection of the coastal road in Jeddah, taken from the Rosewood Hotel.*



OPEC Secretary General, Abdalla Salem El-Badri.

market volatility and rising prices, which had no apparent end in sight.

This had seen the price of OPEC's Reference Basket of 13 OPEC crudes break through the \$100/barrel barrier for the first time on March 11. On June 6, the prices of some international crudes had risen by \$11/b to record highs in one session. And, on June 9, the day before the meeting was called, the Basket price had exceeded \$130/b.

As the Saudi Minister of Petroleum and Mineral Resources, Ali I Naimi, told the meeting: "Given the vital importance of petroleum to modern life, the global nature of the oil markets and the far-ranging social, political and economic impacts of high prices and market volatility, we all have a stake in this conversation. After all, current market conditions are in the interest of neither producers nor consumers, and none of us can be content with the status quo."

Providing the basis for the meeting was a background paper, prepared jointly by Saudi Arabia, the International Energy Agency (IEA), the International Energy Forum (IEF) and OPEC, and circulated around the participating delegations several days before the event.

Entitled 'Global efforts to stabilise the international oil market' and subsequently published on the JEM website, the background paper identified key features of the market's recent behaviour, examined its causes and consequences and set out some proposals for addressing it. These proposals were incorporated in a joint statement by the four parties, which concluded the meeting.

The background paper was formally presented to the meeting in the morning session, after some opening comments from a discussion panel. Chaired by the Saudi Assistant Minister for Petroleum Affairs, Prince Abdulaziz bin Salman, the panel consisted of IEA Executive Director Nobuo Tanaka; IEF Secretary General Dr Noé van Hulst; and OPEC Secretary General Abdalla Salem El-Badri. An open discussion on the current oil market conditions followed.

### *Frivolity of speculators*

In officially opening the meeting in the early afternoon, King Abdullah said: "I consider your attendance reflects your feeling with the responsibility and the importance of international cooperation in the topic of energy which concerns all nations of the world".

He stressed that, since the establishment of OPEC in 1960, Saudi Arabia's policy had been to adopt a fair petroleum price "that harms neither the producers nor the consumers." Hence the country had increased crude oil output from nine to 9.7 million barrels/day in the past few months and was ready to meet any additional requirements in the future.

He said the reasons for the "recent quick and unjustified increase" in oil prices included "the frivolity of the speculators in the market for selfish interests, an increase in consumption in a number of rising economies, and increasing taxes on petroleum in a number of consuming countries."

He was indignant that "some people (are) accusing OPEC alone" for the present situation, even though OPEC "has not issued a decision on pricing for decades."

He also announced a series of measures to help the world's poorer nations "suffering from the hike in prices of all commodities, and food commodities in particular."

First, he called for the launch of an energy initiative to help them meet the increasing costs of energy and urged the World Bank to organize this (the bank's President, Robert Zoellick, agreed to this later). He called for the OPEC Fund for International Development (OFID) to set up a "continual" parallel programme with \$1 billion funding. He said Saudi Arabia would help finance these two programmes. In addition, his country would allocate \$500m for soft loans through the Saudi Fund for Development for financing projects in developing countries. And he asked the JEM to form a working group to follow-up its recommendations and monitor oil market developments.

He closed, by saying: “In this critical hour, the international community must rise to the level of responsibility. Cooperation must be the cornerstone of any effort, and we all must have a comprehensive, profound and humanitarian vision in our perspective of the present and future.”

The United Kingdom Prime Minister, Gordon Brown, and the Vice-President of the People’s Republic of China, Xi Jinping, also delivered addresses at the opening ceremony.

Brown (*see p20*) proposed a “new way forward”, which would provide a “win-win” situation for both producers and consumers. He said: “The foundation of a global new deal is a credible commitment to a better functioning oil market with clear signalling of current and future supply and demand.” He also made an offer for the United Kingdom to convene a follow-up conference in London later in the year, after the planned G-8 meetings.

Xi provided the perspective from a leading emerging economy and referred to a new energy security concept, with intensified consultation, dialogue and cooperation among oil-producing and oil-consuming countries, which were facing grim challenges as a result of the recent dramatic price rises. He stressed the importance of clean energy and conservation, with a stable pattern of energy development covering production, transportation and consumption.

He stressed that China will adhere to its sustainable energy strategy and make active contributions to global sustainable energy development and energy security. The country would place emphasis on both energy exploitation and conservation.

China, he said, had drafted a plan to reduce energy consumption per unit of gross domestic product by about 20 per cent by 2010 from the 2005 level. The country possessed great potential for domestic energy supply, and had abundant reserves of coal, the major source of domestic energy. Its rich hydroelectric resources, plus other new energies, such as nuclear and wind energy, were yet to be fully exploited, Xi added.

“China will pursue its diversified development of energy supplies. The various energy forms — coal, oil, gas, hydroelectricity, wind power and solar energy — will supplement each other to secure a stable energy supply,” he pointed out.

In seeking to establish technological progress and innovation in the energy field, China would strengthen cooperation with energy-producing and consuming nations, he added.



Saudi Arabia’s Assistant Minister for Petroleum Affairs, HRH Prince Abdulaziz Bin Salman Bin Abdulaziz, addresses the press.

“The overall aim is to strive to build a resource-conserving and environmentally-friendly society by ensuring the coordinated development of energy production and environmental protection,” he added.

## A parting of the ways

The final session of the meeting, chaired by Naimi, provided an opportunity for the Heads of Delegation to make short statements about the oil market situation.

First, however, in his opening remarks to this session, Naimi pointed out that crude oil prices had almost doubled since the year before, in spite of global supply rising “substantially” more than demand during that period and the days of forward cover increasing from around 52 to 54.

“Clearly, something other than supply-demand fundamentals is at work here and a simplistic focus on supply expansion is therefore unlikely to tame the current price behaviour,” he said.

He added that concern over long-term supply shortages seemed to be playing a role in strong futures prices, but such concern was “badly misplaced” as, according to him, the world had enough petroleum resources for “many, many” decades to come.

“What is required over the long-term,” he said, “is not more oil in the ground, but rather the assets to bring it to the surface, to process it and to supply it to markets around the world. The Kingdom, for its part, is providing

those assets through its vast integrated investment programme all along the value chain.”

Naimi added: “Our industry has navigated such rough waters in the past without witnessing the kind of price rises and market volatility that have brought us together today.”

He continued: “I believe that there has been a parting of the ways when it comes to oil supply-demand balances and other industry fundamentals, on the one hand, and the price behaviour and market volatility, on the other. Industry fundamentals cannot account for today’s high prices, nor for the enormous degree of market volatility that we have experienced of late.”

Price rises and volatility were being fuelled by “a wide range of other factors, which lie beyond the ability of the petroleum industry to address, or even influence.”

Foremost among them were recent trends in the global financial markets, including weak equity and bond markets, which had encouraged investors to move their capital into commodities like oil. Inadequate oversight, regulation and reporting of speculative investments in commodities had exacerbated the situation.

There were also: skewed and uneven taxation and tariff regimes; energy policy, regulatory and permitting environments, which hampered oil facility construction and development, and which sent mixed signals to prospective industry investors; and moves to alternative fuel sources, including the introduction of subsidies for bio-fuels. There was, in addition, the impact on oil markets of regional and global political tensions and confrontational rhetoric, as well as high taxes on petroleum products in consuming countries.

Naimi stated emphatically: “Given the nature of these various drivers and the complex interactions between them, I believe this set of issues has to be addressed primarily by parties other than oil producers — and yet they must be tackled if we are to resolve the current dilemma of high, unpredictable oil prices.”

### ***Commitment to stability***

He recalled Saudi Arabia’s historic commitment to market stability and its policy of maintaining spare production capacity “at high cost to the Kingdom”.

While convinced that markets were already well supplied, he said: “I also strongly believe that each of us must do what we can to alleviate these difficult conditions. Therefore, given our current spare capacity, today I would like to state that, for the remainder of this year,

Saudi Arabia is prepared and willing to produce additional barrels of crude oil above and beyond the 9.7m b/d which we plan to produce during the month of July, if demand for such quantities materializes and our customers tell us they are needed.”

He added that Saudi Arabia would continue to implement its slate of new crude oil increments, with projects that would see the country’s maximum sustained production capacity rise to 12.5m b/d by the end of 2009: “This will enable us to continue to maintain our spare capacity, in the interest of global market stability — which is in everyone’s interest.”

In addition, the country had identified a series of future crude oil “mega-increments”, totalling another 2.5m b/d of capacity, “that could be built if and when crude oil demand levels warrant their development.”

Saudi Arabia would also press ahead with its planned investments in the refining sector, which, over the next five years, would total some 2m b/d of new refining capacity at home and abroad.

These were “massive investments” upstream and downstream, totalling \$129bn over the next five years. Later, at the press conference, he pointed out that, with about \$60bn going to the upstream, this meant that the larger proportion would be invested in the downstream, signifying that the upstream sector was considered to be “OK”.

“Saudi Arabia is making these investments in the belief and with the expectation that other countries, corporations and institutions will also do their part to meet the multifaceted challenges posed by the current market situation,” Naimi continued, in his remarks at the afternoon session.

“We strongly believe that actions by consuming nations in several important areas could play a pivotal role in complimenting our efforts to collectively and effectively address the prevailing market situation,” he added.

He concluded: “By aligning the efforts of all stakeholders to achieve our common objectives ... we have an opportunity to resolve the current market difficulties and thus to promote sustained growth for the global economy, greater prosperity for our nations and a brighter future for all of our peoples. Let us not allow that opportunity to slip from our grasp.”

Many delegations made statements at the afternoon session from the floor, adding breadth and depth to the discussions.

There was widespread agreement with the Saudi position that speculation had been playing a significant



Saudi King Abdullah poses with delegates at a group photo session.

role in the market's recent behaviour. OPEC had for some time been canvassing this position. As one international oil company official put it, it was all about perceptions and there was no acute problem with fundamentals.

However, some parties disagreed and placed the emphasis on a supply shortage, rather than speculation.

Nevertheless, whatever the assembled delegates felt about the causes of the recent price volatility, there was a common belief that this was a complex, multifaceted issue in an increasingly interdependent energy world, with no "quick fix".

And so the JEM was seen as the start of a long process to address the underlying issues affecting prices. Dialogue was central to this, with calls for closer collaboration among the IEA, the IEF and OPEC in seeking effective and sustainable solutions. There was also a greater need for transparency, and the Joint Oil Data Initiative (JODI) had an important role to play in this.

One delegate from the developing world noted that the volatility and rising prices could wipe out the gains made by the emerging economies in recent years and that the oil industry must, therefore, reassert its leadership in price formation. Another delegate said that Africa was especially vulnerable and that producers should use some of their revenue to invest in developing countries; oil should always be within reach of the poorer nations.

### **Humanitarian dimension**

A delegate from an oil-producing country stressed the humanitarian dimension and pointed out the dilemma

facing many such countries of being asked to both produce more and emit less, adding: "We are tiptoeing around this (dilemma)." It was necessary to embrace technology to the full to produce fossil fuels in today's carbon-constrained world, and carbon capture and storage was essential to this.

Other delegates noted that there had been insufficient investment in the industry when oil prices were very low in the 1990s, and that the effects of this were being felt now. Moreover, sanctions imposed on some oil-producing countries had restricted their ability to develop their oil sectors. Furthermore, the present volatile situation was adding to market uncertainty and affecting the overall investment climate. It was no longer an era of cheap oil.

The meeting's concluding joint statement (*see p10*), attributed to Saudi Arabia, the IEA, the IEF and OPEC, noted that "the situation requires concerted efforts from all parties — producing and consuming countries, the oil industry and all concerned parties — to bring stability to the international oil market for the benefit of all."

It recognized the importance of focusing on seven specific areas, relating to spare capacity, the financial markets, data transparency, IEA/OPEC/IEF collaboration, development assistance, industrial cooperation and energy efficiency.

The statement announced that a working group would be formed to undertake follow-up activities and that the participants welcomed the invitation from the UK government to hold a progress meeting in London later in the year.

# Concluding Joint Statement

*The following Joint Statement, by the Kingdom of Saudi Arabia, the International Energy Agency (IEA), the International Energy Forum (IEF) and the Organization of the Petroleum Exporting Countries (OPEC), was issued at the end of the Jeddah Energy Meeting.*

Upon a timely and kind invitation from the Government of the Kingdom of Saudi Arabia and under the patronage of the Custodian of the Two Holy Mosques, King Abdullah Bin Abdulaziz Al-Saud, Ministers and representatives from many producing and consuming countries, with the attendance of oil industry representatives as observers, met in Jeddah, Saudi Arabia, on June 22, 2008, to discuss the current oil market situation.

Participants noted with concern that oil prices have risen sharply and become more volatile, due to a host of factors. They sought to identify the causes and consequences of recent price behaviour and suggested areas of improvement for the efficient operation of the oil market. Participants also noted that current oil prices and their volatility are detrimental to the global economy and, in particular, the economies of the least-developed economies.

Participants agreed that the situation requires concerted efforts from all parties — producing and consuming countries, the oil industry and all concerned parties — to bring stability to the international oil market for the benefit of all.

Taking into account their diverse national circumstances and priorities, as well as their shared interest in a stable global oil market and sustainable economic growth, the participants recognized the importance of the following:

- That the existence of spare capacity throughout the oil supply chain is important for the stability of the global oil market. Hence an appropriate increase in investment, both upstream and downstream, is necessary to ensure that the markets are supplied in a timely and adequate manner. Predictable energy and investment policies, as well as better access to technology, are necessary to this end.
- That the transparency and regulation of financial markets should be improved through measures to capture more data on index fund activity and to examine cross-exchange interactions in the crude market.
- That the quality, completeness and timeliness of oil data submitted through the monthly Joint Oil Data Initiative (JODI) should be enhanced. In order to further improve market transparency and stability, the seven organizations involved in JODI (APEC, Eurostat, the IEA, the IEF, OLADE, OPEC and the UNSD) are called upon to start work to cover annual data that includes, among other things, upstream and downstream capacities and expansion plans.
- That there should be immediate collaboration between the IEA and OPEC Secretariats, together with the IEF Secretariat, on preparing shared analyses of oil

market trends and outlook, as well as of the impact of financial markets on the level and volatility of oil prices, which can be used to better understand the market situation.

- That development assistance from the national, regional and international finance and aid institutions is intensified, to alleviate the consequences of higher oil prices on the least-developed countries.
- That cooperation is enhanced among international, national and service companies from all producing and consuming countries in investment, technology and human resource development.
- That energy efficiency is promoted in all sectors through passing on market price signals, technology transfer and the sharing of best practices in energy production and consumption.

The host and the parties to this statement will convene a working group to follow up the needed actions from the above, as appropriate. Participants welcomed the kind invitation from the UK Government to hold a meeting on the progress made on the above issues, in London before the end of the year.



*Dr Noé van Hulst, IEF Secretary General, reading the concluding statement.*

## Reasons behind the Jeddah meeting ...

*A background paper for the special meeting of producing and consuming countries, as well as representatives from the oil industry, was prepared by the four parties involved — Saudi Arabia, the IEA, the IEF and OPEC. In assessing global efforts to stabilize the international oil market, the document sought to identify the causes and consequences of the recent price behaviour and suggested areas of improvement for the efficient operation of the oil market.*

The paper noted that spot and long-term oil futures prices have risen sharply in the recent past. This has been accompanied by an increase in price volatility.

“However, despite such a price environment, global oil demand, although slower, continues to grow steadily, driven by non-OECD countries, where gross domestic product (GDP) growth is a much more important determinant of demand than price. This growth has been reinforced by the fact that oil demand is occurring basically in the price-inelastic sectors, such as transportation and petrochemicals, and is being influenced by the effects of subsidies and taxes.

“This growth has also been accompanied by stronger linkages between the oil markets (as well as other commodity markets) and the financial markets, with activity in regulated and unregulated commodity exchanges also expanding,” it observed.

The paper said this price behaviour nevertheless impacts upon both consumers and producers, energy-intensive industries and the growth path of the world economy, even though this has, to date, been more resilient. However, the impact on the least-developed countries has been more pronounced.

“The recent developments in the world oil market require concerted action from all parties — consumers, producers, the oil industry, the concerned intergovernmental organizations and all other interested parties — to work towards understanding the underlying reasons behind such developments, reducing uncertainties and taking the necessary actions to ensure the

stability and sustainability of the energy system,” the four parties stressed.

### Causes of recent oil price developments

The paper pointed out that the causes of recent oil price behaviour are multiple and complex. A host of factors has been contributing to it and their exact weights are difficult to assess. It identified the following market fundamental factors:

- Lower crude oil spare capacity, relative to historic high levels, in the face of the projected rise in demand, has made markets wary of future supplies. Constrained upstream investment in some producing and consuming areas, due to different factors, such as access to technology, cost-inflation, shortages of skilled manpower, political and investment constraints and demand predictability, has had an impact on such capacity.
- Limited refining capacity in oil product markets, due to a constrained refining investment, environmental standards, cost-inflation and stringent laws and regulations, has resulted in poorer refining margins. This has been amplified by a mismatch between the quality of crude supply, on the one hand, and the demand for lighter products and tighter specifications, on the other. In addition, while contributing to energy supply growth, biofuels are having

a compounding effect on the refining industry in some regions.

- Fears of supply disruptions, driven by geopolitical concerns, technical shut-ins, accidents and weather-related events, such as hurricanes.
- Perceptions by some market participants of a limited oil resource base, lower growth in non-OPEC supply and lower-than-normal levels of some product stocks.
- The inclination of refineries to increase the distillate yields to meet demand and improve their margins has pushed up the price of distillates, as well as pushing up the price of crude oil.

In addition to the above market fundamental factors, the paper said there have been other causes not necessarily related to the underlying demand and supply trends. Some of these can be identified as follows:

- The increasing interaction between the oil market and the financial markets, making oil more of a financial asset than before.
- The increase in the investment inflows from financial institutions, pension and hedge funds, and private equities, into the oil (and other commodities) futures and over-the-counter markets, due to the relative weakness in the value of the US dollar and the lower returns on other assets.
- Uncertainties about the monetary, fiscal, energy, investment, trade and environmental policies of consuming and producing countries.
- Unrealistic assessments of the oil market situation and price projections by some entities.

The paper said that, while global demand has been growing for the past few years, as has been the case with global supply, all the above-mentioned factors and

causes have played a part in increasing price levels and their volatility.

## Consequences of oil price developments

The paper warned that the oil price rises and underlying volatility, if they continue without concerted action from all parties, will have an impact on the economies of consuming and producing countries alike, as well as on the long-term stability of the international oil market and world economy. This, it said, could have the following consequences:

- An adverse impact on economic growth, especially in the least-developed countries, through the energy/economy linkages.
- Higher oil prices will affect heavily energy-intensive industries and the cost of transportation, and could result in higher inflation.
- Higher oil prices will enhance the flow of investment into alternative fuels, which will put a floor on oil prices.
- Continued oil price volatility gives confusing signals to investors in the upstream and downstream and delays required investment.
- Higher oil prices and volatility have increased activity in the oil futures markets with a spiralling effect.

In looking at proposals to address the current world oil market situation, the paper pointed out that the causes and consequences of the current oil price environment referred to above, call for a combination of efforts on the part of producing and consuming countries, the oil industry and all other interested parties.

“Taking into account their diverse national circumstances and priorities, as well as their shared interest in a stable global oil market and sustainable economic growth, the proposals (contained in the final Joint Statement [published separately]) can be considered,” it added.

# King Abdullah announces help for poorer nations



King Abdullah at the official opening.

*This is a translation of the address given by the Custodian of the Two Holy Mosques, King Abdullah Bin Abdulaziz Al-Saud, to the Jeddah Energy Meeting.*

I should like to welcome and thank you for attending this important meeting in response to our invitation, and I consider your attendance reflects your feelings — with the responsibility and the importance of international cooperation — on the topic of energy, which concerns all nations of the world, and I wish you every success.

Our invitation has not come from a void. The policy of the Kingdom of Saudi Arabia, since the establishment of OPEC, has been based on adopting a fair price for petroleum in a manner that harms neither the producers nor the consumers.

We have been as keen on preserving the interests

of the entire world as we have been keen on preserving our national interests, and for that policy we have faced many attacks and accepted a lot of harm.

## **Development assistance**

Starting with this policy, we have allocated a great part of our income to development assistance. Starting with the same policy, in the last few months, we have increased our daily production of petroleum from nine million barrels/day to 9.7m b/d, and we are ready to meet any additional requirements in the future.

There are several factors behind the recent quick and

unjustified increase in petroleum prices. They include: the frivolity of speculators in the market, for selfish interests; an increase in consumption in a number of rising economies; and increasing taxes on petroleum in a number of consuming countries.

Despite these factors, and despite the fact that OPEC has not issued a decision on pricing for many decades and has left the issue of price to the market, and despite the Organization's keenness to meet increasing demand, we find some people accusing OPEC alone.

In the light of this, your great mission becomes clear — uncovering the truth. Your mission is to rule out biased rumours and discover the real causes of the increase in price, determine how to address that development clearly and transparently, and disclose the outcome to the international community, so that the innocent will not be treated as a wrongdoer. Only then will the truth survive.

### **Historic role**

The Kingdom realises its historic role in the field of energy, the importance of international cooperation in energy affairs and the necessity of assisting the poor nations in these difficult circumstances, when they are suffering from the hike in prices of all commodities, and food commodities in particular. I am pleased to announce the following, in the name of the Kingdom.

First, I call for the launch of an energy-initiative for impoverished countries, with the aim of enabling them to confront the increasing cost of energy. I urge the World Bank to organise a meeting as soon as possible for donor countries, as well as regional and international financial institutions, to discuss and act on this initiative.

Secondly, I call upon the Ministerial Council of the OPEC Fund for International Development (OFID) to meet and consider the approval of a programme parallel to the previous one, with a continuing characteristic, and I propose an allocation of \$1 billion for this programme.

Thirdly, I announce the readiness of the Kingdom contributing towards financing the two above-mentioned programmes, within a framework to be agreed upon.



Fourthly, I announce the allocation of \$500 million for soft loans through the Saudi Fund for Development, for financing projects to help developing countries obtain needed energy and development projects.

And fifthly, I ask your meeting to form a working group of countries and organizations which have participated in this meeting, under the umbrella of the General Secretariat of the International Energy Forum (IEF). The working group will follow up and implement recommendations to be issued by this conference, in addition to monitoring developments in the oil market. I announce the Kingdom's readiness to support the working group, so that it can carry out its mission successfully.

### **Critical hour**

In this critical hour, the international community must rise to the level of responsibility. Cooperation must be the cornerstone of any effort, and we all must have a comprehensive, profound and humanitarian vision in our perspective of the present and future. Such a vision shall be liberated from selfishness and shall transcend to horizons of fraternity and solidarity, and this is the secret of success.

# Commitment Cooperation Courage



**Naimi tells all stakeholders to “stand up and step up” to overcome oil sector challenges**

*Ali I Naimi (pictured), Saudi Arabian Minister of Petroleum and Mineral Resources, made the following address to the Jeddah Energy Meeting. In his remarks concerning high oil prices, he told assembled delegates that it is not the time to cast blame or point fingers, but to “stand up, step up and be part of the solution”. In calling on all stakeholders in the industry to commit to working together to resolve the current market difficulties, the Minister said the challenges facing the sector require “commitment, cooperation, and a lot of courage”.*

Your Excellencies, distinguished guests, friends and colleagues: good afternoon, and on behalf of the Kingdom of Saudi Arabia, let me welcome you to Jeddah and to today's Energy Meeting. We are pleased this group has accepted the invitation of the Custodian of the Two Holy Mosques to discuss and deliberate on prevailing oil prices, which impact us all — whether we represent: producers or consumers; governmental, intergovernmental or private sector entities; national or international oil companies; or organizations and institutions from beyond the realm of petroleum.

Given the vital importance of petroleum to modern life, the global nature of the oil markets and the far-ranging social, political and economic impacts of high prices and market volatility, we all have a stake in this conversation. After all, current market conditions are in the interest of neither producers, nor consumers, and none of us can be content with the status quo.

A year ago, prices were in the range of \$65/barrel — now, they are almost double that. What has happened during this relatively short period of time? Between the second quarter of 2007 and the second quarter of 2008, global demand rose by an estimated 800,000 to 1.2 million barrels/day, but at the same time global oil supplies rose between 1.4 and 1.6m b/d — substantially more than the increase in demand. Accordingly, days of forward cover increased from roughly 52 to 54 days during the last 12 months and inventory levels are currently well within their normal range.

And yet we have seen this enormous run-up in prices, coupled with wide price swings. As you recall, earlier this month, WTI prices spiked by nearly \$11 in a single trading session, despite the fact there was no major disruption of supplies, or one-day spike in demand. Clearly, something other than supply-demand fundamentals is at work here and a simplistic focus on supply expansion is therefore unlikely to tame the current price behaviour.

Concerns over long-term supply shortages seem to be playing a role in strong futures prices, though I believe these concerns are badly misplaced. The world has enough petroleum resources, both conventional and non-conventional, to meet oil demand for many, many decades to come, even before we factor in future technological advances, which will enable us to produce our resource base even more effectively. Of course, given the changes in driving habits, purchases of more fuel-efficient vehicles, Corporate Average Fuel Economy (CAFE) standards and ethanol mandates we're seeing in the United States, as well as the systemic decline in Japan's petroleum consumption and the long-term price elasticity of demand, there are also downward pressures on demand which must be considered, notwithstanding demand growth in developing nations, such as China and India.

### ***Vast investment programme***

What is required over the long-term is not more oil in the ground, but rather the assets to bring it to the surface, to process it and to supply it to markets around the world. The Kingdom, for its part, is providing those assets through its vast integrated investment programme all along the value chain — a topic to which I will return in a moment.

Our industry is experiencing stretched refining capacity worldwide and a number of infrastructure bottlenecks around the globe are creating difficulties. Just as important, a shortage of complex conversion capacity to process heavy sour crudes, coupled with increasingly stringent and varied refined product specifications, are also causing pain for consumers at the pump. This lack of conversion capacity is due to under-investment in such facilities over the last decade; given the cyclical nature of the refining business and its relatively thin margins, especially during down cycles, this lack of investment may

**“Industry fundamentals cannot account for today’s high prices, nor for the enormous degree of market volatility.”**

be understandable, but it is still constraining the ability of refiners to process heavy sour crudes whose supply is more ample.

But our industry has navigated such rough waters in the past without witnessing the kind of price rises and market volatility that have brought us together today. Looking at the data that are in front of us today, studying the best forecasts we have of future supply and demand trends, and considering my previous discussions with many of you, I have reached a number of conclusions about the current market situation — a set of beliefs based on facts, if you will.

First, as I noted earlier, I believe that there has been a parting of the ways when it comes to oil supply-demand balances and other industry fundamentals, on the one hand, and the price behaviour and market volatility, on the other. Industry fundamentals cannot account for today's high prices, nor for the enormous degree of market volatility that we have experienced of late.

Instead, I believe price rises and volatility are being fuelled by a wide range of other factors which lie beyond the ability of the petroleum industry to address or even influence. Perhaps, foremost among these are recent trends in the global financial markets, including weak equity and bond markets, that have encouraged investors to move their capital into commodities like oil. Consider that the bond and equity markets in the US alone are valued at roughly \$50 trillion and that if money managers decided to reallocate a nominal one-half of one per cent of those assets into the oil commodity space, the resulting \$250 billion influx of funds would equal the value of the entire NYMEX WTI market. Clearly there would be an impact on price, especially if most of this new money takes long positions.

I would also note that, while there is little or no correlation over the past two years between global crude oil inventories and crude oil prices, there has been a strong correlation between the increasing volume of crude oil futures trade on the NYMEX and rising prices. According

to many observers and analysts, inadequate oversight, regulation and reporting of speculative investments in commodities have further exacerbated this situation. Therefore, we welcome steps like the recent agreement between the US Commodity Futures Trading Commission and the Intercontinental Exchange regarding the extension of regulatory oversight to ICE Futures Europe.

### *Issues must be tackled*

Of course, skewed and uneven taxation and tariff regimes; energy policy, regulatory and permitting environments, which hamper oil facility construction and development, and which send mixed signals to prospective industry investors; and moves to alternative fuel sources, including the introduction of subsidies for biofuels and mandates on their use, have all played a role in getting us where we are today. Nor should we forget the impact on oil markets from regional and global political tensions and confrontational rhetoric, which, at times, seem to outstrip all other considerations when it comes to price movements.

Furthermore, the prevailing high prices have been painful to consumers at the pump, a situation that has been exacerbated by high taxes on petroleum products in consuming countries.

Given the nature of these various drivers and the complex interactions between them, I believe this set of issues has to be addressed primarily by parties other than oil producers — and yet they must be tackled if we are to resolve the current dilemma of high, unpredictable oil prices.

Saudi Arabia has had a historical commitment to market stability and, for that reason, as a matter of policy we have maintained spare production capacity at high cost to the Kingdom. As you know, we have readily employed this spare capacity in the past whenever the market has justified its use. In fact, in many situations our policy and spare capacity has stood between peril and prosperity of the world economy.

In today's environment, I am convinced that supply and demand balances and crude oil production levels are not the primary drivers of the current market situation and that markets are already well supplied. But despite this assessment, I also strongly believe that each of us must do what we can to alleviate these difficult conditions. Therefore, given our current spare capacity, today I would like to state that for the remainder of this year Saudi Arabia is prepared and willing to produce additional bar-

rels of crude oil above and beyond the 9.7m b/d which we plan to produce during the month of July, if demand for such quantities materializes and our customers tell us they are needed.

Although we already have the ability to sustain our production comfortably at increased levels for many more years, Saudi Arabia will continue to implement its slate of new crude oil increments, with projects that will see the Kingdom's maximum sustained production capacity rise to 12.5m b/d by the end of next year. This will enable us to continue to maintain our spare capacity in the interest of global market stability — which is in everyone's interest. In addition, we have identified a series of future crude oil mega-increments totaling another 2.5m b/d of capacity that could be built if and when crude oil demand levels warrant their development. Among these prospective programmes are a 900,000 b/d increment in Zuluf, a 700,000 b/d increment in Safaniyah, a 300,000 b/d increment in Berri, a 300,000 b/d increment in Khurais and a 250,000 b/d increment in Shaybah.

At the same time, we will press ahead with our planned investments in the refining sector, which over the next five years total some 2m b/d of new refining capacity, both in the Kingdom and abroad. Later this evening, in fact, Saudi Aramco and Total of France will sign a shareholders' agreement for their 400,000 b/d export-oriented refinery in Jubail — a facility that will be configured to process Arab Heavy crude and will therefore help to close the gap between existing refinery configurations and the global crude oil slate.

## **Massive investments**

These are massive investments, which over the next five years will total \$129 billion between the upstream and downstream segments of the industry. As the old phrase says, 'we're putting our money where our mouth is'. In keeping with its longstanding policies, the Kingdom has undertaken these projects and investments in the interest of global markets and in order to meet the needs of consumers around the world — and we view our responsibilities and commitments as energy suppliers as a solemn trust.

Saudi Arabia is making these investments in the belief and with the expectation that other countries, corporations and institutions will also do their part to meet the multifaceted challenges posed by the current market situation and will intensify their efforts, just as we continue to strengthen our investments, capacities and opera-

tions. In the light of my earlier discussions, we strongly believe that actions by consuming nations in several important areas could play a pivotal role in complimenting our efforts to collectively and effectively address the prevailing market situation.

## **Many initiatives**

Considering the complexity of the issues that I have outlined, there are many initiatives that would go a long way towards meeting our common objectives. Of these, I would like to highlight the following:

- First, through well-considered changes in a range of national and international policies, help create an enabling and stable environment in which investments and expansion would flourish across the petroleum supply chain;
- Second, further to the recent agreement involving the oversight of ICE Europe Futures, consider other appropriate regulatory, oversight and reporting enhancements to help dampen irresponsible financial speculation;
- Third, suitably relax product specifications and fuel mandates to make more products available, using the available refinery configurations and capacity from available crude oil supplies;
- Fourth, we urge everyone to help bring down the political temperature that has played a part in causing oil price spikes;
- And lastly, to help provide quick relief to consumers at the pump, consider a suitable reduction of taxes on oil products.

Let me close today by saying that I believe that this is not the time to cast blame, point fingers or play a waiting game. Rather, this is the time to stand up, step up and be part of the solution. The challenges before us require commitment, cooperation, and a lot of courage. The issues at stake are too big and too complex for any one entity to resolve, for any one sector of our industry to tackle alone, and not even for the oil industry as a whole to take on single-handedly. Instead, we must commit to working together and to aligning the efforts of all stakeholders to achieve our common objectives. By so doing, we have an opportunity to resolve the current market difficulties and thus to promote sustained growth for the global economy, greater prosperity for our nations and a brighter future for all of our peoples. Let us not allow that opportunity to slip from our grasp.

# UK's Brown proposes new way forward



UK Prime Minister, Gordon Brown.

*This is the text of the speech by UK Prime Minister Gordon Brown to the Jeddah Energy Meeting.*

I want to begin by paying tribute to King Abdullah and our Saudi hosts for calling us together at this important moment of challenge — and, I believe, moment of opportunity — for the world to come together to address the third great oil shock in as many decades and the severe impact on standards of living everywhere.

And, building not just upon our common interest in a stable oil market, but also our shared understanding that oil demand is rising faster than supply today and into the future — and that there is today too much uncertainty

and volatility — I want to propose a new way forward.

The foundation of a global new deal is a credible commitment to a better functioning of the oil market through clear signalling of current and future supply and demand from both oil producers and oil consumers. Transparency means a reinvigoration of our commitment to ensure that: wherever there are shortages and gaps, they are addressed; wherever there are investment bottlenecks, they are dealt with; and, wherever there is protectionism, it is tackled.

Therefore, instead of uncertainty and unpredictability for years ahead, both producers and consumers would have greater certainty, and, instead of instability, we have greater stability — and, as a result of this clarity, a commitment to increased supply and investment by producers that is matched by a commitment to energy efficiency by consumers.

### **Credible commitments**

Secondly, all of us need credible future commitments on increased oil and gas supply, because, even with further action we propose to tackle climate change, demand for oil will continue to be strong over the medium term.

Thirdly, all of us need credible commitments on future demand, showing how the rising demand for energy, as a result of the growth of both population and prosperity, can in part be reduced by the more efficient use of energy and by the use of alternative sources of energy, including nuclear and renewables.

Fourthly, we need to do all this in a way that is not the old ‘zero-sum game’, where we hurt producers if we benefit consumers, and vice versa, but a new ‘win-win’ for both oil-producers and -consumers.

So I propose that Britain and other oil-consumers should open our markets to new investment from oil-producers, including sovereign wealth funds, in all forms of energy, including renewables and nuclear — providing oil producers with a long-term future in non-oil energy. And in return, oil producers should be open to increasing funding and expertise in oil exploration and development through cooperation with external investors, providing increased oil supply in the medium term, while growing economies adjust to a less oil-intensive long-term future.

In this way, we move from the old conflict of interest between producers and consumers to building what the world needs and can allow us to move forward: a greater commonality of interests between producers and consumers.

Let me start with transparency, where we need the best available information: a revitalization of the scope of the Joint Oil Data Initiative (JODI), with wider and

more comprehensive information on production, refining, demands and stocks; and the International Energy Forum (IEF), OPEC and the International Energy Agency (IEA) being asked by us to produce a shared assessment of future global energy supply and demand trends.

But, even with global action to tackle climate change, projections suggest that demand for oil and gas will remain high and growing for the foreseeable future. So the second pillar must be more supply, and more investment to achieve it.

For Britain, I pledge that, by examining incentives for greater recovery and for smaller fields, we will do more to exploit the 25 billion barrels of reserves still in the North Sea. And we will support Nigeria, Iraq and others seeking to overcome security constraints on increased production.

I urge all oil producers to intensify and reinvigorate work with the IEF to rigorously break down old barriers standing in the way of new strategic investments. And, in line with the Kuwait initiative to promote joint ventures and using the expertise of oil companies worldwide, we should all work to remove restrictions preventing the deployment of outside technology and capital where it is needed to increase supply and refining.

I call on all countries to support the joint work being undertaken by Britain and Qatar to tackle skill shortages in the oil industry.

And, to prolong the use of oil in a carbon-constrained world, I urge more investment and R&D in carbon capture and storage (CCS). Britain — and we have cooperation arrangements with Norway underway — will have one of the world’s first commercial-scale CCS plants. The European Union (EU) aims to make 12 operational by 2015. And Britain and Saudi Arabia have today agreed to work together on CCS, including on the regulatory

**“We move ... to building ... a greater commonality of interests between producers and consumers.”**



King Abdullah (I) of Saudi Arabia greets UK Prime Minister, Gordon Brown.

structures required to ensure environmentally safe storage of carbon dioxide.

### **Energy efficiency**

The third pillar is moderating future demand growth by improving, in an open and transparent way, current energy efficiency and exploring alternatives to oil. To meet both energy needs and climate change, the world — says the IEA — could need, by 2050, 1,000 nuclear power stations, 700,000 new large wind-turbines and a 600 per cent increase in solar, biomass and hydro-power.

Our commitment to the biggest expansion of nuclear power in Europe is now clear and definitive. Fifteen of 27 European countries are now engaged in nuclear power.

And Europe's commitment to secure 20 per cent of energy supply from renewables by 2020 was reaffirmed at the European Council this weekend. Britain will publish details of how we will meet our share next week, showing that to meet our UK renewables target requires investment of up to £100 billion (\$195bn).

While we must radically improve the energy efficiency of our buildings, our industry and our homes — with all countries committing to implementing the IEA's 25 recommendations on energy efficiency — one of the biggest prizes of all to reducing oil demand is transport, two-thirds of future oil demand. This requires what the UK has been arguing for: a new 2020 EU-wide car emissions target of 100 grams of CO<sub>2</sub> per kilometre — a 40 per cent reduction — and such targets should be adopted worldwide; the development and commercialization of

the electric car; and a global effort to increase R&D in alternative energy.

The fourth pillar is founded on ensuring a shared interest in a more diversified range of non-oil energy sources, with significantly more opportunities to recycle increased oil revenues — whether through sovereign wealth funds or directly — into alternative energy investments in developed market economies. This gives oil producers the chance to hedge their future production by investing in the alternative energy sources that will be the bedrock of future low-carbon economies.

## *Openness and partnership*

And oil-consuming countries should follow the lead that we in the UK have set by offering genuine openness and partnership in our investment markets to those operating under transparent commercial principles.

Looking ahead, I can announce that Britain is taking forward discussions with the Abu Dhabi Investment Authority about new investment opportunities in Britain. I can state that the British and Qatari governments have agreed on the importance of Qatari investment in British energy industries and we are exploring the possibility of a new joint energy fund.

We have agreed to work with the United Arab Emirates on opportunities in nuclear energy.

And we are about to take a decision on the Scira wind farm project off the British coast, which, if approved, would involve a £800 million (\$1.56 bn) investment by Norwegian energy major StatoilHydro, as we move forward — following my discussions with the Norwegian Prime Minister Jens Stoltenberg last week — more intensive cooperation between Norway and Britain.

All of this we will do. But it will only create the stability we need in the oil markets — and in energy generally — if other oil consuming countries also open up their markets and if oil-producers are willing to recycle their revenues not just into Britain, but also into other oil-consuming countries.

And, as we take on these medium-term challenges, we also need to deal appropriately with any short-term market distortions.

While the price of oil is driven primarily by fundamental demand and supply issues, there has been a substantial growth in financial investor participation in the markets that may be exacerbating the underlying mismatch of supply and demand.

Liquid markets in oil futures are, of course, hugely

beneficial in increasing the efficiency of the global market and allowing companies to hedge unwanted exposures to changes in short- and medium-term oil prices. But it is right, as agreed by Group of Eight (G-8) Finance Ministers in June, that the International Monetary Fund and the IEA carry out further analysis of factors behind the recent surge in oil and commodity prices, their volatility and the effects on the global economy.

In Britain, we will remain vigilant as to whether we have the right approach to ensuring that financial investment in oil markets takes place with the appropriate transparency. And, in Europe, we are currently reviewing the regulatory approach to commodity and derivative markets.

It is also right that the World Bank helps poor oil-importing countries manage the short-term impact of rising energy costs.

And we must consider international support to help countries reduce their subsidies to energy consumption — now worth globally around £200bn (\$390bn) each year — which are preventing the efficient functioning of the market and, in the longer term, hurt the poor. I welcome the announcement last week by China that it will raise energy prices to bring them closer into line with their true value, and I hope other countries will follow their lead.

## *Spirit of cooperation*

We cannot make all these changes overnight. But, building on the spirit of cooperation embodied in this new ‘Jeddah process’, we can — and must — put in place a ‘road map’ for the future, the key to creating greater certainty and stability for all.

We will take discussions of these issues to our international partners at the G-8 meeting next month in Japan. And, to maintain momentum, I am offering that the UK convene a follow-up conference in London later this year.

And, with political leaders in all continents working together, I believe that we can make progress in the months ahead.

“Building on the spirit of cooperation embodied in this new ‘Jeddah process’, we can — and must — put in place a ‘road map’ for the future, the key to creating greater certainty and stability for all.”



## EU-OPEC: Turning assumptions into facts

# 5<sup>th</sup> Energy Dialogue continues to narrow gap in producer-consumer divide

by Jerry Haylins



The European Union (EU) and the Organization of the Petroleum Exporting Countries (OPEC) have again underlined the importance of maintaining and strengthening dialogue between oil producers and consumers, whether crude oil prices are high or low.

At the fifth ministerial-level meeting of the EU-OPEC Energy Dialogue, held in Brussels, in June, participants from the two sides made further progress in strengthening their ties and took another step forward in bridging the divide between oil producers and consumers.

They pointed to the success of the recent Jeddah Energy Meeting, held in Saudi Arabia (*see report on page 4*), to discuss the latest oil market developments, as being an example of the high level of coordinated relations the industry needs to see continuing in the future.

“We have seen once again how much common understanding there is between our two groups on issues that lie at the heart of an efficient, well-functioning oil sector and the importance of the dialogue in fostering this,” Dr Chakib Khelil, OPEC Conference President and Algerian Energy and Mines Minister, told a joint press confer-

ence after the one day meeting of the EU-OPEC Energy Dialogue.

“As with its predecessors, the fifth meeting of the Dialogue has been an important and enlightening experience,” he affirmed.

He stated that although the ministers’ first session had focused on market volatility and rising crude oil prices, “we did not allow this to dominate the proceedings and distract us from the other important matters at hand.”

Stressed Khelil: “We have, therefore, been able to make further encouraging progress with the Energy Dialogue, which, in its quiet and effective manner, has gone from strength to strength since its establishment in 2005.”

He said the meeting’s presentations on the current and long-term energy outlook “have enabled us to benefit from reviewing each other’s perspectives on the way the market is heading and of the challenges we are facing — over and above all, the present market volatility, which has captured so much attention recently.”

The Conference President added: “We have some clear messages to take back to our respective Member





Countries with regard to the Dialogue's progress on important areas, such as refining, the financial markets and volatility, carbon capture and storage (CCS), as well as the EU-OPEC energy technology centre."

### Cooperation

Heading the EU side, Andrej Vizjak, President of the EU Energy Council, Minister of Economy of Slovenia, told the news conference that energy relations between the EU and OPEC are interdependent in their nature.

"For this reason, this Energy Dialogue should contribute, and I believe, will contribute, to a deeper understanding of our respective strategies," he said.

Andris Piebalgs, European Commissioner for Energy, and a regular face at the EU-OPEC meetings, said both sides realize they need to work much more closely together to "really discover what actions should be taken" concerning the future direction of the oil market.

"Investments will have to be in their billions and changing consumers' behaviour takes substantial time," he said.

"For this reason, I think our example of cooperation,

which was furthered at the Jeddah Energy Meeting, has clearly encouraged cooperation between the Secretariats of the International Energy Agency (IEA), OPEC, and the International Energy Forum (IEF)."

Speaking generally about topics discussed at the Dialogue, Piebalgs stressed that the world is not running out of oil. The EU, by 2030, will be importing more oil than it is doing today and it should be taken into account that by then all the Union's climate change policies will be in place.

"What is important to stress is that both producers and consumers are very worried about the current level of oil prices and also the volatility. This undermines consumer action and stability of investments from the producing side," he said.

Looking downstream, he said that even though the market is still suffering from supply bottlenecks, the refining sector is moving in the right direction. "New investments are coming in and we should not be too worried about the medium and long-term picture."

Piebalgs said the EU-OPEC study on the financial markets has made good progress, but they still have to go into greater detail.



*Pictured from left–right is Abdalla Salem El-Badri, Secretary General of OPEC, greeting Jean-Louis Borloo, incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning; Andris Piebalgs, European Commissioner for Energy; and Andrej Vizjak, President of the EU Energy Council, Minister of Economy of Slovenia.*

“Both sides support more supervision of the activities in these markets. It is a central issue for us to determine how these markets are affecting the volatility of oil prices,” he pointed out.

Piebalgs said the two sides are also working together on climate change, especially CCS initiatives, with both wanting to see limited carbon emissions in the future. In addition, they were addressing the area of research and development and training through the planned EU-OPEC technology centre.

“Sometimes we disagree on issues, but we are moving towards closing this gap. We are now working on the basis of concrete studies and facts — not just assumptions,” he added.

## Security

Other representatives of the EU at the Dialogue’s annual ministerial get-together included Jean-Louis Borloo, incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning.

OPEC representatives also included Desidério da

Graça Verissimo e Costa, Alternate President of the OPEC Conference, Minister of Petroleum of Angola, and Abdalla Salem El-Badri, Secretary General of OPEC.

“The EU and OPEC representatives welcomed the progress that had been made since the fourth meeting of the Dialogue in Vienna, in June 2007,” said a joint press release, issued at the end of the talks, which next year will be held in Vienna.

It noted that Ministers reiterated their mutual interest in stable, transparent and predictable oil markets, and stressed their recognition of the reciprocal nature of energy security, whereby security of supply and security of demand were considered “two faces of the same coin”.

“In this regard, they recognized the importance of secure future demand for crude and products in spurring timely investment, both upstream and downstream, thus contributing to greater security of supply,” said the release.

While acknowledging the continued importance of fossil fuels, in particular oil, in responding to the future world energy needs, the ministers welcomed the growing diversity in the energy mix, including the provision of renewables.



*Above: Dr Chakib Khelil (r), OPEC Conference President and Algerian Energy and Mines Minister, with Jean-Louis Borloo, incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning; and (right) with Abdalla Salem El-Badri, Secretary General of OPEC.*



the market remains well supplied, with supply exceeding demand and with healthy commercial crude stocks.

“OPEC stressed the role of financial markets, as well as the declining value of the US dollar, in driving the current crude oil price and volatility, in particular through increased speculative activity,” said the press release.

Another session of the Dialogue involved the presentation of the 2030 baseline demand scenario by the EU and the latest World Oil Outlook, which is prepared annually by OPEC.

“This exchange of views represents an essential contribution to deepening mutual understanding,” said

They also highlighted the importance of sustainable development, with its three mutually supportive pillars of economic development, social progress and protection of the environment.

“The Ministers recognized the needs of the poor to access modern energy services, efforts towards avoiding waste of valuable resources, including through improved energy efficiency, as well as the need to develop and deploy cleaner fossil fuel technologies, in particular CCS,” commented the release.

### Studies

During the talks, the EU representatives outlined their recent policy proposals, which are currently being discussed in the European Parliament and Council, as well as developments in relation to the Energy and Climate Change package and the Internal Energy Market.

For their part, OPEC delegates presented their analysis of recent developments in the oil market, reiterating that

the release. “The presentation provided the EU with an opportunity to confirm that its policy developments will not translate into a reduction in oil imports. OPEC, in its presentation, stressed the uncertainties related to demand for its crude, stemming mainly from technology, alternative fuels, as well as consuming countries’ policies.”

The meeting was presented with the main conclusions of the joint study on oil refining and follow-up workshop, attended by member countries and industry representatives in Brussels in January this year.

The study was commissioned in early 2007 and financed by the European Community (EC), with the technical participation of OPEC. Its aim was to provide a historical background of the subject and examine likely future developments in the oil refining industry up to 2020. Emphasis was placed on investment needs in the refining sector and the role of the this industry in oil markets. The study also assessed the relationship between crude oil and product prices and looked at developments



*L-r: Desidério da Graça Verissimo e Costa, Alternate President of the OPEC Conference, Minister of Petroleum of Angola; Jean-Louis Borloo, incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning; Dr Chakib Khelil, OPEC Conference President and Algerian Energy and Mines Minister; Andrej Vizjak, President of the EU Energy Council, Minister of Economy of Slovenia; Abdalla Salem El-Badri, Secretary General of OPEC; Andris Piebalgs, European Commissioner for Energy.*

in the refining industry, as well as the impact of potential future policies.

The Brussels meeting also considered a progress report on the joint study on the impact of financial markets on oil price and volatility.

Specific issues being addressed in this study include the transformation of the financial markets into both hedge and investment markets and liquidity and price volatility and determining which group dominates the oil futures markets — speculators or hedgers. The study is also looking at oil as an asset class and its linkages with broader financial markets; strategic asset allocations and the effects of portfolio shifts; and the impact of interest rates and US dollar depreciation. In addition, it is striving to answer the question as to whether the oil market

is experiencing a bubble in prices. Finally, a restrictive approach regarding the statistical tests has been taken, which has strengthened the analysis and avoided over-generalizations.

### Technology centre

The final draft of this study will be ready in early December. It will then be sent to the EU for its comments and suggestions before being finalized by the end of the year.

The joint study will be followed up with a workshop in early 2009, with reports on both the study and the outcome of the workshop to be submitted to the next ministerial meeting of the Dialogue.

Delegates agreed to undertake a feasibility study on



L-r: OPEC delegates, Mohamed Hamel, Head of OPEC's Energy Studies Department; Mohammad Alipour-Jeddi, Head of OPEC's Petroleum Market Analysis Department; and Dr Omar Farouk Ibrahim, Head of OPEC's PR & Information Department.

the establishment of a planned EU-OPEC energy technology centre, also addressing education and training. The idea for the centre, designed to enhance cooperation in science, technology, education and training, was first mooted early in the Dialogue, but gained momentum during the fourth ministerial meeting of the initiative, when a task force was set up to look properly at examining the idea.

The location of the centre has not as yet been determined, but it will be allotted its own budget and human resources. The main purpose of the centre will be to serve as a focal point for launching joint cooperation and research activities between the two sides, as well as cater for training and educational programmes.

It will aim to contribute to the development of technologies related to the petroleum sector, in particular for improving petroleum exploration, production, refining, transportation and distribution.

Concerning the environment, it will seek to enhance the development of petroleum technologies, such as capturing and storing carbon, reducing gas-flaring, improving refinery processes, and managing water resources.

The centre will also undertake research activities for improved energy demand and supply forecasting, as well as in demand management and planning.

Knowledge management, training and education will be highlighted to promote exchange of expertise, knowledge-sharing and the use of best practices. It will set out



Dr Fuad Siala (l), Senior Alternative Sources of Energy Analyst in OPEC's Energy Studies Department; and Dr Hasan M Qabazard, Head of OPEC's Research Division.

to initiate, develop and promote programmes and actions in education, training and human resource development, in all areas related to energy, as well as workforce management.

In addition the centre will facilitate networking and technology transfer among universities, non-profit research institutions and experts from both regions.

"The Centre will equally address the issue of educating and training young oil industry professionals coming from countries in which energy poverty is a crucial issue and merits assistance," said the progress report.

In the initial phase, until its full development, the centre will focus on petroleum and environment-related technologies.

### Cleaner fossil fuels technology

In developing the scope of the Energy Dialogue's work programme, the meeting agreed to hold a roundtable on CCS, to take place in Brussels, tentatively on October 31, 2008, followed by technical site visits.

"The EU and OPEC consider it realistic and beneficial to promote cleaner fossil-fuel technologies," said a progress report on the CCS issue to the ministerial meeting. "In particular, technologies that capture carbon dioxide and store it, especially in geologic formations, are considered a vital means to reduce or limit carbon dioxide emissions.



*Abdalla Salem El-Badri (r), Secretary General of OPEC, and Andris Piebalgs, European Commissioner for Energy.*



*Desidério da Graça Veríssimo e Costa (r), Alternate President of the OPEC Conference, Minister of Petroleum of Angola, and Jean-Louis Borloo, incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning.*

“They also provide a powerful illustration of actions that could result in some instances in dual benefits — reducing carbon dioxide emissions into the atmosphere, while enhancing oil recovery. In addition, their application is compatible with current energy infrastructures and do not lead to costly and disruptive changes.

“This workshop aims to gain insights into the prospects for implementing CCS projects, in particular in EU and OPEC Member Countries, and the level of industry engagement; to discuss and exchange views on the non-technical barriers to CCS deployment, including making CCS eligible for the Clean Development Mechanism (CDM); and to further explore the role the EU-OPEC Energy Dialogue could play in promoting CCS, including through large demonstration projects.

### CCS roundtable

The workshop will be followed by a site visit to some European CCS locations.

A roundtable on CCS was held in Riyadh, Saudi Arabia, in September 2006. It was attended by more than 100 representatives from OPEC Member Countries, the EC and other governments and international organizations. It set out to identify factors necessary to ensure a rapid and substantial expansion of CCS and to discuss the potential role for the EU-OPEC Energy Dialogue in promoting CCS, including through large demonstration projects.

In June 2007, at the fourth EU-OPEC ministerial meeting, the two sides, in looking to enhance the further development and deployment of CCS technology, agreed to expand discussions on CCS cooperation, culminating in the joint workshop in 2008.

The Energy Dialogue in Brussels also agreed to prepare terms of reference for a joint study on the impact of biofuels on oil refining.

The sixth EU-OPEC Ministerial Meeting is scheduled to be held in June 2009, in Vienna.

*Top: Dr Chakib Khelil (r), OPEC Conference President and Algerian Energy and Mines Minister, and Andrej Vizjak, President of the EU Energy Council, Minister of Economy of Slovenia.*

## Dialogue speakers stress need for adapting to rapidly changing energy environment



**Dr Chakib Khelil, OPEC Conference President, Algerian Energy and Mines Minister**

Dr Chakib Khelil (*pictured above*), OPEC Conference President, Algerian Energy and Mines Minister, told the opening session of the fifth EU-OPEC Energy Dialogue that the initiative has come a long way in increasing understanding of the respective positions of the two sides and forging closer ties in some important areas, since the first meeting was held in Brussels in June 2005.

“This has been very much due to the hard work and dedication of both parties and their respective teams,

in ensuring that our energy dialogue produces meaningful results and makes a real contribution to the way the energy industry functions in this increasingly interdependent world.”

Khelil noted that the issues vary a little each year, but the core remains the same.

“This revolves around the basic market ethos of secure supply, reasonable prices, stability and sustainability, at the same time addressing the important related environmental issues and heeding the pressing needs of the world’s poor, in line with the Millennium Development Goals,” he affirmed.

He stated that OPEC, by the very nature of the Organization, looks at energy principally in the context of the oil sector. However, some Member Countries are also involved heavily in the gas sector, which, he said, is acquiring greater prominence within the grouping as a whole.

“This comes at a time of a steadily growing infrastructure within the European Union to accommodate larger volumes of gas,” he said.

For petroleum as a whole, said Khelil, there are established, thriving trading links among respective OPEC Member Countries that predate the births of both the Organization and what is now the EU around half a century ago.

“Much oil and gas have flowed through the pipeline since then and, in the meantime, the world has become a very different place — and, I would like to hope, a better place, as far as the energy industry is concerned,” he told participants.

He said that as they were meeting, there seems to be no end to the volatility the oil market has been experiencing for a year-and-a-half, together with the prices that have come in its wake.

Throughout this period, stressed Khelil, OPEC has ensured that the market remains well supplied with crude and that it is well equipped to meet the rising demand that has been forecast for the coming years.

“Many of our Members are also increasing their presence downstream, both at home and abroad, to help reduce some of the bottlenecks at this part of the supply chain,” he explained.

But, said Khelil, as is well-known now, factors over

which OPEC has little or no influence have been predominant during this period, notably excessive speculation, the plunge in the value of the US dollar, geopolitical developments and the refinery bottlenecks in some consuming countries.

“These factors also interact with each other, from time to time, compounding their separate impacts,” he said.

Khelil noted that the EU-OPEC Energy Dialogue has been active in addressing two of these issues, with, notably, workshops in December 2006 and January this year covering the impact of the financial markets of the oil price and volatility, and the oil-refining sector.

“After all, this is the essence of dialogue – to seek new insights into handling the challenges that lie before, so as, in this case, to help the energy industry perform better in the future, benefiting mankind as a whole,” he concluded.

### **Andrei Vizjak, President of the EU Energy Council, Minister of Economy, Slovenia**

Andrei Vizjak (*pictured right*), President of the EU Energy Council, Minister of Economy, Slovenia said that energy relations between the EU and OPEC are interdependent in their nature. “For this reason, this Energy Dialogue should contribute, and I believe, will contribute to a deeper understanding of our respective strategies.”

He said the EU has demonstrated with its work over the past year that energy policies and climate change are the priority topics of the Union.

“We have reached the conclusion that these two topics are to be closely integrated whatever energy mix the EU is going to have in the future,” he stated.

Vizjak said secure energy and improved external energy relations should be priorities for the years to come. Fossil fuels will definitely continue to play a crucial role in future energy supply, including oil for the transportation sector.

“While acknowledging this, a move towards a lower carbon future is obligatory and clear. Due to our commitment at the 2007 European Council to reduce greenhouse gas emissions, new technologies need to be developed and new renewable energy sources used,” he affirmed.

“We (the EU and OPEC) have a common interest in developing cleaner fuel technologies, such as carbon capture and storage. Besides this, there is a clear need to foster energy efficiency and alternative energy sources, as well as to increase the transparency of oil markets,



promote competition in energy markets and enhance dialogue with all producing countries.

“In this respect, our dialogue with OPEC should facilitate greater transparency in production and other market fundamentals. Issues such as the regulatory framework for exploration and production, the current lack of sufficient equipment, services and human skills and downstream supply bottlenecks should be addressed as a priority.”

Vizjak said common efforts to reduce uncertainty on both sides of the market by pursuing exchange of information and policies, as well as on factors, such as financial markets, should therefore be continued.

Sufficient investments upstream and downstream in production and infrastructure are needed to ensure adequate supplies and a sufficient level of spare capacity in both OPEC and non-OPEC producing countries, he maintained.

“Conditions for these investments should be improved – investment in developing crude oil production capacity should be high enough to meet the gap forecast between global oil demand and production capacity.

“The capacity shortfall that might otherwise materialize, and its impact on prices, will be detrimental

to the consumers and, in the long term, also to the producers.”

Vizjak said that further efforts to develop a stable and transparent fiscal regulatory legal environment and to improve governance in the energy sector in general will enhance the flow of foreign direct investments and financial resources.

“It would be in our common interest to reflect on how barriers to investment — upstream and downstream — could be lowered, so as to ensure adequate supplies and a sufficient level of spare capacity,” he said.

“Looking for joint investments between producers and consumers, as well as between national and international oil companies, and all along the energy supply chain, would increase the volume of investments and enhance energy security, by establishing mutual beneficial interdependency.”

Vizjak said: “We note with appreciation OPEC’s continued decisive role in contributing to market stability

and predictability. However, we are still concerned at the continued surge in oil prices and of the negative impact on the global economy of the very high level prices are reaching.”

He said that irrespective of the causes of this, the sustained high level of energy prices should be a common concern, in view of its negative effects on inflation and world economic growth.

“It is especially relevant for developing countries. Energy poverty is an increasing reality that cannot be lastingly addressed simply by providing subsidies to the populations concerned. It should be addressed by the global community.

“Access to modern energy services is a prerequisite for economic development and underpins the achievements of the Millennium Development Goals,” he said.

Concerning the Energy Dialogue, Vizjak said there are many topics to be discussed, “so let us use this meeting for constructive and productive dialogue.”



***Jean-Louis Borloo, Incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning.***

Jean-Louis Borloo (*pictured left*), Incoming President of the EU Energy Council, French Minister of Ecology and Sustainable Development and Planning, said that, in Europe, all the components that made up the oil sector were still present as before, but the nature of the associated problems has changed.

“We are now in a coalition between producers and consumers and the basis is essentially managing the price, managing research and managing investment,” he said.

Borloo stressed that, in this process, OPEC, as an international organization, is very important for the global balance and for overall visibility in the petroleum sector.

He said the current situation is hardly a result of bilateral centralization since there are new players in the market, but perhaps the importance of the players has changed.

Borloo pointed out that the financial markets are investing hugely in the oil market and, in so doing, are amplifying the phenomenon of other primary commodities.

“They are less interested in investing in other sectors, so, therefore, the impact on the oil market is massive,” he affirmed.

Borloo said there is a perception that the world has entered a century of scarcity — scarcity of all primary commodities.

“The idea that powerful financial funds are investing hugely in this ‘sector of scarcity’ is probably something that is going to last,” he maintained.

Borloo told delegates there is also the issue of the environment. He said that if one does not take the phenomenon of CO<sub>2</sub> and countries’ carbon-reducing efforts into account, it is difficult to assess the full effect carbon use will have in influencing energy supplies in the future.

Another general perception is that, in a finite world, which is reaching the end of its resource capacities, there is also the changing role of “other energies”.

Borloo said investment capacities are increasing, which will change the role of other energies, such as carbon capture and sequestration, and which gives a different value to energy operations.

“I believe we have entered a dangerous zone of destabilization, both politically and geo-strategically. There is the acute problem of poverty and the concentration of poverty and richness globally,” he said.



This, he added, all requires in-depth dialogue and it would be useful to find a global energy pact that will serve to have a communal vision for all parties involved.

***Desidério da Graça Veríssimo e Costa,  
Alternate OPEC Conference President,  
Minister of Petroleum of Angola***

Desidério da Graça Veríssimo e Costa (*pictured below*), Alternate OPEC Conference President, Minister of Petroleum of Angola, told the meeting that OPEC and the EU are both around half a century old, if one dates the true birth of the EU as the signing of the Treaty of Rome in March 1957.

“Some member countries, therefore, have enjoyed the adventure of developing with their respective organizations throughout this time, as these groups have gone from strength to strength and become established parts of the international community.

“However, for some Member Countries, the adventure is just beginning — in both OPEC and the EU,” he contended.

He said his own country, Angola, is a case in point, having joined OPEC at the beginning of 2007.

“Not only did we join a group of 11 other oil producers — as it was then — but, in a sense, we became part of a bigger brotherhood. We were able to benefit from OPEC’s growing association with other large groups and countries, as a result of the energy dialogues it had established shortly before we became a Member,” he said.

Costa explained that his country has been emerging from a dark period in its history and rebuilding its economic and social infrastructure after a civil war which lasted more than a quarter of a century.

“Becoming part of an OPEC that was developing a serious, committed, practical and effective energy dialogue with such a large intergovernmental group as the EU has meant more to us than might at first appear to be the case,” he said.

Costa said Angola is seeing benefits in several important areas.

“To begin with, there are the obvious gains for our oil sector, through having the closer and more direct association with the vast, expanding European market.

“Then there is the potential for greater trade in other products, goods and services. We pride ourselves in having one of the fastest-growing economies in, not just Africa, but also the world. And so we are looking for meaningful openings wherever we can find them.

“And finally, at this important point in our national history, it helps us to get around and be heard as much as possible — and discreetly — on the international stage,” he said.

However, Costa said he did not wish to overstate the potential benefits to Angola — or, indeed, any other Member of either group — of the EU-OPEC Energy Dialogue. “The world is not as simple as that,” he professed.

But, said the Minister, the Energy Dialogue does have the potential to “push open a few doors for us, in a way that did not exist in the past.”

He added: “And, for this, we are grateful. I am sure the other new members of both OPEC and the EU feel the same. We all have a long way to go to establish ourselves in these esteemed institutions.

“We recognize, at the same time, that it is not a one-way street. Therefore, I should like to close by re-stating Angola’s commitment to ensuring secure supplies of oil to all its customers, in line with the long-standing objectives of OPEC, and to enhancing the excellent Energy Dialogue the Organization already enjoys with the EU,” he concluded.

### **Abdalla Salem El-Badri, OPEC Secretary General**

Abdalla Salem El-Badri (*pictured above*), OPEC Secretary General, said the fifth and latest meeting of the EU-OPEC Energy Dialogue is undisputed proof that dialogue is the best way to improve understanding among stakeholders.

He said it was in recognition of the importance of dialogue that OPEC Member Country, Saudi Arabia, called a meeting of producers and consumers and other relevant parties, to discuss matters of mutual interest and concern in June.

“As we can see from the agenda before us today, we have a wide variety of issues requiring our attention. These issues cover both short-term and long-term challenges, as well as some specific topics, notably refining, the financial markets and carbon capture and storage. In addition, continued consideration of the proposal for the EU-OPEC Energy Technology Centre underlines the central role technology plays in the development of the industry in the 21st Century,” he said.

El-Badri said that if he were asked to generalize about the challenges facing the industry today, he would say they involve three fundamental elements — meeting the rising energy demand; doing this in a manner that is as friendly to the environment as possible; and seeking to implement the Millennium Development Goals, notably the eradication of the poverty that has such a powerful grip on much of the world’s population.

“However, recently, the efforts of the oil sector to focus upon such important long-term targets have been hampered by the need to handle powerful shorter-term factors, notably volatile prices.

“This price volatility has been happening despite the fact that the market remains well-supplied with crude and stocks are at comfortable levels,” he affirmed.



El-Badri stated that OPEC has played a big part in keeping the market well-supplied during the recent volatile period with its Member Countries increasing crude output, when needed, and accelerating capacity expansion plans.

“These Countries have also been increasing their presence downstream, at home and abroad, even though this is traditionally seen as being more the role of industrialized countries,” he explained.

However, continued El-Badri, even these efforts have not been enough to prevent the continued rise in oil prices, which have been under considerable pressure from the high levels of speculation and the US dollar movements, plus other factors, such as geopolitics and refinery bottlenecks.

“Nevertheless, we must maintain our focus on the broader picture in the EU-OPEC Energy Dialogue and recent events have highlighted, once again, the need to tread a fine line between addressing the pressing concerns of today’s market and attending to the needs in the years and decades ahead.

The OPEC Secretary General said that the advances in dialogue between the EU and OPEC over the past few years provide fertile ground for gaining deeper insights into such matters, “as all of us here today know”.

He added: “And so, today, we can look forward to developing this precious dialogue into further meaning-

ful measures that will support the continued enhancement of the relationship between our two groups in the field of energy and other related areas.”

### **Andris Piebalgs, European Commissioner for Energy**

Andris Piebalgs (*pictured below*), European Commissioner for Energy, said the Energy Dialogue has proved that both the EU and OPEC really have a lot of issues to discuss.

“We have established a good system between the OPEC Secretariat and the European Commission for making studies, on which we can draw our conclusions.

“This meeting is particularly important since what we say will be looked through with a magnifying glass. With prices standing as they are, it indicates that there is a lot of volatility in the markets.”

Piebalgs said the issues to be discussed include supply and demand, speculation and the influence of financial markets, as well as refining.

“We are living in a time when there are a lot of changes — changes that, compared with previous years, are happening very rapidly. This is why it is important for us today to indicate where we have consensus, where we should dig deeper, in order to answer the main question — is the oil market one we can trust for the long-term future?”

He said that “we can talk about producers increasing production and consumers reducing the levels of taxation, but these are not the main issues. The main issue is how the market will work in five, ten, or 15 years from now. That is where we see the main challenges.”

Said Piebalgs: “We need to regain confidence that the market is correct and that it is not being manipulated — that it works as it should. Both the EU and OPEC believe in market forces and these forces should be the driving forces.”

He said the Energy Dialogue is looking at how future developments will pan out. “We feel that the EU’s medium and long-term policies can definitely have an influence. We have also improved our data to help with predictability of demand from the EU side, which might not be the biggest consumer, but it is clearly giving indications how the market might develop.

“I believe that with the EU taking this lead in responding to the changes, it can clearly show other countries which way to go, particularly since we have the most ambitious policies on climate change.”

Piebalgs said that one of the most important aspects of the Dialogue is the cooperation established between the Secretariats of OPEC, the IEA and the IEF. “This is a huge step forward for the three organizations,” he professed.

On the issue of refining, he said: “Our studies are quite well advanced and, from what I understand, the only real challenge is short term. We could maybe agree on this at this meeting, to say that we do not see a major challenge in the medium to long term.”

He said the recent refinery agreement between Saudi Aramco and Total shows that producing and consuming countries are cooperating on new projects to ease the bottlenecks downstream.

“Then there are the financial markets. We need to come to some conclusions as to whether there needs to be more supervision,” he said.

On market fundamentals, said Piebalgs: “We know and appreciate that OPEC has done all it can to supply the markets and that there is no shortage of supply.”

But he questioned why OPEC felt it needed to have a production ceiling, stating that he wanted to be able to discuss issues such as this one, since the Dialogue was open and transparent.

“I think this Dialogue has gained a great deal and we have gained a lot from our cooperation. But as OPEC Conference President Khelil said, it is not only about oil, it is much broader than that — in reality, it is about all energy supply and demand in the world in the years to come, and in an environment that is changing so rapidly that we have to react to it,” he concluded. 



# Madrid in motion



## 19TH WORLD PETROLEUM CONGRESS

### SPAIN MADRID 2008

*The organizers of the 19<sup>th</sup> World Petroleum Congress (WPC) in Madrid could not have asked for a better start. The night before the inaugural session, Spain won soccer's Euro 2008. The city was buzzing, and many of the WPC delegates had been able to share in the emotion-charged championship atmosphere. The organizers could certainly not have predicted this lead up to their big event, well who could, but it did mean the week began on a high for the WPC and its focus on 'A world in transition: delivering energy for sustainable growth'.*

***James Griffin** reports on this triennial event, highlighting its key themes, and analyzing some of the major topics brought to the table by some of the industry's leading players and experts.*



*Abdalla Salem El-Badri, OPEC Secretary General.*

It started with a bang. Sunday evening: Spain 1, Germany 0. It may not have been the best game of Euro 2008, but the supporters in the Plaza de Colón in central Madrid did not seem bothered. A win was a win, and a classy Spanish outfit that had lit up the tournament with its positive play had delivered the European championship again after a 40-year wait. The Spanish obviously went berserk, there was dancing and there were parties all over the city, and for those who were not 'locals', no-one really cared. Adopted as Spanish for the evening, it was a night to remember, one where 'Viva España' took on a whole new meaning. And the friendship that was extended during the match and after the final whistle set the tone the hosts of the 19<sup>th</sup> WPC espoused all week.

Heading to the WPC venue the following morning, there were still pockets of celebration. This party was one that would run and run, and there was plenty of chat about who was where, and what had happened, as the opening plenary session began. In fact, to some, there were perhaps parallels to be drawn for the coming work: the importance of teamwork, creating opportunities and meeting challenges.



*Noé van Hulst (l), Secretary General of the International Energy Forum (IEF); and Nobuo Tanaka, Executive Director of the International Energy Agency (IEA).*

For the 4,000 and more delegates, including around 500 chief executive officers (CEOs) and 35 ministers, the WPC would be an occasion for much debate and deliberation, as well as a means to piece together future concerted actions aimed at keeping the industry on the right path. As the conference highlighted, the challenge for the industry in a world in a transition is to ensure continuous, affordable, and reliable supply, meeting society's expectations in a sustainable, transparent, ethical and environmentally sound manner. They were themes that would recur again and again, through various plenary and special sessions, technical programmes and roundtables.



*Juan Carlos I, King of Spain.*

### **Oil price volatility**

Inevitably, the current oil price volatility was high on the agenda. Numerous opinions and judgments were put forward as to what was behind this, such as geopolitics, the fall in the value of the US dollar and interest rate cuts in the US, downstream tightness, the fundamentals of supply and demand, and financial market speculation in oil. Whilst there was general recognition that volatility had caused much unease, for both producers and consumers, it was evident that not everyone agreed as to the exact role some of these factors were playing.

There was repeated emphasis, particularly from a number of international oil companies (IOCs), upon the role of 'fundamentals' in driving prices. Jeroen van der Veer, CEO of Royal Dutch Shell, whilst acknowledging that there have not been any physical shortages, stated that he saw this issue as the key psychological driving force behind higher oil prices. It was apparent that he, and a number of other delegates from IOCs, viewed oil market speculation as playing a relatively minor role.

Others, however, proffered differing viewpoints. Abdalla Salem El-Badri, OPEC Secretary General, speaking during the OPEC-IEA luncheon, stated that "the mar-



*Tony Hayward, CEO of BP.*

ket has no shortage of physical crude, with comfortable stock levels. Today, supply is higher than demand. OPEC output currently stands at 32.2 million barrels/day, well above the forecast average level of demand for its oil for the whole of 2008, of 31.8m b/d."

From OPEC's perspective, the outlook for the coming years is also sound, said El-Badri. "Despite rising costs, there are more than 120 upstream development



*Jeroen van der Veer, CEO of Royal Dutch Shell.*

projects underway in OPEC Countries, with over \$160 billion in cumulative investment to 2012, to add net capacity of around 5m b/d. With this, spare capacity is set to grow.”

El-Badri added that “if more crude is needed, we will supply it. But what is the point of supplying more volume, if it is not needed? Does anyone behave like this in any other economic sector? The problem is not volume. It is price.”

The price volatility is easily discernible. In one trading session in June this year, the price of West Texas Intermediate (WTI) spiked by almost \$11/b, and it is not just a one-way thing. Over two days in July, the price fell by over \$10/b. To many in the industry, it leads to the question: how is this related to oil market supply and demand fundamentals, where actual changes, outside of hurricanes and like events, do not occur on a daily basis?

El-Badri went on to stress that OPEC Member Countries see speculation as having played a significant role in the

volatility and rising prices, which “is evident in the fact that more than 70 per cent of oil futures contracts on the NYMEX are currently held by speculators. This represents a dramatic rise.

“It is becoming increasingly clear that some form of regulation is needed to moderate this,” he added. “Industrialized countries have made some headway in this regard, which can be viewed in a number of recent measures. OPEC welcomes these. Better regulation should eventually affect the price behaviour of not just oil, but also other commodities, which have suffered in a similar way from excessive speculation.”

Summing all this up succinctly was the recipient of the prestigious WPC Dewhurst Award for outstanding industry achievement, Ali I Naimi, Saudi Arabia’s Minister of Petroleum and Mineral Resources. In response to a question on this issue at the Saudi Arabian ministerial session in Madrid, he said that “price is driven by many factors, but the least of our concerns is supply. There is no supply constraint.”

On the demand side, concerns were raised by a number of producers regarding just what future demand will actually be. OPEC Conference President and Algeria’s Minister for Energy and Mines, Dr Chakib Khelil, stressed



*Angola’s Minister of Petroleum, Desidério da Graça Veríssimo e Costa (l); Algeria’s Minister of Energy and Mines, Dr Chakib Khelil; and Colombia’s Minister of Mines and Energy, Hernan Martinez Torres (r), wait for the start of the inaugural session of the 19<sup>th</sup> World Petroleum Congress.*



Abdalla Salem El-Badri (l), OPEC Secretary General, and Nobuo Tanaka, Executive Director of the IEA, delivered addresses to attendees of the OPEC-IEA luncheon (above).

that a climate of demand uncertainty is detrimental to investment strategies as upfront costs in the oil industry are enormous. In this regard, there was considerable focus on more transparency and predictability in consuming country policy proposals that could impact future oil demand and supply patterns.

### ***Resources are plentiful***

Other core industry issues saw fairly widespread agreement on the nature of them. One that has garnered a fair few column inches over the recent past and was part of many speeches and presentations was the resource base.

What was evident very quickly was the fact that there was general concurrence that global oil resources, both conventional and non-conventional, could support future world demand for the foreseeable future.

This was underlined by Tony Hayward, BP CEO, in the opening session. He stated that “the problems in bringing on new production are not really below ground. They are above it.” Deliverability challenges were in fact the focus of an entire plenary session. El-Badri was also keen to underscore that there are plenty of resources in his speech to the OPEC-IEA luncheon. He said that “ultimately recoverable reserves of conventional oil worldwide have doubled since the early 1980s and continue to rise. Technology has resulted in new discoveries, increased recovery rates and improved efficiency. In addition, there is vast potential for the expansion of non-conventional sources of oil.”

The issue was discussed in more detail during the roundtable session titled ‘Chasing the 3<sup>rd</sup> trillion’. Here, Donald Gaultier, geologist with the US Geological Survey (USGS), stated that “the question of whether the third trillion exists is not really much of an ‘if’ at this point.



Soccer fans celebrate Spain's win at a public viewing area in central Madrid, after the Euro 2008 soccer final between Germany and Spain in Vienna, Austria.

A more interesting question was the fourth trillion.” He added that, at the moment, USGS assessments of the quantities of conventional, technically recoverable oil, natural gas and natural gas liquids that have the potential to be added (by 2025) only come from 128 provinces. In fact, a number of provinces actually producing today were not included in the USGS 2000 assessment. Gaultier also highlighted that recent spectacular successes in Brazil are consistent with the idea that a great amount of resource remains to be found in the continental margins, in deep water.

Others on the panel stressed that with non-conventionals included, the figure is expected to go past seven trillion. As in the past, one of the major components in adding to the reserves base is technology. This was mentioned by Khelil, who stated that even a one or two per cent improvement in recovery rates could lead to a



Madrid's cityscape.

significant increase in reserves. The historical perspective was put forward by Ashok Belani, Chief Technology Officer, Schlumberger, who said that “if you think back only ten years, some tasks looked almost impossible, but today they are taken for granted.” So what will technology allow the industry to achieve ten years hence?

### ***Technology and the human resource***

Numerous new and existing technologies and the potential these have for enormous gains in efficiency and output were discussed in a variety of fora, with topics such as advanced drilling and completion, hydrocarbons in ultra deep reservoirs, new gas-to-liquids technologies, new frontier exploration, and increased oil and gas recovery from mature fields. And with the world expected to rely heavily on fossil fuels for many decades to come, there was also much talk about the need to promote the early development and deployment of cleaner technologies. In this regard, carbon capture & storage (CCS) received significant coverage.

The CCS projects outlined included Norway’s Sleipner and Snøhvit schemes and, in Canada, Brent Lakeman of the Alberta Research Council described the Pembina Cardium project in central Alberta that has been selected for a major monitoring pilot programme. Whilst there was genuine optimism about CCS, a number of concerns were expressed. These included the importance of government involvement — underlined by Olav Kaarstad of StatoilHydro — as a means to promote CCS as a cost efficient tool for climate change mitigation, the need for CCS to be included in the Clean Development Mechanism (CDM), and the need for knowledge-sharing for the rapid development of best practices, to create trust and common ground for decisions among all the various stakeholders.

The development of technology alone, however, is not enough. Technology needs human ingenuity to develop, adopt and deploy it. These were sentiments echoed by numerous speakers, many of whom saw the human resource as being the key to the industry’s future. Yet, there are question marks over the adequacy of this resource, particularly as increasing oil sector investments lead to the need for more skilled labour, as the industry sees more competition for talent from the expanding service and knowledge economies, and as up to half of the current workforce looks to retire in the next ten years.

The conference provided a clear rallying call for action, with Bill Cobb, President of the Society of Petroleum

Engineers in 2008, stating that “the human resource challenge is larger than any one company or society can address ... there is a need to broaden the talent pool internationally, and transfer knowledge quickly to the next generation.” It underlines the importance of coordinated efforts between all stakeholders to restore this essential capacity and to make the industry more attractive.

With this issue in mind, the WPC, for the first time in its history, put together the World Youth Programme, which provided a platform for young professionals and students who are interested in actively participating in the oil and gas industry. The goals were to create and nurture a collaborative, global forum for young people, to champion new ideas, to promote a realistic image of the petroleum industry, its challenges and opportunities, and to bridge the generational gap through mentorship networks. Whilst there was certainly positive feedback to this, comments from a number of speakers on the WPC Youth Committee made it clear that more hard work was required to make the industry more appealing to the younger generation.

### ***Cooperation and collaboration***

The WPC celebrates its 75<sup>th</sup> birthday this year and since it was set up in 1933 it has grown into what many describe as the largest global gathering of the oil and gas industry. Yet, despite its evolution, the reason it was set up remains its core objective today. The focus is on bringing together people and companies from many nations, contrasting backgrounds, and with varying expertise. In this regard, the goal is *cooperation* and *collaboration*. These two often intertwined concepts have not only helped the WPC grow, but are also key industry drivers.

The two words were uttered on many occasions during the WPC, from national oil companies (NOCs), IOCs, service companies, producers, consumers and many more. And often alongside these was the term ‘energy interdependence’. In a world that is increasingly bringing people and places together, it is clear that cooperation and collaboration have never been viewed as being so important for meeting the challenges and embracing the opportunities ahead.

The 20<sup>th</sup> WPC will be held in OPEC Member Country, Qatar, in 2011, but this year’s event obviously belonged to Madrid and Spain. The people, the debates and dialogues, the social occasions, the teamwork, it was a winning week for them both ... and not only with regard to the WPC!





# Naimi wins prestigious Dewhurst Award

*At the 19<sup>th</sup> World Petroleum Congress in Madrid, Ali I Naimi, Saudi Arabia's Minister of Petroleum and Mineral Resources, was awarded the prestigious Dewhurst Award for outstanding industry achievement. The OPEC Bulletin's James Griffin was present to hear the Minister, as part of the occasion, deliver the Dewhurst Lecture that encompassed various historical and present day industry perspectives.*

In delivering the Dewhurst Lecture that closes the triennial event many describe as the biggest gathering of the world petroleum industry, Saudi Arabia's Minister of Petroleum and Mineral Resources, Ali I Naimi, took the opportunity to look back at the history of the oil industry and the global role it has played in economic and social development. He said: "The age of petroleum coincides with a period in world history unlike any that had gone before. The 20<sup>th</sup> century has been a period of unparalleled achievement in science and technology. From the human mind came innovations that changed the world in previously unimaginable ways and, in the process, transformed our lives.

"We can be proud of the fact that our industry played a critical enabling role in the economic and transportation revolutions of the 20<sup>th</sup> century that produced rapid improvements in both living standards and personal mobility," he added. "Throughout history, innovations like the wheel, the sailing ship, the steam engine, and the internal combustion engine have allowed mankind to overcome the limitations of the physical world, and in doing so, to expand the realm of what is possible."

While stressing that these advances had been the catalysts for unprecedented leaps forward in productivity, competitiveness and prosperity, Naimi was clear that

much more still needs to be done, particularly for those billions of the world's people who "have literally been left behind".

"The numbers tell the story", he said. "Over one billion people around the world lack access to clean drinking water and 2.4 billion live without adequate sanitation. Experts tell us there are still 1.5bn people who lack access to electricity. Nearly three billion are said to live on less than two dollars per day."

He added that the United Nations estimates that 80 percent of the total global financial resources devoted to health are currently spent in OECD countries; a fact that shows the scope of the problem will only become more extensive with the increasing population of the world.

With this in mind, for the energy industry and the world community as a whole, it is essential that access to reliable, affordable, economically viable, socially acceptable and environmentally-sound energy services is available to those people whose daily struggles are focused on combating the worst global tragedy of all: poverty. Ending this, said Naimi, must be the world's top priority.

The Minister noted that the task of meeting the future rising energy demand is complicated by mounting concerns that the use of carbon-based fuels is contributing

to global climate change. However, for the person living in poverty, he said, “climate change is only one of a myriad of problems, and one whose effect is not readily visible. In the developing world, climate change is often viewed as a problem created by the developed world, and as such, is the responsibility of the developed world.”

### *The environmental angle*

On the environmental front, he said that the task before us is not simply to “get the carbon out,” but to do so safely, and in a socially and economically responsible manner that recognizes the legitimate aspirations of all of the world’s people for greater prosperity, health and happiness.

He stressed that there is no easy or quick way to achieve this and it is clear that “carbon-based fossil fuels still are the cheapest, most efficient and most reliable energy sources for our mobile societies.” And turning to talk of looking past petroleum for the solutions to future energy challenges, he voiced his opinion that such statements create the false impression that jettisoning oil is a requisite for progress in meeting energy and environmental goals. Nothing could be further from the truth, he said, stressing that he believed the petroleum industry must be in the forefront of efforts to meet these goals.

From Saudi Arabia’s perspective, Naimi said the country was making much headway on meeting the long-term climate change challenge. “Last year, the Custodian of the Two Holy Mosques King Abdullah bin Abdulaziz Al Saud announced an initiative for protecting the environment, where the Kingdom has allocated \$300 million for exploring the possibility of reducing environmental impacts of fossil fuels, an initiative that attracted global appreciation, with the states of Kuwait, the United Arab Emirates and Qatar pouring in an additional \$450m.”

He also touched on substantial investments going into the technology of carbon capture and storage (CCS). In this regard, Aramco Services Company, a subsidiary of Saudi Aramco, last year committed to be a co-sponsor of the final phase of a leading research project: the International Energy Agency GHG Weyburn-Midale CO<sub>2</sub> monitoring and storage project. CCS could play a significant role in abating the growth of CO<sub>2</sub> emissions. According to the Intergovernmental Panel on Climate Change, CCS could contribute to around 15–55 per cent of the global CO<sub>2</sub> mitigation effort to stabilize greenhouse gas concentrations in the earth’s atmosphere.

In addition, Naimi also spoke of the investments his country is making in research and education, discussing the King Abdullah University of Science and Technology and the King Abdullah Center for Petroleum Research and Studies, which will begin work before the end of this year.

### *Challenges and opportunities*

Turning to the current oil market situation, Naimi dismissed concerns about supply shortages and said the current price of oil had more to do with political instability, inadequate infrastructures, changes in product specifications in the global markets and the inflow of speculative funds in oil futures contracts.

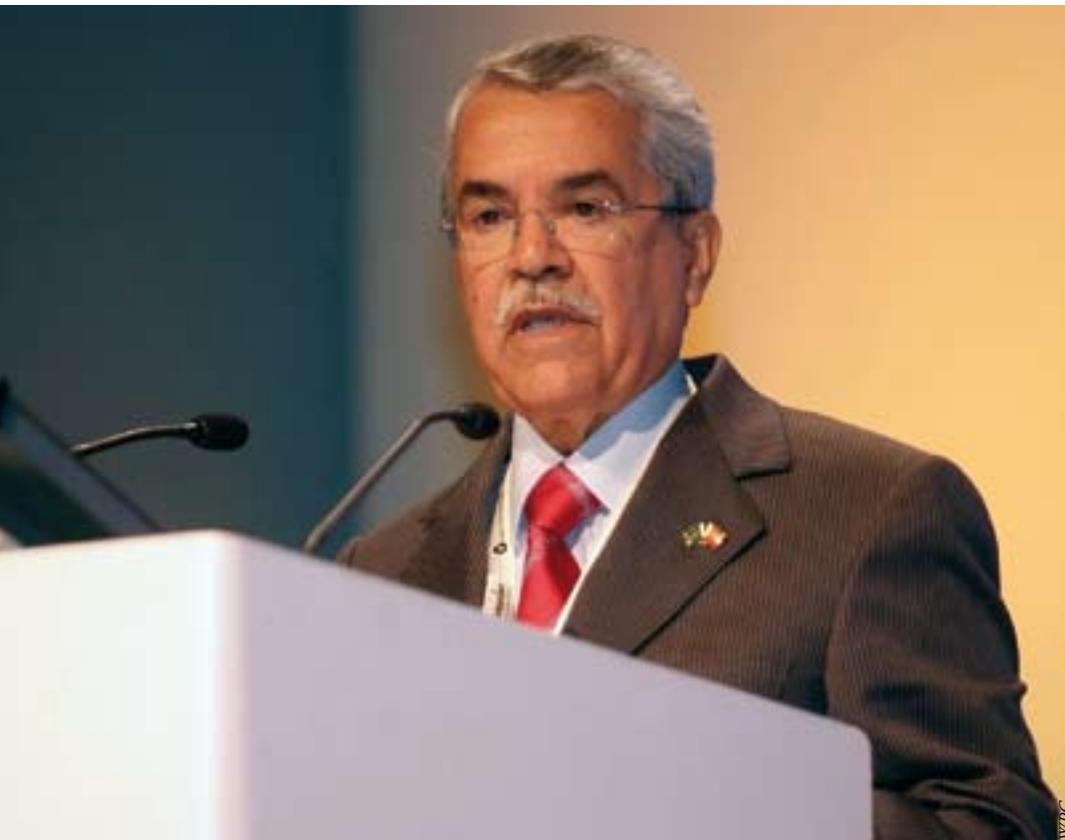
Reiterating thoughts uttered at many of the discussions and roundtables in Madrid, Naimi said studies showed there were still trillions of barrels of conventional and unconventional resources in the world. He said that talk about the world not having enough oil had created negative sentiments about the future, but the world should be positive about the outlook for oil. “The issue is not whether it is there. We know it is ... I am confident that significant quantities of oil remain undiscovered and unproduced in both mature and frontier areas around the world,” he said.

He was also convinced that armed with new technologies and the power of innovation, the oil industry will find this oil and produce it, noting that through modern technology Saudi Aramco has increased the recovery rates to 70 per cent in some fields.

Naimi urged the oil industry to invest heavily in technology. As this has helped the industry develop and expand in the past, so can it today, tomorrow, and for the years ahead. “Technology can empower us to transform our energy system to ensure continued prosperity, while producing a cleaner environment,” he said.

“Major technology opportunities include the use of nanotechnology in sub-surface science and engineering, and the development and deployment of new tools to better manage the reservoirs. Some of the areas our scientist believe hold promise include extreme-reservoir-contact wells, smart inflow-control devices, autonomous fields, passive-seismic monitoring, gigacell simulation, smart fields, bionic wells and, yes, even nano-robots.”

He also underlined the importance of “our greatest asset”, the human resource, underlining “that we must expand and nurture both knowledge and our human capital if we are to meet the significant energy and environmental challenges facing mankind.”



Ali I Naimi, Saudi Arabia's Minister of Petroleum and Mineral Resources.

This is a clear focus for Saudi Aramco, which five years or so ago formed a 'strategic imperative' team called: *Preparing the workforce for the future*. This conducted a comprehensive study covering the internal human resource practices and manpower needs, as well as global trends that are shaping the talent outlook and the findings and recommendations have become the cornerstones of the company's human resources strategy and operating plans.

It is clear that "oil will continue to be an essential part of the global energy mix for many years to come," Naimi said, stressing that no alternative currently competes with oil in terms of its ability to provide a safe, effective and economic means of transport for the world's population. Nevertheless, he also believed that increasing economic prosperity in the coming decades would require the increase of production from all sources of energy fuels.

In closing, he stressed that it is evident that "our industry possesses the skills, knowledge and ingenuity to overcome the world's most daunting energy challenges ... finding the solutions will require time, effort, partnership and commitment, (but) we in the petroleum industry can do it and I am confident we will."



## A standout career

The Dewhurst Award celebrates scientific and technological excellence in the petroleum industry and recipients of the award are well known throughout the industry and have demonstrated unusually high achievements over many years.

Throughout the life of the World Petroleum Council there have only been eight recipients (including Naimi) of the award. The first was also a Saudi Arabian national, Dr Saleh A Al-Athel, then President, King Abdulaziz University for Science and Technology, and the most recent before Naimi, was Lord Browne of Madingley, then Group Chief Executive of BP.

Naimi's Dewhurst Award is further acknowledgement of a standout career in the oil industry. Starting work for what was then Aramco in 1947, Naimi, after two years of full-time schooling sponsored by the company, became an assistant geologist in the company's exploration department. Following further education and training, he rose through the ranks and was eventually appointed Saudi Arabia's Minister of Petroleum and Mineral Resources on August 2, 1995. In 2008, he was named to *Time* magazine's list of the world's 100 most influential people.

# Oil data ... and the global outlook for petroleum



*Abdalla Salem El-Badri, Secretary General of OPEC.*

*The increasing complexity of the world's global energy system often makes it difficult to find patterns, identify trends and search for meaning. This can be quite a challenge for even the most stalwart of analysts. But OPEC benefits from four decades of experience with efforts to look at a variety of trends amid such complexity — economic and financial, technological and political. Two of its annual publications — the World Oil Outlook and the Annual Statistical Bulletin — give an authoritative overview of the global energy scene and offer a unique insight into the petroleum and economic activities of the Organization's Member Countries. In this article, the Bulletin's **Alvino-Mario Fantini** reports from a press conference, marking the release of the latest issues of both publications.*



In the early days of the Organization of the Petroleum Exporting Countries (OPEC), all data and statistical information was gathered for use by Member Countries in the form of an in-house statistical bulletin. Over time, this document, named the Annual Statistical Bulletin (ASB), was made available to the public and widely disseminated in an effort to contribute to greater transparency in the marketplace. In addition, beginning last year, OPEC brought together its specialists to produce another exhaustive collaborative work — the World Oil Outlook (WOO) — which builds on the ASB and provides the outlook for the medium and long term.

The publication of both the ASB and the WOO have now become integral parts of OPEC's overall efforts to increase the awareness of key issues that are of concern to the Organization — as well as to provide a more balanced platform for debate, improve the availability of data, raise the levels of transparency and contribute to the making of a less volatile marketplace.

This year, the release of the two publications was announced at a joint press conference on July 10, presided over by the Secretary General of OPEC, Abdalla Salem El-Badri. He was joined by Dr Hasan M Qabazard, Director of the OPEC Research Division, Mohamed Hamel, Head of the Energy Studies Department, and Fuad Al-Zayer, Head of the Data Services Department.

In his introductory comments, El-Badri said, in the ASB “we try to collect and gather as much information as we can about production, reserves, rigs, wealth,” and that includes “any data that we think is useful to the industry, to our Member Countries and to you.” In the WOO, on the other hand, “we are trying to look into the future — to see what is going to happen in the oil industry, how much oil we need, how much we are going to produce and what other alternative sources of energy are coming into the picture.” The Secretary General then invited Mohamed Hamel and Fuad Al-Zayer, the two members of management responsible for the collective efforts that produced the WOO and the ASB, respectively, to present the publications.

### *Current trends and future outlook*

Although it has been published only once before (in 2007), the WOO tends to attract the most attention from the press. The document brings together all available data about the world's oil markets and tries to look ahead, using not only state-of-the-art economic modelling and forecasting techniques, but also a wide range of expertise to assess future potential developments. “Clearly



*“The key issue is not one of availability ... it is more of deliverability and sustainability.”*

*Mohamed Hamel*



*Dr Hasan M Qabazard (above), Director of the OPEC Research Division; Mohamed Hamel (r), Head of the Energy Studies Department.*



*Fuad Al-Zayer (l), Head of the Data Services Department, and Dr Hasan M Qabazard, Director of the OPEC Research Division.*

the outlook points towards a global energy system that is increasingly complex,” said Hamel, Head of the Energy Studies Department, “and towards a world of increasing and growing energy interdependence.”

The WOO is constructed around a reference case scenario, plus other alternate scenarios. “The reference case assumes [global] economic growth at an average of 3.5 per cent per annum over the years to 2030, world population increasing by around one per cent per annum and no significant departures from current trends in policies and technologies,” explained Hamel. Based on this, energy demand in the reference case increases by close to 50 per cent by 2030, or by an average of around 1.7 per cent per annum. “This is good news,” said Hamel, “as it is a reflection of healthy economies, as well as better living conditions for a growing world population.”

More specifically, oil demand in the reference case is seen as growing from 85 million barrels/day in 2006 to 113m b/d by 2030, which is about 4m b/d less than last year’s projection. “This represents an average increase of around 1.2 to 1.3m b/d per annum,” Hamel said.

The WOO also shows that fossil fuels will remain fundamentally important and will continue to satisfy the overwhelming share of world energy needs — “with a share consistently over 85 per cent.” Oil will remain in the lead position — “although its share will slightly decline,” said Hamel. Coal will regain its importance, while natural gas is expected to continue growing at a fast rate.

The WOO also reaffirms OPEC’s belief that the world’s oil resource base is sufficient to meet such aggregate demand increases, especially as non-conventional crude supplies are also steadily increasing. OPEC crude oil supplies in the reference case reach 43.6m b/d by 2030; non-conventional and NGLs are seen reaching 9.8m b/d.

“The key issue is not one of availability,” Hamel said, “but it is more of deliverability and sustainability.”

On the issue of deliverability, Hamel noted that downstream refining tightness, a serious issue in the recent past, may possibly ease in the medium term, particularly for distillation capacity. “However, [this] will remain for secondary processing or upgrading units,” he said — meaning that tightness may continue.

Despite overall aggregate demand growth for energy around the world, “we see considerable uncertainties that might affect the demand for OPEC oil,” Hamel said. In the medium term, “[t]here is little room for additional OPEC oil,” he added. Over the period to 2012, non-OPEC supply grows by 6m b/d, from additional crude supplies in Brazil and Russia, together with an increase in output from Canadian oil sands and bio-fuels. Hamel said the total contribution of renewable sources of energy will also grow. “However, despite the very high growth rates of some renewables, their rather low initial base makes the growth in absolute terms rather limited,” he said.

Other material covered by the WOO includes greenhouse gas emissions. By 2030, cumulative CO<sub>2</sub> emissions of developed countries since 1900 “will still be dominant,” Hamel said, “representing more than two-thirds of global emissions.” This is an opportunity once more for developed countries to assume their historic responsibility in tackling the negative externalities of fossil fuel use.

Separately, OPEC sees the poverty gap between developed and developing countries as remaining large



At the press conference (l-r), Fuad Al-Zayer, Head of the Data Services Department; Dr Hasan M Qabazard, Director of the Research Division; Abdalla Salem El-Badri, OPEC Secretary General; Mohamed Hamel, Head of the Energy Studies Department; and Dr Omar Farouk Ibrahim, Head of the PR & Information Department.

by 2030. “Too many people will still be lacking access to modern energy services,” said Hamel.

By 2030, the WOO projects overall demand for OPEC crude to be lower by around 6m b/d, when compared with last year’s projection. The uncertainties generated by the global shift towards renewable energy and non-conventional sources in some developed countries make security of demand questionable — underscoring the challenges that OPEC’s analysts must consider in preparing the WOO.

### *A statistical overview of the industry*

Complementing the WOO is the ASB, which serves more as a data reference tool. Published since 1965, the ASB contains exhaustive statistical data and is available in several formats (print edition, CD-ROM, PDF and on-line). The publication has several objectives and serves as the official record of all Member Country data.



OPEC Secretary General, El-Badri, fields questions from members of the press.



At a roundtable discussion, Johannes Benigni (l), Managing Director, JBC Energy; Dr Karin Kneissl (r), freelance journalist; and moderator, Eithne Treanor (c).

It also brings together data from the hydrocarbons industry — including tanker fleets, pipelines, rigs, etc — as well as information about the world's leading international oil companies (IOCs) and their assets.

In his presentation introducing the latest edition of the ASB, Fuad Al-Zayer noted that the ASB is one of the most important documents produced by OPEC. “It is the sole, official comprehensive statistical record of OPEC Member Countries,” he affirmed. One of its key features, especially apparent in the non-print editions of the ASB, is that it provides time-series data for a variety of indicators, with historical data going back to 1960.

### *Data transparency*

Since it was first published, there have been many improvements made to the ASB, in an effort to increase its availability and overall data transparency. In 2000, for example, the ASB was published on the OPEC website; and for the last two years, it has been published earlier — in July rather than August and September — to coincide with the release of other statistical reports covering the

industry. This year, the ASB also includes data for Ecuador, which rejoined the Organization in 2007.

The 2007 ASB has several main points which Al-Zayer highlighted during his presentation. These include the fact that OPEC is increasing activities in exploration and production, in order to satisfy rising global demand for oil. This has resulted in an increase in proven oil reserves in Member Countries, despite recent increases in production.

With regard to global proven oil reserves, the ASB shows that the share of OPEC Countries is about 78 per cent. OPEC, as a whole, counts with 939 billion barrels at the end of 2007, an increase of 12bn over the previous year. “It is worth noting that existing reserves today are double the complete OPEC crude production since 1960, which has been about 407bn,” said Al-Zayer. In fact, during the mid-1970s, Member Countries accounted for more than half of all world crude oil production. This has fallen and risen over the past few decades and is pegged at 44.9 per cent for 2007, with OPEC's share remaining unchanged since 2006.

The ASB also includes drilling-related activity, pro-

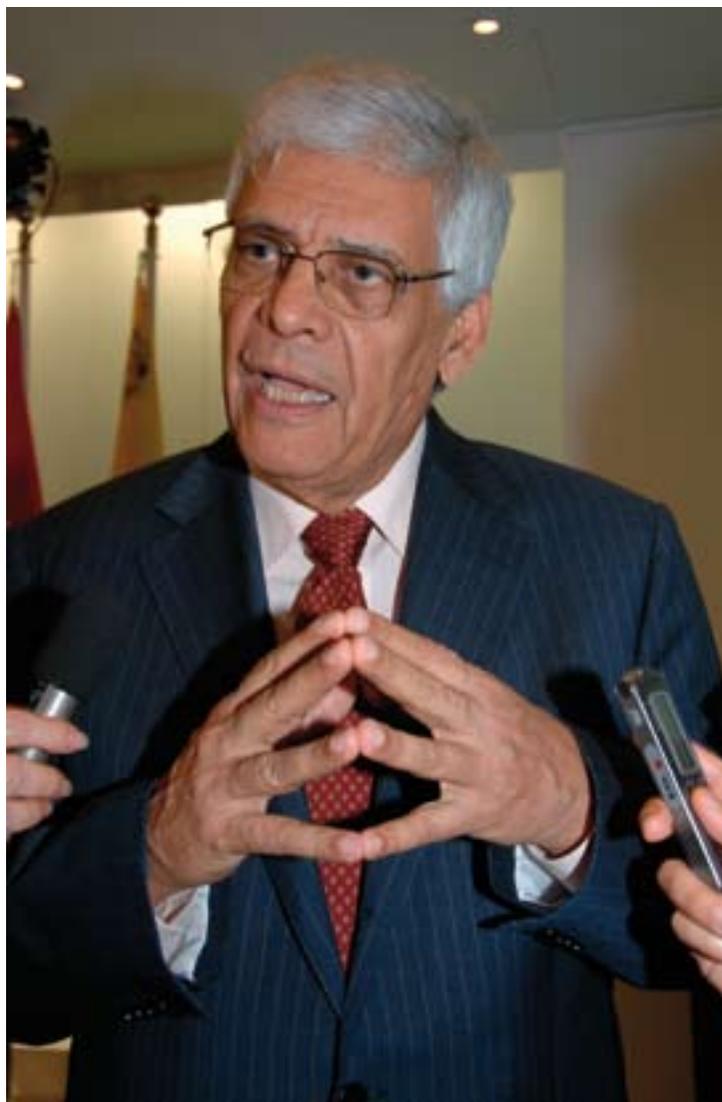
viding data on the number of pipelines, their length and diameter, and the number of active rigs. A graph in the ASB shows the “continuous increase in drilling and exploration activities worldwide” with the number of active rigs in 2007 pegged at a record 380, an increase of 28 over 2006. All this indicates OPEC’s clear expansion of exploration and production activities to satisfy world energy demand, said Al-Zayer.

This year’s edition of the ASB also includes GDP per capita for all Member Countries. “The majority of OPEC Members,” said Al-Zayer, “still show low levels when compared with OECD countries.” In fact, the OPEC average was \$3,700, making the majority of Member Countries developing countries.

Al-Zayer noted that dependency on oil exports is still the primary means of generating revenue for Member Countries. Efforts continue to be made to try to diversify their economies, he said, but “oil continues to be of utmost importance to the economies of our Member Countries.” For more than half of them, oil export earnings represent 90 per cent of total exports. The OPEC average is 72 per cent, he added.

The ASB also includes financial data on the investment behavior of some leading IOCs, like Shell, BP, Exxon Mobil, Total and Chevron. Despite increasing refining margins in recent years, there continues to be a large gap between IOC investments in the downstream, compared with the upstream: IOC investments in the downstream amounted to \$27bn in 2007, compared with \$73bn in the upstream.

Finally, when looking at global numbers for the aggregate level of the value of OPEC exports, Al-Zayer said that compared with 2006, the total export increase in 2007



*Abdalla Salem El-Badri, OPEC Secretary General.*

was about \$108bn, of which \$80bn came from petroleum exports, to reach about \$1 trillion in 2007. Similarly, the value of total imports by OPEC Member Countries also increased, meaning that their revenues are being offset by expenditure on foreign imports.

It is important to note that the source of 70 per cent of the OPEC-related data in this year’s ASB came from direct communications with Member Countries, said Al-Zayer, an improvement of five per cent over the previous year. OPEC will continue to make efforts to increase the quality and availability of oil-related data, in its efforts to contribute to greater transparency and a less volatile marketplace.

Both the ASB and the WOO are available for free download at the OPEC web-site: [www.opec.org](http://www.opec.org). 

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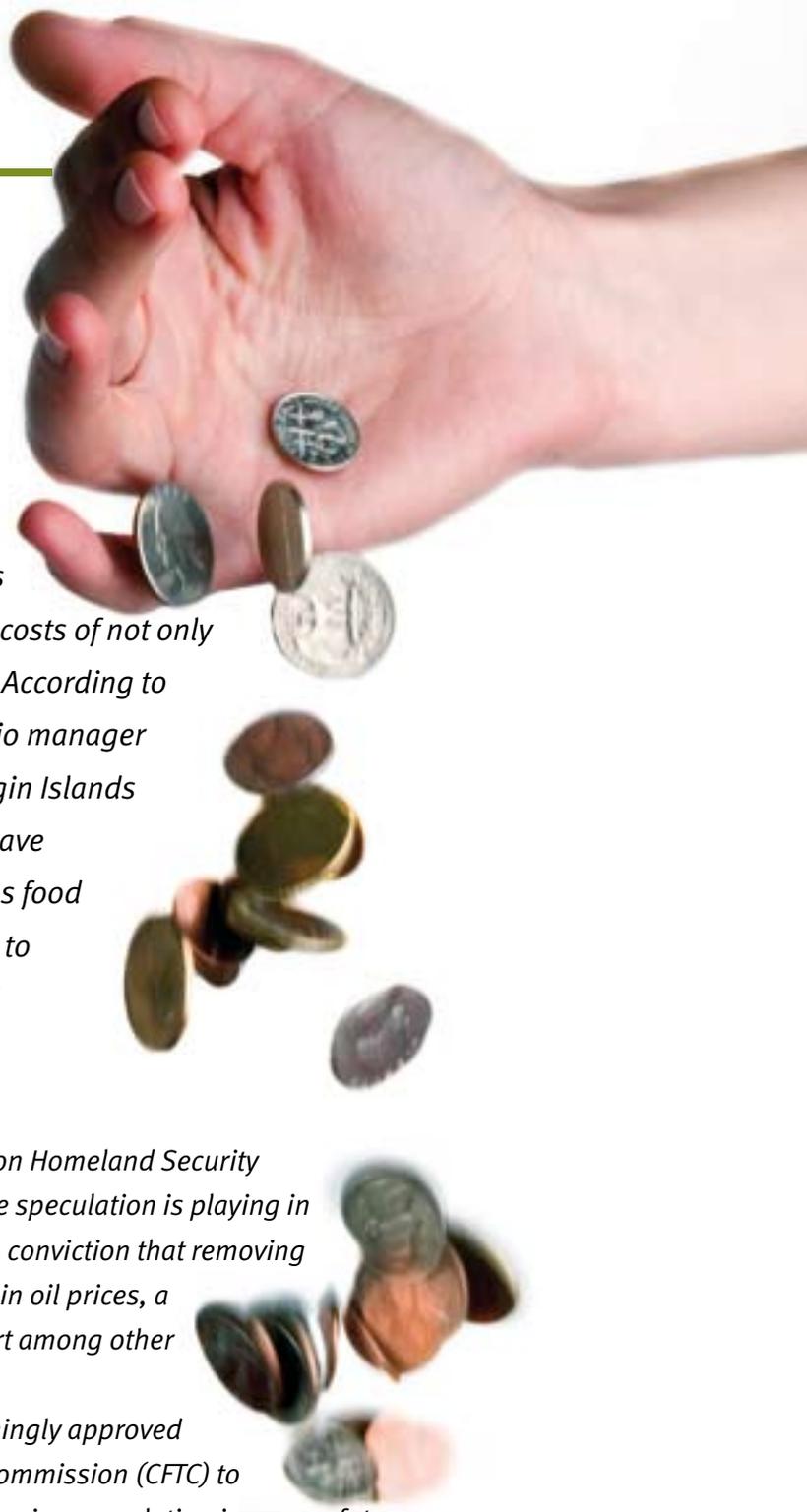
Portfolio manager issues warning to US Senate committee ...

## Act now to curb speculation — or risk energy prices rising further

*With the reasons behind today's high crude oil prices coming under close scrutiny from all corners, speculation is again being singled out as one of the chief culprits for the sustained inflated costs of not only petroleum, but other global commodities as well. According to one leading analyst — **Michael Masters**, a portfolio manager at Masters Capital Management, based in the Virgin Islands — hedge funds and other institutional investors have boosted their investments in commodities, such as food and crude oil, from \$13 billion at the end of 2003 to \$260bn in March 2008. That represents a 20-fold increase over the past five years.*

*Testifying before the United States Senate Committee on Homeland Security and Governmental Affairs, mandated to look at the role speculation is playing in the direction of energy prices, Masters held the strong conviction that removing the speculative element would result in a drastic drop in oil prices, a prognosis that has already found considerable support among other energy analysts.*

*The US House of Representatives has since overwhelmingly approved legislation directing the Commodity Futures Trading Commission (CFTC) to use its authority to “curb immediately” the role of excessive speculation in energy futures markets. The following text is the full testimony of Michael Masters to the House.*



Good morning and thank you Mr Chairman and Members of the Committee for the invitation to speak to you today. This is a topic that I care deeply about, and I appreciate the chance to share what I have discovered. I have been successfully managing a long-short equity hedge fund for over 12 years and I have extensive contacts on Wall Street and within the hedge fund community. It is important that you know that I am not currently involved in trading the commodity futures markets. I am not representing any corporate, financial, or lobby organizations. I am speaking with you today as a concerned citizen whose professional background has given me insight into a situation that I believe is negatively affecting the United States economy.

While some in my profession might be disappointed that I am presenting this testimony to Congress, I feel that it is the right thing to do. You have asked the question: “Are institutional investors contributing to food and energy price inflation?” And my unequivocal answer is: “Yes.”

In this testimony, I will explain that institutional investors are one of, if not the primary, factor affecting commodity prices today. Clearly, there are many factors that contribute to price determination in the commodity markets; I am here to expose a fast-growing, yet virtually unnoticed factor, and one that presents a problem that can be expediently corrected through legislative policy action.

Commodity prices have increased more in the aggregate over the last five years than at any other time in US history. We have seen commodity price spikes occur in the past, as a result of supply crises, such as during the 1973 Arab oil embargo. But today, unlike previous episodes, supply is ample: there are no lines at the gas pump and there is plenty of food on the shelves.

If supply is adequate — as has been shown by others who have testified before this committee — and prices are still rising, then demand must be increasing. But how do you explain a continuing increase in demand when commodity prices have doubled or tripled in the last five years?

What we are experiencing is a demand shock coming from a new category of participant in the commodities futures markets — institutional investors. Specifically, these are corporate and government pension funds, sovereign wealth funds, university endowments and other institutional investors. Collectively, these investors now account, on average, for a larger share of outstanding commodity futures contracts than any other market participant.

These parties, who I call index speculators, allocate a portion of their portfolios to “investments” in the commodity futures market, and behave very differently from the traditional speculators that have always existed in this marketplace. I refer to them as “index” speculators because of their investing strategy: they distribute their allocation of dollars across the 25 key commodity futures according to the popular indices — the Standard & Poors-Goldman Sachs Commodity Index and the Dow Jones-AIG Commodity Index.

I would like to provide a little background on how this new category of “investors” came to exist.

In the early part of this decade, some institutional investors, who suffered as a result of the severe equity bear market of 2000–02, began to look to the commodity futures market as a potential new “asset class” suitable for institutional investment. While the commodities markets have always had some speculators, never before had major investment institutions seriously considered the commodities futures markets as viable for larger-scale investment programmes.

Commodities looked attractive because they have historically been “uncorrelated,” meaning they trade inversely to fixed income and equity portfolios. Mainline financial industry consultants, who advised large institutions on portfolio allocations, suggested for the first time that investors could “buy and hold” commodity futures, just like investors previously had done with stocks and bonds.

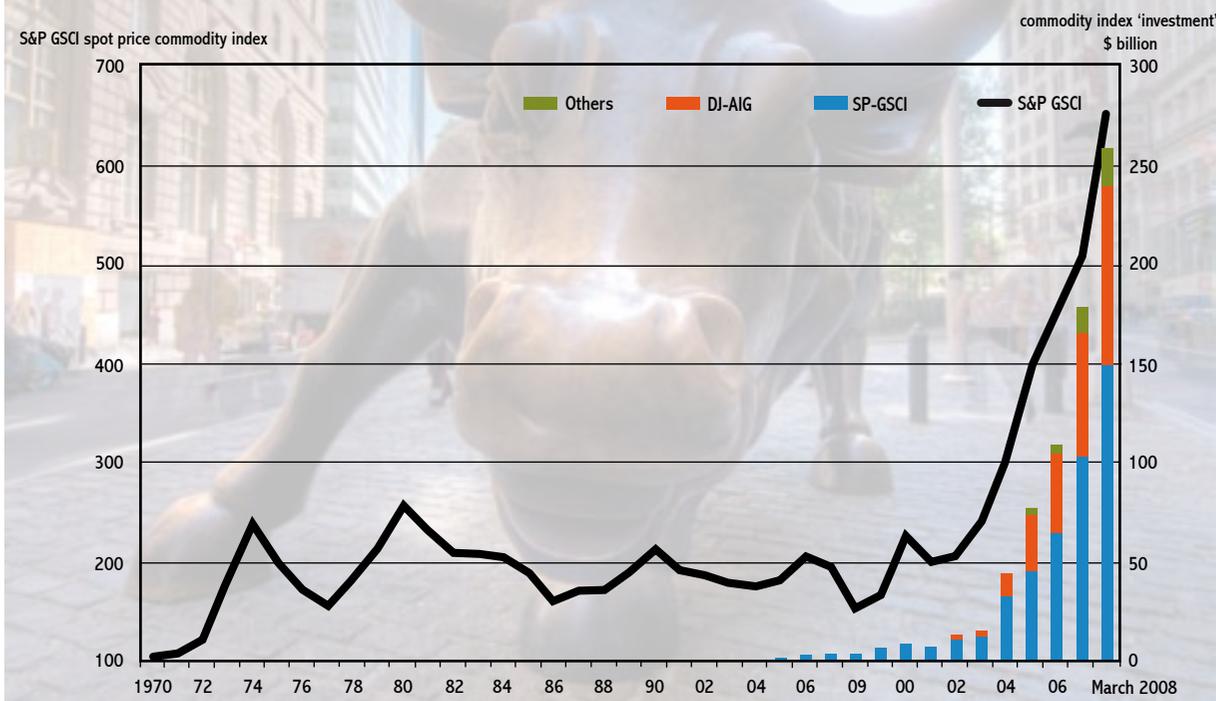
### **Index speculator demand driving prices higher**

Today, index speculators are pouring billions of dollars into the commodity futures markets, speculating that commodity prices will increase. *Chart 1* shows how assets allocated to commodity index trading strategies have risen from a value of \$13 billion at the end of 2003 to \$260bn as of March 2008. The prices of the 25 commodities that compose these indices have risen by an average of 183 per cent in those five years!

According to the Commodity Futures Trading Commission (CFTC) and spot market participants, commodity futures prices are the benchmark for the prices of actual physical commodities, so when index speculators drive futures prices higher, the effects are felt

*While some in my profession might be disappointed that I am presenting this testimony to Congress, I feel that it is the right thing to do. You have asked the question: “Are institutional investors contributing to food and energy price inflation?” And my unequivocal answer is: “Yes.”*

Chart 1: Commodity index investment compared to S&P GSCI spot price commodity index



Sources: Goldman Sachs, Bloomberg, CFTC Commitments of Traders CIT Supplement.

immediately on spot prices and the real economy. So there is a direct link between commodity futures prices and the prices your constituents are paying for essential goods.

**Chart 2** looks at the commodity purchases that index speculators have made via the futures markets. These are huge numbers and they need to be put in perspective to be fully grasped.

In the popular press, the explanation given most often for rising oil prices is the increased demand for oil from China. According to the US Department of Energy, annual Chinese demand for petroleum has increased over the last five years from 1.88bn barrels to 2.8bn b — an increase of 920 million b.

Over the same five-year period, index speculators' demand for petroleum futures has increased by 848m b. The increase in demand from index speculators is almost equal to the increase in demand from China!

In fact, index speculators have now stockpiled, via the futures market, the equivalent of 1.1bn b of petroleum, effectively adding eight times as much oil to their own stockpile as the US has added to the Strategic Petroleum Reserve over the last five years.

Let us also turn our attention to food prices, which have skyrocketed in the last six months. When asked to explain this dramatic increase, economists' replies typi-

cally focus on the diversion of a significant portion of the US corn crop to ethanol production.

What they overlook is the fact that institutional investors have purchased over 2bn bushels of corn futures in the last five years. Right now, index speculators have stockpiled enough corn futures to potentially fuel the entire US ethanol industry at full capacity for a year. That is equivalent to producing 5.3bn gallons of ethanol, which would make the US the world's largest ethanol producer.

Turning to wheat, in 2007 Americans consumed 2.22 bushels of this product per capita. At 1.3bn bushels, the current wheat futures stockpile of index speculators is enough to supply every American citizen with all the bread, pasta and baked goods they can eat for the next two years!

**Index speculator demand characteristics**

Demand for futures contracts can only come from two sources — physical commodity consumers and speculators. Speculators include the traditional speculators, who have always existed in the market, as well as index speculators. Five years ago, index speculators were a tiny fraction of the commodity futures markets. Today,

**Chart 2: Commodity purchases by index speculators the last five years**

<i>Sector</i>	<i>Commodity</i>	<i>Units</i>	<i>Previous futures market stockpile January 1, 2003</i>	<i>Net purchases last 5 1/4 years</i>	<i>Current futures market stockpile March 12, 2008</i>
<b>Agriculture</b>	cocoa	metric tons	18,828	303,352	322,180
	coffee	pounds	195,716,944	2,238,858,056	2,434,575,000
	corn	bushels	242,561,708	2,138,383,292	2,380,945,000
	cotton	pounds	544,934,999	5,548,915,001	6,093,850,000
	soybean oil	pounds	163,135,678	4,312,624,322	4,475,760,000
	soybeans	bushels	81,028,272	890,616,728	971,645,000
	sugar	pounds	2,291,358,746	46,094,097,254	48,385,456,000
	wheat	bushels	166,738,225	967,351,775	1,134,090,000
	wheat KC	bushels	54,746,014	102,618,986	157,365,000
<b>Livestock</b>	feed cattle	pounds	104,446,612	365,453,388	469,900,000
	lean hogs	pounds	517,414,747	3,827,425,253	4,344,840,000
	live cattle	pounds	669,766,732	5,099,033,268	5,768,800,000
<b>Energy</b>	brent crude oil	barrles	47,075,357	144,524,265	191,599,621
	WTI crude oil	barrels	99,880,741	538,499,579	638,380,320
	gasoil	metric tons	1,682,662	6,027,680	7,710,341
	heating oil	gallons	1,067,859,608	2,568,925,661	3,636,785,269
	gasoline	gallons	1,102,184,401	2,488,458,616	3,590,643,018
	natural gas	million BTUs	330,652,415	1,932,356,225	2,263,008,640
	<b>Base metals</b>	aluminum	metric tons	344,246	3,232,406
lead		metric tons	82,019	158,726	240,745
nickel		metric tons	20,147	101,988	122,135
zinc		metric tons	133,381	1,182,091	1,315,472
copper		metric tons	220,096	1,144,538	1,364,634
<b>Precious metals</b>	gold	troy ounces	979,863	8,742,401	9,722,264
	silver	troy ounces	11,126,862	152,866,187	163,993,049

Sources: Goldman Sachs, Standard & Poors, Dow Jones, CFTC Commitments of Traders CIT Supplement, calculations.

in many commodity futures markets, they are the single largest force.

The huge growth in their demand has gone virtually undetected by classically-trained economists, who almost never analyze demand in futures markets.

Index speculator demand is distinctly different from traditional speculator demand; it arises purely from portfolio allocation decisions. When institutional investors decide to allocate two per cent to commodity futures, for example, they come to the market with a set amount of money. They are not concerned with the price per unit; they will buy as many futures contracts as they need, at whatever price is necessary, until all of their money has

been “put to work”. Their insensitivity to price multiplies their impact on commodity markets.

Furthermore, commodity futures markets are much smaller than the capital markets, so multi-billion dollar allocations to commodity markets will have a far greater impact on prices.

In 2004, the total value of futures contracts outstanding for all 25 index commodities listed amounted to only about \$180bn. Compare that with worldwide equity markets, which totalled \$44 trillion, or over 240 times bigger. That year, index speculators poured \$25bn into these markets, an amount equivalent to 14 per cent of the total market.

*Index speculators have now stockpiled, via the futures market, the equivalent of 1.1bn b of petroleum, effectively adding eight times as much oil to their own stockpile as the US has added to the Strategic Petroleum Reserve over the last five years.*

**Chart 3** shows this dynamic at work. As money pours into the markets, two things happen concurrently — the markets expand and prices rise.

One particularly troubling aspect of index speculation is that it actually increases, the more prices increase. This explains the accelerating rate at which commodity futures prices (and actual commodity prices) are increasing. Rising prices attract more index speculators, whose tendency is to increase their allocation as prices rise. So their profit-motivated demand for futures is the inverse of what you would expect from price-sensitive consumer behaviour.

You can see from **Chart 3** that prices have increased the most dramatically in the first quarter of 2008. We calculate that index speculators flooded the markets with \$55bn in just the first 52 trading days of this year. That's an increase in the dollar value of outstanding futures contracts of more than \$1bn per trading day.

Does it not seem likely that an increase in demand of this magnitude in the commodity futures markets could go a long way to explaining the extraordinary commodity price increases seen at the beginning of 2008?

There is a crucial distinction between traditional speculators and index speculators: Traditional speculators provide liquidity by both buying and selling futures. Index speculators, on the other hand, buy futures and then roll their positions by buying calendar spreads. They never sell. Therefore, they consume liquidity and provide zero benefit to the futures markets.

It is easy to see now that traditional policy measures will not work to correct the problem created by index speculators, whose allocation

decisions are made with little regard for the supply and demand fundamentals in physical commodity markets.

If OPEC supplies the markets with more oil, it will have little effect on index speculator demand for oil futures. If Americans reduce their demand through conservation measures, like carpooling and using public transportation, it will have little effect on institutional investor demand for commodities futures.

Index speculators' trading strategies amount to virtual hoarding via the commodity futures markets. Institutional investors are buying up essential items that exist in limited quantities for the sole purpose of reaping speculative profits.

Think about it this way — if Wall Street concocted a scheme whereby investors bought large amounts of pharmaceutical drugs and medical devices, in order to profit from the resulting increase in prices, making these essential items unaffordable to sick and dying people, society would be justly outraged.

So why is there not outrage over the fact that Americans must pay drastically more to feed their families, fuel their cars, and heat their homes?

Index speculators provide no benefit to the futures markets and they inflict a tremendous cost upon society. Individually, these participants are not acting with malicious intent; collectively, however, their impact reaches into the wallets of every American consumer.

Is it necessary for the US economy to suffer through yet another financial crisis created by new investment techniques, the consequences of which have once again been unforeseen by their Wall Street proponents?

### **CFTC has invited increased speculation**

When Congress passed the Commodity Exchange Act in 1936, it did so with the understanding that speculators should not be allowed to dominate the commodity futures markets. Unfortunately, the CFTC has taken deliberate steps to allow certain speculators virtually unlimited access to the commodity futures markets.

The CFTC has granted Wall Street banks an exemption from speculative position limits when these banks hedge over-the-counter swaps transactions. This has effectively opened a loophole for unlimited speculation.

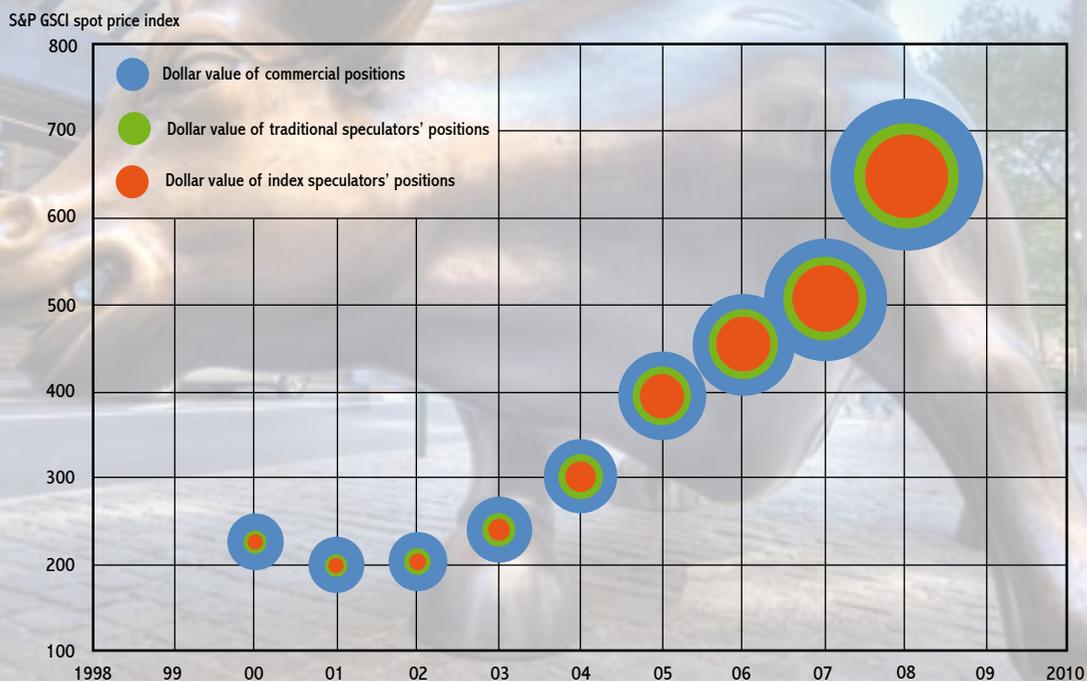
When index speculators enter into commodity index swaps, which 85–90 per cent of them do, they face no speculative position limits. The really shocking thing about the swaps loophole is that speculators of all stripes can use it to access the futures markets.

So if a hedge fund wants a \$500 million position in wheat, which is way beyond position limits, it can enter into swap with a Wall Street bank and then the bank buys \$500m worth of wheat futures.

In the CFTC's classification scheme, all speculators accessing the futures markets through the swaps loophole are categorized as "commercial" rather than "non-commercial." The result is a gross distortion in data that effectively hides the full impact of index speculation.

Additionally, the CFTC recently proposed that index speculators be exempt from all position limits, thereby throwing the door open for unlimited index speculator

**Chart 3: Commodity futures market size**



Sources: Bloomberg, CFTC Commitments of Traders CIT Supplements, calculations.

“investment”. The CFTC has even gone so far as to issue press releases on their website touting studies they commissioned showing that commodity futures make good additions to institutional investors’ portfolios. Is this what Congress expected when it created the CFTC?

### **Congress should eliminate the practice of index speculation**

I would like to conclude my testimony today by outlining three steps that can be taken to immediately reduce index speculation:

#### **Number One**

Congress has closely regulated pension funds, recognizing that they serve a public purpose. Congress should modify Employee Retirement Income Security Act (ERISA) regulations to prohibit commodity index replication strategies as unsuitable pension investments because of the damage they do to the commodities futures markets and to Americans as a whole.

#### **Number Two**

Congress should act immediately to close the swaps loophole. Speculative position limits must “look-through” the

swaps transaction to the ultimate counterparty and hold that counterparty to the speculative position limits. This would curtail index speculation and it would force all speculators to face position limits.

#### **Number Three**

Congress should further compel the CFTC to reclassify all the positions in the commercial category of the commitments of traders’ reports to distinguish those positions that are controlled by “bona fide” physical hedgers from those controlled by Wall Street banks. The positions of Wall Street banks should be further broken down based on their over-the-counter swaps counter-party into “bona fide” physical hedgers and speculators.

There are hundreds of billions of investment dollars poised to enter the commodity futures markets at this very moment. If immediate action is not taken, food and energy prices will rise higher still. This could have catastrophic economic effects on millions of already stressed US consumers. It literally could mean starvation for millions of the world’s poor.

If Congress takes these steps, the structural integrity of the futures markets will be restored. Index speculator demand will be virtually eliminated and it is likely that food and energy prices will come down sharply. ❁

# New way for Norway

*The OPEC Bulletin's Associate Editor, **Keith Aylward-Marchant**, was one of 20 participants on an international press trip organized recently by the Offshore Northern Seas (ONS) Foundation, to visit petroleum installations around Norway. This was in the build-up to the major 'ONS 2008' international conference and exhibition, which will take place in Stavanger, the heart of the Norwegian petroleum sector, on August 26–29, with the theme 'Energy for one world'. The Stavanger region has been selected as European Capital of Culture for 2008. The following reports offer detailed highlights of the trip.*

## Gas to soon overtake oil in country's petroleum mix

Norway has been one of the world's leading oil producers and exporters since the 1970s. This has transformed the economic and social landscape of the picturesque Scandinavian country, with its vast coastline that extends into the Arctic Circle, its huge fjords, its multitude of islands and its rugged, mountainous scenery.

The country is now moving into a new energy era, where gas will soon surpass oil as the leading petroleum sector and where an increasing amount of attention is being devoted to developing renewables, in a nation with a longstanding commitment to environmentalism and other social and humanitarian issues. This has created many new challenges for this land of just 4.8 million people.

Norway's Deputy Minister of Petroleum and Energy, Liv Monica Stubholt, outlined the principal challenges affecting the country's energy industry, to the participants of the ONS International Press Trip, in the Radisson Hotel, at Oslo's airport.

Energetic, articulate and expressive, Stubholt began by describing the importance of hydrocarbons to the Norwegian economy, pointing out that they constituted about a quarter of both gross domestic product (GDP) and total investment, a third of state revenue and half of exports (*figure 1*).

### Non-petroleum

But she was at pains to stress that more than half of Norway's exports were non-petroleum: "This is well worth noting, because I think it is relevant to understand that Norway's relative competitiveness is not totally dependent upon petroleum products or oil exports. There are a lot of other raw materials here, primarily fish ... (and) also more sophisticated exports, products and services." It was important for a "strong petroleum-producing country to have other strong industries."

Stubholt observed that Norway was the world's tenth-largest producer of oil, including natural gas liquids and condensates, and the number five exporter, although these numbers may vary with time (*figure 2*). "We are



Ministry of Petroleum and Energy, Norway

Norway's Deputy Minister of Petroleum and Energy, Liv Monica Stubholt.

presently at a production level of about 2.6 million barrels/day," she added.

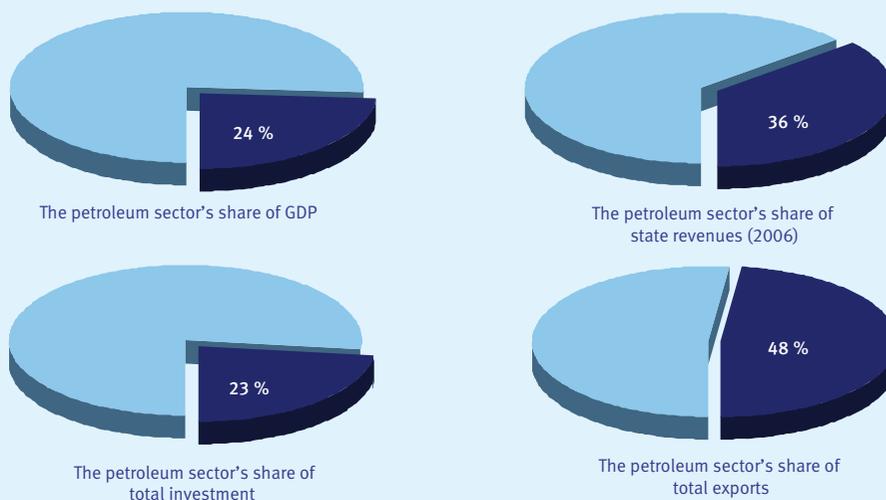
"For gas," she said, "we are fairly high on the exporter list. We may, in a few years, pass Canada, and become the second-largest exporter. And, on the production side, we are about number five (*figure 3*).

"We will increase gas production in a few years, producing between 125 and 140 billion standard cubic metres a year. We will, in the future, produce gas and export gas to Europe, to compete with the present level of the Russian Federation."

She believed it important to mention this, because, in the overall energy discussions, at least from a geopolitical and strategic point of view, there was much focus on exports to the European Union (EU) from Russia and Algeria. However, Norway was not very much part of the energy security/energy supply discussions. While she was pleased about not being part of the energy security concerns, she nevertheless felt that there was always a "risk of political considerations being impacted by the fact that Norway, for good or bad, in many ways is always taken for granted as a dependable supplier."

She expressed concern that Norway, as a petroleum-producing country that was "a bit outside of the general mould", might "inadvertently come into the

Figure 1: Macroeconomic indicators, 2007



Sources: Statistics Norway and Ministry of Finance.

line of fire” with EU legislation that was “clearly not levelled at a country that is, de facto, integrated into the internal market.”

### Energy dialogue

Referring to the active energy dialogue between Norway and the EU in Brussels just two weeks earlier, Stubholt remarked: “I believe that Andris Piebalgs, the European Energy Commissioner, is very much aware that Norway is an important part of the mix and we have a strong bilateral energy dialogue between Norway and the EU,” at the same time as complimenting Piebalgs on giving the process “such substantial attention”.

In turning to gas exports (*figure 4*), she said: “You will see that, in France and Germany, Norwegian gas powers about every third meal in private households, and we are also supplying to several other EU countries.”

While gas was delivered to Europe by pipeline, “with very few exceptions”, she recalled that Europe’s first export facility for liquefied natural gas (LNG) had come onstream in Hammerfest in autumn 2007, to process gas from the Snøhvit field in the Barents Sea, and that, when that gathered speed, it would provide other countries with Norwegian gas. This included the contractual relationship to deliver LNG to Cove Point in Maryland, in the United States, and this meant Washington DC itself would be a recipient “within a fairly short time”.

The Deputy Minister then provided an overview of

the petroleum resources on the Norwegian Continental Shelf (NCS) (*figure 5*): “You will see that it is the North Sea that is the most mature, the Norwegian Sea still has considerable potential and the Barents Sea is not very well explored. Approximately, in the Barents Sea, there are around 70 exploration drillings that have taken place, while, at the other points on the NCS, there are around 1,150 exploration wells that have been drilled.”

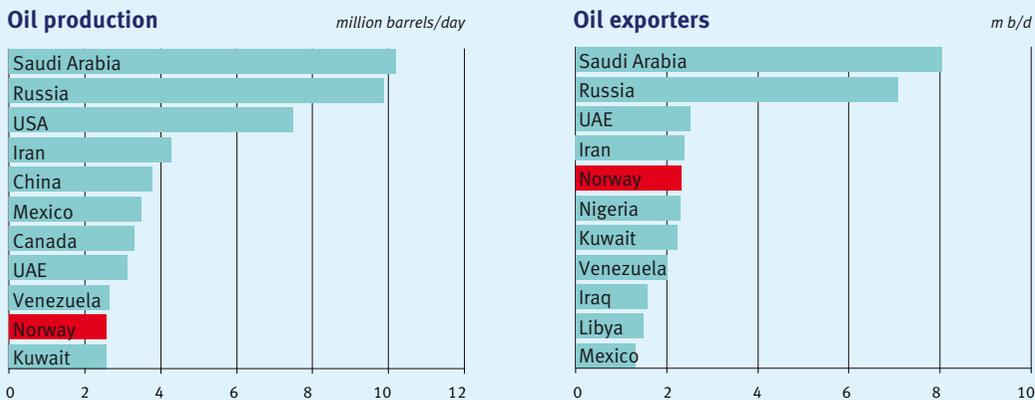
This meant that the Barents Sea was still very much in its ‘early days’. There were two main reasons for this: technology and the environment; and politics, “whereby some of the Barents Sea is a controversial part of the NCS.

“Everybody agrees that there are specific environmental concerns that must be taken into consideration. I may add also health and safety concerns, which are not only technologically challenging, but, of course, for workers, a challenge to be invited to work in the cold, harsh and often dark Arctic climate.”

### Oil to gas

Stubholt added: “The majority of our petroleum exports today is still oil (*figure 6*). But, in a very few years, gas will constitute the majority of our exports of hydrocarbons. So we are changing from an oil nation to a gas nation, to put it simply. How that will affect us remains to be seen. In market terms, there are different markets and perhaps (they are) becoming more different.”

**Figure 2: The largest oil producers and exporters (incl NGL and condensate), 2007**



Source: KBC Market Services.

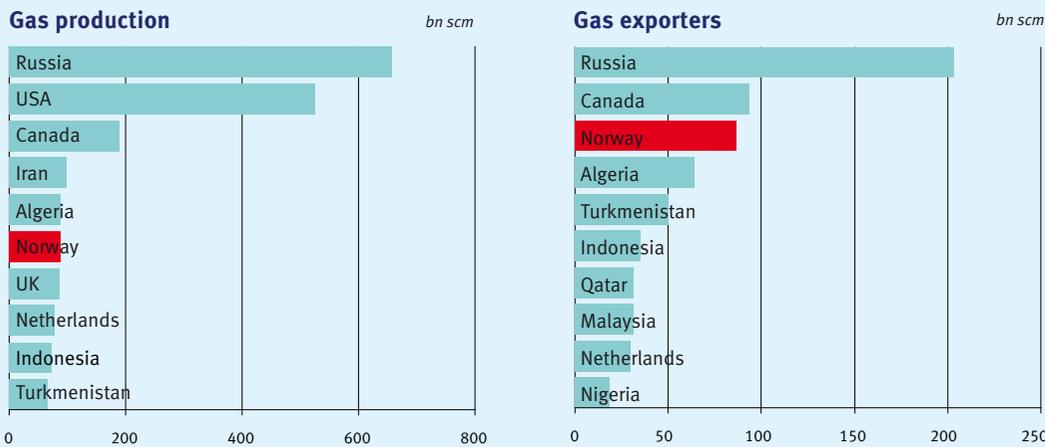
Nevertheless “we are, of course, pleased to see that the drop in oil production will be, for many years to come, more than compensated with increased gas production.”

When she turned to the outlook for total petroleum production (*figure 7*), she said: “The crucial issue here is technology. Norway realises that, to the extent that politics allows for further exploration into previously unopened

areas, to succeed, we need to look for the petroleum, we need to find it and we need to be able to produce it in a safe and robust manner.”

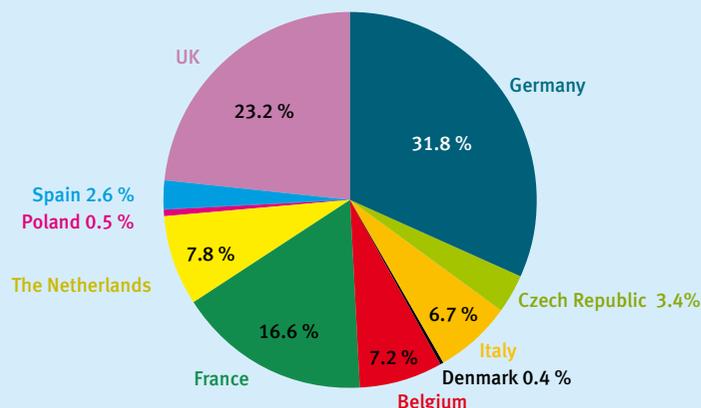
However, she added that it was not just a case of new areas and additional acreage: “It is a primary concern to us, as the Government and with the authorities as such, that we would like to see increased enhanced oil recovery (EOR).”

**Figure 3: The largest gas producers and exporters, 2006**



Source: KBC Market Services.

Figure 4: Norwegian natural gas exports, 2006



Source: Norwegian Petroleum Directorate.

“It is, in simple terms, hard to accept the present prognosis that about half of what we have found remains in the ground.”

Stubholt stressed that there would be the ‘clear expectation’ in the way that Norway developed its policy that it would ‘intensify, encourage and promote’ EOR. This would be “in terms of the principle of good husbandry of your resources, that you should get as much out of the reserves that are there and that are in the process of being explored and produced, and not only move ahead and look for new acreage.”

### Enhanced oil recovery

She acknowledged that EOR was an area where there would be tension between the national interest and the industry interest. She recalled the situation last autumn, when the licensees of the Troll field wanted to leave a lot of recoverable oil in the ground so as to accelerate gas production, and the Ministry of Petroleum and Energy firmly rejected this: “It is not acceptable to leave that much oil in the ground, only to increase the speed and short-term profit of the gas production and exports.”

In expanding upon the issue, she said: “I think it will be a stronger issue as we move forward, and we will become clearer in targeting increased EOR as an objective for us and something in which we will invite the petroleum industry to be our partner in developing further.

“To a certain extent, the interests of the national authorities and the interests of the industry will coincide for EOR, because every company that has a licence would dearly love to get as much out of it as possible. But there

is a breaking point at some stage, where the company would say that it is becoming too expensive and where the authority would say we would like you to get more out.”

There was also a time-critical factor on the NCS, in the sense that infrastructure would need to be dismantled at some point not too far ahead. “To be able to glean as much as we can from the resources before that happens is crucial,” said Stubholt, “because, after the installations and the pipelines have been taken down, then the smaller reserves will, in all likelihood, never be used.”

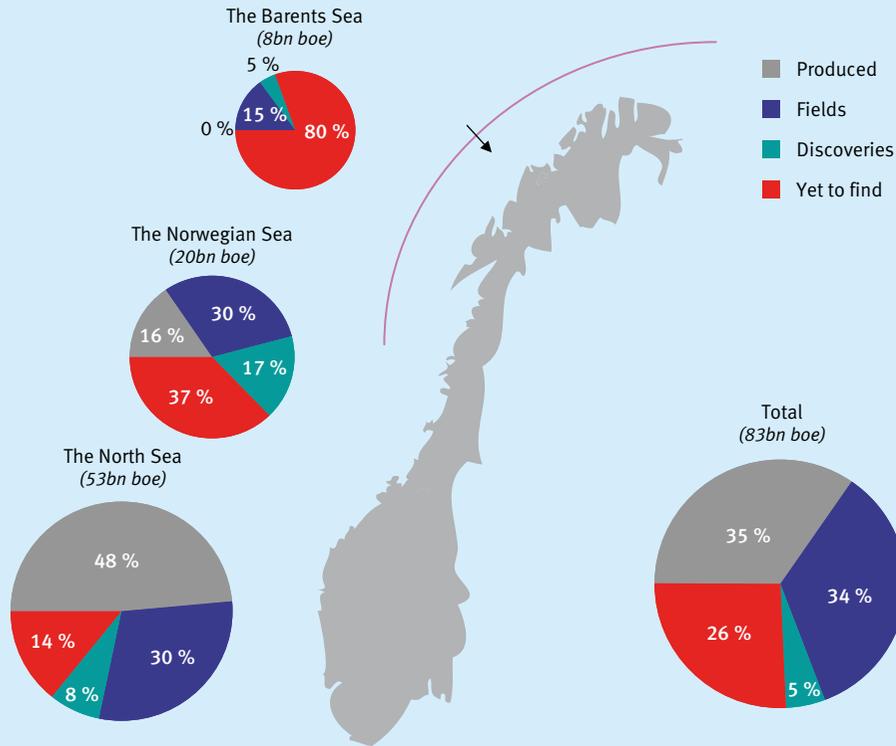
The Deputy Minister contrasted the declining oil production outlook with the estimated gas sale for the period up to 2020 (*figures 8, 9*).

She commented that the challenge in technology was not only looking in difficult areas and enhancing recovery; it was also, from an industry point of view, protecting margins. The strong increase in costs that were occurring at a time of rising prices did not mean that there was symmetry between the higher prices and the actual profits. Indeed, the industry was under considerable pressure, with regard to rising costs, as well as access to available skilled personnel. *Figure 10* shows the big increases in investment and exploration costs during the present period.

When asked about the current high oil prices and volatility, Stubholt replied: “I think it is somewhat surprising ... and somewhat disturbing to the world that the oil price is as high as it is. I know some analysts say that there are levels of irrationality in having such a high oil price, considering ... the supply situation. This is not necessarily the case.

“Then again, I think it is an illustration that politics

**Figure 5: Petroleum resources on the NCS**



Source: Norwegian Petroleum Directorate.

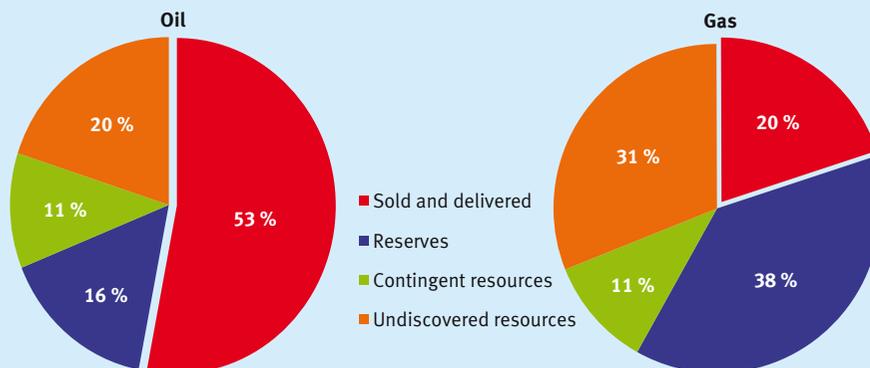
matter and that oil prices are impacted by all kinds of uncertainty.

“The concern that every government has — be it from petroleum-producing countries or not — is that such high oil prices may have a very negative impact on world prosperity, the gap between the rich and poor, the Millennium Development Goals, all those high-flying,

but very substantial and important global objectives that Norway shares.”

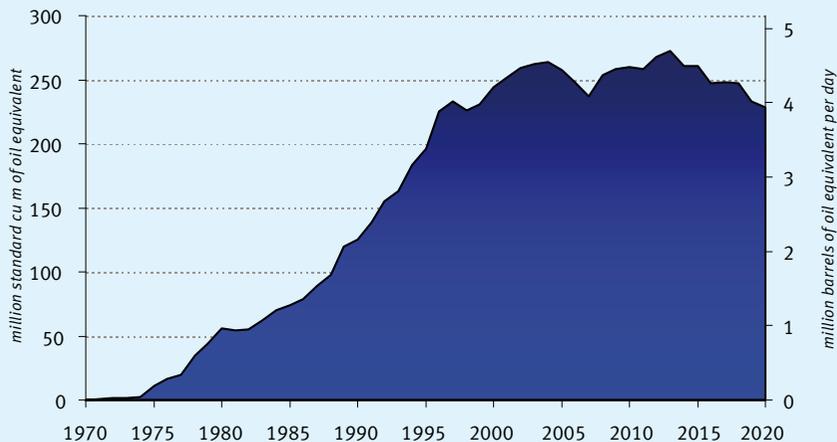
She added: “I think we share the view with OPEC Countries that we would not regret a lower oil price, even though it would mean a little less money. We would not be adverse to a long-term stable oil price at a somewhat lower level. The need to have stability is paramount.”

**Figure 6: Petroleum resources on the NCS**



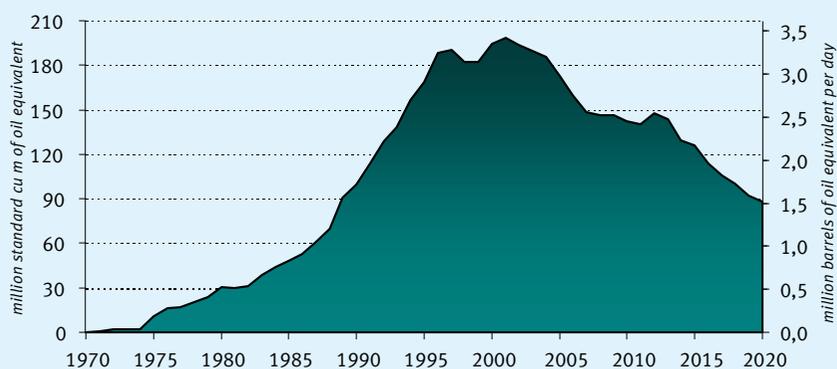
Source: Norwegian Petroleum Directorate.

**Figure 7: Total petroleum production**



Sources: Ministry of Petroleum and Energy and Norwegian Petroleum Directorate.

**Figure 8: Oil production**



Including NGL and condensate.

Sources: Ministry of Petroleum and Energy and Norwegian Petroleum Directorate.

and being a proactive party in the international effort to mitigate negative climate change.” This affected all the Government’s decisions about petroleum activities and the further development of the NCS, as well as the mix of renewables and non-renewables.

“We feel lately, for instance,” she continued, “that, as a Government, we have been pushed to explain the correlation between Government funding on research for petroleum-related industries and for renewable-related industries. And I would add that fair questions have been put to us in this context.”

### Licence to operate

“We support the phrase that has been coined recently and which I would credit to Helge Lund, the Head of StatoilHydro. He said that, in our industry we must have a licence to operate. This is not only a comment on the licence as the piece of paper issued by us in the Ministry, pursuant to field exploration applications. But it is also the licence to operate from the public at large.

“And the licence to operate from the public at large requires petroleum industry companies to take part in public debate and to be relevant in terms of the dominant move forwards to make a cleaner and more sustainable regime for exploration and production.

“However, this Government does not accept that climate change means that we will have to slow down or stop the petroleum industry’s move forwards. But we are very clear in saying that petroleum activities have to be carried out according to modern, sophisticated, state-of-the-art sustainability principles.

“The inauguration declaration of this Government clearly states that Norwegian petroleum production will continue at a steady high level. So it is clear that a great part of the environmental agenda is requiring that this is done properly.”

Norway, she said, was lucky to have not only considerable petroleum resources, but also strong hydro-power. Almost 100 per cent of the country’s electricity generation production was hydro-power-based.

“So,” Stubbholt continued, “in the context of the EU, which would like every member country to increase its percentage of renewables, we will, in all likelihood, be adopting those regulations, as part of the European Economic Area agreement — the negotiation agreement we have that associates us with the internal market in the EU.

Turning to the environment, Stubbholt said: “The climate change agenda has an impact on the petroleum industry and has an impact on petroleum-producing countries.”

The Norwegian Government was “very ambitious” with regard to climate change measures and eager to get into the post-Kyoto regime: “We will not only meet our Kyoto obligations, we will exceed them.”

Nevertheless, “at the same time, we have an interest in keeping a healthy petroleum industry, because it is important for the future welfare of Norway.

“So, to put it in a very simple picture, we are both the hammer and the nail. This means that we have to find a good balance between safeguarding our own interests

“But it is very hard for us to meet that requirement, because we don’t have anywhere much higher to go, in terms of electricity production. That may have served to inadvertently slow us down on the renewables,” she added. That was in contrast to countries like Denmark and Germany, which had really had to look for new energy sources.

“That said, I understand that wind-mapping shows that the northern part of the United Kingdom and Norway are among the ideal locations for wind-power, both on the coast and offshore.

“This means that we are playing ‘catch-up’ now. We have a very strong ambition to become proficient and focused on wind-power. Indeed, Åslaug Haga, very shortly after she became Minister of Petroleum and Energy (in September 2007), stated that her ambition is for Norway to become a net exporter of renewables. That cannot happen if we do not develop not only hydrocarbons, but also strong wind-power.

“She announced on Monday a revival of a support mechanism, whereby more funding will be available for wind-power. And it was clearly stated that our objective is to have full approval of the licensing of, at least, another four large wind-power farms before the end of the year.”

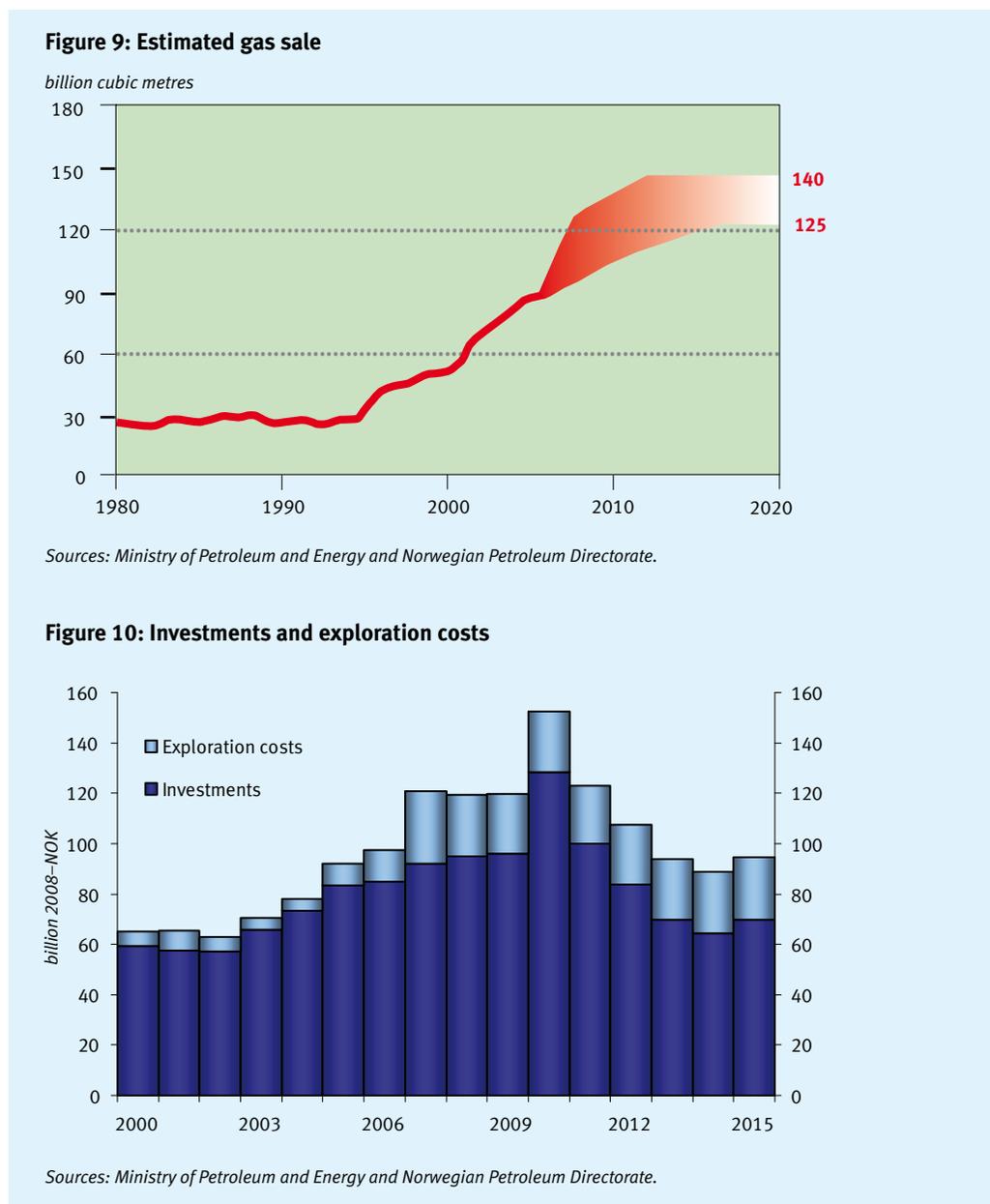
Stubholt continued: “We have been very clear in saying that there are exciting prospects, with regard to offshore wind-power, and, indeed, floating wind-power. But we also acknowledge that the experts advise us that we need to ‘hurry slowly’, in the sense that there are still considerable technological hurdles that need to be overcome before, at least, we can have floating offshore wind-power.”

## Offshore wind-power

She added: “But we do think that offshore wind-power is the answer in the future, not least because it will resolve some of the issues with regard to ‘pollution of the view’. However, it also needs to be carefully considered in terms of other users of the sea and the ocean.”

In fact, politicians should be careful in saying that the installations should be put far out at sea, because nobody would see them from the land; this would be sure to offend fishermen and others, as well as the travel industry. “And so there is always the need to find a balance between the different users of territory, also at sea.”

Addressing the issue of incentives for renewables, the Deputy Minister said the Government was working



to improve these, and considered it ‘very much a priority’, but “there is nothing to be unveiled next week or next month.”

All in all, on renewables, she remarked: “I think we are very much in a transient period, in terms of thinking, because we are not used to thinking on long-term investment on energy.” Politicians should be prepared to invest in developing a strong renewables energy sector in five-to-ten years from now.

“Being in a mature petroleum age, we are probably at the very first stage of renewables,” Stubholt added. “I hope it won’t take too long.”

# Pioneering LNG/CCS project comes onstream in frozen North



The world's first liquefied natural gas (LNG) plant with carbon capture and storage (CCS) has come into operation on the northern coast of Norway over the past year.

Indeed, the CCS part of the pioneering Snøhvit development started just two days before the ONS group arrived at the complex, which has been built on the small island of Melkøya, near the northernmost town in the world, Hammerfest, in the Arctic Circle.

The development boasts several other firsts — Europe's first export facility for LNG, the first offshore project in the Barents Sea, and the first major development on the Norwegian continental shelf with no surface installations.

Operations began in August last year, with the opening of the offshore wells and the flow of gas into the pipeline, and the CCS started eight months later, in April. Markets are in Europe and the United States.

Extensive use of the latest technology has been required to get the project off the ground in the harsh Arctic conditions of the Barents Sea, a task that was considered unachievable less than two decades ago.

The Snøhvit development consists of three fields — Snøhvit, Albatross and Askeladd, with the former being the first to come onstream. Discovered in the early 1980s, these fields lie about 140 km north-west of Hammerfest in 250–340 metres of water. The development's 20 wells contain primarily natural gas, with small amounts of condensate. The gas-in-place is estimated at 317 billion cubic metres and the condensate at 34m cu m.

Final approval to proceed with the development was given in 2002, and it has a planned production time of 30–35 years. The six owners are StatoilHydro (operator), Petoro, Total E&P, Gaz de France, Amerada Hess and RWE Dea.

The fields are being developed with subsea production facilities on the seabed. Hence there are no fixed or floating units positioned in the Barents Sea. Also, the seabed facilities are designed to be 'over-trawlable', so that neither they nor fishing equip-

ment will suffer any damage from contact. Such measures have helped address the concern of environmentalists about producing hydrocarbons from that region.

At present, a 145 km multiphase transport pipeline brings the gas from the Snøhvit field to the LNG factory to Melkøya, where it is liquefied by cooling it to  $-163^{\circ}$  Celsius, for export.

The gas contains carbon dioxide that freezes into solid form at a higher temperature than natural gas. The  $\text{CO}_2$ , therefore, must be removed, before it is cooled to LNG. It also must be separated from the hydrocarbons at a sufficiently early stage, so that the gas mixture does not freeze and block the heat exchangers in the processing plant.

A separate pipeline then transports the  $\text{CO}_2$  back to the Snøhvit field. There, it is stored in a suitable geological layer of porous sandstone, called the Tubåsen formation. This structure lies 2,500 metres beneath the seabed and under the layers in Snøhvit containing gas. A shale cap, which lies above the sandstone, will seal the reservoir and ensure that the  $\text{CO}_2$  stays underground, without leaking to the surface. More than 700,000 tonnes of  $\text{CO}_2$  will be stored annually in this manner.

A separate monitoring programme, partly financed by the European Union, has been established to examine how  $\text{CO}_2$  behaves in the reservoir.

As a pioneering, complex venture carried out in harsh Arctic conditions, the Snøhvit development has had a troubled start, running at best at only 60 per cent of its full operating capacity of 5.7bn cu m/year, although full capacity is expected in 2009.

StatoilHydro's Head of Information, Sverre Kojedal, told assembled journalists that the development was still on a "learning curve" and that there had been more and longer shutdowns than expected, although this had not been entirely unexpected for this type of project. He added that the development would shut down in early May for up to two months, to modify the liquefaction plant.

This is StatoilHydro's second-largest CCS project in Norway. One million tonnes of  $\text{CO}_2$  are already stored annually beneath the seabed on the Sleipner field in the North Sea, in a CCS venture that began in 1996.

StatoilHydro is also involved in CCS on the gas and condensate field in In Salah in Algeria, in cooperation with Sonatrach and BP.

*Top left: The LNG-carrier 'Arctic Discoverer' docked at Melkøya.*

*The rugged Arctic landscape at Melkøya.*





*Keith Aylward-Marchant at Tromsø, in the Arctic Circle.*



*A welcome from Hammerfest.*

*An aerial shot of the LNG plant at Melkøya, located on the outskirts of Hammerfest (above right), which is the northern-most town and most northerly LNG plant in the world.*



*StatOil Hydro*



*Hammerfest harbour.*



*Hammerfest: traditional Lavvu dwellings of indigenous sami people.*

# Norway claims world's first hydrogen society



*The harbour on the tiny island of Utsira.*

The world's first hydrogen society can be found, albeit in a small-scale experimental form, on the rocky island of Utsira, north-west of Stavanger, claims StatoilHydro.

In a sustainable, wind-based system, the idea is to provide stable power supply for ten of the homes on the island of 214 inhabitants, even when the wind is not blowing.

Surplus wind energy from a windmill, which powers these homes, is used to make hydrogen in an on-site electrolyzer. The manufactured hydrogen is compressed and stored in tanks, and, when needed, fed into the plant's fuel cell to provide power to the homes until the wind picks up again.

The plant is completely emissions-free. The project, which was launched in 2004 by Hydro and German wind turbine manufacturer Enercon, is in its very early days and is seen as having a possible future application in isolated communities, when it can be made commercially viable.

More generally, the Norwegian Government is encouraging the development of wind-power systems, notably offshore, and is supporting two other schemes that are to be tested off the country's south-west coast.

'Hywind' uses giant floating deepwater wind turbines, with blade diameters of 107 metres, on concrete buoys anchored by three cables to the seabed, while the other scheme, 'Sway', envisages floating wind-turbine masts that sway against the wind.



*The experimental wind/hydrogen installation on the island of Utsira.*

## Norway holds first high-level energy dialogue with EU

Norway and the European Union (EU) recently held a high-level energy dialogue meeting for the first time in Brussels. The theme was the 'EU's energy policy and Norway's role — focusing on energy security and climate'.

Taking part were Members of the Norwegian Parliament (the Storting), EU institutions and industry representatives. The event, with about 80 participants, was organised by the Norwegian Oil Industry Association (OLF), which represents oil and supplier companies engaged in oil and gas exploration and production on the Norwegian Continental Shelf.

The Norwegian side described the purpose of the meeting as being "to increase our insight into the EU's views on key energy policy topics and shed light on Norway's role in Europe's energy policy. In addition, we want to focus on the efforts in the field of environmental technology and meet representatives from OLF's member companies who are stationed in Brussels."

The statement continued: "New global challenges and the subsequent response from the EU in the form of a strong European energy and climate policy in 2007 have widened the scope for ... dialogue. The new European energy and climate policy sharpens the demands on member countries, but it is likewise of great importance for Norway, as both a supplier and a participant in the European Economic Area agreement. This is the basis for having this year's dialogue meeting in Brussels."

There were three main sessions on: energy supply and climate; the EU's energy policy; and 'How do the EU and the oil industry deal with global threats to the environment?'

Lars Arne Ryssdal, OLF's Manager, Industry Policy and Development, described the event as "an important dialogue that should be repeated."

## Major merger between Statoil and Hydro

A major change occurred in the complexion of the Norwegian petroleum sector on October 1 last year, when the country's two major players, Statoil and the oil and gas division of Hydro, merged, to form StatoilHydro.

The new company describes itself as "an integrated technology-based international energy company primarily focused on upstream oil and gas operations."

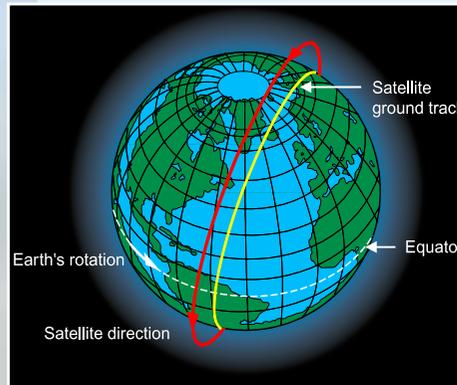
As one of the world's 50 largest listed companies, StatoilHydro has 29,500 employees in 40 countries, operates 39 producing oil and gas fields, is the world's largest operator in waters deeper than 100 metres, and is world leader in the use of deepwater technology and for carbon capture and storage.

It has proven reserves of more than 6 billion barrels of oil equivalent (boe), and its daily production averages more than 1.7 million boe.

## Satellite surveillance provides round-the-clock monitoring of oil spills



The KSAT ground-station at Tromsø.



### Orbit characteristics

**Geometry:** Sun-synchronous  
**Altitude:** ~800 km  
**Inclination:** 98.6°  
**Period:** 100.7 minutes  
**Repeat cycle:** Radarsat 24 days  
Envisat: 35 days  
**Orbits per day:** 14

Source: Kongsberg.

A satellite-based service, with its headquarters at Tromsø in the Arctic Circle, has been monitoring oil spills in the waters around Europe since April 2007, in a round-the-clock near-real-time operation.

Kongsberg Satellite Services (KSAT) provides products and services based on polar-orbiting satellites, with three ground-stations in Norway — Tromsø, SvalSat and Grimstad — and one in the Antarctic — TrollSat. KSAT's CleanSeaNet Oil service uses satellite imagery, with 14 orbits a day, to detect oil pollution at sea and then alerts the appropriate authorities, in a pan-European service provided to the European Maritime Safety Agency (EMSA) and EU coastal states.

The alert time of just 30 minutes allows rapid response-times, sharpening-up the fight against oil pollution in the large area under surveillance.



# Enough to go around



## BP Statistical Review of World Energy June 2008

*BP's Statistical Review of World Energy confirms that global oil resources are sufficient to support growing levels of production. At its recent launch in Vienna, Austria, the company's Head of Refining Analysis stopped short of blaming speculators for today's high prices, but recognized the part that financial markets play in "accelerating movements up and down". The OPEC Bulletin's **Alvino-Mario Fantini** and **Steve Hughes** were in attendance.*

If you showed the current oil market balance to people living in 1995 and asked them to estimate today's oil price, Kevin Goodwin guesses they would predict no more than \$40/barrel. Goodwin, Head of Refining Analysis of the BP Economics team, was in Vienna recently to launch the **2008 BP Statistical Review of World Energy**. And the message could not have been clearer: the world's fossil fuel resource base remains sufficient to support growing levels of production.

Surely then, Goodwin's \$40/b guess could be taken as evidence that he supports a growing view that speculation is the main culprit of today's record prices. OPEC has repeatedly argued along this line and it is now increasingly recognized that price dynamics over the past year have been driven less by fundamentals and more by other factors, such as the frenetic activity in the paper oil market.

But Goodwin, speaking at the K-47 keyclub — a swish, glass-walled, bar-cum-restaurant that looks out over Vienna's Innere Stadt, the OPEC Secretariat and beyond — has a different argument. While financial markets are perfectly capable of accelerating movements up and down, Goodwin says, they are unable to trigger the movements in the first place. Instead, the BP Review argues that even though the resource base remains sufficient — something OPEC and others have long been telling the world — continued weakness in oil supply and increasing demand outside the OECD are contributing to tightness in the market.

### Above ground

BP's Review shows that the price of oil has been on an upward trend for more than six years. This, according to the oil major, is the longest period of rising prices on record. When Tony Hayward, BP's Chief Executive, spoke at a separate launch of the BP Review earlier in the month, he blamed price increases on a lack of access to resources, high oil taxes and more: "Declining oil production in the OECD highlights the fact that, while resources are not a constraint globally, the resources within reach of private investment by companies like BP are limited. Political factors, barriers to entry, and high taxes all play a role



Kevin Goodwin, Head of Refining Analysis of the BP Economics team.

here. In other words, when it comes to producing more oil, the problems are above ground, not below it. They are not geological, but political.”

According to the BP Review, global oil production in 2007 fell by 0.2 per cent (or 130,000 b/d), representing the first decline since 2002. OPEC production, it says, dropped by 350,000 b/d. Oil output growth outside OPEC remained weak, rising by just over 200,000 b/d in the year. OECD output fell for a fifth consecutive year, whereas production from the former Soviet Union (FSU) rose by nearly 500,000 b/d, with Azerbaijan and Russia each expanding by more than 200,000 b/d.

In contrast, the BP Review showed that world economic growth was strong last year, despite financial market turmoil, and this continued to support global energy consumption. Although growth in primary energy consumption slowed in 2007, compared with 2006, at 2.4 per cent, it was still above the ten-year average for the fifth consecutive year. More specifically, the BP Review showed that global oil consumption grew by 1.1 per cent in 2007, or by one million b/d, slightly below the ten-year average. Consumption in the oil-exporting regions of the Middle East, South and Central America and Africa accounted for two-thirds of the world's growth. The Asia-Pacific region expanded by 2.3 per cent, even though growth in China and Japan was below average, with strong growth in a number of emerging economies. OECD consumption fell by 0.9 per cent, or by nearly 400,000 b/d.

## Open door

Goodwin is not an alarmist. While he admits that the thought of non-OECD future demand growth could be “very scary”, he says that when such growth is rationalized, a much calmer picture becomes clear. “The way that my macroeconomist friends think about it is that economic development is like a doorway,” he says, explaining that not everybody can move through it at the same time. “So even though it's billions [of people on the verge of demanding more energy] we're still talking about a more steady trickle.”

Looking to the future, Goodwin notes that society as a whole has to face some tough choices. “The world has to decide what it wants,” he argues, when questioned about what lies ahead for the oil industry. “Does it want to leave everything off limits because of ... environmental risks, or whatever?” If so, “it has to accept the consequences” he says. Otherwise, he adds, in order to meet future oil demand, “we need to go to ever deeper, ever more difficult places ...”

OPEC has long argued that as the interdependence between energy-producing and consuming nations continues to grow, the challenges that face the industry are relevant to — and need to be addressed by — the entire international community. And this is something that Goodwin, too, is at pains to stress.

“The thing is, it's a question for everyone,” he says. “It's not just oil companies, it's not OPEC [or] non-OPEC, it's not just governments, it's for society as a whole to decide what are the trade-offs.”

*The BP Statistical Review of World Energy is available online at [www.bp.com/statisticalreview](http://www.bp.com/statisticalreview).*

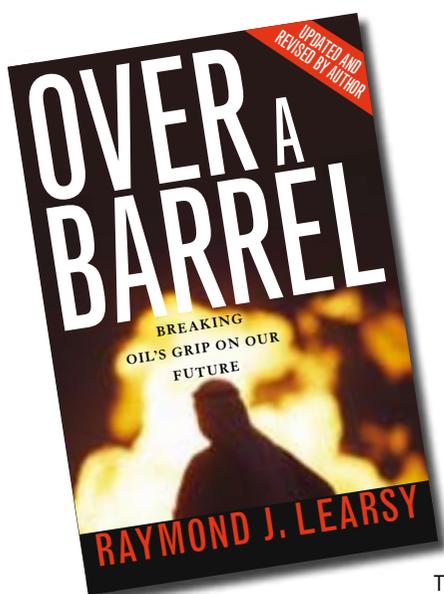


BP's Thunder Horse offshore oil platform in the Gulf of Mexico.

BP's Jack Ryan drill ship in Angola.



*All photographs courtesy BP.*



## Foreign scapegoats

A review of

*Over a barrel: breaking oil's grip on our future.*

By Raymond J Learsy. New York: Encounter Books, 2007.

By Alvino-Mario Fantini

The advice often given to writers is to write about what they know. That way, they are better positioned to offer critical insights into the subject matter and to enlighten the reader. However, one of the risks involved with such a strategy is that the writer may be too close to the subject and thus unable to treat it dispassionately. Consequently, he may either be so blindly supportive of it that he is intolerant of any negative views, or so dismissive that he only sees its flaws, defects and blemishes.

Raymond J Learsy falls clearly into this latter category. In his recent book, *Over a barrel: breaking oil's grip on our future* — an updated and revised edition of a 2005 publication — Learsy seems to have allowed his emotions to get in the way of useful or trenchant analysis. And in so doing, he has missed the chance to make a serious contribution to the ongoing debate on the challenges of today's energy policies. He has, instead, delivered a 250-page attack on the Organization of the Petroleum Exporting Countries (OPEC), as he labours to weave a tenuous web linking multinational corporations, international bankers, futures traders and Republican politicians — what he calls the “oilgopoly”.

The book has 12 chapters and is divided into two sections — the first describes the current climate of fear surrounding global warming, oil scarcity and even terrorism, while the second provides a rough, historical overview of the exploitative era of the ‘Seven Sisters’ and the subsequent rise of OPEC. Unfortunately, this two-part split does not provide the text with much clarity or organization. On several occasions, Learsy simply repeats in the second section what he has already written in the first (like his description of the advice given to the Iraqi Oil Ministry by former Shell executive Philip J Carroll, described in nearly identical paragraphs on pages 51 and 189).

But despite its occasional repetitions, the book is easy to read and does not strain the reader's abilities. Learsy's writing flows breezily, like a Dan Brown novel, through the arcana of international economic policy and the negotiations and maneuvering that underlie global oil trading. In fact, much of the book provides a rough overview of international economic policy *vis-à-vis* the growth of the world oil industry and OPEC's development over several decades.

### Inaccuracies

Unfortunately, when it comes to specifically describing OPEC's role in world affairs, Learsy becomes a provocateur and his text begins to include unfounded assertions and inaccuracies. Learsy claims, for example, that for decades OPEC has tried to mislead the world into thinking that oil reserves are extremely scarce — when, in fact, OPEC has consistently maintained, against even the peak oil theorists, that world oil supply has always been sufficient to meet current and projected future demand. Where Learsy derived his information about OPEC's position from unclear as he has not chosen to provide the reader with any footnotes.

In his broad sweep of the history of oil politics over the past half-century, Learsy also accuses the Organization — and its so called “*de facto* OPEC members” (Norway, Oman, Russia, Mexico) — of having “fibbed or miscalculated” when reporting proven oil reserves, or announcing changes in production levels. But, again, he offers no supporting evidence.

In one paragraph, for example, he affirms that OPEC had 412 billion barrels of oil reserves in 1970, went on to produce 307bn b and recently claimed to have around 819bn b. Incredibly, Learsy says: “In a world where pumping billions of barrels out of the ground paradoxically seems to increase the billions still remaining, we are left to wonder where the real truth lies.” He seems to simply gloss over the fact that technological innovation and efficiency gains — and the constant search for new deposits — have contributed to expanding reserves around the world, in both OPEC and non-OPEC countries.

One of the biggest problems with Learsy's book, however, is not that he criticizes OPEC, but that he too often

resorts to ad hominem attacks on both the Organization and officials from its Member Countries. His colourful descriptions of “OPEC and its minions” may certainly keep the reader amused. (He calls the Organization a “grab bag of Third World countries, sheikhdoms, and emirates”, the “world’s biggest parasite, feeding on the lifeblood of humanity” and “the Tony Sopranos of petroleum”.) But too often the book sounds like satire instead of a genuine attempt to offer ways of “breaking oil’s grip on our future”.

Learsy also does a disservice to fellow Americans everywhere by sounding like the typical, ethnocentric unsophisticate in his use of offensive descriptions of people of the Middle East. He refers to the entire region as a “backwater”, until recently, and calls people from the Gulf “[n]omads who not long before had been eating locusts in the desert.” Such language has no room in today’s world — and certainly not in a book that should seek to educate and elevate its readers (though, admittedly, Learsy never claims to be doing that!).

Finally, *Over a barrel* can also be characterized by a not-so-subtle paranoia. Learsy manages to find signs of cross-border, inter-governmental and greed-based collusion everywhere. He repeatedly blames the US government — and several Republican administrations — for giving OPEC the credibility and the economic power with which to wield greater influence. And bristling at the lack of investigative journalism focusing on the world’s oil producers, he insinuates throughout the book that much of the media has been paid off by OPEC and its “co-conspirators” (ie, the international oil companies and the US government). In short, to accept the author’s view of what he calls “the great oil conspiracy” is essentially to live in fear of multinational companies, international policy-makers and foreign governments.

It is interesting to note that before going on to make a name for himself as a vocal critic of the fossil fuel indus-

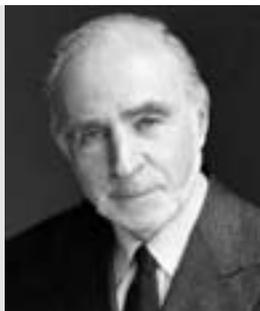
try — and OPEC, in particular — Learsy made his millions as an energy commodity trader. (Until recently, he owned the second most valuable real estate parcel in the well-heeled town of Sharon, Connecticut, in the US.) One might say that he is now making a name for himself by criticizing the very system that made him a wealthy man.

## **Underlying interests**

It is only when one gets to the last chapter that one begins to realize what may represent Learsy’s current underlying interests: He spends about 20 pages urging the US to stop using fossil fuels and to pursue, instead (with the benefit of generous government subsidies) alternative energies — especially nuclear and biofuels. Apparently motivated by an unreflective fear of anthropogenic global warming, and having embraced what energy guru Vaclav Smil calls the “catastrophist apocalyptic cult”, Learsy says quite simplistically: “Oil, like all fossil fuels, is bad for us.” Even the late economist, E F Schumacher, is brought out in Learsy’s paean to sustainable energy economics.

This reviewer’s concluding assessment, after having gone carefully through the book, is that *Over a barrel* is far from being a balanced, dispassionate work containing sound analysis and pointing the way to a better energy future. With his experience and insights, Learsy could have produced a far better book. But he may have been simply too close to his subject matter. It is quite telling, in fact, to note that half way through the book, Learsy clearly states: “I am writing this book because OPEC and its machinations make me very angry.”

A wise man once said that learning to control one’s emotions is a sign of maturity. This would be certainly sound advice for Learsy. Perhaps next time, he will attempt to write a book after his anger has subsided, leaving him in control of his emotions. Only then might one begin to benefit from what he has to say. ❧



**Raymond J Learsy** began trading commodities in 1959. He started his own firm in 1963, eventually opening offices in Brazil, Canada, Luxembourg, Pakistan and the United Kingdom. He is currently a member of the Woodrow Wilson International Centre for Scholars in Washington, DC.

# The OPEC Award for Journalism

## Objective of the award

The OPEC Award for Journalism honours journalists and analysts that have devoted their careers to objective and balanced reporting on — and analysis of — the oil market. The winner's work will have contributed to a greater understanding of the workings of the global oil market over a significant period of time.

## Eligibility

The competition is open to all journalists and analysts that have reported on — and analyzed — the oil market for a minimum of 20 years.



## Nominations

Completed nomination forms — along with samples of previously published work — should be e-mailed to [prid@opec.org](mailto:prid@opec.org) or posted to:

The Chairman  
OPEC Award for Journalism  
Organization of the Petroleum Exporting Countries  
Obere Donaustrasse 93  
A-1020 Vienna  
Austria

Nomination forms are available on the OPEC website — [www.opec.org](http://www.opec.org). All materials should be received by August 30, 2008. Those eligible may self-nominate, but the nomination of third parties is also permitted.

## Selection panel

All entries will be judged by a panel of academics, journalists and oil industry experts.

## Date of award

The award will be presented at the close of OPEC's Fourth International Seminar, March 18–19, 2009, to be held in Vienna, Austria.



## The OPEC Award for Journalism — Nomination Form

Name of nominee: \_\_\_\_\_

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

Company/organization: \_\_\_\_\_

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

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

Telephone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Name of sponsor: \_\_\_\_\_

Company/organization (sponsor): \_\_\_\_\_

The OPEC Award for Journalism honours journalists/analysts that have devoted a minimum of 20 years to reporting on and analyzing the workings of the global oil market. Please attach up to five samples of previously published work.

Please send completed nomination forms and writing samples via e-mail to [prid@opec.org](mailto:prid@opec.org), or post items to:

**The Chairman  
OPEC Award for Journalism  
Organization of the Petroleum Exporting Countries  
Obere Donaustrasse 93  
A-1020 Vienna  
Austria**

All materials should be received by August 30, 2008.



# Zambia inaugurates first

With African countries struggling to cope with a variety of healthcare issues, including increasing numbers of cancer patients, OPEC Fund Information Assistant, **Anna Ilaria-Mayrhofer**, tells how a loan from the Vienna-based

institution has enabled Zambia to bring treatment and relief to many sufferers of the disease and instilled hope in countless others for the future.



S Laddini/OFID

*Just three weeks after the specialized treatment centre opened its doors, this state-of-the-art radiotherapy equipment was put to use to treat cervical cancer patients.*



S Laddini/OFID

# ever hospital for cancer disease

A loan of \$5.6 million, extended by the OPEC Fund for International Development (OFID), has enabled Zambia to open its first ever cancer disease hospital. The inauguration ceremony took place at the University Teaching Hospital in Lusaka, when the establishment was officially opened by Zambian President Levy Patrick Mwanawasa. The President hailed the new facility as the “culmination of a vision” that began over 25 years ago, when the government realized that establishing a specialized treatment centre was of paramount importance for handling the country’s overwhelming number of cancer cases.

To be diagnosed with cancer is a frightening prognosis for anyone. However, those in industrialized nations can largely be assured that a host of modern medical technologies is available to them to slow or halt the progression of the disease and alleviate pain.

In contrast, being diagnosed with cancer in the developing world is often a death sentence. With limited funds and a scarcity of qualified personnel and infrastructure, proper medical treatment in limited-resource countries is accorded only to a fortunate few.

Unlike wealthier countries, where pre-cancer screening tests are part of basic medical care, such life-saving tests are scarce in poorer nations. In many cases, by the time individuals seek medical treatment, they are already presenting late-stage symptoms, rendering their survival prospects slim.

The World Health Organization has reported that cancer is on the rise in developing countries and predicts that the situation will worsen considerably over the next two decades. The reasons for this are multifold: life-spans are getting longer, hence cancers common to older populations are increasing. The HIV/AIDS virus is also a strong contributor, as immune-compromised individuals are more vulnerable to developing opportunistic tumours. Urban migration plays a role as well, as formerly physically active rural populations tend to embrace a more sedentary lifestyle. By adopting “westernized” habits, such as smoking and consuming more high-fat, low-fibre foods, people expose themselves to risk factors that have been linked to the development of certain cancers.

While African countries account for a significant per-

centage of the cancer cases in the developing world, radiotherapy machines, which are instrumental in battling the disease, are unfortunately in short supply. Ethiopia, for example, has only one such machine to serve its 60 million strong population. In some instances, the radiotherapy equipment falls into disuse when the specialized technicians and engineers required for maintaining the complicated apparatus leave the country to seek higher-paying jobs. Other African countries have no machines at their disposal, and cancer patients wait, often in vain, for the chance to be sent elsewhere to receive radiotherapy treatment.

## Government efforts

Such has been the case in Zambia, where 73 per cent of the 11.7m population lives below the national poverty line. With a cash-strapped health sector, where only one physician is available per 10,000 people, the country has difficulties providing even basic medical services.

Until recently, Zambians requiring radiotherapy had to go abroad to Zimbabwe and South Africa at a cost of \$10,000 per individual, an amount subsidized by the government. However, patients were responsible for paying transport and accommodation costs themselves, an expense clearly out of the reach for the majority of Zambia’s poor. In fact, the government’s budget was so overtaxed that from 1995 to 2004, only 350 out of 5,000 people requiring treatment could be sent abroad. The rest were left to succumb to the ravages of the disease with only the aid of pain-relief drugs. Eventually, most of the patients died. Others remained on long waiting lists, while clinging to the hope that they would be the next in line for treatment before undergoing the same fate.

As cancer reporting in Zambia is inconsistent, the actual number of cases is likely under-estimated. The most prevalent forms are tumours of the cervix, followed by Kaposi’s sarcoma (lesions commonly found on the skin and mucus membranes of the mouth and respiratory- and gastro-intestinal tracts. It is particularly severe in HIV/AIDS patients) and tumours of the breast and oesophagus. Since the disease is seldom detected in its

early stages, mortality rates are extremely high. Experts predict that by 2010, there will be at least 10,000 new cases in the country, with the majority comprising those in their prime, between the ages of 15 and 44.

In addition to the devastating health effects, the social consequences of cancer are also tragic. For example, due to a lack of understanding of the causes of cervical cancer, women suffering from the disease are usually social outcasts. They are also rejected by their husbands, leaving them to an impoverished existence, ill and alone.

In order to minimize the problem, the Zambian Government has been striving over the years to close the gaps in medical coverage. It has also tried to provide its citizens with comprehensive and equitable healthcare, particularly in isolated, rural communities. In 1992, it drew up a National Health Policies and Strategies paper, which outlined, among others, its aims to offer effective cancer treatment services locally and to strengthen prevention and early detection campaigns.

Plans for establishing a radiotherapy centre were drawn up in 1995. To achieve this objective, the government started working towards equipping parts of the University Hospital with x-ray facilities. In addition, a computer tomography scanner for diagnostic procedures was installed, while the library was stocked with books related to nuclear medicine.

## OFID assistance

The ultimate step was to acquire radiotherapy equipment and a facility to house it, as well as to hire oncologists and specialized staff to operate and maintain the equipment. A parcel of land on the grounds of the University Teaching Hospital was selected to build the new cancer unit because of its close proximity to pathology, nuclear medicine and radiology facilities and other support services.

Bringing this goal to fruition depended largely on donor funding. Thus, in April 2001, officials approached OFID for assistance. The institution has had a harmonious working relationship with Zambia since 1979, when the country received its first loan to co-finance a railway project. In continuation of OFID's assistance to Zambia, in

February 2002, a \$5.6 million loan agreement was signed to finance most of the civil works for the cancer unit, as well as the purchase of equipment. The loan also helped fund the training of radiographers, maintenance technicians, medical physicists and radiation oncologists.

## Win-win venture

The International Atomic Energy Agency (IAEA) provided valuable technical expertise throughout the entire implementation of the project – from the planning stage to the construction and equipping of the facility. Also, more than \$500,000 was drawn from the IAEA's Technical Cooperation Programme. The funds were invested in training key staff for the cancer hospital.

The facility was completed on February 1, 2006 and the equipment was installed at the end of March. Three weeks later, the centre opened its doors to receive its first radiotherapy patients diagnosed with cervical cancer. Operating on partial capacity until early 2007, the hospital is now bustling with activity, treating roughly 100 individuals each day on an outpatient basis.

Without doubt, the hospital represents nothing less than a miracle for the Zambian people. The facility boasts state-of-the-art equipment that delivers mega-dose radiation therapy and diagnostic machines, such as x-ray, mammography and ultrasound equipment. Patients now have a modern, comfortable waiting area and even if they must experience a long wait, they do so gladly.

Another benefit for the country is that medical professionals who went abroad to work are now returning, thus boosting Zambia's human resource base. Bolstered by the facility's success, the government is considering the construction of an in-patient cancer hospital. Although patients are expected to make a contribution of around \$600 towards their medical expenses, the government is waiving that particular cost for low-income families.

To ensure the sustainability of the centre, fees paid by private patients, or those coming from outside the country, are being ploughed back into the operating costs. Another supportive factor is that the hospital will be reimbursed by the government for each patient it treats locally. The funds would be drawn from the budget previ-



A. Leuken/IAEA

Until recently, patients had to go to Zimbabwe or South Africa for radiotherapy treatment.

ously allocated to sending Zambians abroad. President Mwanawasa has indicated that the cost savings will also be invested in “key health interventions”, such as those aimed at improving maternal and child health.

The centre will hopefully serve as a prototype for other developing countries, thus providing hope and fresh chances for many otherwise doomed cancer sufferers.



S. Luddini/OFID

*A team of medical and technical experts will ensure that the patients waiting to undergo treatment receive the best possible care.*

## Move over Mozart



UEFA  
**EURO**2008  
Austria-Switzerland

*This summer's EURO 2008 football tournament confirmed that Austria — and Vienna in particular — has become a thoroughly modern destination, capable of hosting one of the biggest sporting events on the planet. **Siham Alawami** and **Steve Hughes** report on the recently-ended competition for the OPEC Bulletin.*



The dust has settled, but not everything has returned to normal. In June, a city more normally renowned for its music, art and culture was irreversibly changed when television crews, journalists, footballers and fans descended *en masse* — the beautiful game had come to town in the guise of UEFA's EURO 2008. While Mozart might not exactly have to move over, he should at least make room, because Vienna opened its heart to football this summer, and the sport gave the city something special in return.

The Fan Zones have now been dismantled, it has once again become (slightly) easier to book one of the city's 47,000 hotel rooms and Vienna's *Wursts* have returned to pre-soccer procurement levels. But, through it all, Austria's capital has turned a corner. Scoring the only goal in the final against Germany, Spain's jubilant Fernando Torres gushed: "You watch these European competitions on TV and you want to be a part of it — and we were." But so was Austria. As a result, the nation — and Vienna in particular — has come of age as a thoroughly modern destination, capable of hosting one of the biggest events on the planet. Apart from the FIFA World Cup finals and the Olympic Games, there is no bigger tournament held today.

Before the event, some hardened football hacks complained that Austria and co-hosts Switzerland lacked the pizzazz — and even the infrastructure — necessary to play host to Europe's top footballing nations of Croatia, the Czech Republic, France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, Romania, Russia, Spain, Sweden and Turkey. But between them, the hosts contributed eight very respectable sporting stadia — including Vienna's world class 53,000-seater Ernst Happel Stadium.

And the Austrians — just like the Swiss — showed they were able to revel with the best of them. Official Fan Zones ensured that the football festival penetrated the very heart of the host cities and that games were enjoyed by all — locals and visitors (some of whom were new to football) as well as passionate, but ticketless, fans.

## Party on

"I was proud to see 70,000 fans peacefully enjoying themselves in front of my City Hall," said Vienna's Mayor, Dr Michael Häupl, referring to Vienna's Fan Zone that, thanks to a spectacular backdrop and constant carnival atmosphere, was beamed across the world's television networks throughout the competition. Häupl was pre-

sumably even prouder when Austria played Germany, given that 119,000 supporters showed up, and positively elated when a record-breaking 126,000 chose to watch the final there. During the three weeks of the tournament, more than 1.1 million spectators partied right under the Mayor's nose.

Vienna's emergency services dealt comfortably with the extra pressure. "We prepared for two-and-a-half years for this event," said Peter Hoffelner, Head of Operations for the Vienna Emergency Medical Services. With between 1,200 and 2,500 officers on duty every day, along with



*Above (l-r): Michel Platini, UEFA President; Heinz Fischer, President of Austria; and Friedrich Stickler, the current President of the Austrian Football Association; during the match Austria vs Croatia.*

support staff from abroad, Vienna remained calm and safe and no major incidents were reported over the three-week competition. This now allows Häupl to promote Vienna as one of the safest capital cities in the world.

Vienna's Host City Media Centre went some way to winning over the aforementioned football hacks. Located in the Fan Zone, it facilitated the frantic reporting and editing of more than 2,000 journalists from across the globe — many more than bothered to turn up for the state visits of Presidents Bush and Putin — providing free telephone lines and high-speed internet connections, not to mention regional delicacies from around Austria. The Vienna Tourist Board and similar organizations were also on hand throughout to provide film footage, imagery and even free memory sticks and CDs to make the relentless world of real-time reporting that little less stressful.



*Above left: Angela Merkel (l), Chancellor of Germany, with UEFA President, Michel Platini.*



*Above right: Dr Michael Häupl (l), Mayor of Vienna; with Germany's Franz Beckenbauer, who led Germany's successful bid to host the 2006 World Cup and chaired the organizing committee.*

Never one to shy away from new technology, Vienna was also at the centre of what UEFA called an important day in the history of football broadcasting. The opening of the city's International Broadcasting Centre immediately before the tournament meant that, for the first time, UEFA was able to produce the television signal for the EURO competition itself. The IBC was the hub for the distribution of the TV signal to the billions of fans around the world, said UEFA Media Technologies SA CEO Alexandre Fourtoy. An average of 30 cameras were used for each match — new-style cameras such as the spidercam, or similar technologies. Helicopters could capture pictures from the air, not only of what was happening in the game, but also what was occurring around the stadium. All eight venues were linked with the IBC, he stated.

### High price

"The positive publicity for Austria is worth its weight in gold," said one of the country's former international footballers, Andreas Herzog. And even given today's high commodity prices, he is right. The media sent reports

worldwide — America's CNN, China's CCTV, the UK's BBC, Qatar's Al Jazeera and many more networks covered the event from Vienna live. The latter dedicated significant resources — around 150 staff, comprising reporters, technicians, camera crew and translators located Europe-wide — to bringing the tournament to a global Arab audience through a daily one-and-a-half hour show. Such efforts came in for high praise from UEFA.

That Vienna will never be the same again is not just some kind of clichéd throwaway statement. The city's underground public transport system was overhauled in the run-up to the tournament — a process that began a whole five years ago when Austria was notified of its co-host status. Vienna transport councilor Rudi Schicker explained how the city's U2 line was extended to the Ernst Happel Stadium and how capacity was increased so that 25,000 fans could make the trip from the city centre every hour. The operating hours of trams and buses were lengthened too, making for a public transport system that bore the strain mostly without so much as a traffic jam. A more modest infrastructural amendment — but nonetheless popular during Vienna's hot summers — was

*Below: The 'Fan Zone' located in front of Vienna's City Hall.*





Seen during a performance arranged for the tournament are (l-r) tenor, Plácido Domingo; Charlene Wittstock; conductor, Valery Gergiev; and Prince Albert from Monaco.

the introduction of drinking water fountains at locations throughout the city. Queues of hot, thirsty revelers were a common sight this June.

Throughout the tournament, Vienna was given the chance to do what it does best — inject a decent dose of culture. Should a EURO 2008 visitor have become disillusioned with a particular team, he or she could simply dip into one of the city’s many museums or galleries, parks or gardens, restaurants or cafes, or even take in a classical concert for respite. Performances from opera stars Anna Netrebko, Plácido Domingo and Rolando Villazón, as well as those by the Vienna Symphony Orchestra and The Vienna Boys Choir, were just some of the highlights arranged to coincide with the kick-off of the tournament and the opening of the Fan Zone.

## Top quality

The jarring dissimilarity between high culture and football, and the city’s ability to successfully combine the two, confirms Vienna’s uniqueness. Such ability doubtless contributes to the city’s consistent performance in the numerous ‘quality of living’ surveys that crop up from time to time. According to a recent Mercer Consulting Group version, Vienna ranks as the city with the highest quality of living among all European capitals.

But culture can only take a city so far. Vienna — and Austria — also score highly on social infrastructure, such as the health care system. It recently netted a first place for such in the Euro Health Consumer Index compiled by the Health Consumer Powerhouse. During EURO 2008, the system came into its own. “In general, all participating teams who had injured players were deeply impressed

with our efficient and fast medical examinations,” said Austria’s EURO 2008 Chief Medical Officer, Professor Dr Christian Gaebler.

So much so, that when the captain of the Italian team, Fabio Cannavaro, was injured on the first day of training, the team’s management decided to have him attended to in Austria, despite having leading surgeons from around the world more than ready to wield the scalpel. “They researched the operative infrastructure and quality of rehabilitation in Austria and they were impressed,” said Gaebler, proudly. “Therefore, Cannavaro decided to have the operation performed at the Vienna Private Clinic, so the Italian team doctor and I performed the ligament repair of his ankle.” Gaebler also went on to operate on Italy’s Andrea Barzagli.

But one man does not a health service make. Vienna put together a comprehensive team to support the tournament that included the Red Cross, the Samaritans, Johanniter-Unfall-Hilfe and the Malteser Hospital Services — as well as the Vienna Ambulance Service, the Vienna Hospital Association and the armed forces.

Back on the pitch, the climax came when Spain’s Torres finished off Germany at the Ernst-Happel Stadium in front of more than 50,000 fans and a host of dignitaries, including King Juan Carlos and Queen Sophia of Spain, German Chancellor Angela Merkel and Head of State Horst Köhler and Austria Head of State Heinz Fischer. Football’s governing elite — including FIFA President Joseph Blatter and UEFA President Michel Platini — also watched the action, as did a worldwide television audience of millions. But while the Austrian team may have bowed out early after a gallant effort, the Austrian nation was the real winner.



This section includes highlights from the OPEC Monthly Oil Market Reports (MOMR) for June and July 2008 published by the Petroleum Market Analysis Department of the Secretariat, with additional graphs and tables. The publication may be downloaded in PDF format from our Website ([www.opec.org](http://www.opec.org)), provided OPEC is credited as the source for any usage.

## June 2008

### Crude oil price movements

Fluctuations in the US dollar and supply disruptions from West Africa dominated market sentiment in May. Geopolitical developments in the Middle East, along with a strike by port workers in France, which affected petroleum shipments, lent support to the bullish momentum. Fear over tight light-end products amid persistent low refinery run rates kept the market under pressure. Higher OPEC supply, along with lower subsidies in Asia, did help maintain some calm in the marketplace, but did not prevent the OPEC Basket<sup>1</sup> from averaging May at a new record of \$119.39 a barrel, \$14.23/b, or 13.5 per cent, higher than the previous month. During the third week, the Basket hit an all-time high of \$127.59/b, before the effects of higher OPEC supply brought prices back down.

On the US market, with concern over seasonal fuel supply persisting, benchmark crude West Texas Intermediate averaged \$125.66/b during May up by \$13/b from April.

In the North Sea market, Brent crude averaged \$123.05/b in May for a gain of \$14.08/b,

or almost 13 per cent, over the previous month.

In the Mediterranean market, Russia's Urals crude averaged the month at \$119.10/b, representing a gain of \$13.30/b, or over 12 per cent, from the April figure.

In the Middle Eastern market, Dubai crude averaged the month at \$118.90/b for a gain of \$15.50, or 15 per cent, over April.

### Commodity markets

Looking at trends in selected commodity markets, the OPEC report noted that, according to the International Monetary Fund (IMF), the total commodity index increased by 7.4 per cent in May from April, due entirely to the rally seen in the crude oil and natural gas markets, which resulted in 11.3 per cent growth in the energy sector. By contrast, non-fuel prices declined by 0.8 per cent in May.

The report said that estimates from the World Bank for non-energy commodity prices differed somewhat from those of the IMF, displaying a 0.35 per cent rise in April from the previous month, which, it said, was due to the inclusion of fertilizer prices, which were not included in the IMF price index.

The IMF energy commodity index (crude oil, natural gas and coal) grew further in May – by 11.3 per cent – the highest monthly rate since April 2006 and 85 per cent higher than a year ago.

“The crude oil price index provided by the IMF overcame all records in May – jumping by 12.6 per cent from April, the highest increase since June 2005 and 88.6 per cent above a year ago,” said the OPEC report.

It noted that US natural gas prices continued growing by 10.7 per cent, compared with 8.2 per cent in April, reaching an average price of \$11.12/mbtu, 47.5 per cent higher than a year ago.

“This development is essentially explained by record crude oil prices, which were not counterbalanced by bearish factors, such as quick storage refilling, greater drilling activity and weaker demand, owing to warmer weather. Falling LNG imports also contributed to a bullish US gas market,” commented the report.

The performance of non-fuel prices worsened in May with negative growth of 0.8 per cent, prompted by a further decline in industrial metals and still low growth in the food price index, according to the IMF.

Industrial metal prices saw further negative growth of 4.3 per cent in May, caused by

1. An average of Saharan Blend (Algeria), Minas (Indonesia), Iran Heavy (IR Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (SP Libyan AJ), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (United Arab Emirates) and BCF-17 (Bachaquero, Venezuela).

similar factors as in the previous month, while lead prices plunged by 20.8 per cent on a combination of high stocks, weaker demand and growing production and secondary supply.

Nickel prices dropped in the month by 10.8 per cent, while zinc fell by 4.4 per cent. Copper prices declined by 4.1 per cent, aluminum saw negative growth of two two per cent, while spot gold prices recovered by 0.3 per cent to stand at \$ 912.5/oz in May.

The IMF food price index saw a slight recovery of 0.5 per cent in the month under review, mainly due to a more modest decline in wheat prices of 9.2 per cent as corn and soybeans also reported losses.

Corn prices showed a volatile performance in May, dropping by 1.3 per cent from April, but at \$243.5/t were 56 per cent higher than in the same month last year.

“Corn prices have been supported by the bullish trend in crude oil markets and the decision of US Congress to extend import tariffs on ethanol. Growing demand in the US food, fuel and feed sectors, along with the rally in crude oil prices, strong Chinese demand, competing acreage allocation, and low inventories will encourage very high corn prices, both spot and futures,” commented the OPEC report.

Soybean prices in May dropped by 1.6 per cent, while wheat prices plummeted by 9.2 per cent.

“The outlook for corn and the grain complex as a whole remains positive for 2008, despite concerns about the worsening economic conditions,” said the report. Fertilizer prices expanded by 12 per cent in May from April.

## World oil demand

In its review of the market for 2008, the OPEC report said global oil demand is forecast to grow by 1.1 million barrels per day to average 86.88m b/d, a downward revision of 100,000 b/d from the previous report.

“China, the Middle East, Latin America and India are expected to show healthy growth in oil demand for the remainder of the year,” it said.

The report stated that, despite the recent

removal of price subsidies in some Asian countries, the non-OECD region is expected to see strong oil demand growth, partially offsetting the decline forecast for the US, Europe and the Pacific.

Demand for OPEC crude in 2008 is expected to average 31.82m b/d, down by 128,000 b/d from the previous year. On a quarterly basis, demand for OPEC crude is expected to average 32.20m b/d, 31.20m b/d, 31.76m b/d and 32.12m b/d, respectively.

In OECD North America, US oil demand is experiencing a strong decline, mostly attributed to the above-normal temperatures seen in the first quarter and to the recent slowdown in economic activities.

In the first four months of this year, US winter product demand declined by 4.4 per cent year-on-year. This decline represents the majority of the decrease in US oil demand. Furthermore, gasoline demand dipped by ten per cent y-o-y in the first four months.

Both Mexico and Canada saw increases in their oil demand, but it was not enough to offset the decline in US oil demand. As a result, first-quarter oil demand in North America was revised down by 300,000 b/d to show a decline of 700,000 b/d y-o-y.

In OECD Europe, apart from Germany, European oil demand showed a moderate decline in the first quarter, as a result of warm weather and weak transport fuel demand. The United Kingdom’s domestic oil consumption declined by 50,000 b/d y-o-y in the first quarter with gasoline demand declining the most – by 10.16 per cent.

German oil demand grew in the first quarter, adding 88,000 b/d. And although oil demand expanded in Italy and France in April, total OECD Europe first-quarter oil demand growth was revised down by 100,000 b/d y-o-y.

In the OECD Pacific, despite record oil prices, Japan’s oil demand grew by 130,000 b/d y-o-y in the first four months of 2008. The country’s total oil demand for the year is anticipated to show the same behaviour as last year, more than offsetting any increase in other countries in the OECD Pacific. OECD Pacific oil demand

is forecast to decline by 40,000 b/d in 2008 to average 8.23m b/d.

In the developing countries, India’s oil demand is forecast to grow by 140,000 b/d y-o-y in 2008. Transport fuel and the industrial and agricultural sectors are expected to push oil demand growth up this year.

“Most Asian governments are considering a change in their price structure. There are some obstacles to that, such as the high rate of inflation within these countries and anticipated unrest,” said the OPEC report.

**China, the Middle East, Latin America and India are expected to show healthy growth in oil demand for the remainder of the year.**

It maintained that booming Asian economies are capable of absorbing the extra fuel costs in the short run.

As a result of strong Indian oil demand, other Asia oil demand growth in the first quarter was revised up by 60,000 b/d to show an increase of 260,000 b/d y-o-y.

Latin America’s strong economic growth of 5.1 per cent is boosting oil consumption in the country. In addition, controlled petroleum product prices are keeping transport fuel demand healthy.

Brazil and Argentina’s oil demand have been stronger than expected; hence Latin American first-quarter oil demand growth has been revised up by 50,000 b/d to reach 230,000 b/d y-o-y.

“Given the healthy oil demand growth in other Asia, Latin America, the Middle East, and Africa, developing countries are expected to see growth of 660,000 b/d y-o-y in 2008 to average 24.87m b/d,” said the OPEC report.

It noted that the strong Middle Eastern economies have not faced difficulties subsidizing petroleum products.

"Not only gasoline and diesel consumption, but also industrial fuel demand, are on the rise and are expected to do so for the rest of the year. Middle East oil demand growth is forecast to top 280,000 b/d y-o-y in 2008," said the report.

Regarding other regions, oil demand in China is forecast to grow by 400,000 b/d, or 5.7 per cent, y-o-y in 2008.

"A booming economy, strong new car sales, agricultural activities and the Olympic year are the main drivers behind China's healthy oil demand," affirmed the OPEC report.

It said vehicle sales grew by more than 19 per cent in the first four months of 2008, adding 3.5 million new vehicles to the streets. However, this is less than the growth seen last year.

Apparent oil demand in China in March reached a record high, crossing the 8m b/d line. "It is anticipated that 40 per cent of total world oil demand growth this year will be attributed to China alone," said the report.

It maintained that the recent earthquake in the country mostly affected rural areas and should not impact oil demand.

"In fact, the rebuilding effort will call for extra fuel in the end," it said. China's oil demand is slated to reach a peak in the third quarter. As the summer approaches, China's electricity demand is expected to be high, which will lead not only to more coal use, but also to increased oil consumption.

Third-quarter oil demand growth in China is forecast at 480,000 b/d, or higher by 5.7 per cent y-o-y.

## World oil supply

World oil supply averaged 86.60m b/d in May, an increase of 540,000 b/d over the previous month, with OPEC's crude share estimated at 37.2 per cent. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC natural gas liquids (NGLs) and OPEC crude production from secondary sources.

Meanwhile, in looking at a breakdown for global supply this year, the OPEC report said non-OPEC supply is expected to average 50.13m b/d in 2008, an increase of 690,000 b/d over last year and a downward revision of 50,000 b/d from last month's OPEC assessment. On a quarterly basis, non-OPEC supply is expected to average 49.74m b/d, 49.76m b/d, 49.88m b/d and 51.12m b/d, respectively, in 2008.

Total OECD oil supply this year is forecast to reach 19.87m b/d, a drop of 290,000 b/d from 2007. On a quarterly basis, OECD oil supply is expected to average 20.05m b/d, 19.66m b/d, 19.44m b/d and 20.33m b/d, respectively. Preliminary data for May put total OECD supply at 19.83m b/d.

US oil supply is expected to reach 7.63m b/d in 2008, representing growth of 129,000 b/d over the previous year and an upward revision of 15,000 b/d from last month's OPEC assessment. On a quarterly basis, the US is expected to supply 7.60m b/d, 7.54m b/d, 7.56m b/d and 7.81m b/d, respectively. The preliminary supply figure for the US in May is put at 7.59m b/d.

Canadian oil supply for 2008 is expected to average 3.40m b/d, up by 64,000 b/d from the previous year and unchanged from last month's OPEC assessment. On a quarterly basis, Canadian supply is forecast at 3.44m b/d, 3.33m b/d, 3.34m b/d and 3.47m b/d, respectively. Preliminary average supply for May is put at 3.41m b/d.

Mexico is forecast to supply 3.24m b/d in 2008, representing a significant decline of 243,000 b/d compared with the previous year and unchanged from last month's OPEC assessment. On a quarterly basis, Mexico's oil supply is forecast at 3.29m b/d, 3.18m b/d, 3.20m b/d and 3.30m b/d, respectively. The preliminary supply average for May is 3.14m b/d.

In Western Europe, oil supply in 2008 is expected to reach 4.88m b/d, a decline of 350,000 b/d from the previous year and 40,000 b/d down from last month's OPEC assessment. Downward revisions to the UK were partially offset by minor upward revisions made to Norway. On a quarterly basis, Western Europe's oil supply is expected at 5.14m b/d, 4.95m b/d, 4.56m b/d and 4.89m b/d, respec-

tively. Preliminary data for May sees average supply of 4.98m b/d.

Norway's supply is estimated to average 2.43m b/d, which represents a decline of 124,000 b/d from the previous year and 4,000 b/d more than last month's OPEC assessment. On a quarterly basis, Norway's supply is forecast at 2.51m b/d, 2.44m b/d, 2.27m b/d and 2.51m b/d, respectively. The preliminary supply figure for May is put at 2.47 b/d.

The UK is forecast to supply 1.45m b/d in 2008, a decline of 228,000 b/d from last year and 44,000 b/d down from last month's OPEC assessment. Quarterly figures now stand at 1.62m b/d, 1.51m b/d, 1.31m b/d and 1.37m b/d, respectively. The preliminary supply average for May is put at 1.49m b/d.

In the Asia Pacific, oil supply is expected to average 720,000 b/d this year, 114,000 b/d more than in 2007, but down by 8,000 b/d compared with last month's OPEC assessment. On a quarterly basis, supply from the group is expected to average 580,000 b/d, 650,000 b/d, 770,000 b/d and 860,000 b/d, respectively. The preliminary supply figure for May is put at 700,000 b/d.

Australia's oil supply is forecast to average 590,000 b/d in 2008, which represents growth of 67,000 b/d over last year's figure, but is 8,000 b/d down from last month's OPEC assessment. Preliminary May average supply is put at 580,000 b/d.

New Zealand's oil supply in 2008 is expected to add 47,000 b/d to the previous year's total to reach 130,000 b/d. Preliminary figures place May supply at 110,000 b/d.

In the developing countries, oil supply is forecast to reach a level of 11.43m b/d, which represents growth of 511,000 b/d over last year's figure and a downward revision of 15,000 b/d from last month's OPEC assessment. On a quarterly basis, oil supply from this group of countries is expected to average 11.15m b/d, 11.34m b/d, 11.55m b/d and 11.68m b/d, respectively.

Brazil, other Asia and Africa are the main contributors to the growth for this year. Preliminary May average supply for the group is put at 11.25m b/d.

Other Asia is expected to see supply reach

2.86m b/d in 2008, representing growth of 149,000 b/d over 2007 and unchanged from last month's OPEC assessment. On a quarterly basis, supply is expected to average 2.78m b/d, 2.80m b/d, 2.89m b/d and 2.97m b/d, respectively. The group is estimated to have supplied 2.80m b/d of oil in May, according to preliminary figures.

Latin American oil supply is expected to average 4.17m b/d in 2008, representing significant growth of 286,000 b/d over 2007 and an upward revision of 12,000 b/d compared with last month's OPEC assessment. The quarterly distribution is put at 4.00m b/d, 4.13m b/d, 4.26m b/d and 4.28m b/d, respectively. The preliminary May supply figure for the group is 4.06m b/d.

Brazil is the major contributor to the growth with 261,000 b/d of extra supply with the preliminary average figure for May put at 2.28m b/d.

Africa is forecast to see average supply rise to 2.76m b/d in 2008, up by 86,000 b/d over the previous year and 26,000 b/d down compared with last month's OPEC assessment. On a quarterly basis, oil supply from this group is expected to average 2.74m b/d, 2.77m b/d, 2.75m b/d and 2.77m b/d, respectively. Preliminary figures put May supply at 2.75m b/d.

The Middle East is expected to see supply remain flat in 2008, compared with last year. The figure is also unchanged from last month's OPEC assessment. Total supply from this group is forecast to average 1.65m b/d with a quarterly distribution of 1.64m b/d, 1.64m b/d, 1.65m b/d and 1.66m b/d, respectively. The preliminary May supply figure is put at 1.64m b/d.

In the Former Soviet Union (FSU), oil supply is expected to average 12.88m b/d this year, which represents 360,000 b/d growth over 2007 and virtually unchanged compared with last month's OPEC assessment. On a quarterly basis, oil supply from the FSU is expected to average 12.64m b/d, 12.81m b/d, 12.94m b/d and 13.14m b/d, respectively.

Other Europe is expected to see supply remain flat this year, over 2007, at 140,000 b/d.

Russian oil supply is forecast to reach 9.92m b/d in 2008, which represents growth of 52,000 b/d over 2007 and is a minor upward revision

of 6,000 b/d, compared with last month's OPEC assessment. On a quarterly basis, supply is expected at 9.77m b/d, 9.87m b/d, 9.98m b/d and 10.06m b/d, respectively.

In the Caspian, oil supply from Kazakhstan in 2008 is expected to expand by 88,000 b/d over 2007 to reach 1.44m b/d, a downward revision of 9,000 b/d compared with last month's OPEC assessment. On a quarterly basis, oil supply is expected at 1.41m b/d, 1.44m b/d, 1.41m b/d and 1.48m b/d, respectively. According to preliminary figures, the country supplied 1.47m b/d of oil in May.

Oil supply in Azerbaijan is forecast to grow by 200,000 b/d this year, over 2007, to reach a level of 1.06m b/d, unchanged from last month's OPEC assessment. The preliminary supply figure for May is put at 990,000 b/d.

In China, oil supply is expected to average 3.86m b/d in 2008, representing growth of 87,000 b/d over last year and unchanged from last month's OPEC assessment. On a quarterly basis, oil supply is expected to average 3.81m b/d, 3.87m b/d, 3.87m b/d and 3.88m b/d, respectively.

## OPEC oil production

Total crude oil production averaged 32.19m b/d in May, an increase of 343,000 b/d over April, according to secondary sources. OPEC production (not including Iraq) averaged 29.76m b/d in the month, up by 249,000 b/d from April. Significant increases of 150,000 b/d and 94,000 b/d were witnessed in Saudi Arabia and Iraq, respectively.

OPEC output of natural gas liquids (NGLs) and non-conventional oils are expected to average 4.93m b/d in 2008, an increase of 540,000 b/d over the previous year. It comes on the back of an increase of 340,000 b/d in 2007.

## Alternative fuels

The OPEC report pointed out that with food prices skyrocketing, blame is being leveled at the biofuels industry.

"The biofuels industry survives only on massive subsidies from the OECD, which has led to a worldwide crisis. OECD countries are feeling the heat and some of its officials are calling for an immediate halt to all biofuel subsidies."

The report said that the European Union is also pushing its biofuels plan to reach a 10 per cent blend of transport fuel by the end of the next decade.

"The EU has been blamed for the massive deforestation in Asia as a result of using more

**Total crude oil production averaged 32.19m b/d in May, an increase of 343,000 b/d over April, according to secondary sources.**

land to produce raw biofuel materials," commented the OPEC report.

## Downstream activity

Looking downstream, the OPEC report said the persistent escalation in crude oil prices overshadowed positive developments in the product markets and undermined refining margins in Europe and Asia.

"The continuation of such circumstances in the crude oil market, along with slowing gasoline demand, particularly in the US, may also cap the seasonal bullish developments in the product markets and exert further pressure on refining economics in the future," it stated.

"However, unplanned refinery outages, due to the possibly active hurricane season, could change current prospects for the product markets in the future and lift product and crude prices, as well as refining margins," it added.

Refining margins for Brent crude oil at

Rotterdam fell by \$1.60/b to \$4.07/b in May from \$5.68/b in April. The Asian market followed a similar trend with margins reversing their previous upward movement.

“Costly feedstock has largely contributed to negative developments in refining economics. In light of these developments, refining margins for Dubai crude oil in the Singapore market plummeted by \$2.04/b to reach \$6.19/b, compared with \$8.23/b in April,” said the report.

In the US, refining margins remained relatively steady compared with the other markets, mainly due to the continuation of the gasoline stock-draw in the first three weeks of May. Refining margins for WTI crude on the US Gulf Coast market rose by 9¢/b to \$6.85/b, compared with \$6.76/b the previous month.

**US total net oil imports decreased by 4.5 per cent in May, compared with the previous month, to reach 11.37m b/d.**

The report noted that refinery turnaround schedules have been almost completed in the US and Europe, but due to the persistent poor situation of refining economics, refiners appear reluctant to raise their throughput levels significantly.

“The bearish sentiment of the US gasoline market and the easing of the middle of the barrel components have also contributed to these circumstances. However, with the approach of the peak driving season, refinery operation levels are expected to increase further in the Atlantic Basin next month,” it maintained.

The refinery utilization rate in the US surged by 3.6 per cent in May to reach 90 per cent, compared with 86.4 per cent in April. In Europe, the refinery utilization rose marginally

to 84.9 per cent from 84.4 per cent in April. In Asia, refiners increased their maintenance level and throughputs slowed across the region. In Japan, the refinery utilization rate plunged by four per cent to 79.7 per cent in May from 83.7 per cent in April.

The report stated that, looking ahead, amid the increasing seasonal maintenance schedule in Asia, refinery utilization rates are expected to stay at a relatively low level in June.

“With regard to the US and Europe ... this will depend on refining economics and potential discretionary cuts by refiners,” it said.

## Oil trade

According to preliminary data, US crude oil imports in May were at their lowest level since March 2007, averaging 9.53m b/d. Apart from the first month of 2008, US crude oil imports have remained below the 10.0m b/d mark since October 2007. May crude oil imports were 286,000 b/d short of the previous month's volume and a substantial 763,000 b/d lower than a year earlier.

Crude oil imports in the first five months of 2008 averaged 9.81m b/d, two per cent lower than the average of the same period last year.

Similarly, product imports, which usually show an upward trend in May in preparation for the higher demand levels of summer, declined this year by five per cent, compared with the previous month, and, more significantly, by 15 per cent compared with the same month last year to reach 3.3m b/d.

Product imports in May were even lower – by 18 per cent compared with the same month of 2007. Finished motor gasoline imports in the month amounted to 407,000 b/d, 29,000 b/d, or eight per cent, higher than in the previous month, but a 30 per cent decrease compared with a year earlier. Distillate fuel oil imports declined by 27,000 b/d, or 11 per cent, from the previous month, while kerosene imports fell by six per cent in May. A higher decline was evident in residual fuel oil imports, which fell by 17 per cent, or 72,000 b/d.

Average product imports over the first five

months of 2008 are put at 3.37m b/d, 4.1 per cent lower than in the same period of 2007 and 8.2 per cent lower than in the same period in 2006.

US product exports in May stood at 1.43m b/d, seven per cent, or 91,000 b/d, higher than in the previous month. On an annual basis, they were about six per cent higher than in the same month last year. Product exports in the first five months of 2008 averaged 1.39m b/d, four per cent higher than in the same period last year.

As a result, US total net oil imports decreased by 4.5 per cent in May, compared with the previous month, to reach 11.37m b/d, the second lowest monthly net oil import level seen since January 2006.

The 539,000 b/d decline in net oil imports came as a result of decreases in both net crude oil and net product imports by 286,000 b/d and 253,000 b/d, respectively.

US net oil imports in May stood at 1.4m b/d, 11 per cent lower than in the same month last year, while the average net oil imports in the first five months of the year stood at 415,000 b/d, 3.4 per cent lower than in the same period last year.

According to preliminary data, Japan's crude oil imports decreased in May by 490,000 b/d, or 11 per cent, compared with April, to reach 4.06m b/d, the lowest volume since November 2007.

The country's May crude oil imports were eight per cent higher than a year earlier, bringing average crude oil imports for the first five months of the year to 4.45m b/d, 12 per cent more than in the same period of 2007.

Refinery runs in May stood at about 76 per cent of Japan's total designed crude processing capacity of 4.89m b/d, lower by eight per cent from April's refinery runs of 84 per cent.

“Lower refinery runs in May are typical in Japan with refinery maintenance programmes peaking during the second half of the month,” said the OPEC report.

Domestic demand for oil products in Japan was down by 4.5 per cent to 3.8m b/d in 2007, following a 3.9 per cent decline in 2006, with a further 2.5 per cent decrease expected this year.

“Nevertheless, Japan’s crude oil imports have been showing monthly y-o-y increases since October 2007,” said the report.

Refining capacity in Japan has fallen by around ten per cent since 2000 to 4.89m b/d in 2008, but it still exceeds current domestic demand by some 20 per cent.

Japan’s product exports in May were 100,000 b/d, 22 per cent higher than in the same month last year, with the average up to May 2008 showing a similar percentage increase over the same period last year.

Japan’s product imports in May stood at 600,000 b/d, an increase of 68,000 b/d, or 13 per cent, from the previous month, but very close to the year-ago volume. Product imports in the first five months of the year averaged 540,000 b/d, down by 11 per cent from the same period last year, a clear indication of dwindling domestic demand.

On the export side, Japan’s product exports in May maintained the upward momentum seen over the previous six months, increasing by about 36,000 b/d, or seven per cent, compared with the previous month and by 22 per cent from a year earlier.

Japan’s net oil imports in May were calculated at 4.1m b/d, a decline of 460,000 b/d, or ten per cent, from the previous month, but a gain of five per cent over the same month last year. Average net oil imports in the first five months of the year stood at 4.47m b/d, seven per cent higher than in the same period last year.

“The decline in Japan’s net oil imports in May is mainly attributed to lower net crude oil imports as the gap between Japan’s product imports and exports has been narrowing since January 2008,” said the OPEC report.

## Stock movements

Concerning stock movements, US total commercial oil inventories did not follow their seasonal trend since the beginning of the year and remained almost stable in May to move below the five-year average for the first time in 2008. The drop below the average was attributed to a strong draw of 19.3m b on crude oil stocks

and could not be averted by a 15.3m b build in product inventories.

Crude oil stocks fell below 306m b, the lowest level for May since 2004, and showed a deficit of 16m b with the five-year average. The draw took place during the last three weeks of the month, which accounted for a total of 19m b.

The main reason behind the decline was lower imports resulting from delays on the Gulf Coast and shut-downs in Mexico. In addition, an increase of 3.8 per cent in the refinery utilization rate, following the return of many refineries from seasonal maintenance, contributed to the strong decline in stocks.

Nevertheless, due to weaker demand in terms of forward cover, US crude oil stocks were almost at the five-year average with more than 20 days of forward cover.

On the product side, gasoline stocks dropped by 2m b to stand slightly above 209m b, which corresponds to the five-year average. In terms of forward cover, gasoline stocks were at 22.5 days, in line with the average of the previous five years.

Distillate inventories continued to follow their seasonal trend, adding almost 7m b in May to stand at 112.4m b, but were 3m b below the five-year average for the third consecutive month to show a deficit of 0.7 days of forward cover from the average.

Residual fuel oil stocks slipped by 200,000 b to 38.5m b, but remained comfortable within the upper end of the five-year range, whereas jet fuel inventories, despite a build of 1m b to reach nearly 40m b, continued to hover around the five-year average.

The US Strategic Petroleum Reserve (SPR) reached a new record-high of more than 704m b, following a build of 2.8m b, or 90,000 b/d, a three-year high. However, Congress passed legislation in May to halt the filling of the SPR and the Department of Energy took the decision to postpone summer deliveries until March-May 2009, after the winter heating season.

Nevertheless, deliveries will continue through July as planned and the process of filling is already underway. More than 7m b have been added to the SPR since the beginning of the year in the form of royalty-in-kind, in order

to reach the capacity of 727m b, as required by the 2005 Energy Policy Act.

In Western Europe, EU-16 (EU-15 plus Norway) total oil stocks surged by more than 15m b in May to offset the draw of the previous month and remain within the upper end of the five-year range. The increase was driven by distillates which accounted for 60 per cent of the build.

Crude oil inventories followed a seasonal trend, adding a further 3.2m b to hit a ten-month

**The US Strategic Petroleum Reserve (SPR) reached a new record-high of more than 704m b, following a build of 2.8m b, or 90,000 b/d, a three-year high.**

high of 483m b to stand slightly above the five-year average for the second consecutive month. The build was supported by low exports to the US, due to weak opportunities for transatlantic arbitrage.

After a substantial draw of more than 26m b in April, which eliminated the overhang with the five-year average, product stocks recovered in May, increasing by more than 12m b to again move above the average.

However, distillate stocks remained below the five-year average, despite a build of more than 9m b on the back of maximized production from refineries. The low level of distillate stocks in Europe is attributed to refinery maintenance, but particularly to the change in quality specifications of gasoil, which was the main reason for limited imports.

Gasoline stocks rose by 2m b to stand at the five-year average of 133m b. “It is worth noting that the situation of the gasoline market in Europe is better than a year earlier,” said the report.

Both residual fuel and naphtha stocks remained very comfortable at eight per cent above the year-ago levels. Residual stocks stood at 120m b after a build of 2m b and were supported by weak demand and high imports, particularly from Russia, whereas naphtha stocks lost less than 1m b to stand at 29m b.

In Japan, total commercial oil stocks continued their upward trend in May and increased by around 12m b, according to preliminary data.

"With this strong build, stocks are now comfortable, standing at the five-year average and the level of a year earlier," said the report.

Crude oil was the main contributor to the build with more than 9m b. Gasoline stocks rose by more than 1m b and distillate inventories increased by a further 400,000 b.

## July 2008

### Crude oil price movements

The crude oil market entered the month of June on the prospect of weaker demand growth and higher OPEC output. Volatility continued in the first week amid fluctuations in the US dollar exchange rate, while lower fuel subsidies in Asia triggered concern over demand growth. With Mideast geopolitics also playing their part, the OPEC Reference Basket shot up by \$7.34/b, or by over ten per cent, in a record one-day rally. A potential supply shortfall added to the fear premium and the following day the Basket rose by another \$4.76/b, peaking at a new record of over \$130/b. On the final day of the month, with the bullish sentiment continuing, the Basket stood at over \$136/b. For the month, the Basket averaged \$8.94/b, 7.5 per cent higher than in May, hitting a new high of \$128.34/b.

"Despite higher OPEC exports and a production boost by a Mideast major, escalations in Mideast geopolitics dominated market volatility, while the US dollar's fluctuation continued," said the OPEC report. It noted that a storm threat in the Gulf of Mexico revived worries of a disruption to petroleum infrastructure, rais-

ing concern over a supply shortfall. "Thus, the speculative fear premium continued to weigh on the higher exports," it added.

In the first week of July, prices surged by another \$10.13/b, or nearly eight per cent.

On the US market, benchmark WTI averaged \$133.93/b in June, higher by \$8.27/b, or 6.6 per cent, from the previous month.

In the North Sea market, Brent crude averaged \$9.39/b, or 7.6 per cent, higher in June to reach a level of \$132.44/b.

In the Mediterranean market, Russia's Urals crude averaged \$127.70/b in June, an increase of \$8.60/b, or over seven per cent, from the previous month.

In the Middle Eastern market, Dubai crude was \$8.9/b, or 7.5 per cent, higher in the month under review, at \$127.80/b.

### Commodity markets

Looking at trends in selected commodity markets, the OPEC report stated that the IMF commodity index reported a deceleration month-on-month in June of 5.7 per cent to represent a decline of two per cent from the previous month on lower growth in the energy commodity index, which rose by seven per cent in June, compared with growth of 11 per cent in May.

In contrast, the negative growth experienced by non-energy commodity prices in May turned into 1.7 per cent growth in June.

According to the World Bank, for the first half of 2008, non-energy commodity prices, including those for fertilizers, rose by 32 per cent, driven by a 29 per cent jump in agricultural prices, a 16 per cent gain in industrial metals and a more than doubling of fertilizer prices.

"The performance of the IMF energy commodity index (crude oil, natural gas and coal) was due to lower growth in crude oil prices in June, but at seven per cent, the growth trend of crude prices is still 92.9 per cent higher than a year ago," said the report.

US natural gas prices jumped by 12.6 per cent in June, and at \$12.68 per mbtu, were 72.6 per cent higher than a year ago.

Coal prices soared by 19.9 per cent in June

on strong Asian demand and supply constraints in most exporting countries, caused by weather and infrastructure-related problems.

Non-energy commodity prices recovered by 1.7 per cent in June, as a result of a four per cent jump in agricultural and food prices.

Industrial metal prices saw further negative growth of two per cent in the month, in response to weaker demand and improving supply prospects. As in May, the worse performance corresponded to those metals with weaker fundamentals, such as lead, zinc and nickel. Lead prices plunged by 14 per cent, zinc declined by 12.5 per cent, while nickel prices dropped by 12 per cent.

The World Bank agricultural price index increased by four per cent in June, while the IMF food price index rose by 3.9 per cent.

"The jump in food prices was mainly caused by the corn and soybean complex markets, as well as a rally in wheat prices," said the OPEC report.

Corn prices jumped by 17.9 per cent, while soybean soared by 18 per cent, with prices 75 per cent higher than a year earlier.

### World oil demand

In its first assessment of world oil demand for 2009, the OPEC report said that global demand is forecast to grow by 900,000 b/d next year to average 87.71m b/d, some 100,000 b/d lower than in the current year.

"Transport fuel will be the sector growing most in world oil demand in 2009," it maintained.

The report pointed out that non-OECD countries' oil demand growth of 1.2m b/d will account for all of the world oil demand growth next year.

"The slower world economy, along with high retail prices in OECD countries, have affected oil demand and will continue to do so next year," it said.

Gasoline consumption will show a decline, not only in North America, but also in Europe and the Pacific. Diesel and jet fuel will lose some of their strong consumption growth seen over the past seven years or so.

The report noted that world oil demand growth has been strong for the past 20 years, averaging 1.2m b/d. However, the new price structure and a slower world economy are shifting oil demand towards weaker growth worldwide.

“Declining OECD oil demand will affect total world oil demand, which will make the year 2009 the lowest for growth since 2002,” it said.

Required OPEC crude in 2009 is expected to average 31.24m b/d, a decline of 710,000 b/d from the current year. On a quarterly basis, demand for OPEC crude is expected to average 30.99m b/d, 30.47m b/d, 31.13m b/d and 32.38m b/d, respectively.

Oil demand in OECD Europe is expected to be almost flat. Winter product growth will be offset by declining gasoline and other industrial products in the year. Furthermore, the OECD Pacific will show a slight decline, due to slower oil demand in Japan and a higher utilization of nuclear power plants.

“Higher energy costs and taxes, energy conservation, efficiency, alternative fuel and other factors are the main reasons for the moderate growth of next year’s world oil demand, especially in the OECD,” said the OPEC report.

As a result of a slowing US economy and relatively high retail prices, North America’s oil demand is forecast to decline by 200,000 b/d y-o-y in 2009 to average 25m b/d. Total OECD oil demand is forecast to decline by 300,000 b/d in 2009.

India and the Middle East are estimated to show oil demand growth of 130,000 b/d and 300,000 b/d, respectively, in 2009.

“Although the agriculture and transport sectors are expected to be strong in India next year, the partial removal of price subsidies and other governmental policies are forecast to result in lower oil demand growth,” said the report.

It noted that the transport, construction and petrochemical sectors will be the main drivers behind strong Middle East oil demand in 2009.

China, which is expected to contribute the most to world oil demand growth next

year, is trying to achieve its pre-set goal to reduce energy intensity by 20 per cent by 2010 through the implementation of various efficiency targets.

The country has increased retail fuel prices, which will affect to a certain degree the consumption of transport fuel next year, although the booming Chinese economy is expected to slightly undermine this goal. China is planning to increase the use of nuclear and hydro-plants, which will have more effect on the consumption of coal than oil. Also, it is planning to curb automotive fuel consumption via a new fuel price increase, use of biofuels, and the construction of more electric-powered inter-city and intra-city railroads. These efforts might have a slightly negative impact on China’s oil demand for 2009.

“As in 2008, other sectors in China which serve as major energy drivers, such as industrial production, in-land cargo, agriculture, construction, transportation, and fishing, will show healthy growth in 2009,” said the report.

China’s apparent oil demand is forecast to grow by 420,000 b/d y-o-y in 2009, which is almost 30,000 b/d lower than the estimate for the current year. New vehicle sales growth is estimated to be lower than in 2008; however, they will still be strong, achieving growth of around 25 per cent.

The OPEC report noted that its world oil demand forecast for 2009 is based on the following assumptions:

- World GDP will grow at a slower pace compared with 2008.
- Normal weather is expected worldwide.
- The Chinese economy will grow by 9.2 per cent in 2009, down slightly from 2008, with further domestic price and tax hikes expected.
- The Chinese government will place emphasis on energy conservation and increase the use of alternative fuels.
- China’s strategic oil storage filling is not accounted for in the 2009 oil demand growth forecast.
- The Middle Eastern economy will show healthy expansion, boosting oil demand growth to second place behind China.

- Various factors will slightly thin oil demand growth in other Asia, such as price subsidy removal, fuel switching, and energy conservation programmes.
- Energy-price/demand elasticity will strengthen worldwide.
- Higher oil prices will reduce oil demand, not only in the OECD, but in non-OECD countries as well.
- There will be stronger utilization of nuclear power plants.

**Required OPEC crude in 2009 is expected to average 31.24m b/d, a decline of 710,000 b/d from the current year.**

- The use of biofuels will grow rapidly, adding another 120,000 b/d.
- The world will see a strong movement towards the use of smaller and more economical vehicles.
- Most of the growth in oil usage will be in the transport fuel sector
- Industrial oil use will show moderate growth as a result of slow economic growth and higher oil prices in the developed countries.

The report said that variables affecting the 2009 oil demand forecast suggest two more scenarios as an upper and lower range for oil demand growth. The upper range for world oil demand growth is forecast at 1.15m b/d, which will reflect strong oil demand growth in the US, OECD Europe and India.

The lower range for world oil demand growth is forecast at 700,000 b/d, reflecting weaker oil demand mainly in OECD countries.

Looking at world oil demand in 2008, the report stated that demand is forecast to grow

## US gasoline demand has fallen by 1.4 per cent to-date in 2008, shaving some 128,000 b/d from demand in the first half of the year.

by 1.0m b/d to average 86.81m b/d, a reduction of 100,000 b/d from the last OPEC forecast.

"Consumption of petroleum products is experiencing a further decline in the OECD in the second quarter as a result of slow economic activities and higher oil prices, which were half of today's prices at the time of our initial forecast," it said.

Throughout the OECD region, but especially in the US, oil demand for transport fuel (mainly gasoline) has shown a strong decline as a result of fewer people travelling.

"The growth of other products in other OECD regions was not enough to offset the decline in oil demand in the US in the first half of 2008."

Demand for OPEC crude in 2008 is

expected to average 31.95m b/d, representing a decline of 90,000 b/d over the previous year. On a quarterly basis, demand for OPEC crude is expected to average 32.16m b/d, 31.41m b/d, 31.84m b/d and 32.37m b/d, respectively.

The report said the easing of oil demand is expected to last until the end of the year. May's strong oil demand growth in China, the Middle East and India, which added around 1.3m b/d y-o-y, was not enough to offset the huge decline in OECD oil demand in the second quarter.

In OECD North America, the slowdown in economic activities and the increase of subsidized biofuels, along with higher retail prices, have curbed transportation fuel demand. US gasoline demand has fallen by 1.4 per cent to-date in 2008, shaving some 128,000 b/d from

demand in the first half of the year. Gasoline demand during the country's July 4 holiday was below expectations, due to reduced travel within the country.

As a result, North America's oil demand growth has been revised down by another 200,000 b/d in 2008 to show a total decline of 300,000 b/d y-o-y.

"Given the current economic situation in the US, the country's oil demand might show a further deterioration in the second half of the year," said the report.

OECD Europe's oil demand was revised up by 100,000 b/d in the second quarter of 2008, but given the expected weak demand in the low season third quarter, demand in this region is forecast to show minor growth of 40,000 b/d y-o-y this year.

In the OECD Pacific, oil demand was revised up by 100,000 b/d to show growth of 50,000 b/d y-o-y in the second quarter to average 7.85m b/d. It is anticipated that demand in this region will decline by 80,000 b/d y-o-y in the third quarter. "High oil prices are hurting Pacific gasoline demand, especially in Japan. Given the current high gasoline prices, consumption of transport fuel is expected to experience a further slowdown in the second half of the year," said the OPEC report.

In the developing countries, given the healthy oil demand growth expected in other Asia, Latin America, the Middle East, and Africa, oil demand growth in this region is forecast to reach 740,000 b/d y-o-y in 2008 to average 24.95m b/d.

Middle East oil demand is following its behaviour of last year. Strong economic growth is pushing oil demand up. Saudi Arabia's oil demand is forecast to have grown by 180,000 b/d y-o-y in the second quarter to average 2.3m b/d.

"Not only gasoline and diesel consumption, but also industrial fuel demand, are on the rise and are expected to continue to show gains for the rest of the year," said the report.

Middle East oil demand growth is forecast to top 290,000 b/d y-o-y in the third quarter of 2008.

Latin America's strong economic growth of 5.1 per cent is also pushing oil consumption

up. Retail price control within the continent led to strong oil demand growth this year; hence Latin American oil demand growth is forecast to grow by 170,000 b/d to average 5.68m b/d in 2008.

## World oil supply

Preliminary figures for June indicate that world oil supply averaged 86.87m b/d in the month, 330,000 b/d more than in May, with OPEC's crude share estimated at 37.2 per cent. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production from secondary sources.

Meanwhile, non-OPEC supply in 2008 is expected to increase by 580,000 b/d over the previous year to reach 50.02m b/d. This has been revised down by 110,000 b/d from last month's OPEC assessment. The revision was due to lower-than-expected growth in a number of non-OPEC countries. A downward revision to Russia's forecast was made to cover project start-up delays, as well as production declines. Actual figures showed lower supply from Kazakhstan, Brazil and Egypt, as well as in Norway, the UK and Mexico. Forecasts for the US, Canada, and Malaysia indicated increases from the last assessment, due to the start-up of new production and adjustments to actual figures.

On a quarterly basis, non-OPEC supply for 2008 is projected at 49.70m b/d, 49.57m b/d, 49.84m b/d and 50.94m b/d, respectively.

In revisions to the 2008 estimate, the OPEC report put May and June preliminary data for non-OPEC supply at 49.55m b/d and 49.76m b/d, respectively, 160,000 b/d higher than in April and a 210,000 b/d increase over May.

"The increasing trend is expected to prevail in the second half of 2008 as non-OPEC production is seen to experience significant growth towards the end of 2008," said the report.

The growth is expected to come from the FSU region with increases anticipated from Russia, Azerbaijan and Kazakhstan. Brazil is also expected to add to the growth in the second half, along with China, Norway and Australia.

"Overall, the performance so far in 2008 has

been much less than initially expected, with the current forecast some 500,000 b/d lower than the initial one. Various factors, such as weak performance, shifting of project start-ups and ramp-ups, technical problems, and a lack of higher costs of skilled labour and materials, contributed to the downward revisions," said the report.

The largest decline since the initial forecast has come from Mexico, with a decrease of 204,000 b/d, while Russia has followed with a decline since the initial forecast of 156,000 b/d. Norway and Brazil come next with forecasts dropping by 124,000 b/d and 106,000 b/d, respectively.

Non-OPEC oil supply is forecast to grow by 940,000 b/d in 2009 from the 2008 level to average 50.95m b/d. On a quarterly basis, non-OPEC supply next year is expected to average 51.25m b/d, 50.74m b/d, 50.69m b/d and 51.13m b/d, respectively.

Total OECD oil supply is expected to average 19.88m b/d in 2009, representing only a minor drop of 10,000 b/d from the 2008 level. Expected supply growth from North America and the OECD Pacific should fully offset the decline anticipated from Western Europe. On a quarterly basis, 2009 OECD oil supply is expected to average 20.25m b/d, 19.75m b/d, 19.58m b/d, and 19.95m b/d, respectively.

In the US, oil supply in 2009 is forecast to average 7.88m b/d, representing an increase of 200,000 b/d over the 2008 level. On a quarterly basis, US supply is forecast at 7.86m b/d, 7.81m b/d, 7.84m b/d and 8.00m b/d, respectively.

Canadian oil supply is expected to average 3.52m b/d in 2009, up by 100,000 b/d over 2008. The quarterly distribution stands at 3.58m b/d, 3.46m b/d, 3.48m b/d and 3.57m b/d, respectively.

Mexican oil supply is expected to decrease by 160,000 b/d next year to average 3.06m b/d. The quarterly distribution is put at 3.17m b/d, 3.03m b/d, 3.05m b/d and 2.99m b/d, respectively.

Western Europe's oil supply is slated to average 4.60m b/d in 2009, representing a drop of 270,000 b/d from 2008. Declines are anticipated in all major OECD Europe producers with quarterly figures expected at

4.81m b/d, 4.63m b/d, 4.37m b/d and 4.57m b/d, respectively.

Oil supply from Norway in 2009 is expected to average 2.31m b/d, a decline of 110,000 b/d from the previous year, while UK supply is forecast to average 1.30m b/d, a significant decline of around 150,000 b/d compared with the anticipated 2008 average.

Oil supply in the OECD Pacific region is forecast to average 830,000 b/d in 2009, representing growth of 110,000 b/d from the 2008 level. On a quarterly basis, total oil supply is estimated to average 0.83m b/d, 0.81m b/d, 0.84m b/d and 0.82m b/d, respectively.

Australia's oil supply in 2009 is expected to see growth of around 90,000 b/d over the current year.

In the developing countries, oil supply is expected to average 11.77m b/d in 2009, an increase of 440,000 b/d over the 2008 level. The majority of the growth is seen coming from Latin America, followed by the other Asia region. On a quarterly basis, total oil supply in the developing countries is expected to average 11.70m b/d, 11.68m b/d, 11.84m b/d and 11.85m b/d, respectively.

Oil supply from the other Asia group is forecast to see growth of around 110,000 b/d over 2008 to reach a level of 2.94m b/d in 2009 with the average quarterly distribution put at 2.95m b/d, 2.90m b/d, 2.97m b/d and 2.97m b/d, respectively.

African oil supply in 2009 is expected to stay almost flat compared with the 2008 figure at a level of 2.77m b/d. On a quarterly basis, total oil supply in Africa is estimated to average 2.75m b/d, 2.74m b/d, 2.78m b/d and 2.81m b/d, respectively.

Oil supply in Latin America next year is forecast to increase significantly by 300,000 b/d over 2008 to reach a level of 4.42m b/d with an average quarterly distribution of 4.36m b/d, 4.40m b/d, 4.47m b/d and 4.45m b/d, respectively. The growth is anticipated to come mainly from Brazil.

Middle East oil supply is expected to remain steady in 2009 with an expected increase offsetting the expected decline. Expected supply in 2009 is put at 1.63m b/d with a quarterly

average of 1.64m b/d, 1.64m b/d, 1.63m b/d and 1.62m b/d, respectively.

FSU oil supply is forecast to average 13.28m b/d next year, an increase of 430,000 b/d over 2008. On a quarterly basis, total oil supply in the FSU is expected to average 13.27m b/d, 13.28m b/d, 13.24m b/d and 13.32m b/d, respectively.

Oil supply from Russia is slated to average 10.07m b/d in 2009, an increase of 180,000 b/d over the previous year. On a quarterly basis, Russian oil supply is expected to aver-

**Total OPEC crude oil production averaged 32.29m b/d in June, an increase of 124,000 b/d over the previous month, according to secondary sources.**

age 10.09m b/d, 10.07m b/d, 10.06m b/d and 10.05m b/d, respectively.

In the Caspian region, oil supply from Azerbaijan is expected to average 1.17m b/d in 2009, higher by 130,000 b/d than in 2008, while Kazak oil production is forecast to average 1.57m b/d, indicating an increase of 120,000 b/d over 2008.

Total oil supply in China is expected to average 3.90m b/d in 2009, displaying an increase of 40,000 b/d from the 2008 level. On a quarterly basis, total oil supply in China is expected to average 3.91m b/d, 3.91m b/d, 3.90m b/d and 3.88m b/d, respectively.

## OPEC oil production

Total OPEC crude oil production averaged 32.29m b/d in June, an increase of 124,000 b/d over the previous month, according to secondary sources. OPEC output, excluding Iraq, averaged 29.85m b/d, a gain of 160,000 b/d.

A significant increase of around 171,000 b/d from Saudi Arabia was partially offset by production declines in Iraq and Venezuela. OPEC crude production in the second quarter averaged 32.10m b/d.

OPEC output of NGLs and non-conventional oils are forecast to average 4.85m b/d in 2008, up by 540,000 b/d over the previous year. In 2009, production is expected to average 5.51m b/d, representing a significant increase of 660,000 b/d over the previous year.

## Alternative fuels

The OPEC report observed that the EU is “feeling the heat” from its preset mandate for biofuels, following a strong hike in food prices.

“The EU has dropped its mandate of a biofuels ten per cent mix for transport fuel by the end of the next decade, which was totally unachievable. Many international organizations have accused such a mandate as leading to bad consequences, not only creating food shortages, but leading to massive environmental destruction in Asia,” it said.

The report noted that the EU has assigned a large budget to subsidize the biofuels industry. “Likewise, the US biofuels industry is becoming a big burden on the government’s budget. Even with the high oil prices, this industry is not completely economical and must live on subsidies.”

## Downstream activity

Looking downstream, the OPEC report pointed out that slowing demand for gasoline, particularly in the US, combined with the easing circumstances of distillate markets and costly crude, exerted pressure on refining economics across the world.

“The continuation of the recent product market sentiment may encourage refiners to cut throughputs or start seasonal maintenance earlier than usual, which would trim crude demand. These circumstances could lead to further crude stock-builds in the coming months

and put pressure on crude prices in the latter part of the year,” said the report.

However, it noted that such a perception may change if supply disruptions occur either in OPEC or non-OPEC countries over the next months. The only major wild card for product markets in the near future would be possible refinery outages due to potentially active hurricanes on the US Gulf Coast.

In June, refining margins for Brent crude oil at Rotterdam plummeted to minus 44¢/b from \$4.07/b in May. In the US, the market did not follow its typical seasonal pattern and margins for gasoline remained weak, exacerbating poor refining economics. Refining margins for WTI crude on the US Gulf Coast fell by \$1.89/b to reach \$4.98/b from \$6.85/b the previous month.

In Asia, the market followed suit and margins extended their downward movement. Higher production of a variety of products by some regional refineries after returning from seasonal turnaround contributed to the negative developments in the Asian market. Refining margins for Dubai crude oil on the Singapore market slid by \$1.71/b to \$4.48 from \$6.19/b in May.

The report noted that refiners typically boost their throughput in the latter part of the second quarter – up to the end of the driving season in early September. But, over the last three years, due to unplanned refinery outages resulting from either natural disasters or technical factors, refiners, especially in the US, could not increase throughput significantly prior to the peak period of the driving season, which has led to gasoline supply concerns and provided support for both product and crude markets.

“In the last few months, there have not been any serious refinery outages, particularly in the US, and spring seasonal maintenance has been completed according to schedule, removing the risk of gasoline supply concerns from the market. This situation, along with reports of bearish gasoline consumption, has limited the positive seasonal movement of refinery operations across the board,” said the report.

The refinery utilization rate in the US increased by a marginal 0.1 per cent in June

compared with the previous month to reach 90.1 per cent. In Europe, it rose slightly to 85.3 per cent from 84.5 per cent, while, in Asia, most refineries continued maintenance and throughputs slowed from the previous month. In Japan, the refinery utilization rate dropped by 3.4 per cent to 75.9 per cent from 79.3 per cent in May.

“Looking ahead, amid falling refining margins, refinery utilization rates are not expected to increase in line with the typical seasonal pattern over the next months and may stay at relatively low levels over the current driving season,” the OPEC report predicted.

## Oil trade

According to preliminary data, US crude oil imports rebounded in June, increasing by 517,000 b/d, or 5.4 per cent, compared with the previous month to average 10.0m b/d. June crude oil imports were much closer to their level a year earlier with a gain of just 63,000 b/d, or 0.6 per cent.

“Despite these month-to-month and y-o-y gains, the US is still importing less volumes of crude oil in 2008, compared with 2007 and even 2006,” said the report.

Average crude oil imports for the first half of 2008 stood at 9.85m b/d, 1.7 per cent lower than the average for the first half of 2007, and 2.1 per cent lower than the average for the same period in 2006.

“This decline is attributed to the overall state of the US economy, which has hit sales for almost all products, apart from gasoil, with gasoline sales and jet fuel shrinking for seven consecutive months. The effect of the US summer driving season on crude oil imports levels was weaker than usual last year and, so far, hardly any effect can be seen this year,” commented the report.

US product imports in June were steady compared with the previous month. At 3.29m b/d, June product imports were 6.5 per cent lower than a year earlier.

Finished motor gasoline imports increased in June by 85,000 b/d, compared with the pre-

vious month, to reach 492,000 b/d. Despite the increase, average US gasoline imports for the first half of 2008 stood at 404,000 b/d, seven per cent lower than in the first half of 2007.

Distillate fuel oil imports decreased in June by 52,000 b/d to average 160,000 b/d. First half 2008 average fuel oil imports were 237,000 b/d, indicating a drop of 26 per cent compared with the same period last year. Residual fuel oil imports in June were steady at 360,000 b/d.

On average, the US imported 3.36m b/d of oil products in the first half of 2008, a decline of 180,000 b/d, or five per cent, from the same period last year.

US product exports in June stood at 1.44m b/d, 13,000 b/d, or one per cent, lower than in the previous month, but 176,000 b/d, or 14 per cent, higher than in the same month last year. US product exports for the first half of 2008 averaged 1.41m b/d, 82,000 b/d, or six per cent, higher than in the same period of 2007.

As a result, US total net oil imports increased by 4.6 per cent in June from the previous month to reach 11.87m b/d. The 518,000 b/d increase in net oil imports came as a result of increases in net crude oil imports in June, with net oil product imports remaining unchanged from the previous month.

On a y-o-y basis, US net oil imports in June were 320,000 b/d, or 2.6 per cent, lower than in the same month last year. Average net oil imports for the first half of 2008 were 11.78m b/d, indicating a drop of 815,000 b/d, or 3.5 per cent, from the same period last year.

Again according to preliminary data, Japan's crude oil imports decreased in June by 244,000 b/d, or six per cent, from the previous month to stand at 3.87m b/d, some four per cent higher than a year earlier.

In the first half of 2008, Japan imported an average of 4.36m b/d of crude, indicating annual growth of 11 per cent compared with the first half of 2007.

"This growth does not reflect healthy domestic demand in Japan as oil sales have been shrinking by around four per cent a year since 2006 and are expected to continue this way, especially with indications that some industries are shifting to electricity or alterna-

tive power sources as a result of record-high prices," observed the OPEC report.

Japan's product imports in June were steady compared with the previous month at about 507,000 b/d, representing a drop of 12 per cent from a year earlier. Japan imported some 70,000 b/d of gasoline in June.

Product imports in the first half of 2008 averaged 519,000 b/d, indicating a drop of 85,000 b/d, or 14 per cent, from the first half of 2007 and in line with the shrinking demand for oil products in the country.

Japan's product exports in June were steady from the previous month at 577,000 b/d, but 38 per cent higher than a year earlier. Gasoil exports in the month stood at 200,000 b/d, with about the same quantity of jet fuel exports. Fuel oil exports amounted to 173,000 b/d, steady compared with the previous month.

Average product exports for the first half of 2008 were put at 531,000 b/d, representing growth of 110,000 b/d, or 25 per cent, compared with the first half of 2007.

As a result, Japan's net oil imports in June were listed at 3.8m b/d, indicating a decline of 240,000 b/d, or six per cent, from the previous month and two per cent lower than a year earlier.

For the fourth successive month, Japan was a net product exporter in June with about 70,000 b/d. Average net oil imports for the first half of 2008 stood at 4.35m b/d, up by 239,000 b/d, or six per cent, from the first half of 2007.

"Japan has switched from a net oil product importer of about 179,000 b/d during the first half of 2007 to a net product exporter of about 13,000 b/d, and this trend is expected to continue throughout the year," said the report.

## Stock movements

Concerning stock movements, US total commercial oil inventories rose by 6.6m b in June to 975m b to remain within the lower end of the five-year range. The gap with the five-year average increased from 4m b in April to more than 33m b in June.

The downward deviation from the five-year average is attributed to crude oil inventories, which dropped for the second month, implying a cumulative stockdraw of nearly 17m b during the second quarter, compared with a seasonal build of 7m b over the previous five years.

At 296.4m b, crude oil stocks were at the same level as the end of January 2008 and at their lowest level for the month of June since 2003. However, in contrast to the previous month, when crude oil stocks fell due to lower

**Japan has switched from a net oil product importer of about 179,000 b/d during the first half of 2007 to a net product exporter of about 13,000 b/d.**

imports following delays on the Gulf Coast and shutdowns in Mexico, the draw of 9.1m b in June is attributed mainly to an increase in refinery throughputs. Refineries are approaching their seasonal level following the return from maintenance.

Despite increasing OPEC production, commercial crude oil stocks rose by just 10m b during the first half of 2008 (from end-December to end-June), compared with 42m b a year earlier and 28m b on average over the previous five years.

"The main reason behind the slow build in crude oil stocks is the strong decline of around 300,000 b/d in crude oil imports in the first half of 2008, compared with the same period of 2007," said the OPEC report.

The decline is attributable to the drop in non-OPEC sailings to the US market as OPEC exports increased strongly over this period.

"In addition, refiners are reluctant to build stocks, due to recent higher crude prices, as well as poor refining margins. Similarly, in terms of

## The US Strategic Petroleum Reserve (SPR) added a further 1.8m b of crude in June, the eleventh increase in a row, to hit a new all time-high of nearly 706m b.

forward cover, the gap with the five-year average is widening, moving from a deficit of less than half a day at the end of the previous month, to around one day at the end of June.”

In contrast to crude oil, product inventories continued to follow their seasonal trend, adding 15.7m b in June to reach almost 679m b, the second highest level seen so far this year after January.

The build in product stocks was attributed to distillate inventories, which moved above the five-year average for the first time since the end of February, following an increase of more than 9m b, the highest level since July 2005.

Compared with demand, distillate stocks are seen as comfortable, with days of forward

cover within the range comparable with the five-year average and last year's level.

Concerning products, the US is sitting on a very comfortable level of diesel stocks that are more than 20 per cent above the five-year average and a four per cent improvement over a year earlier.

However, heating oil stocks remained tight and below their seasonal level, but their impact on the market is limited as demand is very weak in summer.

Helped by production from refineries and imports, gasoline inventories reversed their downward trend and rose by 2m b to stand at

almost 211m b, well above the level seen during the same period last year. Expressed in terms of forward cover, gasoline stocks are comfortable at almost 23 days, which corresponds to half a day more than the five-year average. During the same period last year, they were 1.5 days below the five-year average.

Residual fuel oil stocks in June increased by 1.1m b, offsetting the draw of the previous month to remain slightly below 40m b and keeping the overhang with the five-year average at a comfortable level. Jet fuel stocks lost almost 1m b and stayed close to the five-year average.

Latest data show that US commercial crude oil stocks dropped by almost 6m b in the week ending July 4, the biggest fall seen since the third week of May. This draw left crude oil stocks below 294m b, the lowest level since the end of January 2008 and widened the deficit with the five-year average to the highest level witnessed so far this year at 25m b, or eight per cent.

Gasoline stocks added a further 900,000 b to remain above the five-year average and the level seen a year ago, whereas distillates stocks increased for the ninth consecutive week. With a build of 1.8m b, distillate stocks stood at 122.5m b, the highest level since mid-February 2008.

The US Strategic Petroleum Reserve (SPR) added a further 1.8m b of crude in June, the eleventh increase in a row, to hit a new all time-high of nearly 706m b. Almost 16m b, or 50,000 b/d, of oil have been added to the SPR since the Department of Energy (DOE) decided to fill it to its capacity of 727m b.

However, the filling of the SPR is expected to stop in July as President Bush finally signed into law a bill initiated by Democrats to halt deliveries into the SPR.

In Western Europe, EU-16 (EU-15 plus Norway) total oil stocks continued to alternate between the builds and draws seen since the beginning of the year. They fell by 8.6m b, or one per cent, in June to 1,123m b, but remained

within the upper end of the five-year range and at the same level seen a year earlier.

However, the surplus of 20m b, or two per cent, over the average of the previous five years essentially consists of products.

Crude oil stocks followed their seasonal trend, falling by 12m b, or two per cent, to stand at 475m b, slightly above the five-year average. This draw, the first in the last four months, came as a result of an increase in refinery throughputs and lower supplies in the region, following disruptions in Nigerian production.

In contrast to crude oil, product stocks increased for the second consecutive month and widened the overhang with the five-year average to 18m b from 8m b in the previous two months.

At 648m b, product stocks rose for the first time this year above the level of the corresponding month of the previous year. This was due to gasoline inventories, which displayed a counter-seasonal build of 4.4m b to stand above 137m b, the highest level since February 2007 and the highest June level in five years.

“The very comfortable level of gasoline stocks in Europe is attributed essentially to the combination of slowing demand and limited export opportunities to US markets,” said the report.

Contrary to gasoline, distillate inventories remained stable at 360m b, despite strong demand for diesel. This left the deficit with the five-year average at a minor 2m b, or less than one per cent. However, compared with a year earlier, the deficit is larger at 20m b, or more than five per cent.

Limited export opportunities and lower demand left residual fuel oil stocks at a very comfortable level of 121m b, which corresponds to 11m b, or ten per cent, higher than a year ago and the highest level in seven years. Similarly, naphtha stocks added 400,000 b to approach 30m b and remain well above the five-year average.



**Table A: World crude oil demand/supply balance** m b/d

World demand	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>OECD</b>	49.3	49.7	49.3	49.1	48.7	47.9	48.5	50.1	48.8	48.5	47.6	48.1	49.9	48.5
North America	25.4	25.5	25.3	25.5	24.8	25.0	25.4	25.7	25.2	24.6	24.8	25.1	25.6	25.0
Western Europe	15.5	15.6	15.6	15.3	15.1	15.0	15.3	15.7	15.3	15.2	15.0	15.3	15.7	15.3
Pacific	8.5	8.6	8.4	8.3	8.8	7.9	7.7	8.7	8.3	8.8	7.8	7.7	8.6	8.2
<b>Developing countries</b>	21.8	22.6	23.3	24.2	24.8	24.9	24.9	25.1	24.9	25.4	25.6	25.6	25.8	25.6
<b>FSU</b>	3.8	3.9	3.9	4.0	4.0	3.8	4.1	4.4	4.1	4.1	3.9	4.1	4.4	4.1
<b>Other Europe</b>	0.9	0.9	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.1	1.0	0.9	0.9	1.0
<b>China</b>	6.5	6.7	7.2	7.6	8.0	8.2	8.2	7.8	8.0	8.4	8.6	8.6	8.2	8.5
<b>(a) Total world demand</b>	<b>82.4</b>	<b>83.7</b>	<b>84.6</b>	<b>85.8</b>	<b>86.5</b>	<b>85.8</b>	<b>86.6</b>	<b>88.3</b>	<b>86.8</b>	<b>87.5</b>	<b>86.6</b>	<b>87.5</b>	<b>89.3</b>	<b>87.7</b>

Non-OPEC supply	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
<b>OECD</b>	21.3	20.5	20.2	20.2	20.1	19.9	19.5	20.2	19.9	20.2	19.8	19.6	20.0	19.9
North America	14.6	14.1	14.2	14.3	14.3	14.2	14.2	14.5	14.3	14.6	14.3	14.4	14.6	14.5
Western Europe	6.2	5.7	5.4	5.2	5.1	5.0	4.5	4.8	4.9	4.8	4.6	4.4	4.6	4.6
Pacific	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8
<b>Developing countries</b>	10.5	10.8	10.9	10.9	11.1	11.1	11.5	11.6	11.3	11.7	11.7	11.8	11.8	11.8
<b>FSU</b>	11.1	11.5	12.0	12.5	12.6	12.7	12.9	13.1	12.8	13.3	13.3	13.2	13.3	13.3
<b>Other Europe</b>	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>China</b>	3.5	3.6	3.7	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
<b>Processing gains</b>	1.8	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0
<b>Total non-OPEC supply</b>	48.4	48.5	48.9	49.4	49.7	49.6	49.8	50.9	50.0	51.2	50.7	50.7	51.1	51.0
<b>OPEC NGLS and non-conventionals</b>	4.0	4.1	4.1	4.3	4.6	4.8	4.9	5.0	4.9	5.2	5.4	5.6	5.8	5.5
<b>(b) Total non-OPEC supply and OPEC NGLS</b>	<b>52.4</b>	<b>52.6</b>	<b>52.9</b>	<b>53.7</b>	<b>54.3</b>	<b>54.4</b>	<b>54.8</b>	<b>56.0</b>	<b>54.9</b>	<b>56.5</b>	<b>56.2</b>	<b>56.3</b>	<b>56.9</b>	<b>56.5</b>

OPEC crude supply and balance	2004	2005	2006	2007	1Q08	2Q08
<b>OPEC crude oil production<sup>1</sup></b>	30.6	31.6	31.4	31.0	32.1	32.1
Total supply	83.0	84.2	84.4	84.7	86.4	86.5
<b>Balance<sup>2</sup></b>	0.6	0.5	-0.3	-1.1	-0.1	0.7

Stocks	2004	2005	2006	2007	1Q08	2Q08
<b>OECD closing stock level m b</b>						
Commercial	2538	2586	2668	2580	2573	
SPR	1450	1487	1499	1524	1530	
Total	3988	4072	4166	4104	4103	
Oil-on-water	905	958	916	945	929	
<b>Days of forward consumption in OECD</b>						
Commercial onland stocks	51	52	54	53	54	
SPR	29	30	31	31	32	
<b>Total</b>	80	83	85	84	86	

Memo items	2004	2005	2006	2007	1Q08	2Q08	3Q08	4Q08	2008	1Q09	2Q09	3Q09	4Q09	2009
FSU net exports	7.3	7.7	8.1	8.5	8.7	8.9	8.9	8.8	8.8	9.2	9.4	9.1	8.9	9.2
<b>[(a) – (b)]</b>	<b>29.9</b>	<b>31.1</b>	<b>31.7</b>	<b>32.0</b>	<b>32.2</b>	<b>31.4</b>	<b>31.8</b>	<b>32.4</b>	<b>31.9</b>	<b>31.0</b>	<b>30.5</b>	<b>31.1</b>	<b>32.4</b>	<b>31.2</b>

1. Secondary sources.

2. Stock change and miscellaneous.

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

**Table A** above, prepared by the Secretariat's Petroleum Market Analysis Department, shows OPEC's current forecast of world supply and demand for oil and natural gas liquids.

The monthly evolution of spot prices for selected OPEC and non-OPEC crudes is presented in **Tables One and Two** on page 100 while **Graphs One and Two** (on page 101) show the evolution on a weekly basis. **Tables Three to Eight**, and the corresponding graphs on pages 102–103 show the evolution of monthly average spot prices for important products in six major markets. (Data for Tables 1–8 is provided by courtesy of Platt's Energy Services).

Table 1: OPEC Reference Basket crude oil prices, 2007–2008

\$/b

Crude/Member Country	2007						2008						Weeks 23–27 (week ending)					
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jun 6	Jun 13	Jun 20	Jun 27	July 4
Arab Light – Saudi Arabia	65.92	71.05	68.76	74.28	79.31	89.02	86.29	88.75	91.26	99.23	106.05	120.59	129.35	122.49	130.60	130.15	132.58	139.93
Basrah Light – Iraq	64.09	70.53	66.83	72.14	77.47	86.26	82.79	85.21	88.80	97.19	103.28	116.35	124.46	118.07	125.71	124.92	127.73	134.79
BCF-17 – Venezuela	60.68	65.79	62.78	66.35	72.20	81.87	79.79	80.59	80.36	89.12	94.10	106.20	116.16	108.04	117.79	117.37	119.79	125.49
Bonny Light – Nigeria	74.45	79.21	73.34	79.87	85.60	95.32	93.55	94.85	96.98	106.68	112.52	126.55	136.44	130.43	138.10	136.26	139.68	146.26
Es Sider – SP Libyan AJ	70.25	75.81	69.84	76.07	81.80	91.92	90.75	91.40	94.28	103.03	108.42	122.50	131.69	125.68	133.35	131.51	134.93	140.91
Girassol – Angola	69.00	74.42	69.81	75.48	80.23	90.21	88.98	88.68	92.13	101.46	107.38	121.76	130.89	124.22	132.12	131.53	134.32	140.69
Iran Heavy – IR Iran	64.77	69.65	66.60	72.63	77.30	87.17	86.31	86.36	88.51	96.68	102.23	116.47	124.66	117.55	125.90	125.58	127.93	134.07
Kuwait Export – Kuwait	63.61	67.73	65.91	71.94	76.33	86.23	84.37	85.63	87.77	95.58	101.25	115.79	124.37	117.25	125.79	125.23	127.55	134.40
Marine – Qatar	66.15	70.20	69.43	73.78	78.68	87.94	87.54	88.35	90.12	97.67	104.30	119.27	129.25	121.63	130.68	130.39	132.55	139.66
Minas – Indonesia	68.41	76.88	73.67	76.98	84.96	93.64	94.53	95.33	95.55	104.62	109.02	126.50	136.49	128.47	138.62	137.74	139.60	146.58
Murban – UAE	70.74	74.40	71.80	77.16	81.98	90.95	90.72	92.04	94.25	102.15	109.44	124.84	134.56	127.27	136.10	135.61	137.62	144.59
Oriente – Ecuador	59.81	65.36	59.29	65.90	71.77	80.01	78.40	79.38	80.80	90.27	98.06	111.25	119.13	113.47	119.98	119.73	122.20	128.01
Saharan Blend – Algeria	74.05	78.21	73.44	78.60	84.45	94.57	93.15	93.60	96.73	105.68	111.57	125.15	133.94	127.93	135.60	133.76	137.18	143.24
<b>OPEC Reference Basket</b>	<b>66.89</b>	<b>71.89</b>	<b>68.71</b>	<b>74.18</b>	<b>79.32</b>	<b>88.84</b>	<b>87.05</b>	<b>88.35</b>	<b>90.64</b>	<b>99.03</b>	<b>105.16</b>	<b>119.39</b>	<b>128.33</b>	<b>121.43</b>	<b>129.73</b>	<b>129.04</b>	<b>131.60</b>	<b>138.31</b>

Table 2: Selected OPEC and non-OPEC spot crude oil prices, 2007–2008

\$/b

Crude/country	2007						2008						Weeks 23–27 (week ending)					
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jun 6	Jun 13	Jun 20	Jun 27	July 4
Arab Heavy – Saudi Arabia	61.44	64.99	63.55	69.86	73.99	83.96	82.51	82.85	84.96	92.67	97.66	112.00	120.62	113.36	122.15	121.50	123.75	130.62
Brega – SP Libyan AJ	71.90	77.36	71.29	77.42	83.10	93.22	91.85	92.50	95.48	104.23	109.72	123.90	133.29	127.28	134.95	133.11	136.53	142.67
Brent – North Sea	71.55	77.01	70.74	76.87	82.50	92.62	91.25	92.00	94.98	103.58	108.97	123.05	132.44	126.43	134.10	132.26	135.68	141.90
Dubai – UAE	65.79	69.49	67.36	73.36	77.12	86.96	85.79	87.35	89.40	96.72	103.41	118.86	127.82	120.50	129.35	128.73	131.00	138.16
Ekofisk – North Sea	72.09	77.76	72.00	78.08	83.38	93.24	92.12	93.51	96.38	105.48	111.81	124.96	135.26	129.05	136.46	135.31	138.79	145.60
Iran Light – IR Iran	67.99	73.70	69.34	74.88	79.74	89.92	89.12	89.21	91.76	99.35	105.92	119.39	127.89	121.61	129.08	128.51	131.02	137.61
Isthmus – Mexico	65.40	71.11	66.60	72.65	78.79	88.59	87.53	88.07	90.28	99.79	106.60	120.43	129.90	124.17	131.04	130.23	132.89	139.86
Oman – Oman	66.08	70.09	68.34	73.56	77.55	87.16	86.82	88.54	90.12	97.82	104.09	119.15	128.32	121.12	129.85	129.17	131.40	138.78
Suez Mix – Egypt	65.42	71.44	66.94	71.41	76.90	87.60	85.80	86.38	88.49	95.81	102.44	115.40	124.58	118.61	125.64	124.63	128.00	134.72
Tia Juana Light <sup>1</sup> – Venez.	63.31	68.98	64.93	70.69	76.90	86.55	84.73	85.52	87.93	96.80	103.29	116.45	125.62	120.08	126.72	125.93	128.51	135.25
Urals – Russia	67.83	73.90	69.25	73.78	79.52	90.24	89.02	89.22	91.14	98.95	105.75	119.11	127.73	121.33	128.80	128.13	131.25	137.90
WTI – North America	67.44	73.98	72.37	79.69	85.87	94.91	91.69	92.87	95.32	105.41	112.64	125.66	133.93	128.15	134.74	134.38	137.25	143.04

Note: As per the decision of the 109<sup>th</sup> ECB (held in February 2008), the basket has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108<sup>th</sup> ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105<sup>th</sup> Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the OPEC Reference Basket has been calculated according to the new methodology as agreed by the 136<sup>th</sup> (Extraordinary) Meeting of the Conference.

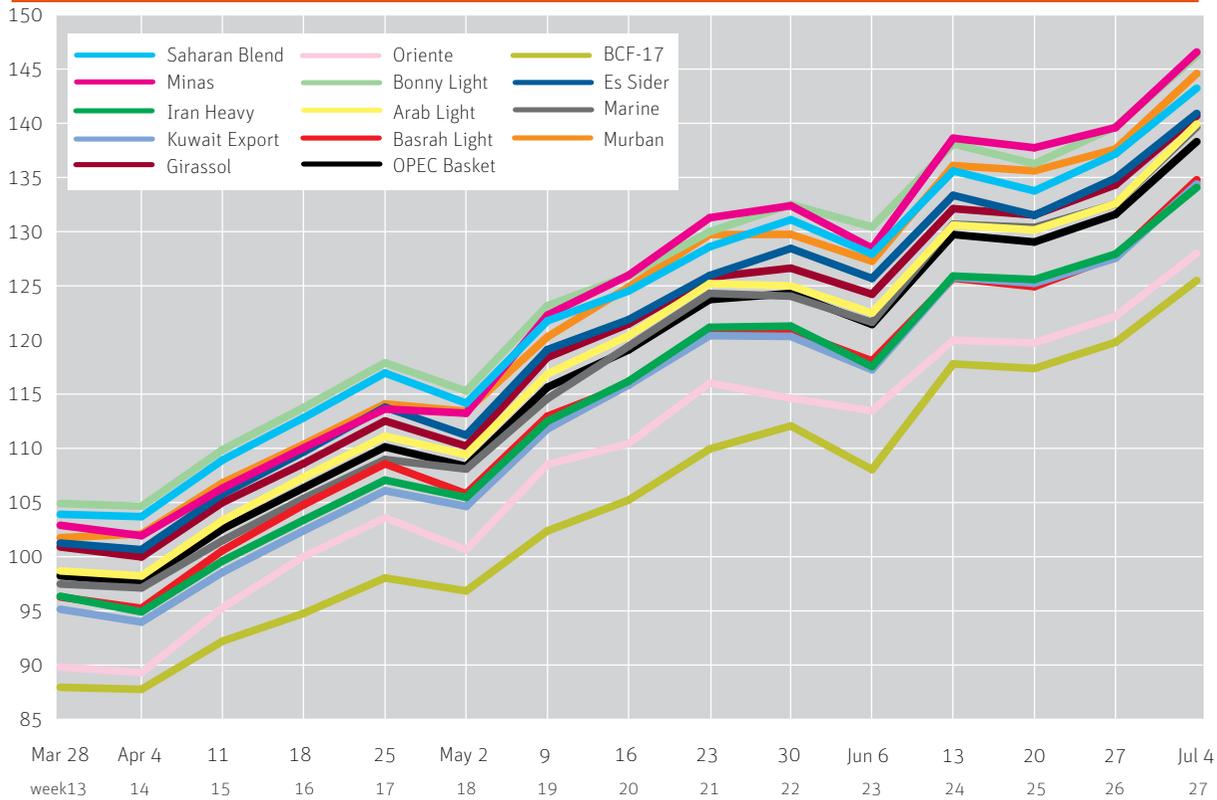
1. Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.

Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt's; Reuters; Secretariat's assessments.

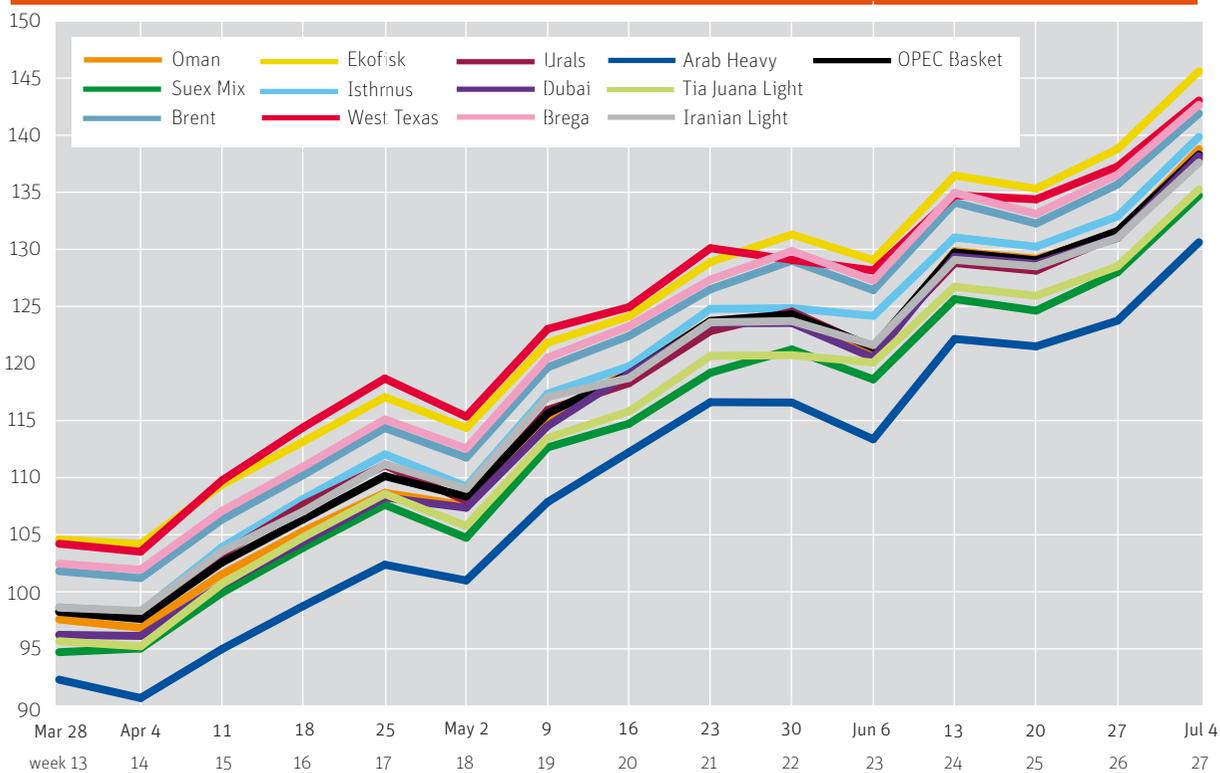
**Graph 1: Evolution of the OPEC Reference Basket crudes, April to June 2008**

\$/b



**Graph 2: Evolution of spot prices for selected non-OPEC crudes, April to June 2008**

\$/b

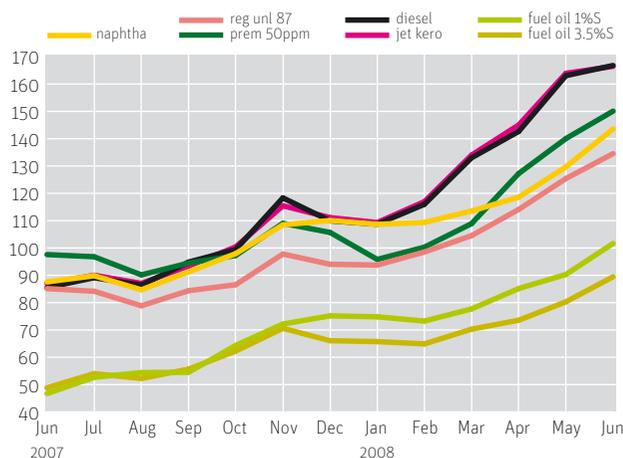


Note: As per the decision of the 109<sup>th</sup> ECB (held in February 2008), the basket has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108<sup>th</sup> ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105<sup>th</sup> Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the OPEC Reference Basket has been calculated according to the new methodology as agreed by the 136<sup>th</sup> (Extraordinary) Meeting of the Conference.

**Table and Graph 3: North European market – spot barges, fob Rotterdam**

\$/b

	naphtha	regular gasoline unleaded	premium gasoline 50ppm	diesel ultra light	jet kero	fuel oil 1%S	fuel oil 3.5%S
<b>2007</b>							
June	87.58	85.13	97.59	85.50	87.00	46.72	48.83
July	89.84	84.15	96.78	89.12	90.01	52.66	54.01
August	84.70	78.85	90.16	86.40	87.03	54.39	52.23
September	91.24	84.36	94.47	94.83	93.42	54.49	55.65
October	97.94	86.55	97.25	99.44	100.40	64.34	62.26
November	108.46	97.79	109.03	118.34	115.45	72.16	70.61
December	110.06	94.04	105.68	109.94	111.11	75.17	66.06
<b>2008</b>							
January	108.66	93.74	95.82	108.70	109.32	74.81	65.73
February	109.36	98.52	100.30	115.98	116.97	73.26	64.89
March	113.53	104.51	108.91	133.01	134.00	77.69	70.28
April	118.58	114.11	127.26	142.66	145.05	85.16	73.57
May	129.70	125.40	140.04	163.07	163.93	90.32	80.30
June	143.54	134.53	150.09	166.80	166.50	101.66	89.47

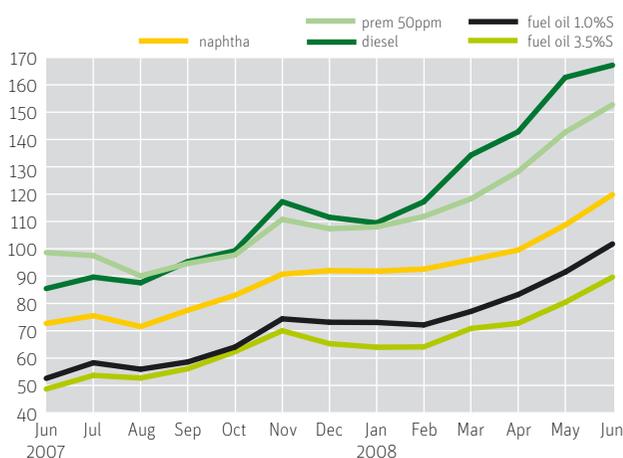


Note: Prices of premium gasoline and diesel from January 1, 2008, are with 10 ppm sulphur content.

**Table and Graph 4: South European market – spot cargoes, fob Italy**

\$/b

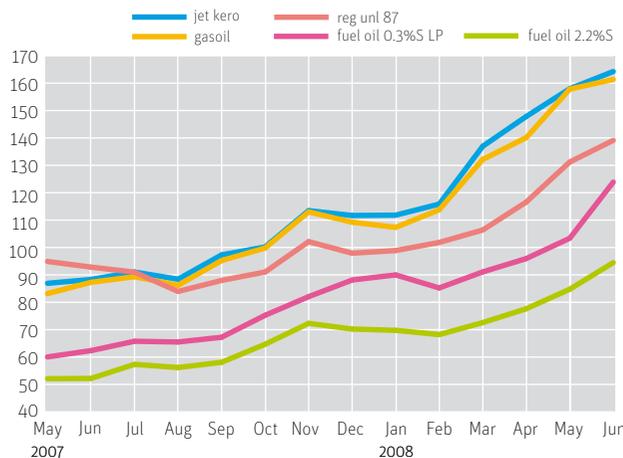
	naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1%S	fuel oil 3.5%S
<b>2007</b>					
June	72.68	97.63	85.44	52.59	48.68
July	75.51	96.51	89.63	58.29	53.68
August	71.54	89.06	87.56	55.92	52.70
September	77.52	93.63	95.31	58.59	56.10
October	82.97	96.73	99.29	64.04	62.37
November	90.71	109.76	117.22	74.37	70.01
December	92.01	106.35	111.52	73.12	65.28
<b>2008</b>					
January	91.81	107.01	109.47	73.04	63.97
February	92.56	110.83	117.20	72.13	64.09
March	95.98	117.31	134.27	77.08	70.84
April	99.53	127.26	142.80	83.24	72.73
May	108.72	141.69	162.71	91.49	80.43
June	119.81	151.71	167.17	101.76	89.64



**Table and Graph 5: US East Coast market – spot cargoes, New York**

\$/b, duties and fees included

	regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3%S	fuel oil 2.2%S
<b>2007</b>					
June	92.84	87.29	88.32	62.34	52.18
July	91.00	89.34	91.03	65.76	57.33
August	83.95	86.19	88.42	65.49	56.16
September	87.97	95.23	97.29	67.22	58.08
October	91.05	99.82	100.20	75.24	64.66
November	102.14	113.00	113.45	82.05	72.30
December	97.92	109.23	111.68	88.12	70.22
<b>2008</b>					
January	98.88	107.35	111.81	89.99	69.75
February	101.85	113.77	115.85	85.22	68.18
March	106.38	132.13	136.96	91.08	72.57
April	116.59	140.12	147.84	95.95	77.62
May	131.22	157.82	157.99	103.38	84.76
June	139.12	161.37	164.26	123.89	94.48

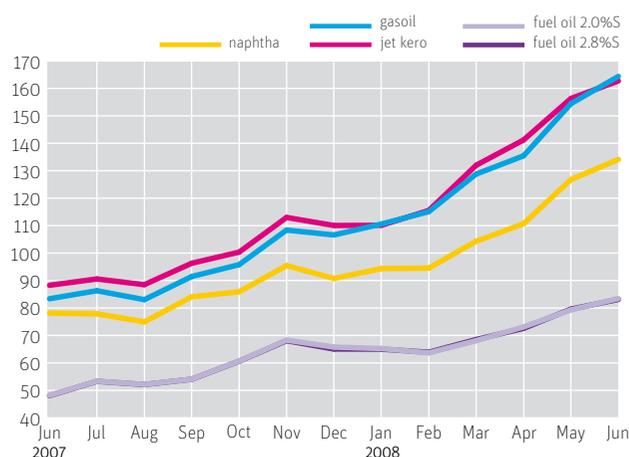


Source: Platts. Prices are average of available days.

**Table and Graph 6: Caribbean market – spot cargoes, fob**

\$/b

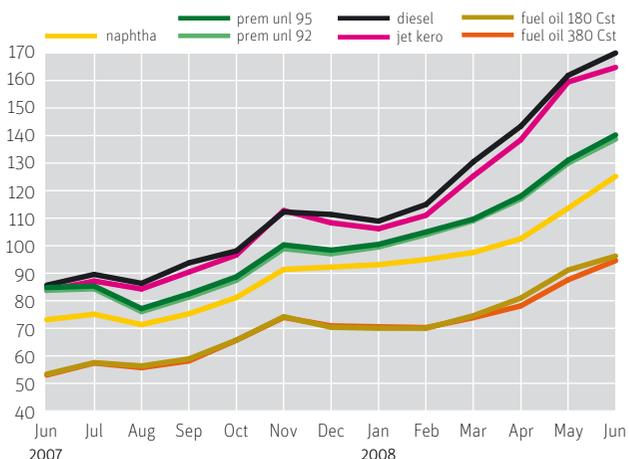
	naphtha	gasoil	jet kero	fuel oil 2%S	fuel oil 2.8%S
<b>2007</b>					
June	78.14	83.37	88.28	48.18	48.05
July	77.87	86.29	90.57	53.33	52.11
August	74.95	83.03	88.49	52.16	52.11
September	91.46	91.46	96.31	54.06	54.03
October	85.92	95.79	100.35	60.66	60.61
November	95.46	108.38	112.97	68.30	68.09
December	90.75	106.60	110.05	65.77	65.05
<b>2008</b>					
January	94.38	110.58	110.12	65.23	65.00
February	94.51	115.08	115.52	63.63	63.88
March	104.32	128.77	131.98	68.09	68.51
April	110.69	135.42	141.20	73.12	72.57
May	126.77	154.44	156.32	79.31	79.60
June	134.09	164.35	162.69	83.45	83.12



**Table and Graph 7: Singapore market – spot cargoes, fob**

\$/b

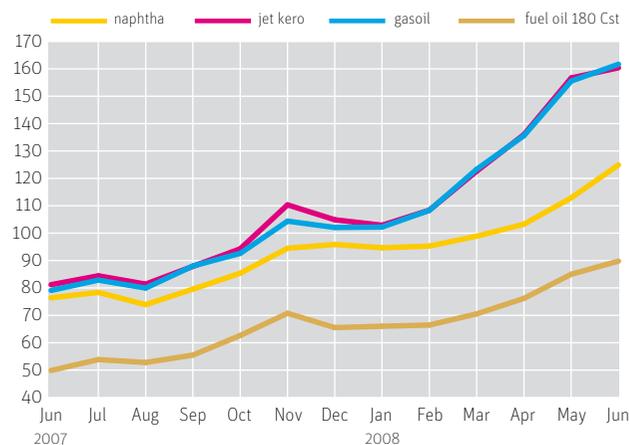
	naphtha	premium gasoline unl 95	premium gasoline unl 92	diesel ultra light	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
<b>2007</b>							
June	73.12	84.79	83.82	85.67	83.75	53.37	53.03
July	75.10	85.35	84.36	89.57	84.28	57.53	57.39
August	71.34	77.15	76.05	86.33	84.28	56.34	55.71
September	75.28	82.51	81.35	93.78	90.44	58.90	58.15
October	81.18	88.71	87.46	98.11	96.62	65.70	65.67
November	91.38	100.29	98.94	112.26	112.77	74.21	73.95
December	92.24	98.38	97.09	111.33	108.31	70.37	70.89
<b>2008</b>							
January	93.12	100.49	99.56	108.94	106.17	70.04	70.56
February	94.99	104.97	104.04	114.97	111.03	70.00	70.26
March	97.54	109.66	109.12	130.49	125.31	74.57	73.86
April	102.53	117.98	117.02	143.38	138.44	80.98	78.14
May	113.63	131.07	130.01	161.86	159.47	91.15	87.62
June	125.18	140.23	138.72	170.00	164.76	96.23	94.58



**Table and Graph 8: Middle East Gulf market – spot cargoes, fob**

\$/b

	naphtha	gasoil	jet kero	fuel oil 180 Cst
<b>2007</b>				
June	76.39	79.09	81.19	49.86
July	78.36	82.85	84.43	53.85
August	73.90	79.95	81.40	52.78
September	79.57	88.02	87.89	55.48
October	85.38	92.62	94.29	62.64
November	94.50	104.39	110.34	70.75
December	95.88	102.07	104.89	65.52
<b>2008</b>				
January	94.67	102.23	102.90	66.01
February	95.28	108.33	108.39	66.45
March	98.90	123.32	122.63	70.53
April	103.27	135.60	135.98	76.18
May	112.91	155.54	156.68	85.00
June	124.91	161.68	160.38	89.79



Source: Platts. Prices are average of available days.

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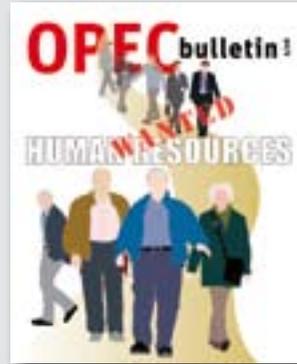
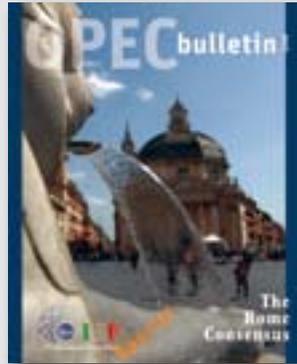
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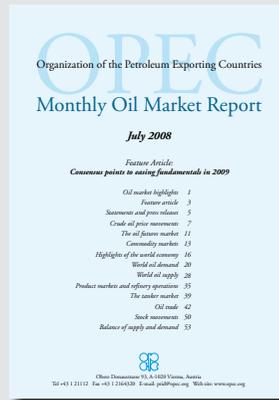
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