OPEC bulletin

11–12/08

Algeria on track

Paving the way for future price stability

The crude oil price has moved by an astonishing US $150/barrel since the start of this volatile, unpredictable year.

It began the year at $92/b for OPEC's Reference Basket, climbed to a peak of $141/b in July and, since then, has fallen to a trough of $42/b in December.

The persistent volatility has witnessed price swings on an unprecedented scale. We have seen crude prices rise by $10/b on one day and fall by $16/b on another. In October, the monthly average Basket price fell by a record $28/b.

Furthermore, as we move into the northern hemisphere winter, the news gets no better for the global economy. This is slowing down faster than expected, and, increasingly, forecasters are suggesting that oil demand will fall next year.

The immediate outlook for oil producers is, therefore, a gloomy one.

However, the same is true for other parties in the international oil market, as we look further into the future. Low prices mean less investment. And less investment may mean that this year's volatility will return to the market in the not-too-distant future.

Two distinct ways of assessing oil prices have emerged recently, and they must ultimately be in line with each other, if the market is to function in a stable and orderly manner.

The first relates to the present dynamics of the market, with the spiralling down of oil prices since July to half the levels of the start of the year. In this case, prices are responding to current drivers in the market and perhaps even generating their own momentum.

And the second is the realization that the plunging prices have already passed the critical levels where decision-makers have begun reassessing the viability of existing and planned investments in expanding production capacity, to meet the forecast rising levels of demand in future years.

For example, the marginal cost of producing alternative fuels, such as oil sands, is probably around $70/b. Set against this, the Basket price fell below $60/b on October 24, and below $50/b on November 21, before continuing down to $42/b.

There is a clear mismatch along the time-horizon, with many longer-term investment needs not being supported by shorter-term price movements.

Increasingly, delays, cutbacks and cancellations of projects are being announced throughout the industry, together with other responsive measures, as crude prices drop from one investment-breakeven level to the next and the realization dawns that this is no overnight phenomenon. Moreover, this trend has been reinforced by the present severe restrictions on credit and the gloomy world economic outlook.

The issue of breakeven levels for investment in both oil and other forms of energy features prominently in discussions within the industry at the present time, reflecting widespread concern among all parties. Other intergovernmental energy groups have also warned of the dangers to future supply of heavy cutbacks in investment.

There is, indeed, a strong element here of having to play-off today's interests against those of tomorrow, in a tough, demanding and uncertain world economic climate. It is like trying to reconcile the irreconcilable. There is no perfect solution.

Therefore, when the OPEC Conference meets at times like these, it does so with its eyes wide open to the fundamental, enduring realities of the international oil market and the pivotal role of secure, stable oil supplies. OPEC is committed to this, as well as to the health of the world economy, in good times and in bad.

While OPEC's market stabilization measures are sometimes tailored around addressing a short-term development in the market, the Organization prefers to focus on sustainable, longer-term actions, from which the world community as a whole will ultimately benefit.

And OPEC is strongly inclined to adopt the latter approach in addressing today's pressing market challenges.

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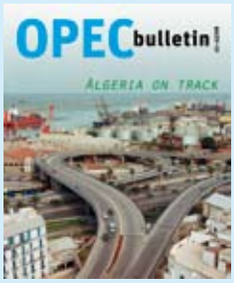

Cover
Infrastructure in Algiers (see feature on Algeria on p16).
Photo: Algerian Ministry of Energy and Mines.

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Publishers
OPEC
Organization of the Petroleum Exporting Countries
Obere Donaustrasse 93
1020 Vienna, Austria
Telephone: +43 1 211 12/0
Telefax: +43 1 216 4320
Public Relations & Information
Department fax: +43 1 214 9827
E-mail: prid@opec.org

Web site: www.opec.org
Visit the OPEC Web site for the latest news and information about the Organization and back issues of the *OPEC Bulletin* which is also available free of charge in PDF format.
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Membership and aims
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.

Contributions

The OPEC Bulletin welcomes original contributions on the technical, financial and environmental aspects of all stages of the energy industry, research reports and project descriptions with supporting illustrations and photographs.

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Senior Editorial Coordinator
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Associate Editors
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Arts & Life Contributor
Siham Alawami
Production
Diana Lavnick and Andrea Birnbach
Design & Layout
Elfi Plakolm
Photographs (unless otherwise credited)
Diana Golpashin

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OPEC Meeting deliberates on global oil market situation

Unanimous agreement hailed as "positive and realistic"

By Jerry Haylins

Above: Dr Chakib Khelil (l), President of the Conference and Minister of Energy and Mines of Algeria, with Abdalla Salem El-Badri, OPEC Secretary General.

The 150th (Extraordinary) Meeting of the OPEC Conference, which convened in Vienna, Austria, on October 24, decided to reduce the current OPEC-11 production ceiling of 28.808 million barrels/day by 1.5m b/d, effective November 1 *(see table on page 10 for individual reductions)*.

"Member Countries strongly emphasized their firm commitment to ensuring that the volumes they supply to the market are reduced by the individually agreed amounts," said an OPEC communiqué issued after the meeting.

OPEC Conference President, Dr Chakib Khelil, said the total production cut would actually be more like 1.8m b/d, since there was already 300,000 b/d of excess OPEC supply that needed to be removed from the market.

Oil and Energy Ministers attending the talks, which lasted just two hours, were determined in their intent and

decisive in their actions to initiate a plan to stabilize oil prices, which they had seen slump alarmingly by over $80/barrel since July.

"The decision was straightforward," Ali I Nami, Saudi Arabian Minister of Petroleum and Mineral Resources, was quoted as saying after the meeting. "OPEC will do whatever is necessary to balance the oil markets," he told reporters.

It was a "positive and realistic" move that would help restore balance to the oil markets and stability to the world economy, commented Mohammed Bin Dhaen Al Hamli, Minister of Energy of the United Arab Emirates (UAE), while Kuwait Oil Minister, Eng Mohammed A Al-Aleem, maintained that the agreement was "reasonable and acceptable", but it was not expected to have much impact on [futures prices] because it had already been factored in by the market.

And Rafael Ramírez, Venezuela's Energy and Petroleum Minister, told Venezuelan state television that "the message to the market is, first, of the strength and unity of OPEC in terms of its decisions. There was no dispute or fight — here we were all in agreement."

In its communiqué, the Organization stressed that the dramatic collapse in prices seen over the summer months and going into autumn was "unprecedented in speed and magnitude" and placed in jeopardy many existing oil projects.

It warned of a situation that, if not arrested, could lead to the cancellation or delay of essential projects and possibly result in a medium-term supply shortage.

The meeting, initially announced for the middle of November, but brought forward, due to the urgency of the situation, was convened to assess the extent of the global financial crisis and the world economic situation — especially their impact on the international oil market.

The communiqué pointed out that in sharing their concern with the international community — of which, it stressed, OPEC Member Countries were an integral part — over the ongoing developments in financial markets, the Ministers observed that the crisis was already having a noticeable impact on the world economy, dampening demand for energy, in general, and oil in particular.

"This slowdown in oil demand is serving to exacerbate the situation in a market which has been over-supplied with crude for some time — an observation which the Organization has been making since earlier this year," it said.

"Moreover, forecasts indicate that the fall in demand will deepen, despite the approach of winter in the northern hemisphere," it added.

Eng José Maria Botelho de Vasconcelos (r), the newly appointed Minister of Petroleum, Angola, with Félix Manuel Ferreira, Angolan Governor for OPEC.

The Ministers' concern was justified. On the day of their meeting, the price of the OPEC Basket of 11 crudes stood at $57.57/b. That was just over half the value of the Basket seen on the same day just two months before and some $83/b below the high seen at the beginning of July.

Said the communiqué: "Given the foregoing, the Conference will continue to provide to the market crude oil volumes required by consumers. Accordingly, the Conference has decided to decrease the current OPEC-11 production ceiling of 28.808m b/d by 1.5m b/d, effective November 1, 2008."

It noted that the decision to cut output would be reviewed at the Extraordinary Meeting of the Conference, scheduled to be held in Oran, Algeria, on December 17, 2008. In the interim, the Ministers requested the OPEC Secretariat to continue to closely monitor the market.

The OPEC Heads of Delegation again stressed the Organization's commitment to providing adequate supplies of petroleum to consuming nations at all times.

Eng Derlis Palacios Guerrero, newly appointed Minister of Mines and Petroleum of Ecuador.

Dr Chakib Khelil (r), President of the OPEC Conference and Minister of Energy and Mines of Algeria, with Gholamhossein Nozari (l), Minister of Petroleum, Islamic Republic of Iran.

Odein Ajumogobia (SAN) (l), Minister of State for Energy (Petroleum) of Nigeria, pictured with Eng Mohammed A Al-Aleem, Minister of Oil, Kuwait.

They also reaffirmed their pledge to realizing the objective of the Organization of maintaining crude oil prices at fair and equitable levels for the benefit of the world economy and the well-being of the market.

At the same time, the Conference pointed out that OPEC could not be expected to bear the burden of restoring market equilibrium alone and called on non-OPEC producers and exporters to contribute to efforts to restore prices to reasonable levels and eliminate harmful and unnecessary fluctuations.

At a press conference following the meeting, Khelil, who is Algeria's Energy and Mines Minister, reiterated that the decision to cut output was taken because there was an oversupply in the market.

Stocks, he said, whether for crude, gasoline or distillates, were very high, in fact to the extent that some countries were not finding a market for their oil.

"There are also companies that are unable to pay for oil, so it is not the effect of oil on the financial markets — but the effect of the financial markets on oil supply."

Khelil explained that if the buyers were not able to get letters of credit from the banks, they were not going to be able to even purchase the crude.

"So there is not only a lack of demand, but also the consequences of the financial situation on buyers of the crude," he stated.

The OPEC President said that he was confident the Conference's decision would have no impact on inflation, nor on global economic growth.

"Growth has already been affected in the United States and Europe and it is not going to be affected by the level of oil prices. In fact, our decision will even help the stock markets," he affirmed.

Asked whether OPEC might have to make a further cut at its next planned meeting in Algeria in December, Khelil said it was difficult to say.

"This is not a science and there are so many factors we have to deal with. We have been pragmatic in our approach and if there are further decisions that have to be made — then they will be made, and not necessarily waiting until the Algeria meeting.

"We could, if necessary, repeat this meeting (on October 24), which was not initially planned — it was held because of the deterioration of the oil market — before the Oran talks, if we think one is warranted."

In stressing that international oil price levels were always determined by the market, Khelil said, in answer to another question, that he did not think OPEC's

decision to cut output would make the global economic slowdown worse.

"When the prices were very high — at $147/barrel — they did not have any impact on inflation, or growth. The financial situation does not have anything to do with oil prices — it is to do with mismanagement of economies and the subprime mortgage crisis in the US.

"The situation we are in right now is a consequence of the financial crisis. And not only has the world economy been affected, but also the oil sector.

"We do not feel that fluctuations in oil prices will have any effect on the economy, since inflation is going down right now. Any future growth will have to be tied to the right decisions being made for the economy. We just hope that the decision-makers can correct the situation and bring about growth in the global economy. But this does not depend on the oil price."

Khelil stressed that just as oil had supported world economic growth in the past — it would continue to support global economic growth in the future.

"The oil will be there when it is needed to support that growth — that is the very important message we want to relay to the consumers," he stressed.

In refuting suggestions that high oil prices had actually had a serious impact on western economies and had led to the loss of many jobs in manufacturing in the

Mohamed Bin Dhaen Al Hamli, Minister of Energy of the United Arab Emirates.

Rafael Ramírez, Venezuelan Minister of Energy and Petroleum.

Above and right: OPEC Delegates pictured during their closed session talks at the 150th (Extraordinary) Meeting of the Conference.

US and Europe, Khelil said oil prices had not been high due to supply problems — in fact some OPEC Member Countries had increased supply at that time, which had no effect on prices.

"We had a great deal of speculation at that time, which influenced the oil price, just as speculation has driven the US dollar. The same thing could happen in other commodities, once the speculators have finished their run on the dollar."

Asked about the level of growth in world oil demand, Khelil replied that it was now estimated at 400,000 b/d in 2008, with the 2009 figure currently put at around 700,000 b/d.

"The growth in non-OPEC supply of some 1m b/d is expected to take care of virtually all demand growth next year. In this way, one can see just why OPEC is now taking care of the excess supply that is not finding a place in the market," he said.

Khelil pointed out that the Organization was asking all non-OPEC producers to contribute to its decision to cut production. Asked how confident he was that OPEC Member Countries would cut output to their new allocation levels, Khelil said they did not have a choice.

"What choice do they have — see the oil price fall to lower levels? Before the end of the year, we will have 1.8m b/d of oil out of the market," he stated.

OPEC Secretary General, Abdalla Salem El-Badri, also reinforced Khelil's view on the financial situation.

In comments to the OPEC Webcast team, he said the price of oil had nothing to do with the turmoil being witnessed on global financial and stock markets.

"Prices have fallen to a low level and we have to bring them up," he stressed.

Asked why the OPEC output cut was levelled at 1.5m b/d, he said that when the Ministers looked at the supply and demand picture in the market, they saw an oversupply amounting to around 1.5m b/d. "That is why the cut was this amount."

Communiqué

The 150th (Extraordinary) Meeting of the Conference of the Organization of the Petroleum Exporting Countries (OPEC) convened at OPEC Headquarters, Vienna, Austria, on October 24, 2008, under the Chairmanship of the President of the Conference, Dr Chakib Khelil,

Dr Shokri M Ghanem (l), Chairman of the Management Committee of the National Oil Corporation, SP Libyan AJ; with Ali I Naimi (c), Minister of Petroleum and Mineral Resources, Saudi Arabia; and Dr Hussain Al-Sharistani (r), Minister of Oil, Iraq.

Abdullah bin Hamad Al Attiyah (l), Deputy Premier and Minister of Energy and Industry of Qatar, pictured with Abdalla Salem El-Badri, OPEC Secretary General.

Minister of Energy and Mines of Algeria and Head of its Delegation.

The Conference extended a warm welcome to Eng José Maria Botelho de Vasconcelos, Minister of Petroleum of Angola, and Eng Derlis Palacios Guerrero, Minister of Mines and Petroleum of Ecuador, who were attending a Meeting of the Conference for the first time since their appointment, and they paid tribute to their predecessors in office, Desidério da Graça Veríssimo e Costa of Angola and Dr Galo Chiriboga Zambrano of Ecuador.

The Extraordinary Meeting, having been convened in order to allow the Conference to discuss the current global financial crisis, the world economic situation and their impacts on the oil market, the Conference began by emphasizing that it shared the concern of the international community — of which OPEC Member Countries are an integral part — over ongoing developments in financial markets.

The Conference observed that the financial crisis is already having a noticeable impact on the world economy, dampening the demand for energy, in general, and oil in particular. This slowdown in oil demand is serving to exacerbate the situation in a market which has been over-supplied with crude for some time, an observation which the Organization has been making since earlier this year. Moreover, forecasts indicate that the fall in demand will deepen, despite the approach of winter in the northern hemisphere.

Similarly worryingly, the Conference noted that oil prices have witnessed a dramatic collapse — unprecedented in speed and magnitude — these falling to levels which may put at jeopardy many existing oil projects and lead to the cancellation or delay of others, possibly resulting in a medium-term supply shortage.

Given the foregoing, the Conference will continue to provide to the market crude oil volumes required by consumers. Accordingly, the Conference has decided to decrease the current OPEC-11 production ceiling of 28.80m b/d by 1.5m b/d, effective November 1, 2008, with Member Countries strongly emphasizing their firm commitment to ensuring that the volumes they supply to the market are reduced by the individually agreed amounts, as shown above.

Country	Decrease *(b/d)*
Algeria	71,000
Angola	99,000
Ecuador	27,000
IR Iran	199,000
Kuwait	132,000
Libya	89,000
Nigeria	113,000
Qatar	43,000
Saudi Arabia	466,000
UAE	134,000
Venezuela	129,000

This decision will be reviewed at the Extraordinary Meeting of the Conference scheduled to convene in Oran, Algeria, on December 17, 2008. In the interim, the Conference requested the Secretariat to continue to closely monitor the market.

At the press conference (l-r): Dr Hasan M Qabazard, Director of OPEC's Research Division; Dr Chakib Khelil, President of the OPEC Conference and Algerian Minister of Energy and Mines; Abdalla Salem El-Badri, OPEC Secretary General; and Dr Omar Farouk Ibrahim, Head of OPEC's PR and Information Department.

The Heads of Delegation again stressed the Organization's proven commitment to providing adequate supplies of petroleum to consuming nations at all times, as well as to realizing its objective of maintaining crude oil prices at fair and equitable levels for the benefit of the world economy and the wellbeing of the market. At the same time, the Conference pointed out that OPEC cannot be expected to bear alone the burden of restoring equilibrium and it called on non-OPEC producers/exporters to contribute to efforts to restore prices to reasonable levels and eliminate harmful and unnecessary fluctuations.

The Conference expressed its appreciation to the Government of the Republic of Austria and the authorities of the City of Vienna for their warm hospitality and the excellent arrangements made for the Meeting.

Analysts point to OPEC's dilemma: getting the production balance right

OPEC's standing as one of the most reputable and recognized inter-governmental organizations on the international stage is without question. Every meeting of the OPEC Conference attracts wide attention from the global media, but also from seasoned energy industry experts and oil executives. Several of those analysts spoke to the OPEC Secretariat Webcast team during the 150th (Extraordinary) Meeting of the Conference, offering their opinions on issues ranging from the effects of the credit crunch to the difficult challenges facing the Organization — now and in the years ahead. As always, Eithne Treanor was the Webcast's moderator.

Cornelia Meyer

Independent Energy Expert, United Kingdom

Asked about the fall in crude prices, Cornelia Meyer, Independent Energy Expert, United Kingdom, said it was due to the fact that demand for oil was coming down from all sides. Even the high-growth Chinese and Indian economies were slowing.

"And when there is lower demand, there is less need for supply, which is what is being reflected in the market right now," she asserted.

Questioned as to whether she thought economies were already in recession, she replied that recession was gauged by an economy suffering two quarters of negative growth in a row. "So, we are already there in certain OECD economies and we may even see it happening in some non-OECD countries," she said.

As for the oil sector, Meyer noted that there was a squeeze on the credit side, crude prices were coming down, yet huge capital expenditure was required in projects already going on.

"If prices continue to fall, a lot of projects in the planning stage will be scrapped or postponed. And if the price of oil goes down too low now, then in five years' time, we will see an extremely high price because the industry will not have invested sufficiently in upstream projects to meet the demand."

Meyer said that right now global oil consumption was at 87 million b/d and with the developing economies continuing to grow, "we need to keep up with the capacity expansion plans."

She warned: "If the price goes too low and we do not get the investment, we will pay dearly for it in the years to come. In many ways out there today, we have the perfect storm — if you are a manufacturer, a miner, an oil company, or even the head of a household, if you cannot get credit, you cannot operate."

Meyer stated that OPEC, in making its decisions, had to be careful not to push oil prices up too high. "However, we have seen of late that cuts or increases in production do not have a sustained effect on the price of oil.

Cornelia Meyer
Independent Energy Expert, United Kingdom.

Samira Kawar
Middle East Editor, Petroleum Argus, pictured with Eithne Treanor, Webcast moderator.

"But OPEC is in an extremely tough situation. If the price goes up too high, the OECD economies will say look at how the Organization is contributing to our malaise, while if they do not do anything, then it will be very difficult for their economies to operate at the level they have been operating," she added.

Samira Kawar
Middle East Editor, Petroleum Argus

Questioned about OPEC's decision to reduce output, Samira Kawar, Middle East Editor, Petroleum Argus, replied that the Organization's dilemma was making a production cut that would take care of the supply overhang, yet would not cause more economic pain, especially for the industrialized countries that were on the brink of recession.

"OPEC does not want to stand accused of exacerbating recession. But, on the other hand, there are also dangers lurking in that situation for the Organization because if the recession deepens, then that will affect oil demand even more and its Members would have to lower production further," she said.

"In this way, it could be a case of getting into a vicious circle with ever more diminishing returns," she added.

Kawar said there was no doubt in her mind that there would still be demand growth coming from the emerging economies, such as China, but "the jury is out on the extent of that growth and how it will be affected by the financial crisis."

She continued: "The problem is just not with the financial markets — it was initially a situation concerning Wall Street ... but now it is 'main street' that is being affected, with economies going into recession, particularly in the OECD region."

Asked whether she thought the volatility seen in global oil markets could ever be overcome, Kawar said it was not just the oil market that was suffering.

"Just look at the currency markets and the equity markets — the volatility is everywhere. But it should ease when economies start to perform better," she maintained.

Addison A Armstrong
Director of Market Research, Tradition Energy

Questioned about the situation in the United States, with oil prices falling, Addison A Armstrong, Director of Market Research, Tradition Energy, said that right now there was a great sense of relief that this had happened, especially at a time when the country was heading into recession.

"With prices coming down by half in just a few months, it is like a tax break for the people," he stated.

However, he said that for the oil industry, prices at current levels did not support a lot of new developments or production and these were big issues for the oil producers, including OPEC — issues that had to be sorted out.

"We really need to be working towards long-term stability for oil, both on the consuming side and the production side," professed Armstrong.

"We are going to enter a new phase of regulation for the financial markets globally with closer government involvement. So, going forward, there has to be a better balance of global energy supply, because oil is not an infinite resource and we need to start developing alternatives, such as renewables," he said.

Armstrong said a high price for oil, of course, helped such developments as a move to alternatives, but he did not think the fall from $147/b would impact on that thinking.

Addison A Armstrong
Director of Market Research, Tradition Energy.

Asked how he thought OPEC could bring lasting stability to the oil market and to overcome extreme price spikes, he said one had to realize that the world was a very insecure place.

"There will always be the potential to have oil spikes in the market," he affirmed.

Armstrong said OPEC Ministers could do very little against the volatility the market had been seeing of late because over the past few years that market had largely been driven by the availability of cheap credit.

"When you invest in oil, you are taking short-term money to finance the investment and you hope the price of oil either goes up or down, depending on your view. This market, at the moment, has all dried up with little opportunity for short-term, cheap credit.

"Oil, much like every other asset in the world, was being driven up by the availability of this cheap credit, which has now been removed from the market. I think this development will also take a lot of the volatility out of the market, making it more stable as we move forward," he said.

Humphrey Harrison
Managing Director, Horizon Strategies.

Humphrey Harrison
Managing Director, Horizon Strategies

Asked to comment on the meeting, Humphrey Harrison, Managing Director, Horizon Strategies, said OPEC was facing an invidious situation right now because

the matter at hand was not a supply issue — but a demand issue.

"For OPEC, this poses one of the most daunting challenges it has faced in its entire history. I cannot recall when the Organization has faced such an issue where so many of the tectonic plates of the oil market have been shifting at the same time.

"We are not just talking about recession — we are talking about a banking crisis ... about an environmental agenda. There are so many things going on that it is difficult to say what the right price of oil should be."

Harrison said the media at one time were talking about $80/b "being that price", but, he stressed, that was before September 2008. "The world has changed since then and no one knows exactly where it is going."

He continued: "If we are going to get some certainty and stability in the oil market, then it will require governmental intervention on a major scale, such as we saw in 1986 when the oil price collapsed to under $12/b. And I do not know whether the industrialized countries are ready to do something like that."

Harrison said for these governments, there were many other issues to worry about.

"The banking crisis is far from over, the recession is there, and it is difficult to speculate what the level of oil demand will be," he said.

Asked about the volatility seen in global markets, Harrison said the instability being seen today was not to do with supply and demand — it was to do with the economy.

"And we are in wholly uncharted territory right now. My guess is that we will be seeing more frequent OPEC meetings as the Ministers try and fine tune the oil market to what is evolving in the global economy," he added.

Spencer Swartz
Senior Correspondent, Dow Jones

Questioned about the importance of the OPEC meeting, Spencer Swartz, Senior Correspondent, Dow Jones, said it was imperative the Ministers had met since there was a crude surplus in the market of around 1m b/d and prices had fallen.

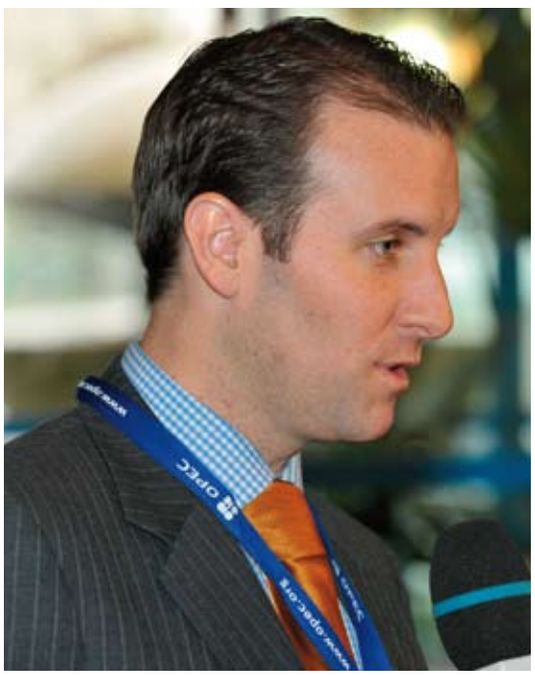
"The difficulty was in weighing their national interests with the interests of the global economy," he maintained.

He pointed out that western governments, over the past two months, had been doing everything they could to put money back into the pockets of consumers and businesses. "OPEC does not want to get blamed for taking that money back out of their pockets. So they had to do this judiciously and in a way that struck a happy medium," he said.

Asked about the fall in crude oil prices, Swartz said it was always a danger when prices come down because it discouraged investment and it discouraged intelligent consumption of energy.

"And if the price stays down, it raises all sorts of questions over the sustainability of current oil investment. We are already seeing companies warning about some projects being delayed because of either financing problems, or because the project has become uneconomic, due to the prevailing crude price," he said.

"That is why it is important around the world that governments try and keep their demand management

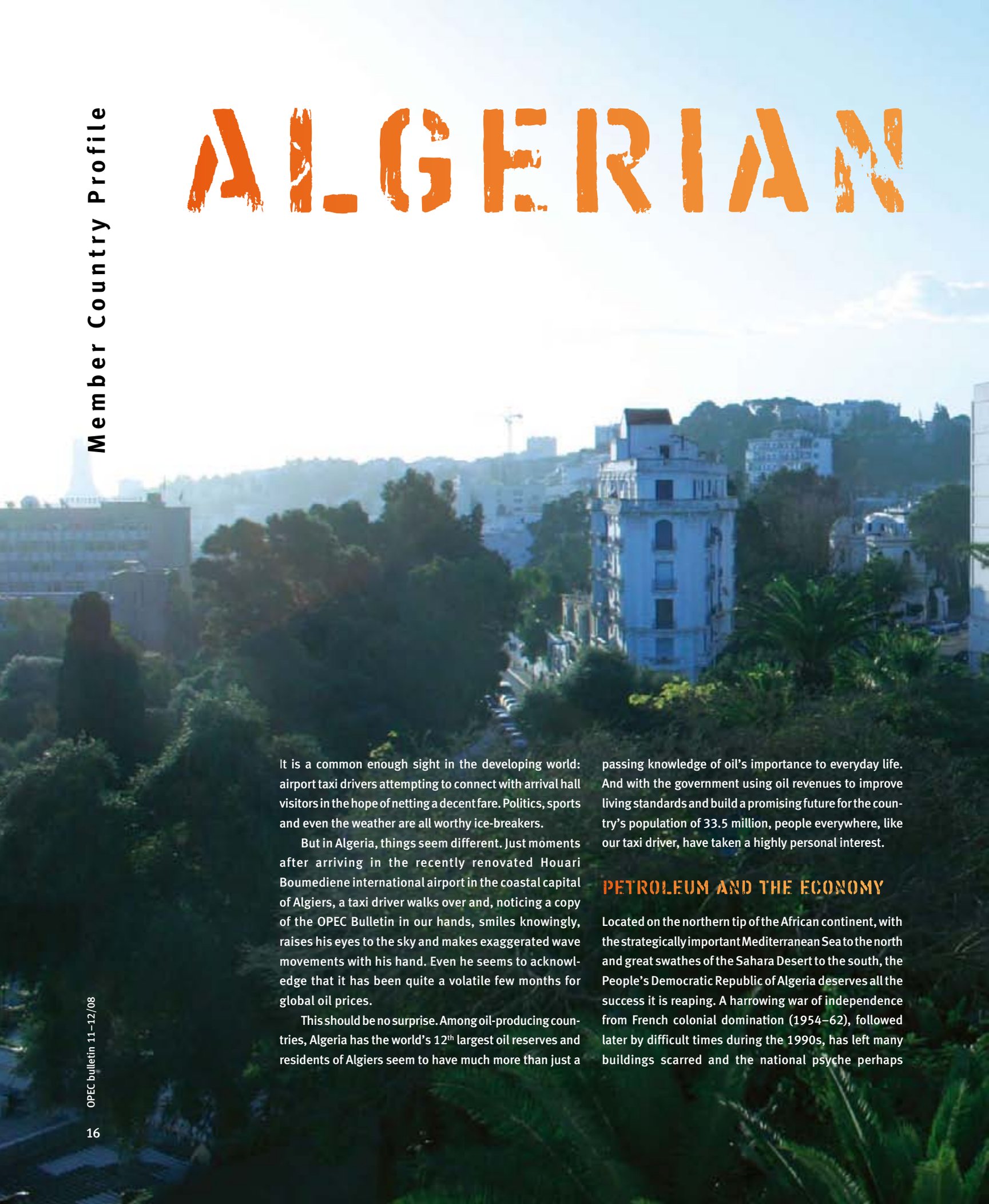


Spencer Swartz
Senior Correspondent, Dow Jones.

policies in place and continue to make them more rigorous because the supply situation really has not changed, despite the financial problems," he added.

Swartz said the next problem was that once out of the financial doldrums and with demand starting to pick up again, if the capacity expansion plans that were taking place had been shelved, leaving a small cushion "then we will be back at $150/b for crude before we know it."

ALGERIAN



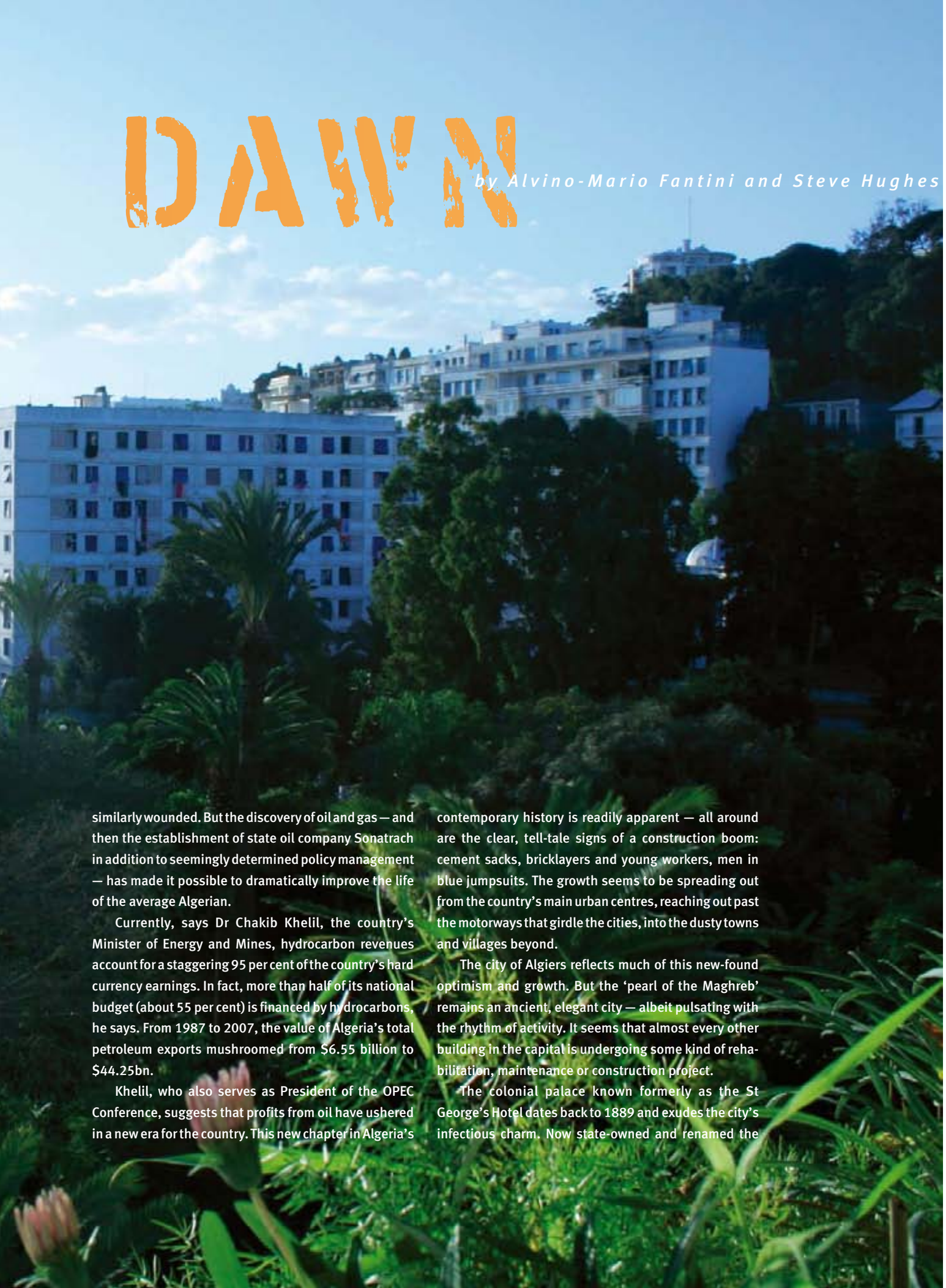
It is a common enough sight in the developing world: airport taxi drivers attempting to connect with arrival hall visitors in the hope of netting a decent fare. Politics, sports and even the weather are all worthy ice-breakers.

But in Algeria, things seem different. Just moments after arriving in the recently renovated Houari Boumediene international airport in the coastal capital of Algiers, a taxi driver walks over and, noticing a copy of the OPEC Bulletin in our hands, smiles knowingly, raises his eyes to the sky and makes exaggerated wave movements with his hand. Even he seems to acknowledge that it has been quite a volatile few months for global oil prices.

This should be no surprise. Among oil-producing countries, Algeria has the world's 12th largest oil reserves and residents of Algiers seem to have much more than just a passing knowledge of oil's importance to everyday life. And with the government using oil revenues to improve living standards and build a promising future for the country's population of 33.5 million, people everywhere, like our taxi driver, have taken a highly personal interest.

PETROLEUM AND THE ECONOMY

Located on the northern tip of the African continent, with the strategically important Mediterranean Sea to the north and great swathes of the Sahara Desert to the south, the People's Democratic Republic of Algeria deserves all the success it is reaping. A harrowing war of independence from French colonial domination (1954–62), followed later by difficult times during the 1990s, has left many buildings scarred and the national psyche perhaps



DAWN

by Alvino-Mario Fantini and Steve Hughes

similarly wounded. But the discovery of oil and gas — and then the establishment of state oil company Sonatrach in addition to seemingly determined policy management — has made it possible to dramatically improve the life of the average Algerian.

Currently, says Dr Chakib Khelil, the country's Minister of Energy and Mines, hydrocarbon revenues account for a staggering 95 per cent of the country's hard currency earnings. In fact, more than half of its national budget (about 55 per cent) is financed by hydrocarbons, he says. From 1987 to 2007, the value of Algeria's total petroleum exports mushroomed from $6.55 billion to $44.25bn.

Khelil, who also serves as President of the OPEC Conference, suggests that profits from oil have ushered in a new era for the country. This new chapter in Algeria's contemporary history is readily apparent — all around are the clear, tell-tale signs of a construction boom: cement sacks, bricklayers and young workers, men in blue jumpsuits. The growth seems to be spreading out from the country's main urban centres, reaching out past the motorways that girdle the cities, into the dusty towns and villages beyond.

The city of Algiers reflects much of this new-found optimism and growth. But the 'pearl of the Maghreb' remains an ancient, elegant city — albeit pulsating with the rhythm of activity. It seems that almost every other building in the capital is undergoing some kind of rehabilitation, maintenance or construction project.

The colonial palace known formerly as the St George's Hotel dates back to 1889 and exudes the city's infectious charm. Now state-owned and renamed the

An example of the architecture in downtown Algiers.

with people and swarming with traffic, past historic old palaces, tiled walls and magnificent French and Arabic buildings, with sudden and breathtaking glimpses of the Mediterranean Sea.

Khelil has been very much at the heart of Algeria's development — and his professional experience seems to have prepared him well for the multi-faceted task. With a doctorate in petroleum engineering from Texas A&M University, Khelil worked for Sonatrach, presiding over major hydrocarbon development plans, before serving as an adviser to President Houari Boumediene from 1973–76. In 1980, he accepted a position at the World Bank but retired early in 1999 to serve as an adviser to President Abdelaziz Bouteflika, before being named Minister of Energy and Mines.

With care and precision, Khelil outlines a number of impressive infrastructure projects and reforms, describing the benefits these have brought to the Algerian people. He concludes with the line, "and that's what oil revenues are used for," which seems to sum up the philosophy that both he and the Ministry have. It is a philosophy that has had very real, tangible results.

Hotel El Djazaïr, its tranquil, tiled terrace leads to cool, cloistered gardens of palm and mimosa trees, far away from the hustle and bustle of Avenue Souidani Boudjemaa — one of the city's main arteries. It was at this hotel, in Suite 1101, that General Dwight D Eisenhower holed up for several months during 1942 and 1943 to plan the invasion of Italy — while allied troops chased the Germans along the coast of the Maghreb.

Algeria's Ministry of Energy and Mines in Algiers.

IMPOSING FIGURES

When we meet Dr Khelil, it is at the imposing new offices of the Ministry of Energy and Mines, home to some of Algeria's most important decision-makers. (The only other building that compares is the glass-and-steel Ministry of Finance, up the road a little and around a bend.) The modern air-conditioned towers that make up the Ministry and the regulatory agencies that oversee the hydrocarbons sector (as well as electricity and mines) are located near a busy roundabout a short car ride from central Algiers. The journey is one of steep city streets teeming

A BIG BUILD UP

The Ministry of Energy and Mines is far removed from the myriad of minarets, markets and old mosques that make up the historic Casbah. The latter, in existence since the 6th Century, is the old Arabic heart of Algiers. It presides over the sprawling bay and islands below where, during the 4th Century BCE, a Carthaginian trading post was established. It is here, also, among its labyrinthine alleyways and Ottoman-style homes that the struggle for independence strengthened.

Today, the Casbah seems to be the only place safe from development — and this only because there's hardly room for anything more. But the over-crowding that typifies this part of Algiers points to one of the most urgent needs in the country: housing.

Until recently, Algiers had its fair share of shanty towns. But since providing affordable housing became a top priority for the government, progress has been made. "We are eliminating all the shanty towns," says Khelil. "Basically, there are no more left around the country. You will now see huge white buildings. Those are financed."

The buildings that Khelil describes are government-funded housing developments — and they are, indeed, huge. Their construction is overseen by the National Agency for the Improvement and Development of Housing (abbreviated to AADL in French). The housing units provide an opportunity for ordinary Algerian citizens — part of the country's growing middle class — to become home-owners, instilling people with personal responsibility. Anisse Bendaoud, Director of Real Estate Promotion for AADL says, it is all about "helping Algerians help themselves". So far, AADL has overseen the building of more than 55,000 apartments in projects across Algeria since 2001.

One such housing development is situated near the historic town of Blida — a town of orange groves, olive trees and pretty public gardens in the wilaya (province) of the same name — 45 km south-west of Algiers. Constructed by a joint venture between a private Algerian company and an Egyptian firm, this housing development comprises more than 1,000 three- and four-room apartments built around communal recreation facilities. It sits almost at the very base of the Tell Atlas mountain range and enjoys what property experts might describe as location, location, location.

A typical apartment is well-equipped — with an integrated kitchen, a small balcony and decent-sized rooms. Each building block also has its own concierge, as well as an elevator and a small park outside (with basketball courts) for children to play in. While such apartments in many countries would be the preserve of the well-heeled only, in Algeria, priced at around 5,000 to 8,000 dinars per month (about $70 to $110), they are within reach of most working people.

The feel of the place is striking. Children play happily in the well-kept grounds; families meander, hand-in-hand, along pleasant walkways; and the clink of cutlery and the hub-bub of conversation floats down from open windows all around us. Those living here seem content.

One of the many government-funded housing developments, near Blida.

Algerian President, Abdelaziz Bouteflika, attending the Hamma Water Desalination plant's Inauguration Day.

TAMING THE SEA

The journey from Blida to the main N1 highway leading north-east to Algiers is punctuated with fields, grazing sheep, industrial facilities and a university teeming with young students, both male and female. It was, incidentally, near Blida that the world-famous sparkling drink Orangina (in the iconic bulbous bottle) was first industrially produced, after an Algerian bought the concept at the 1936 Marseilles Trade Fair.

Successful though the Orangina drink may be, Algeria has long been short of a far more vital liquid: water. Just a couple of years ago, Algerian households could expect perhaps two or three days per week without running water. But now, thanks to an ambitious programme overseen by the Ministry of Energy and Mines, things have changed. Algeria is well on the way to cranking up desalination plants capable of churning out 2.2 million cubic metres of potable water every day. "We have made a tremendous effort," says Khelil.

One flagship project is the Hamma Water Desalination plant, an impressive sprawl of pipes and tanks and chemistry laboratories located on the Algiers coast, off the Avenue de ALN (Armée de Libération Nationale). The plant, in operation since January this year, was inaugurated by President Bouteflika. The $250 million project was built by an Algerian, Belgian and Egyptian consortium and received support from the Overseas Private Investment Corporation (OPIC), a US agency.

The plant pulls in 500,000 cu m of seawater every day and, using a process of reverse osmosis that requires less energy than other methods, provides the city of Algeria with about 200,000 cu m of potable water per day. This, explains Georges El Haddad, Director General of the plant, is enough to cover more than one-third of total water consumption in Algiers. To do this, the plant operates 24 hours a day and employs 60 people.

The water produced is distributed to people in Algiers through a joint venture with the Algerian Energy Company (AEC), established in 2001 through the collaboration of Sonatrach and Sonelgaz, the country's state-owned utility in charge of electricity and gas distribution. But it is Sonatrach that guarantees payment for the plant's production.

Haddad is proud of the plant's contribution to Algeria's future. A Lebanese civil (structural) engineer by training, he describes the reception he received on starting the project: "I had the help of all Algerian people to build this plant," he says. "Everyone — citizens, the administration, organizations — everywhere I went … people wanted this project."

Another employee at the plant sums up what it means personally to be part of Hamma. "We give the water for the people — it is not a small action," he says, simply. "Maybe you have never known the situation when you come into your house, open the taps and there is no water. You need to live this situation to understand. But now, when you come and open your tap, you have water."

Elsewhere, near Oran, another desalination plant is currently under construction and

Mohammed Lounaouci, Plant Manager of STEP Baraki, being interviewed by the OPEC Bulletin's Alvino-Mario Fantini.

Georges El Haddad, Director General of the Hamma Water Desalination plant.

A large suspension bridge in northern Algeria.

due to be operational by 2010 or 2011. With a planned capacity of 500,000 cu m/d, this plant, too, is set to make an immense contribution to the quality of life in Algeria.

CLEANING UP ITS ACT

Generating more usable water is not just the preserve of desalination plants. Such efforts are being complemented by a determination to clean up waste water. In line with this, the National Office of Sanitation (abbreviated to ONA in French) — a new government agency responsible for the rehabilitation of around 60 water treatment plants around Algeria — has been established.

The Station d'Épuration (STEP) at Baraki on the outskirts of Algiers is one such plant. A metal plaque outside the station's main administrative building commemorates its origins in 1985. But it is only thanks to the new agency, ONA, in coordination with the central government's sanitation services, that STEP Baraki is now operational again after more than 16 years out of action.

The plant draws in 150,000 cu m of waste water every day and pumps clean water back into Algeria's rivers, after physical separation, chemical treatment and aeration. At present, as plant manager, Mohammed Lounaouci, explains, the project's goals are strictly environmental — improving the quality of the country's waterways is the order of the day. But in the future, he says, an additional phase in the treatment process will be added so that the water leaving STEP Baraki will be fit enough for agricultural purposes.

GOOD HEALTH

Health is another government priority and the Algerian branch of the world-renowned Institut Pasteur, the French research and public health foundation, is drawing attention to growing Algerian capabilities. Located in the suburb of Cheraga in Algiers, the Institut Pasteur d'Algérie is working hard to monitor (and improve) the quality and supply of pharmaceuticals and vaccines. It contributes to the prevention of diseases through research, education and other public health activities.

Dr El-Hadj-Ahmed Lebres, Director General of the Institut Pasteur d'Algerie.

As Director General, Dr El-Hadj Ahmed Lebres, explains: "We must produce all vaccines, all serums and more — for Algeria, for the Maghreb and for Africa. [That is why] this institute is so very big."

Big it certainly is. Its 13 hectares include laboratories, production facilities and accommodation blocks. It is also home to the National Laboratory for the Control of Pharmaceutical Products and the National Institute for Toxicology. All in all, the Institute is well-equipped to play a vital role in health improvements within Algeria and beyond.

Front view of the UDES building in Tipasa, near Algiers.

POWER TO THE PEOPLE

Yet another feather in the Ministry's cap is its success in providing power to the people. A wealth of hydrocarbon reserves does not automatically mean that people have access to the energy they require — as other resource-endowed, developing countries will attest. But thanks to recent revenues and a determined government, Algeria's gas pipeline network is now an inspiration to others.

"I think we are the most advanced country as far as natural gas distribution is concerned," says Khelil, "achieving right now, on average, 40 per cent coverage." In certain areas, coverage increases to 80 per cent.

More impressive are the figures he provides for electricity distribution. "Basically, electricity is available to everybody — 98 per cent," says Khelil. "Whether you live in a small village, or whether you just have one house lost in the desert, you still get electricity," he explains.

This, like the drive to increase the gas network, is an effort that many developing countries can learn from. The Ministry of Energy and Mines is undeterred in its quest to expand access to power. "When we cannot get a line, we provide solar energy," Khelil says. He estimates that about 18 rural villages are currently served by alternative energy of this sort — and provisions for a further 18 villages are underway.

ELABORATE INVENTIONS

In the wilaya of Tipasa, 25 km west of Algiers, near the remains of former Roman aqueducts, a very 21st century kind of technology is being developed. Though primarily a research unit, the Solar Equipment Development Unit (abbreviated to UDES in French) is helping rural inhabitants access the power they need to do their work, develop their micro-industries and send their children to school.

UDES has become an expert in all things concerning solar energy equipment, and photovoltaic and thermal conversion technologies. Under the auspices of the Ministry of Higher Education and Scientific Research, and receiving additional financing from a government fund for technological development, UDES busies itself with anything from developing and installing one-off solar power packages for hard-to-reach projects (such as meteorological stations high in the mountains) to supplying the entire needs of off-grid rural villages. It also plays a role in producing public lighting and appliances for small companies in the countryside.

Strolling around the grounds of UDES' headquarters as the guest of Dr Chikouche Ahmed, its Director General, is something of an inspiration. Dotted around a green courtyard are working prototypes of solar-powered water pumps, used by rural communities to extract water from wells. There are also thermal applications for generating hot water, solar heating systems for drying agricultural products and more.

In one room just off the courtyard — a kind of industrial exhibition space that documents a number of the projects UDES has been involved in — there's even a fully-operational solar-powered home entertainment system,

complete with a television and a video recorder running a UDES documentary.

But while this may feel like some weird and wonderful testing ground for elaborate inventions that will never make it to market, it is not. These products are already operational all around Algeria. "They are sustainable and they are economical," says UDES' Head of Heating Systems, Sellami Rabah. It is perfectly possible for households in Algeria to operate off-grid, he explains. And many do. "For example, we have hot water systems of two capacities — 110 litre systems for small families and 220 litre systems for big families," he says. The number of households using such technology is set to increase significantly in the near future.

THE ROAD AHEAD

Elsewhere, things are taking shape on an entirely different scale. Algeria already has one of the most developed highway systems in Africa. Currently, more than 70 per cent of its 104,000 km of roads are paved and there are numerous projects to expand the network. Take, for example, the colossal European-style, six-lane 1,200 km East-West highway that is set to snake across the entire width of the country and beyond, from Morocco in the west to Tunisia in the east.

A visit to a 25 km section of this project, south-west of Algiers, brings home its enormity. Begun in 2000 and recently completed, the section provides a critical link between the citrus-growing region surrounding El Affroun and the cultural and religious centres near Hoceina. This small section of road alone put 8,000 Algerians to work and used huge amounts of locally-available building materials (thanks in no small part to Khelil's 2001 reform of the mining law that encouraged investment in quarries).

When Salah Eddine Mitiche, the Head of Projects, is asked if any geological challenges have been encountered on his watch, he replies, with a rue smile, that the valley in which he is currently standing was once a mountain. Just in this section, rivers, railways, existing roads and gas pipelines all had to be negotiated, he explains.

The total project has not been easy. But not only does its success demonstrate Algeria's ambition, it also shows just how effective the government's efforts have been. "Imagine the tremendous coordination between the ministries involved," says Khelil. "[When building the road] you cross electric lines that you need to move, gas pipelines that you need to move, oil pipelines that you need to move ... and then it is going to cross railroads and it is probably going to run into villages. So you can only move so fast." Still, progress has been swift and the entire project is due to be completed, on target. It is much needed. Projections suggest that up to 30,000 cars per day will use certain sections. "In Algeria now, everyone has cars," says Mitiche.

TURBULENT TIMES

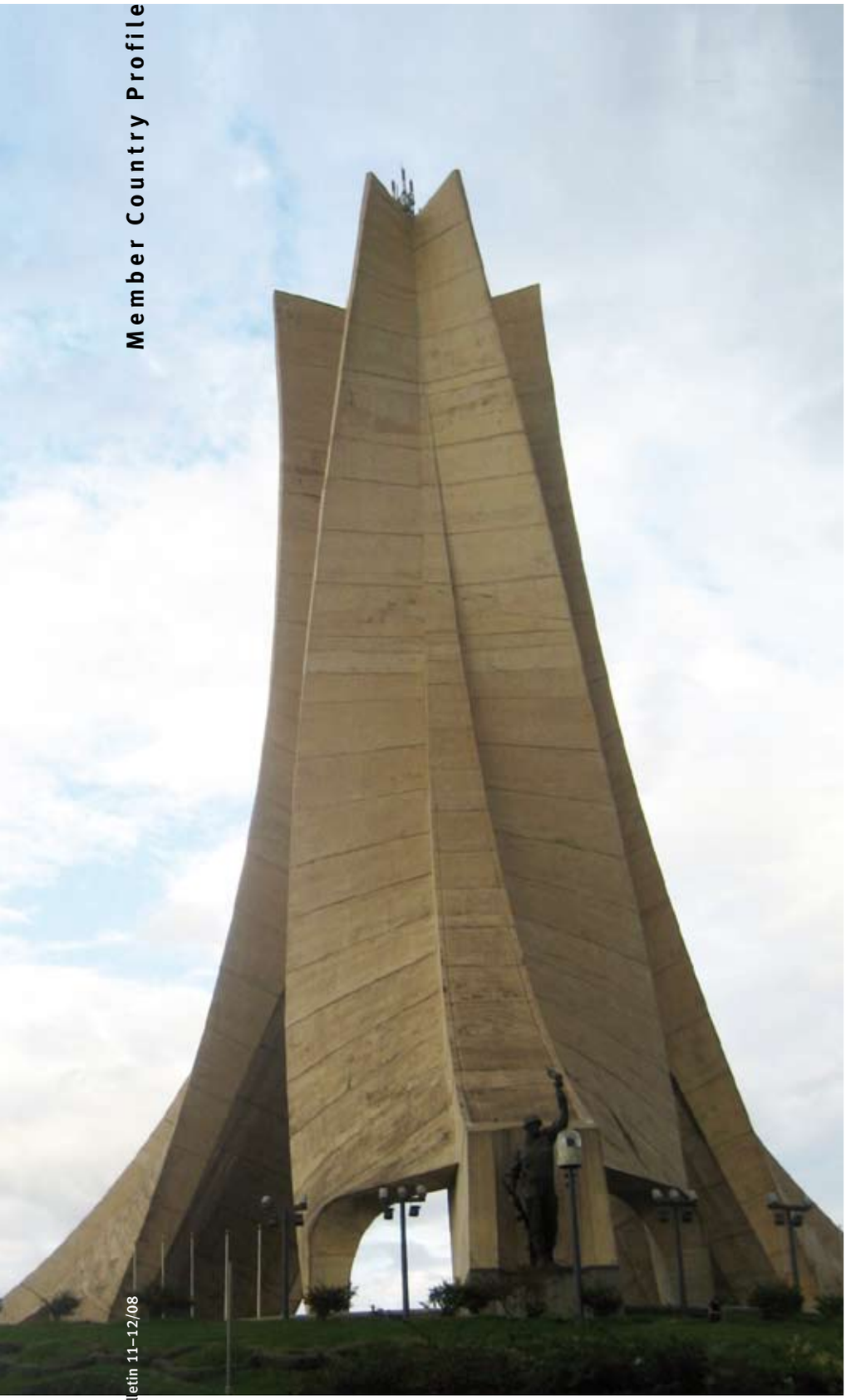
But anyone who knows anything about Algeria understands that the country has seen its fair share of turbulence. Political and social upheavals, and occasional natural disasters, have all tested the resolve of Algerians during the last half century alone. "Algeria has faced some very difficult times," says Khelil. Many contemporary accounts of Algeria focus either on the inequities under the country's former colonists or the difficult times during the 1990s. Too few, however, speak of the deep sense of loyalty and community that underlies the country's rich culture.

Using the calamitous earthquake of 2003 in which more than 2,200 people died as an example, Khelil tells of the determination of Algerians in the face of adversity. "We are very proud in this country to make sure that whatever happens in these situations, they are tackled." He describes the government's mobilization efforts to ensure earthquake survivors were quickly relocated to good quality temporary accommodation, before engaging in a rapid programme of rebuilding damaged homes. Shades of what Algerian writers like Abdelhamid Benhedougga and Albert Camus have written about, perhaps, when noting the resolve of the country's people.

TAKING ON A TIGER ROLE?

For many years, foreign investors were reluctant to implement projects in Algeria. But now they have returned in force to many areas. The country's telecommunications sector, for example, which was privatized in 2000, has seen the arrival of overseas players, such as Egyptian and Qatari firms, to such an extent that they now play a major role in the mobile phone

Salah Eddine Mitiche, Head of Projects on a section of Algeria's new East-West highway, being interviewed by the OPEC Bulletin's Steve Hughes.



The Martyrs' Monument that dominates the skyline of Algiers.

market. Foreign companies also participate in other sectors, such as banking.

Currently, it appears that Algeria's economy remains in good shape despite the ongoing economic turmoil. Officials have recently explained to the press how the country is, to a greater extent, more insulated from the credit crisis than others. Many of its infrastructure projects, for example, are self-funded through earned revenues. Indeed, the *Economist Intelligence Unit* recently said that it expects Algeria's fiscal policy to remain strongly expansionary despite the economic turbulence elsewhere. State oil firm Sonatrach, for example, recently announced plans to invest more than $65 billion by 2012 on petrochemical projects and more.

ALGERIA ON TRACK

Algeria has changed, is changing, and it seems is set to continue to change in the years ahead. To witness such a transformative process first-hand, on the ground, is a very special experience. Bringing running water, good housing, rural electricity and access to high-tech solar electricity to a nation within just a few short years surely means that the wider goal of alleviating poverty is within Algeria's reach. The progress that this oil-endowed country has made recently is more impressive than the achievements that many other countries, recipients of foreign aid, have made over much longer periods.

Last year, Algeria produced an average of 1.37 million barrels of crude oil per day and was exporting 1.25m b/d. With such significant export revenues — and major gas reserves — the country has been able to stand on its own feet. In recent years, for example, Algeria chose to turn away from multilateral financing and, with few exceptions, no new World Bank loans have been extended since 2003. Hydrocarbons have become the main driver of Algeria's impressive and ongoing economic and human development.

With all this in mind, it seems quite appropriate to note that the 151st (Extraordinary) Meeting of the OPEC Conference will take place in Oran, in north-western Algeria, on December 17. The name of the city — formerly a fortified seaport during the Ottoman Empire — is derived from the Berber word for "lion". Perhaps Algeria will pick up from where the developing countries of East Asia — once known as the Asian Tigers —left off.

For his part, when asked where he hopes Algeria will be in five years, Khelil's reply is simple: "I think we will have achieved more than we need to achieve by then."

Unless otherwise stated, images courtesy of Alvino-Mario Fantini and Steve Hughes.

A year in the life of OPEC and Chakib Khelil

Dr Chakib Khelil, Algeria's Minister of Energy and Mines, and President of the OPEC Conference, reflects on a year of unprecedented volatility and explains how OPEC must now 'walk the talk' more than ever before.

Reflecting on his Presidency of the OPEC Conference, Dr Chakib Khelil, who was also President in 2001, finds it challenging to pick out a certain period as worthy of analysis. Not because there was not one. Rather, it is because throughout his time at the helm, the oil market has resembled a seemingly non-navigable sea of volatility. In other words, it is all worthy of analysis.

"By the end of 2007, things had changed and we saw something completely different, [something] we had not dealt with before," Khelil says, referring to the early stages of the still-unfolding financial crisis. The rapidly rising oil price to July 2008, he explains, did not have much to do with demand and supply at all — as OPEC made plain at the time. Now of course, as the financial crisis impacts the real economy, it is a completely different story. "By affecting the real economy, it affects the thing that moves the oil price: demand," says Khelil.

The focus today, he says, should be on safeguarding the interests of OPEC. And to do this, OPEC should give its words meaning. "If we say something, we have to mean it," says Khelil. Otherwise, he says, the market will no longer react.

But OPEC should also be working towards transparency. Khelil recognizes much progress on this front in recent years through the developing dialogue with consuming countries, the creation of the International Energy Forum and other similar moves. Importantly though, he also notes that consumers must become more transparent. Here again, Khelil has seen progress, noting that information on the stocks of industrialized countries is now available.

The issue of speculation in financial markets has also loomed large over Khelil's time in office and was no small factor in the run up of the price of oil to record levels during July 2008. Here, Khelil gets to the heart of the problem. "Even people who talk about it do not understand it," he says, summing up one of the major problems that prevented people from seeing the real story. "They seem to be trying to convince themselves."

What will remain in Khelil's mind, however, is what he calls OPEC's "tremendous wealth" in terms of its diversity, and the "phenomenal" job the Organization does in bringing together different interests. "You have organizations in which people all come from the same culture, have the same background, the same religion and even they cannot get together around a problem," he says. "In OPEC, Member Countries have different cultures, different religions, different economies, different interests, but they come together and they agree.

"These days, every time we are about to leave for Vienna, we think it is going to be a quiet meeting," says Khelil. "Suddenly though, just a day or so before, it seems to become very complicated." Some friendly words of advice, perhaps, about the nature of today's volatile market for OPEC's incoming President of the Conference, José Maria Botelho de Vasconcelos of Angola.

Russian highlights

The Russian Delegation headed by Dmitry Medvedev, President of the Russian Federation, meets with Abdalla Salem El-Badri, OPEC Secretary General and his team from the OPEC Secretariat.

Turmoil in the global financial system and its impact on both the world economy and the international oil industry, were top of the agenda when Abdalla Salem El-Badri, Secretary General of OPEC, met with Dmitry Medvedev, President of the Russian Federation in Moscow, during late October. The *OPEC Bulletin* reports on the Secretary General's visit.

As the two officials reviewed recent developments in global financial markets and the many uncertainties this was creating for the oil industry, they agreed that consistent and comprehensive dialogue between OPEC and the Russian Federation is now even more important than before. Of major concern to both parties was that the current financial situation may have a detrimental effect on much-needed oil industry investment and may lead to the delay or even cancellation of many hydrocarbon projects.

"We discussed the kind of problems we are all facing today and reached a common understanding that closer contact is now needed," the Secretary General told the OPEC Bulletin.

During the high-level talks, which were also attended by Russia's Deputy Prime Minister, Igor Sechin, and Minister of Energy, Sergei Shmatko, as well as other officials from Russia and OPEC's Secretariat, Medvedev spoke of the significant role OPEC Member Countries and Russia have as stakeholders in the international energy market. The Russian President gave assurances that his country remains totally committed to its relationship with OPEC and added that this relationship is essential to achieve stable and reliable oil markets.

OPEC and Russia dialogue

El-Badri also agreed that dialogue with the Russian Federation is now a major priority. The Secretary General explained developments surrounding the oil market since the summer of 2007, in which he reiterated that global oil markets had remained well supplied throughout this period. He said that heightened oil price volatility was mainly due to non-fundamental factors, such as increased speculation in futures and non-regulated exchanges and the weakening value of the US dollar.

The Secretary General also pointed out that the current global financial crisis was not only creating problems for the world economy in general, but also for all oil-exporting countries. Consequently, he said, all energy stakeholders now need to be overly cautious and more proactive in their roles.

In a separate meeting with Russia's Ministry of Energy, the Secretary General invited Russia to attend OPEC's Ministerial Conference, scheduled to take place in Oran, Algeria, on December 17, 2008. During his two-day visit, El-Badri also gave a keynote speech at the opening ceremony of the Third International Energy Week, in which he raised the long-term issues facing the oil industry.

OPEC officials also participated in the Third OPEC-Russia Workshop, in which they covered a range of important topics, including the current world oil market situation and longer-term perspectives, as well as environmental and trade issues.

Officials from the OPEC Secretariat and the Russian Ministry of Energy meet to discuss energy industry related matters.

Collaborating on CCS

With a world wanting more energy, provided in both a stable and secure manner, and environmental protection high on the global agenda, it is important to promote, develop and deploy cleaner fossil fuel technologies. It is with this background, and as part of the EU-OPEC Energy Dialogue Work Programme that representatives from the OPEC Secretariat, OPEC Member Countries, the European Commission, other international organizations, as well as energy utilities and companies, gathered in Brussels for the Second EU-OPEC Roundtable on Carbon Capture and Storage (CCS). *James Griffin* reports.

There is growing political and industry support for the technology of CCS at the international level as the world enters an unfolding new energy scenario. One in which the world requires its energy to be cleaner, safer and, as far as possible, environmentally benign — and at the same time, wants it afforded in a stable and secure manner, to allow both developed and developing countries to reap the benefits of economic development and social progress. Nevertheless, despite the obvious positives and the opportunities for CCS, a number of challenges remain.

That was the broad view put forward in the introductory remarks from both the European Commission and the OPEC Secretariat. Speaking for the European Commission, Heinz Hilbrecht, Director for Security of Supply and Energy Markets at the Directorate General, Energy and Transport, underscored the international angle. He talked about plans in the European Union (EU), developments

in Norway, Canada, Algeria and Australia, discussions between the EU and South Africa, and moves in China, which is looking to integrate the technology into its science and technology programme. From the EU's perspective, he stated that there was much activity going on. He highlighted the recommendation for up to 12 large-scale demonstration CCS plants by 2015. The EU Parliament has proposed a €10 billion backing for these plants with €500 million allowances to be put aside under the EU's Emissions Trading Scheme (ETS) for CCS. The figures look impressive, but it was clear from Hilbrecht that a number of key factors fed into this, such as the importance of the carbon price being high enough, the demonstrations being large enough, regulation being in place, and the financing being available.

He also underlined the importance of EU-OPEC cooperation in this area, which was reiterated by Dr Hasan M Qabazard, Director, Research Division at the OPEC Secretariat. Qabazard underscored the ongoing and expanding positive dialogue and cooperation between the two organizations and from the perspective of CCS, the workshop was a follow up to the successful EU-OPEC Roundtable on CCS that took place in Saudi Arabia in September 2006.

Qabazard stressed OPEC's long-term commitment to the environment, and highlighted a number of specific CCS examples. This included a major demonstration project at In Salah in Algeria, the United Arab Emirates (UAE) recently announcing the development of a CCS project for enhanced oil recovery (EOR), and the third OPEC Summit in Riyadh in November 2007 emphasizing the importance of expediting the development of technologies on CCS.

In a similar manner to Hilbrecht, Qabazard also pointed out that it was vital to recognize that, as well as prospects for CCS, there remain a number of challenges ahead for the future wide-scale application of the technology. He talked of a wide range of factors including costs, technology development and public acceptance.

CCS: A key mitigation technology

With these initial opening remarks setting the scene for the day's gathering, the floor was then passed to Mohamed Hamel, Head of the OPEC Secretariat's Energy Studies Department, to deliver the keynote speech — *carbon capture and storage: a key mitigation technology*.

Hamel began by touching on the Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), highlighting a number of its key points. The first was that evidence concerning observed changes in the climate and their effects points to what the IPCC regards as "unequivocal" warming of the climate system. Secondly, uncertainties remain over the link between greenhouse gas emissions and climate change, but there is a high confidence that the net effect of human

Heinz Hilbrecht (l), Director for Security of Supply and Energy Markets, Directorate General Energy and Transport at the European Commission, with Dr Hasan M Qabazard, OPEC's Research Division Director.

activities since 1750 has been one of warming. And thirdly, that there is a wide array of adaptation options that need to be considered as part of the response to climate change.

Focusing on the final point, Hamel stressed that "the message is to be comprehensive in developing future strategies to deal with this threat." In fact, the word "comprehensive", he said, was critical in looking at many aspects related to emissions. For example, it was important to remember that 43 per cent of anthropogenic greenhouse gas emissions in fact stem from other sources, such as deforestation and methane emissions.

Hamel also spoke about the issues of per capita CO_2 emissions and cumulative CO_2 emissions from 1900. When the first is broken down into Kyoto Protocol Annex I and Non-Annex I countries, the evidence shows that CO_2 emissions from Annex I have always been, and will remain much higher than for Non-Annex I. When reviewing the cumulative figure, Hamel said, the points of historical responsibility and the principle of common, but differentiated responsibilities are further emphasized. This is underscored in the fact that in 2005, Annex I countries accounted for almost 80 per cent of cumulative CO_2 emissions since 1900, and by 2030 they will still have contributed two-thirds.

Hamel said that there was no "silver bullet" to solve this challenge and underlined — with the continued reliance on fossil fuels for decades to come — the importance of "promoting the development of all cleaner technologies that are at the world's disposal." And one of the key technologies is CCS. In this regard, he said that reducing greenhouse gas emissions from stationary sources, such as power stations, the single largest source of emissions, could represent a significant low-cost path to climate change mitigation.

He added that the IPCC estimates that between 20 to 40 per cent of global emissions from fossil fuels are suitable for capture by 2050, that CCS could contribute to as much as 55 per cent of the global CO_2 mitigation effort needed to stabilize GHG concentrations in the atmosphere, and that it also offered a "win-win" opportunity in the shape of CO_2 EOR. In addition, "the scale of CCS means that this is potentially a huge new industry that could, in the long term, generate significant business opportunities."

The potential benefits and opportunities for CCS are readily apparent, but Hamel, elaborating further on comments from both Hilbrecht and Qabazard, stressed that there were challenges ahead. The key areas highlighted were the importance of reducing costs, the development

of sound legal and regulatory frameworks covering all the aspects of CCS, policies to remove unwanted barriers and create incentives for projects, particularly in the initial phases of deployment, the role of the Clean Development Mechanism (CDM) and the need to build trust and outline the benefits of CCS with the general public.

Learning by doing

The cost issue was one raised by many speakers during the day. There was much focus on the capture part of the technology, which Kai Bj Lima, Vice President at StatoilHydro, said represents approximately 60 to 80 per cent of the cost structure in the CCS value chain. And Vassilios Kougionas, European Commission, Directorate General for Research, stated in his presentation that there was a need for both new and retrofit capture applications and that the cost should go down to around €15 per ton of CO_2.

The day's deliberations certainly provided much evidence of the need to bring down costs. The main emphasis was on the need for more research, development and deployment in all the various technologies.

From a European research, development and deployment perspective, there was much talk centred on the European Technology Platform for Zero Emission Fossil Fuel Power Plants (ZEP). ZEP has support from approximately 200 individuals in 19 countries, 57 per cent from industry, 39 per cent from research and four per cent from non-governmental organizations (NGOs). Gardiner Hill, Vice-Chair, ZEP, and Director CCS Technology, Alternative Energy, BP, said that the goal of ZEP was to enable European fossil fuel power plants to have zero CO_2 emissions by 2020. And CCS will be a major solution in achieving this goal.

Hill said that ZEP is focused on the full CCS chain of capture, transport and storage and has put forward a number of strategic recommendations. These include "accelerating deployment" and the urgent need to implement 10–12 integrated large-scale CCS demonstration projects EU-wide (highlighted by Hilbrecht), establishing robust technology action, kick-starting the CO_2 value chain with urgent short- and long-term commercial incentives and establishing a strong regulatory framework.

Hill was clear, however, that first movers will incur unrecoverable costs from making accelerated investments at scale in immature technology, and there is also first mover market risk because investment relies on returns from a low-carbon power market that does not yet exist.

Nick Otter, Coordinator ZEP, Director of Technology and External Affairs, Alstom Power, also highlighted the importance of bringing costs down, by making the technology more efficient, validating the capture process, and integrating the entire value chain at scale. He said the only way forward was "demonstration" and streamlining development efforts. He stressed "learning by doing" and the word "urgency" was mentioned in this regard.

The commitment from both Hill and Otter was clear, but there were a number of questions asked about how the current financial crisis might impact the future investments in the development and deployment of CCS. The consensus was this had to be viewed as long-term, with Otter stating that "Alstom was looking through the financial crisis and there was a need to stick to robust technological plans and CCS is very high on the road map. A few years ago it might have been 'if', but now it is 'when'."

Broadening research and cooperation

The ZEP platform underscores the significance of discussing, sharing information and working together, with Hill stressing that it was important to "avoid duplication of effort".

This point was elaborated on further by Kougionas from the European Commission, who highlighted the EU's Seventh Framework Programme for research and technological development (FP7). This applies to the years 2007–13, and there is much work going on surrounding many aspects of CCS. This includes capture techniques, the safe and reliable storage of CO_2, infrastructure requirements for transport and storage, regulatory issues and funding schemes.

Kougionas also highlighted the importance of much broader international cooperation. He stated that the aim was to support European competiveness through strategic partnerships with third countries on selected fields of science and technology and address specific challenges of third countries that have a global character, on the basis of mutual interest and mutual benefit. He added that all topics of the work programme are open to the participation of applicants from all third countries.

The role of collaborative efforts was also underlined by Dr Fuad Siala, Senior Alternative Sources of Energy Analyst at the OPEC Secretariat, who underlined what was going on between OPEC Member Countries. He highlighted the Riyadh Declaration of the Third OPEC Summit one year ago that stressed the need to "promote collaboration in research and development

in the petroleum field among OPEC science and technology centres, as well as collaboration with other international centres and the industry, with the objective of increasing the petroleum resource base, producing it more efficiently and continue introducing cleaner fuels."

In this regard, he said, carbon management has been identified as one of the key areas for strategic, long-term OPEC Member Country R&D cooperation. The Carbon Management Working Group is concerned primarily with advancing long-term research and development and providing competitive new technology solutions in areas such as the capture of CO_2 emissions from stationary and mobile sources and the disposal and storage of captured CO_2, including subsurface sequestration and CO_2 EOR.

In Algeria, there is also a large-scale demonstration project. The In Salah scheme focuses on a natural gas-processing plant in the Sahara desert in Algeria, which is being developed by Sonatrach, the Algerian national oil and gas company (35 per cent), the UK's BP Group (33 per cent), and Norway's Statoil (32 per cent).

Benabdelmoumen Fadila, from Sonatrach's HSE Department, said that the project was initially set up because the carbon content in the natural gas produced from the In Salah project was higher than the European requirement. With Europe being its target market, the CO_2 needed to be taken out of the gas. In addition, she said, an objective was to set precedents for regulating and verifying CO_2 storage, with the ultimate goal of seeing it eligible for the CDM. She said that the eligibility of CCS for the CDM is very important to promote CCS in developing countries.

Non-technical factors essential for CCS breakthrough

The issue of the CDM was touched on by a number of speakers. Hamel said it "could be an additional source of finance", and Khalid Abuleif, Coordinator, Environmental Coordination Division, Environmental Protection Department at Saudi Aramco, stressed its importance and added that oil-producing countries can play a role in reducing CO_2 emissions if CCS/EOR is approved as a CDM activity. It will be interesting to see how this plays out at the climate change conference in Poznan, Poland, but as Qabazard stated: "there seems to be a consensus behind the importance of allowing CCS under the CDM, as well as the need to look at issues of technology transfer and capacity."

Other important non-technical factors include the regulatory framework, the importance of which has already been highlighted, and the critical nature of public backing for CCS. Hamel highlighted that "there is still much room for improvement in outlining the benefits of CCS more clearly to the general public," and gaining public support through a comprehensive public information campaign, is another of ZEP's strategic recommendations.

For example, said Hamel, an important issue relates to perceptions over the possibility of leakage. Citing IPCC figures that state that the fraction retained in appropriately selected and managed reservoirs is very likely to exceed 99 per cent over 100 years, and is also likely to exceed 99 per cent over 1,000 years, he said, that "here it is important to disseminate information to the public that makes it clear how low the risks are."

The overall goal is raising awareness of CCS, making sure the development of regulation is an inclusive and transparent process, identifying public perceptions and concerns, developing and implementing responses and communicating directly with the public. And again, as stressed by many speakers, the key is demonstration projects to help inform the public and establish broad support and understanding that CCS is an important part of any mitigation portfolio.

OPEC and the EU

The day provided further clarity that there was a general consensus that given the right environment CCS has the potential to be a major part of the world's energy future. This was clearly viewed in the panel discussion on the role of the EU-OPEC Energy Dialogue in promoting CCS, and in the closing remarks from Hilbrecht and Qabazard.

The OPEC Secretariat's Dr Siala put it succinctly in saying that "it is important to capitalize on the already-existing excellent collaboration between OPEC and the EU and to develop it further." In this regard, specific ideas mentioned included exchanging information, building professional capabilities and sharing best practices, the possibility of scientists and research centres from OPEC Member Countries participating in the EU framework programmes for research and technological development and the possibility of an OPEC-EU technology centre.

There were certainly plenty of positive elements to take away from the Workshop. The day had witnessed many interesting presentations, as well as a number of enlightening discussions and exchanges. The key now is overcoming the challenges before CCS, and turning words into actions.

All images courtesy of James Griffin.

A European journey: on the trail of CCS

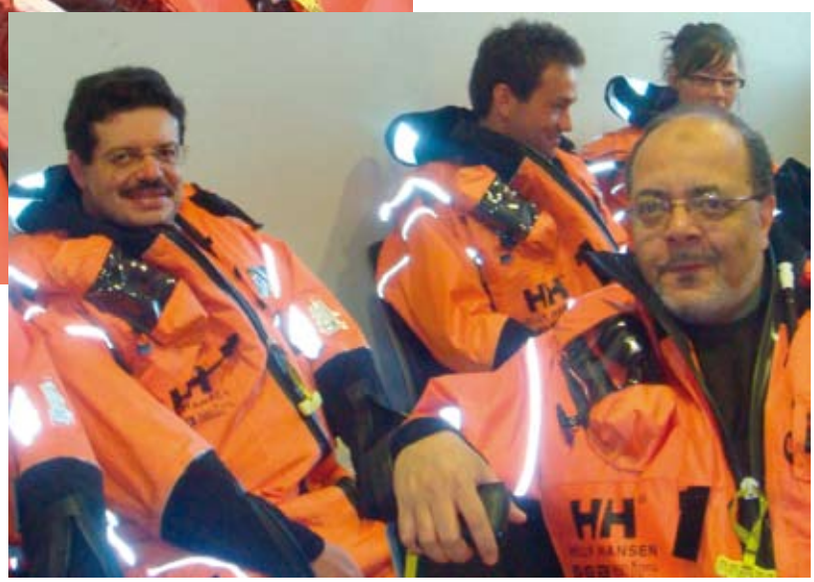
Following the EU-OPEC Workshop on Carbon Capture & Storage (CCS), a group from the OPEC Secretariat, OPEC Member Countries and the European Commission had the opportunity to visit two CCS projects. The first was located at StatoilHydro's Sleipner natural gas field in the North Sea, and the second at Vattenfall's Schwarze Pumpe power plant near Cottbus in the German state of Brandenburg. **James Griffin** *describes a very busy couple of days.*

On board the Sleipner natural gas and CCS offshore platform.

Norway, as many Norwegians might say, has four capitals. There is Oslo, home of the country's government; Bergen, a focal point of art and culture; Trondheim, often described as a cradle of the Viking civilization; and Stavanger, which is known as Norway's oil and gas capital. Whilst it would obviously be interesting to visit all four, on this occasion there would only be time to touchdown in one. Given that the group visiting was a party from the OPEC Secretariat, OPEC Member Countries and the European Commission's Directorate-General for Energy and Transport, it is not difficult to pick which one.

For the group, Stavanger in western Norway was the base camp for an early November trip to StatoilHydro's offshore Sleipner CCS project. The North Sea in November is not everyone's idea of the perfect destination, but with CCS high on the agenda of many governments and organizations across the world it was clearly an important fact-finding and information-gathering exercise. And as we were to find out the following day,

Dr Fuad Siala, Senior Alternative Sources of Energy Analyst, with the OPEC Bulletin's James Griffin.



Mohamed Hamel (l), Head, Energy Studies Department and Dr Fuad Siala (r).

it would not only be interesting from this perspective.

On arrival, many questions were asked about the weather, particularly as the temperature for the time of year was much milder that we had been led to believe. The response was that whilst this was true, the climate in this part of the world was known for being dramatic and changeable. Talk of the previous weekend's hurricane type winds made this point unequivocally!

The unpredictability of the weather was in evidence that evening. In a brief stroll along the beach at the front of the hotel, there was drizzle, heavy rain, gusts of wind, as well as sun and periods of relative calm. It was the latter that prevailed as the sun went down and the skyline changed by the minute with deep reds of scarlet and crimson, alongside burnt oranges and soft yellows. It was hoped that this was a sign of the old adage: "red sky at night sailor's delight…" The morning brought an affirmative answer. It was calm and sunny; a perfect day to head offshore.

Up, up and away

Check-in was early at Stavanger's helipad. All fairly routine we thought, tickets, identification, x-ray security and then onto the helicopter. These basics were certainly straightforward, but there was one additional aspect of the process that seemed to have passed many of us by. It was a change of attire. Though perhaps the word change is not strong enough, it was more a complete transformation.

We were handed full length orange suits. These were no workman's overalls, they were chunky, not easy to change into, and were the source of many comments and much laughter. Are we going to the moon, was one question asked? Once the suits were on, the group certainly resembled the images of Neil Armstrong and his fellow astronauts as they readied themselves to board Apollo 11!

After a safety video, it was then just a short walk to the helicopter for the 55 minute journey to Sleipner. It was quickly apparent that it would be a tight fit on board.

There was little room for manoeuvre. It certainly made fastening seat belts, placing on the headgear, which can be described as a skin tight wet suit hat, and securing the earphones, a challenge. Luckily there were some ground staff on hand for those that needed some help.

Once strapped in, the helicopter launched upwards and we were rapidly over the North Sea. After the hectic nature of the previous hour, the journey itself was calm and serene. The sunlight sliding across the sea, the mass of blue below, and the silence afforded by the head set, left you in a world of your own. Though there was the option to replace the silence with the tones of Katie Melua, for those who like that sort of thing.

Sleipner arrival

From a distance, Sleipner looks like a very large hotel on stilts. Closer up, it still has the impressive scale, but it no longer resembles a hotel, more a mass of intricate pasta shapes with its many layers, stairways and pipes. It is a striking feat of engineering. In Norse mythology, Sleipner (also known as Sleipnir) is the eight-legged horse of Odin that could travel over land, sea and through the air. It appears an apt name, given its location, the means of access to the platform, and how the natural gas from the field is distributed.

On arrival at the Sleipner A platform, we headed down several flights of stairs and into the bowels of the structure. By this point, the orange suits were becoming a little draining and there were plenty of smiles when we were told we could remove them. A few seconds later, however, the realization dawned that we would be swapping these for another form of orange suit! At least the new version was lighter and much simpler to put on.

It was then onto presentations on CCS from StatoilHydro, a company that is certainly one of the market leaders in the technology, after developing Sleipner and another Norwegian project Snøhvit, and being part of the In Salah project in Algeria, with Sonatrach and BP. It is also heavily involved in the development of the European CO_2 test centre at Mongstad, north of Bergen.

A first for CCS

Olav Kårstad, Special Adviser at StatoilHydro, said that there had been two major drivers for the development of CCS at Sleipner. The first was the fact that natural gas from the Sleipner West gas and condensate field contained around nine per cent CO_2, which exceeded customer requirements. So the CO_2 needed to be removed. And secondly, an offshore carbon tax was introduced by the Norwegian Government in 1991 with the aim of reducing CO_2 emissions.

Kårstad said that these drivers led to the company proposing the removal of the CO_2 from this field and injecting it into a deep geological layer on the nearby Sleipner East field. Carbon capture on Sleipner uses a conventional amine process, which given the field's location Kårstad said, presented a challenge. This was to design a process compact enough to allow it to be placed on an offshore platform in the middle of the North Sea, 250 km from land. With ingenuity the challenge was met, and the field became operative in October 1996. It meant that at this time the company was running the world's first offshore CO_2 capture plant, together with the world's first CO_2 storage project in a geological layer 1,000 metres below the sea floor.

Its implementation has meant a reduction in CO_2 emissions of almost one million tonnes per year, which was roughly three per cent of the Norwegian CO_2 emissions in 1990. To date, over 8m t of CO_2 have been stored and the spreading of the gas underground has been mapped in various research projects, which were partly financed by the EU.

These are obviously impressive numbers, but on the subject of storage there were plenty of questions raised with regards to the company's experience in making sure CO_2 remains underground. Kårstad reiterated the mapping that is taking place, and added that the layer in which the gas is stored contains porous sand rock filled with salt water, called the Utsira formation, and the CO_2 is prevented from seeping into the atmosphere by an 800 m thick gastight cap rock above this layer. On its website the company says that the CO_2 will be stored for a long time, probably thousands of years.

Kårstad was also asked for his thoughts about CCS with enhanced oil recovery (EOR) and whether the company had viewed, and still viewed this as a possibility. There was no doubt that it has been, and continues to remain on the agenda for the company, but Kårstad said that because of one thing or other, such as the distances being too far and the volumes too low, it had not to date proved possible. He added that the current hypothesis was that there was not much CO_2 EOR potential in the North Sea, but he expects to see opportunities around the world, particularly onshore and in shallow water.

Touching on the other CCS projects StatoilHydro has initiated and partnered in, Kårstad reinforced the expertise and experience the company has in the

Sunset from the beach at Stavanger.

capture and geological storage of CO_2. Given where CCS currently sits globally, it is an impressive resume. And what Kårstad was keen to stress is that it has very much been a "learning by doing experience, and solving the problems and challenges that arise." This notion had also been in evidence among participants at the EU-OPEC Workshop on CCS *(see page 28)*.

Looking ahead, the group has a CCS roadmap on the table. This has been put in place to help "the company select the right route for developing a complete commercial CO_2 value chain, tailored to StatoilHydro's climate policy of no harmful discharge to the sea or emissions to the air." High on the agenda, which came across in Kårstad's talk, is reducing carbon capture costs and building trust with the authorities and the general public, especially with respect to the safety of underground storage.

It was then onto a tour of the platform. There was the CCS injection plant, the control rooms, the drilling areas, and given that it was a clear day, there was also the sight of the UK North Sea platforms on the horizon. To be honest, it was more a brief snapshot, as a full tour of the platform might take a couple of days! In fact, the hour we had was probably enough. This was more a walking tour around Switzerland, than one around the Netherlands. It was all up and down. For those working on the platform, there would be no option but to keep fit!

It was then a change back into the first orange suit and a return trip to Stavanger. By this point there were a lot of tired faces, the day already felt long. Yet for some there was still an evening flight to Berlin, via Amsterdam, and then a two-hour coach trip to Cottbus for the following day's visit to the CCS project at Vattenfall's Schwarze Pumpe power plant.

Onto Schwarze Pumpe

A delay in Amsterdam, when planes had to be changed due to problems with a door, meant that arrival at the hotel in Cottbus was a little behind schedule. Check-in was eventually at around 2 am. It left little time for sleep, with the morning's activities due to start early.

The morning was a typical November one for northern and central Europe — cold, damp and misty. And this would be with us for the rest of the day. The first port of call was the Welzow-Süd open-cast mine from where raw lignite is extracted. From here, the coal is transported to Schwarze Pumpe to generate electricity. It is a vast, marauding, almost lunar like landscape, and the scale of the machinery is something to behold. What the mine also underscores is that the region still has an abundance of coal, and if this is to be efficiently utilized for future coal-fired power generation, CCS technology will be crucial in avoiding CO_2 emissions.

Following the energy chain, it was then a short journey to the 2 x 800 megawatt Schwarze Pumpe power plant, and the attached 30MW plant, home of the CCS pilot project. The CCS project was inaugurated in September 2008, and according to Lars Strömberg, Vice President, Vattenfall Research and Development, the project has been set up to help find a solution to the challenge of reducing the environmental footprint of a power plant.

The plan is for investment of about €70 million and a three-year test phase that is embedded in European research projects. The main focus for the engineers will be on optimizing the oxyfuel-technology within the plants' components. The project will test and evaluate the technology and assess the local environmental impact of CO_2 capture, transport and storage, before a larger-scale demonstration plant is built.

The idea is to capture CO_2 from the power plant's flue gases and compress it into around one 500th of its original volume. This is then squeezed into a cylinder ready to be transported. This takes place at the plants' docking station, where lorries pipe CO_2 into their containers. Strömberg said the facility should produce around nine tonnes of CO_2 per hour, and the compressed CO_2 is now being taken away to be permanently stored in a suitable geological formation deep underground. The chosen location is a depleted natural gas field in Altmark, northern Germany. Here, Vattenfall, together with partner Gaz de France, has also set up a storage pilot project.

In addition, the group says that initial studies for other demonstration plants have already begun and two sites have been chosen so far. The first is in northern Denmark, where the possibility of storing CO_2 at the Vedsted structure, a geological reservoir between one and two kilometres below the Earth's surface is being investigated. If the site proves suitable for CO_2 storage, the Nordjylland power plant will be equipped with a full-scale unit for CO_2 capture using post combustion. Vattenfall says the CCS demonstration plant at Nordjylland could be ready and operational by 2013.

And secondly, in Germany, the group is looking at the possibilities of implementing both oxyfuel and post combustion technology at the Jänschwalde power plant. The group says that this plant could be realized by 2015, but adds it has not yet been decided where the captured CO_2 is to be stored.

The Schwarze Pumpe CCS pilot project.

Talking specifically about the Schwarze Pumpe project, Strömberg said that it is essential to use this type of project to analyze all the various parts of the CCS chain. He emphasized that the capture part of the chain is by far the most expensive, that the transport part constitutes the longest lead times and the storage is often the part people have most concerns about.

Vattenfall clearly sees CCS as a big part of the energy future. It talks about providing a commercially-available technology for the capture and storage of CO_2 by 2020, and its ambition is to be able to capture more than 95 per cent of CO_2 in the emissions from power plants. It does stress, however, that to achieve these goals will require public acceptance, financial and political support and a legal framework for storage.

There was then a swift tour around the 'mother' plant, which came into service in 1997–98. This included a trip up the steam generator, which is 161 m high, to an observation deck at its top. We had been told that the panoramic view of the surrounding area was amazing, but on this day visibility was little more than 30 m as the clouds continued to linger. Returning to the bus, it was then back to Berlin airport where the group members headed their separate ways.

Insightful and informative

It had been an extremely busy couple of days, packed full of interesting presentations and information, out of the ordinary excursions, and all delivered by hosts that were extremely keen to highlight just what they were doing, and where they were heading with CCS. There are certainly some positive vibes. And if there was one thing to take away from the trip, perhaps it would be that despite the fact that challenges in areas such as costs, technology development, regulatory frameworks and public acceptance remain, there are companies taking positive steps towards making CCS a major technology of the energy future.

All images courtesy of Dr Fuad Siala and James Griffin.

Nigeria sets up new Ministry to oversee Niger Delta's development

"Welcome innovation" must be given chance to work — Ajumogobia

The Niger Delta region spans an area of 70,000 square kilometres, or about 7.5 per cent of Nigeria's land mass. It is home to the largest wetlands in Africa and holds one of the continent's coastal mangrove forests. The region also has more fresh water fish species than any other coastal system in West Africa. But these obvious attributes are not what make the Niger Delta region a focus today — both within and outside Nigeria. Rather, it is the great reservoir of oil the area possesses that grabs the limelight. Add to this the fact that the crude from this coastal region is of the type oil men crave to exploit because of its low-sulphur content and one can see just how important this remarkable — yet troubled — region is for Nigeria's present and future welfare. The OPEC Bulletin's Senior Editorial Coordinator, **Angela Agoawike,** reports.

The fact that over 90 per cent of Nigeria's foreign exchange earnings come from oil underscores the importance of the Niger Delta region to the country's economic and social development — a role it has played over a long period of time.

However, for an equally lengthy period, many Nigerians from the area and other parts of the country have expressed concern over the neglect paid to the Niger Delta region by successive governments and international oil companies operating in the region.

The Niger Delta situation has fuelled disaffection among the region's youths. This frustration eventually boiled over when the youths organized armed attacks against oil companies and oil installations. People with questionable motives were to later latch onto this disaffection and disruptive behaviour to engage in acts of vandalism and kidnapping. All together, the situation has made operations for oil companies based there both difficult and unsafe.

Over the years, various efforts have been made to address the region's underdevelopment. In 1992, the military government of General Ibrahim Babangida established the Oil Mineral Producing Areas Development Commission (OMPADEC), whose objective was to give accelerated development to the Niger Delta. Babangida's successors retained the Commission, which continued to pursue that mandate. Then, the return of democracy to the country witnessed under President Olusegun Obasanjo saw the disbanding of OMPADEC, which was replaced with the Niger Delta Development Commission (NDDC).

On September 10, 2008, the government of President Umaru Musa Yar'Adua took what may yet turn out to be the boldest step of any Nigerian President to turn the tide of affairs in the region by establishing a fully-fledged Ministry of the Niger Delta to spearhead the area's development.

Explaining the reason for the creation of the new Ministry, Nigeria's Head of the Civil Service, Mahmud

AP Photo

Odein Ajumogobia (SAN), Minister of State for Energy (Petroleum) of Nigeria.

Yayale Ahmed, said it was designed to lead and coordinate environmental and youth empowerment policy initiatives, as well as reinforce the administration's commitment to the overall development of the region.

Speaking to the *OPEC Bulletin* on the Ministry's creation, Odein Ajumogobia (SAN), Nigeria's Minister of State for Energy (Petroleum), described the move as a welcome innovation.

"For as long as Nigeria has existed, the Niger Delta has been a special area, but never one treated as a special area. Now, for the first time, the administration is creating a Ministry that will focus exclusively on the issues in the Niger Delta," he explained.

Continuing, the Minister expressed hope that the formation of the Ministry would bring about the sort of coordination that has been lacking in the region. As he pointed out, there had been various past initiatives to tackle development, including the establishment of OMPADEC, NDDC and efforts by oil companies doing business in the area to provide development assistance for activities, such as schools, scholarships, hospitals and jetties.

Unfortunately, stressed Ajumogobia, these initiatives had not been able to make much impact, due to the lack of a coordinating body to organize and oversee all the activities carried out.

"This lack of coordination had, in the past, resulted in situations whereby different arms of government had the same programme on their agendas," commented the Minister.

Using road construction and maintenance as an example, he said there had been times that roads were programmed by the federal government, but at the same time they would also be on the agenda of the state government. The new Niger Delta Ministry, he said, would ensure greater efficiency in the coordination of these activities.

It is expected that the new Ministry will have a substantive Minister, as well as a Minister of State. Their responsibility will revolve around the broad areas of infrastructure, youth development and the environment.

With ministries already in existence at a federal level to deal with those areas, the question posed by the *OPEC Bulletin* was how the overlap between them and the new Ministry will work out. Ajumogobia acknowledged these concerns as genuine, but was quick to add that "these are issues that could be sorted out at cabinet level."

On the subject of the environment, which is of great concern to the country's government, in view of the fact that the various regions of the country are confronted with one environmental problem or another, Ajumogobia said he saw no problem arising from that, as, according to him, "the Ministry of Environment will look at the issue globally and liaise with the Ministry of the Niger Delta in terms of environmental issues that are specific and peculiar to the region."

When the NDDC was established in 2000, it was given the task of addressing poverty and community needs, developing physical infrastructure, ensuring a robust economy, growing human capital and providing adequate care for the natural environment. With the creation of the new Ministry of the Niger Delta, it is expected that it will now work with the Environment Ministry to achieve the President's expectations for the country's Niger Delta region.

Another question put to the Minister was whether he thought the creation of the new Ministry would send a message of sorts to the international community of the country's readiness to bring calm to the region and assure the non-interrupted supply of crude in the future. The fact was that, due to the activities of the militant youths, Nigeria has experienced numerous production

shut-ins and for some years now the country's oil exports have declined.

Himself a Niger Delta native, Ajumogobia noted that the creation of the special Ministry for the Niger Delta was first and foremost "a message to the people of the Niger Delta to the effect that the government is determined and focused in ensuring that the issues of the region are addressed — and that can be done, but only as long as there is a level of peace and security in the area."

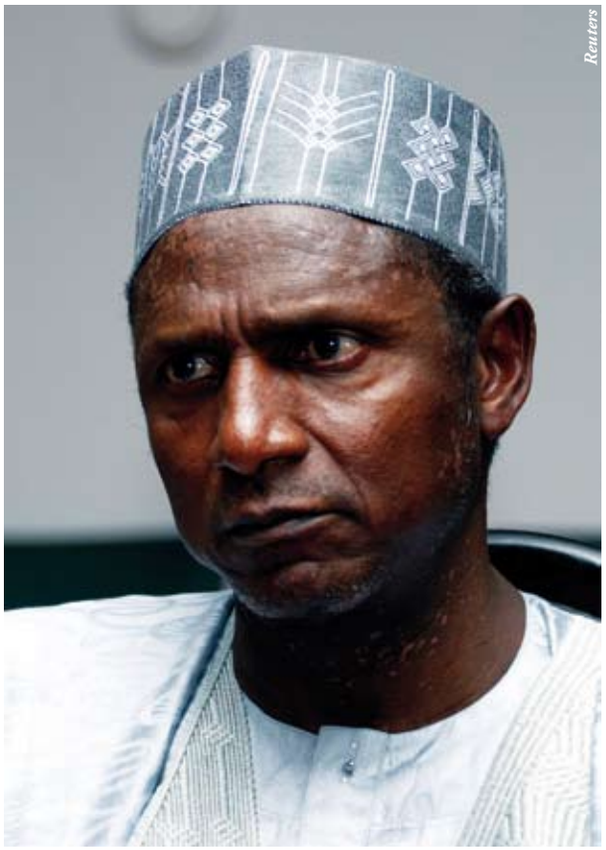
He continued: "So, I think the first message is to the people of the Niger Delta, the militant youths to down arms and embrace this dialogue for development.

"For the international community, the Niger Delta crisis impacts on the price of oil, and that does not augur well for the international oil market. Volatility in the oil markets is something that all players — producers, consumers and investors — try to avoid.

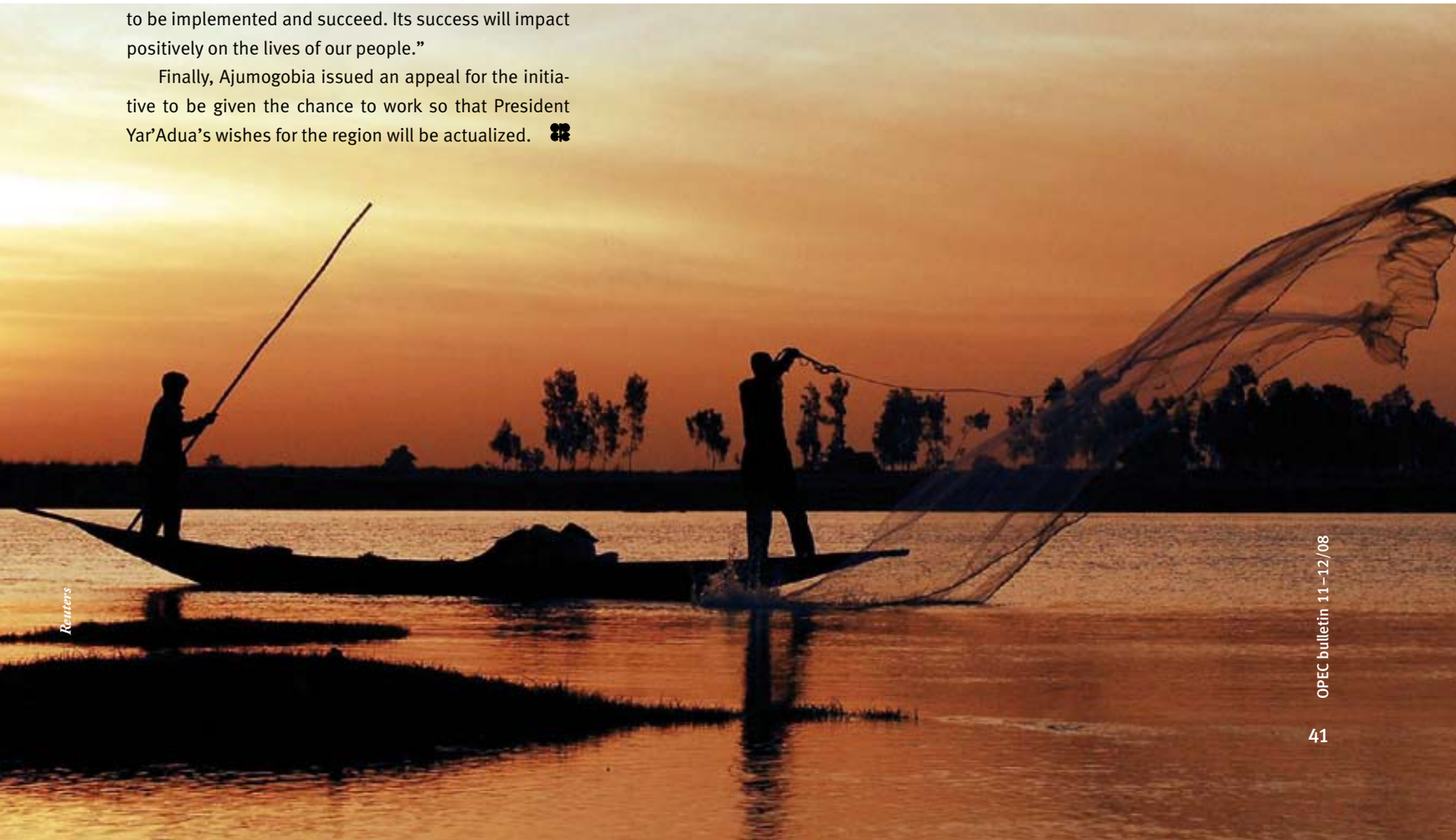
"We are hopeful that with the determined effort of the Yar'Adua government to address the root causes of the problems of the Niger Delta, peace will return to the region and, collectively, we will see socio-economic development in the area.

"I believe that the creation of the new Niger Delta Ministry should signal to the youths and others the seriousness that the Yar'Adua administration attaches to addressing the problems of the area. We should create the enabling environment for the development efforts to be implemented and succeed. Its success will impact positively on the lives of our people."

Finally, Ajumogobia issued an appeal for the initiative to be given the chance to work so that President Yar'Adua's wishes for the region will be actualized.


Reuters

Umaru Yar'Adua, Head of State and Commander-in-Chief of the Armed Forces of Nigeria.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8th Informal Meeting of High-Level Experts considers market turmoil

Pictured here during session one on Oil market developments and outlook *are (from l–r): Roger Diwan, Partner and Head of Financial Advisory at PFC Energy; Fuad Al-Zayer, Head of OPEC's Data Services Department; Dr Hasan M Qabazard, Director of OPEC's Research Division; and Jim Burkhard, Managing Director of the Global Oil Group at CERA.*

There is little disagreement these days that the times are as unprecedented as they are inscrutable. Credit, to both consumers and corporations, is tight and trading activity on the world's exchanges is extremely volatile. The impact of this on sectors like the petroleum industry has been significant. The volatility of crude oil prices has increased and the pace of the decline in oil prices has accelerated. It is an ideal time to take a step back and look at things analytically, which is what occurred at the 8th Annual Informal Meeting of High Level Experts, held at the OPEC Secretariat recently. **Alvino-Mario Fantini** ***reports.***

On October 16–17, the OPEC Secretariat held its 8th Annual Informal Meeting of High Level Experts, bringing together a group of economists and industry specialists, from both OPEC and non-OPEC producing countries, to talk about current economic conditions around the world. Top officials from the OPEC Secretariat, the European Union, as well as several leading global banks, financial institutions and economic research organizations, including Cambridge Energy Research Associates (CERA), JP Morgan Chase Bank, the Institute of International Finance and the Royal Institute of International Affairs, attended the event, offering their insights and suggesting possible scenarios as to how the whole thing might play out.

The platform for the event was set by opening remarks — delivered by Mohammad Alipour-Jeddi, Head of OPEC's Petroleum Studies Department, on behalf of Abdalla Salem El-Badri, OPEC Secretary General — which stressed that "the external challenges we now face are different from any in recent times."

He highlighted the financial market turmoil, banking and credit difficulties, current and future economic growth, and the impact of all this on the oil industry in general. On the latter point, he underlined the possibilities for weakening oil demand, future investments, as well as the recent wild swings and volatility in the oil price, initially upwards and then more recently in the opposite direction.

He added that "this meeting should serve as a catalyst for ongoing discussions about issues of mutual concern", stressing that "if this informal meeting can be taken as a sign that people can work together even during difficult times, then there is great hope for the industry."

What followed over the next two days were presentations from OPEC research analysts, complemented by plenary presentations from outside experts, followed by roundtable discussions. And despite some divergent opinions on matters such as appropriate policy responses to the current crisis, there was clear agreement that the outlook for the next few years offers numerous challenges.

Oil fundamentals and crude prices

There was much initial discussion and debate on how the ongoing financial meltdown has affected oil fundamentals, as well as the pricing of crude. One opinion offered an historical look at price movements, explaining that traditional price structures were based on supply and demand. But over the past few years — especially since 2007 — this has changed as oil has increasingly begun to be used as an asset class (in tandem with other assets). Thus, the traditional "supply narrative" focused on the fundamentals, which used to mainly drive oil prices, has simply lost its influence.

Another opinion took a closer look at short-term demand levels, suggesting that forecasts made by the world's oil producers — noted in recent reports from various organizations — should actually be lower than expected. He explained that there is a generally skewed perception of aggregate demand levels that has been fed by a lack of data from robustly growing emerging markets like China. In other words, he said, such booming emerging economies will eventually experience a slowdown, but there is both a lag effect and insufficient data reflecting this.

There was also a presentation on the effect of high oil prices on global demand — which led to suggestions from one organization that it foresaw no growth in global

Pictured here during session two on the World economic outlook: deteriorating economic conditions and risks *are (from l–r): Antoine de Lecea, European Commission; Vanessa Rossi, Royal Institute of International Affairs; Mohammad Alipour-Jeddi, Head, Petroleum Studies Department, OPEC; Bruce Kasman, JP Morgan Chase Bank; and Phillip Suttle, Institute of International Finance.*

demand in 2009. Although making predictions of this kind is a very risky business, the presenter said, there are still many other factors that could further impact oil demand. The repercussions of the credit freeze, for example, are only now beginning to be felt in many industries and could put even more of a dampener on demand levels.

Turning attention to future supply levels, a variety of factors were mentioned. For example, one energy organization representative provided information on the increase in decline rates which, for a variety of reasons, are becoming more challenging to offset. Another spoke to the audience about the tremendous acceleration of costs seen during 2006–07.

There are also significant new field development delays, according to one research firm. Of 600 fields around the world tracked by the firm, project delays of 8–16 months are already being seen. While these fields will still come online, the speaker noted that it would not be until after 2010 — and, then, they will be spread out over longer periods of time.

There was also talk of the current financial turmoil being characterized by massive flows into and out of the world's bourses and exchanges — with 80 per cent of this money coming from financial, mostly non-commercial players, and how these outflows have been mirrored by the money flowing into and out of the oil markets, too, as people increasingly switch to cash holdings.

Yet even people with decades of experience in the oil markets — like several of the main speakers — could not explain how oil could have gone to almost $150, then down to $100, then $80, and further, based solely on fundamentals. There is nothing out there to justify such price movements, said one commentator, and conditions have clearly been exacerbated by the paper oil market.

Possible reasons for financial turbulence

During the second session, several speakers considered some of the possible reasons for the current financial turbulence. The crisis seems to have been the result of excesses, said one speaker — excessive risks taken by financial institutions in combination with excessive relaxation of financial sector regulations, which created the seeds of the financial system's own problems.

Thus, part of the underlying problem has been the inability of policymakers to track systemic risk globally. This, combined with the disastrous risk management policies of many financial institutions, has contributed to the current situation. One opinion offered, stressed that too often traders and risk-takers dominated their now-troubled firms. In the future, people will need to make more of an effort to ensure proper government regulation and ensure that sound risk-management procedures are adopted — and adhered to.

At the same time, however, people should remember that regulation is not a panacea. Adapting regulations, in order to improve oversight and risk management, is important — but insufficient.

There were suggestions that a broad reform of the international financial system is needed. In short, the current global architecture should be analyzed and amended appropriately.

The implications of this, some believed, was that there might be a massive reassertion of state power over the economic sector in the coming months and years, as governments try to find ways to deal with the crisis.

In the short-term, another important step that needs to be taken is to restore confidence to the markets and to investors. In order to do this, clear policy actions and determined, pro-active leadership is needed from the world's largest economies. Policymakers should also try to go out "in front" of the problem, and take steps to remedy the situation. Providing instant and broad access to liquidity was one important step in the short- to medium-term highlighted.

At times, the discussion focused on possible larger, historical causes for the crisis. One opinion offered to the audience was that every now and then, such crises occur. These kinds of crises have been seen over the centuries. It is almost part of who we are, he said, as economic agents making financial decisions are often driven by similar instincts. The question then is not how do we avoid such crises, but how do we avoid them from becoming so large — and how do policymakers go forward.

One area in which there was some agreement was the fact that it is unclear what the next few months will bring. The only thing that seemed to be clear to most speakers was that global economic conditions were not set to rebound anytime soon. In fact, trying to speak about what may lie ahead was a bit like peering into the mist and trying to determine a path forward, was one thought proffered.

In a wide-reaching and positive exchange of views at the end of the second day, there was a consensus that it is going to be a challenging environment for several years to come, for both corporations and consumers. A fundamental re-adjustment of economic behaviour might be required, which, in turn, will have major impacts on oil consumption.

The whole situation is hard to understand and does not make sense, was another opinion put forward, and everyone right now is facing a new world of unexplored and uncharted terrain. But what is clear, echoing a number of earlier comments, is that no matter what is done in the coming weeks and months, it is apparent historically that market-based economies have a tendency to go to excesses.

What is unique about the current cycle is that it is global and magnified. This is a story about a global cycle that has embraced the world. It is a structural global crisis that combines all the crises of the last 25 years into one. At the most basic, human level, the crisis will serve to remind us what really matters. And because of this, said one presenter in wrapping up, we should all be humble.

Delegates/participants at the 8th Informal Meeting of High-Level Experts from OPEC and non-OPEC producing countries.

8th Working Party on the Flow of Statistics

Oiling the wheels

The outcome from the OPEC Secretariat's 8th Working Party on the Flow of Statistics, held in November, is set to further improve the quality of directly submitted oil-related data from OPEC Member Countries. **Steve Hughes** attended the event and learned that such improvements are essential for the journey toward a more transparent and stable oil market.

Expert statisticians from OPEC Member Countries turned out in force at the Secretariat in November for the Meeting of the 8th Working Party on the Flow of Statistics — an intensive two-day session that was hailed a resounding success.

Not only did a record number of delegates — 44 participants from OPEC Member Countries — make the trip to Vienna, but new strides were made toward improving the flow of regular oil and energy statistics submitted to the Secretariat directly by Member Countries.

Opening the first day's session, Dr Hasan M Qabazard, Director of OPEC's Research Division, noted the highly productive outcomes of past Working Party meetings, and the importance of meeting regularly. Such meetings were, he said, extremely beneficial to both the OPEC Secretariat and Member Countries. For the former, they provide an opportunity to address challenges in the flow of directly submitted data and for the latter, they present the chance to increase awareness about the importance of this data for the Secretariat's decision-making processes. Qabazard also acknowledged the continued support of Member Countries and emphasized that OPEC's research relies heavily on their primary data.

The Governor of Venezuela and the National Representatives from Angola, the Islamic Republic of Iran and Nigeria, among many others, were on hand to participate in interactive discussions and introduce some suggestions to improve data collection and reporting across all Member Countries. One such measure will see the Secretariat begin sending a 'Report Card' to Member Countries on a regular basis, to provide detailed feedback on their performance when submitting data to OPEC. In addition, the Secretariat will intensify its direct contact with the technical coordinators of Member Countries to further verify submitted data.

Importance of data exchange

More generally, the meeting enabled participants to exchange invaluable information on databank management and on using OPEC's statistical database. Some Member Countries gave presentations that highlighted the diverse issues affecting databank management across OPEC Member Countries.

OPEC's Data Services Department Statistical Systems Coordinator, Puguh B Irawan, gave a comprehensive overview of the aims and objectives of the Secretariat's Annual Statistical Bulletin (ASB) — as well as presenting the highlights from the 2007 edition — and outlined the major improvements made in recent

years. He also shared plans for the 2008 edition, which include sending the Annual Questionnaire to Member Countries early, and similarly, launching the ASB by the beginning of July 2009, earlier than in previous years. Participants noted that the publication had become an important reference point for the world's oil community and expressed determination to continually improve it in the years ahead. Fuad A Al-Zayer, Head of the Data Services Department and Chairman of the Working Party, noted that the ASB had enjoyed tremendous publicity in recent years and it represents an excellent opportunity for Member Countries to share important information with the world.

JODI and annual questionnaire

An overview of the Joint Oil Data Initiative (JODI), presented by Data Services Department Statistical Systems Analyst, Ramadan Janan, recognized OPEC's important role in driving JODI forward and JODI's contribution to oil market transparency. Participants specifically considered calls for JODI to include other energy data — such as that for natural gas.

In addition, a detailed review of OPEC's Annual Questionnaire — essential for the Secretariat's ongoing work — was provided by Data Services Department Statistician, Firouz Azarnia, and Senior Statistician, Dr Pantelis Christodoulides. They considered several suggestions to improve the AQ. It was also noted that the questionnaire for 2008 will be dispatched to Member Countries in December and that the submission deadline would be April 2009, in line with efforts to hasten the publication date of the ASB.

In his concluding remarks, Al-Zayer outlined several specific issues that require additional discussion. These include making more improvements to the flow of data's reporting system in both directions — from Member Countries to the Secretariat, and *vice versa* — and clarifying statistical issues encountered in the data, as well as developing a better understanding of data collection systems across Member Countries.

Directly communicated data

Al-Zayer also reiterated Qabazard's point that directly communicated data from Member Countries is the preferred source of information for the Secretariat's ongoing research work and publications. He noted that the outcome of this Working Party — as well as the outcomes of those that have gone before it — will significantly contribute to improving the overall quality of data submissions from OPEC Member Countries, and in doing so, help promote OPEC's aim of creating a more transparent and stable oil market.

Delegates of the 8th Working Party on the Flow of Statistics.

In the course of his official duties, OPEC Secretary General, Abdalla Salem El-Badri, holds talks with numerous dignitaries. Some of his most recent meetings are covered here.

Simon Smith (l), UK Ambassador to Austria, visited the Secretary General on October 17, 2008.

Eng Derlis Palacios Guerrero (l), newly appointed Minister of Mines and Petroleum of Ecuador, visited the Secretary General on October 24, 2008.

Visit by Ruediger Luedeking (l), Permanent Representative of Germany to the UN, on November 4, 2008.

Delegates from the US Congress with OPEC Officials at the OPEC Secretariat during a visit on November 14, 2008.

L–r: Senator Thad Cochran (R-Mississippi); Abdalla Salem El-Badri, Secretary General of OPEC; Senator Robert Bennett (R-Utah); and Senator George Voinovich (R-Ohio).

A selection of news stories on OPEC Member Countries taken from international media services

Putting off OPEC oil output cut decision "a strategy" — Khelil

Algiers — The President of the OPEC Conference, Dr Chakib Khelil *(pictured),* has stressed that deferment of a decision to cut oil production by the Organization's Member Countries until the OPEC Meeting in Oran, Algeria, in December was a strategy meant for the assessment of market evolution. "Putting off the (reduction) decision until Oran's meeting on December 17 was a strategy, and an excellent decision," said Khelil, Algeria's Energy and Mines Minister. "This will make it possible for us to see how the market will respond, in order to take the right decision in Oran," he said on the sidelines of the country's first national meetings on sustainable development and environment preservation. *APS*

Sixty investors at Oran's industrial EuroPark

Oran — Oran's industrial EuroPark, which by 2010 will form a substantial logistical bridge between Algeria's western capital and the Mediterranean countries, will benefit from 60 national and international investors, the park's promoter has announced. The project, which aims at boosting economic exchanges between Algeria and its partners, includes the construction of two platforms in the communes of El-Kerma and Béthioua, respectively, stretching over 14 hectares and 12 ha. A container terminal in Oran port will also be developed as part of the scheme. *APS*

Angolan oil sector recorded sharp growth in 2002-06 — report

Luanda — Angola's oil sector recorded substantial growth in the period between 2002 and 2006, both in production and revenues, according to a report from the Episcopal Commission of Justice and Peace. The report disclosed that in 2004, oil production was estimated at 989 million barrels/day, rising to 1.2m b/d in 2005 and 1.4m b/d in 2006. Presenting the report, the Coordinator for Economic Justice, Ernesto Kambaly, said the period under review marked the effective recovery of the economy and peace in Angola. He said the oil sector also recorded significant transparency, together with the publication of information on revenues and auditing. *AngolaPress*

Indonesia's fuel oil consumption to drop in 2009

Jakarta — Indonesia's fuel oil consumption in 2009 is forecast to drop as a result of the global financial crisis. BPH Migas Committee Member Ibrahim Hasyim said the financial crisis, which started in the United States, had spread to various parts of the world and it had begun to impact on fuel oil consumption in Indonesia. "Diesel oil consumption is predicted to drop because many industries are likely to be closed down next year," he pointed out. He said both two-wheeled and four-wheeled vehicle sales would be reduced due to the situation, which would also see premium gasoline and diesel oil consumption eventually reduced. Ibrahim said BPH Migas had previously forecast that subsidized fuel oil consumption in 2008 would surpass the target set in the revised 2008 State Budget by about 3.8 million kilolitres. *Antara*

Iranian Minister calls for cooperation to stem oil price slide

Tehran — Iran's Petroleum Minister, Gholamhossein Nozari *(pictured),* has called for cooperation to stem tumbling crude prices. He made the remarks in Cairo while talking to reporters at the end of a meeting of OPEC Oil and Energy Ministers. The Ministers held consultations before a formal meeting of OPEC, to be held in Oran, Algeria, on December 17. The Iranian Minister expressed hope that oil-producing countries would reach a consensus on the production ceiling. Appreciating OPEC's efforts to establish stability and tranquility in the oil market, he added that guaranteeing price stability would need more deliberations. *Irna*

Venezuela and Russia sign seven cooperation agreements

Caracas — The governments of the Bolivarian Republic of Venezuela and the Russian Federation have signed seven cooperation agreements covering a number of fields, including energy, nuclear and the military, all of which are designed to help the development efforts of both nations, while strengthening ties between the two nations. The agreement on the peaceful use of nuclear energy will promote bilateral projects in the area, in order to satisfy domestic energy demand and contribute towards the diversification of energy sources. Another accord establishes cooperation in oil, gas, and electric power, aimed at increasing economic and technological efficiency in Venezuela. *ABN*

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I want to ride my bicycle...

Imagine getting up tomorrow morning, climbing bleary-eyed and half asleep onto your bike and cycling more than 150 kilometres. Then imagine doing the same the next day, and the next, and the day after that. In fact, imagine doing it day after day for months on end! For Mohammadreza Hashemi, of the National Iranian Oil Company (NIOC), there is no need to imagine. He knows all about it after recently completing such a journey. On arriving at his final destination, the OPEC Secretariat in Vienna, **James Griffin** *spoke to him about his inspiration for the trip, the mental and physical challenges, and his experiences along the way.*

Cycling is common place, an everyday activity, undertaken by millions across the world every single day, whether it is biking to school, biking to work or just biking for leisure. Yet there are very few people who begin a day with thoughts of cycling around the world. In fact, for many, even the thought might be enough to bring on saddle sore! However, for Mohammadreza Hashemi, and his colleague from the NIOC, Amir Yaghoshi (the two had to go their separate ways in Germany), this was how they began one day earlier this year.

The first question to ask Hashemi was: why? He said that he had thought of the idea around two years previous "as I knew of the upcoming celebration to mark the 100th anniversary of discovering oil in Iran. It is a big event in my home country. I felt I needed to do something extraordinary, and an around the world bicycle trip was borne."

The follow up question is: how did he manage to

get so much time off? Hashemi, who is a petrochemical engineer for the NIOC, said that the management of the section in which he works was extremely positive. "There was a lot of support for the idea and I also received my monthly salary while undertaking the trip. There are a lot of people I would like to thank for their part in making this possible," he said.

Heading east

The epic adventure started in Marun, Hashemi's workplace, and from there the two travelled to Tehran. In the Iranian capital, it was important for the two to secure visas for their journey — although visa difficulties would plague them later — and he was keen to underscore the support they received from the NIOC and the Ministry of Sport. Having secured what they needed in Tehran, the two made their way to Lahijan, where Hashemi was born. An apt stop off perhaps, as the two left behind a culture they knew well, for countries they had not experienced before.

They headed east winding through Pakistan, visiting its capital Islamabad, and then onto the heat of northern India, and the country's bustling capital of New Delhi. From there they headed to the country called the rooftop of the world, Nepal, where Hashemi said they had "taken in many small towns and interesting local cultures." It was then just the small matter of travelling across China to the country's largest city in terms of population, Shanghai.

On reaching Shanghai, however, the two encountered a major problem. Hashemi explained: "We were struggling to obtain visas for Canada." And if they were going to circumnavigate the globe they had to cross North America. The challenge proved insurmountable. The visas were not forthcoming. It meant the two were in a quandary and a big decision loomed. The question was: where to head to next? As going further east led to a dead end, Hashemi said "we decided to return to Tehran and head west to Europe."

And then west

Setting out from Tehran again, the route took them through Turkey and on to Greece. And it was here that they had to face up to their next big problem, as Hashemi explained. "In Greece, my colleague's bicycle was stolen," he said. One bike and two people — not ideal, particularly given the distances they needed to travel. However, this proved only a minor blip and they were both back on bicycles before very long.

Hashemi, however, was keen to stress that this was not the only surprise he encountered in Greece. "When I arrived at a hotel in Athens I decided I would like to speak to people in Tehran," he said, "but at this time

Mohammadreza Hashemi meets Mohammad Alipour-Jeddi, Head of the OPEC Secretariat Petroleum Studies Department.

Hashemi retraces his route.

Hashemi is happy to leave his bike behind.

I did not realize the actual cost of telephone calls in Europe." He certainly got a shock. On leaving, he said: "I found myself with a bill for something around €900!"

From land to water next, with the two men and their bikes loaded onto a ferry to cross the Ionian Sea to Italy. It was then back on the bikes and up the boot-shaped peninsula of Italy.

In neighbouring Switzerland, the key for any around the world cyclist is avoiding the mountains! Not easy given the landscape, but these are certainly better left to the skiers! Using their own directions this proved not to be a problem, and Hashemi said that some of the routes they travelled in Switzerland were the best they encountered. He was particularly effusive about Lausanne to Geneva, where "the views took away our tiredness." And he smiled when he talked about the bicycle tracks they had found in these parts, and felt that this idea would be a good one to take home.

In Geneva, the two also took a little time out to visit the International Labour Organization, a United Nations agency that brings together governments, employers and workers of its member states. Hashemi said he had "conveyed a message of goodwill to the organization from Iranian workers."

On leaving Geneva, they decided to ask for directions, and what followed might suggest that they may have been better sticking to navigating their own course. "From Geneva to Dijon in France," said Hashemi, "we were given the wrong directions and ended up climbing into the mountains. They were very steep, it was very cold, and we found very few shops from where to buy provisions." It was 24 hours or so that Hashemi is happy to forget. He said there were a few scary moments, but added that at least they did not end up being stranded alone by any freak weather conditions.

From France it was on to Germany, where Hashemi and Yaghoshi parted as the latter had to head back to Iran. And then from there to Austria, which was where the journey ended at the OPEC Secretariat in Vienna on October 20, 2008.

Amazing experience

It was clear from talking to Hashemi that it had been an amazing experience for him, despite the physical and mental challenges, and other unforeseen trials and tribulations he encountered along the way. Some have already been touched upon, but Hashemi added that he had been attacked by dogs on a number of occasions, and that he had encountered difficulties in some areas because of the need to pitch his tent. He said: "In some places I found I could not."

But for all the challenges and hardships, the general theme of the journey appears to have been one of generosity, friendliness and goodwill. He said that "I have received a lot of positive reaction from all the countries I have visited. And I have been photographed in many places, by locals and tourists." He added that it had also been interesting to "meet people that did not know where I came from or where Iran is."

And from the perspective of Iran, he said it has all been worth it. Hashemi said he was specifically thinking of the 100 year celebrations. For the country, this can be traced back to what is now called 'Well Number One', which is the spot where the first Iranian oil was discovered 100 years ago. The well is located in the south-western city of Masjed Soleiman and produced oil for around 70 years. Despite the Anglo-Iranian Oil Company (AIOC), to all intents and purposes, controlling the Iranian oil industry for almost the first 50 years, it was the springboard for where the Iranian oil industry finds itself today; a strong and thriving industry and one that benefits Iran as a whole.

Dr Omar Farouk Ibrahim (c), Head of OPEC's PR & Information Department, signs the banner Hashemi carries for the 100th anniversary of the National Iranian Oil Company. Here seen with OPEC Secretariat employees (l–r): Mohammad Alipour-Jeddi, James Griffin, Dr Mehdi Asali and Dr Mazyar Mazraati.

Speaking for himself, Hashemi said: "I belong to the young generation of Iran and I feel very proud I have the opportunity to work for and be part of the NIOC. It is a strong company, despite the sanctions that have been placed on Iran. And for me when I think of oil, it is important for it to be used in a good way for the benefit of all." It is evident these are the driving reasons behind his desire to do something extraordinary for the 100 year anniversary.

After five and a half months on his bike, 68 flat tyres and two full tyre changes, the final question has to be: will he be getting back on a bike in the near future? Hashemi laughed, and said that while the bicycle is obviously very healthy and he was sure he would have flashbacks that would bring a smile to his face in years to come, "at this time I am so tired that I do not want to see or even hear about a bicycle for a while!"

How long a 'while' is remains to be seen, as it was clear from Hashemi's mannerisms that he did not see this as his last epic bike journey. But for now it was time to savour his achievement, and return to his job that allows him to sit on a seat, rather than a saddle.

Make it a date ... in Algeria

While Algeria will always be noted for its wealth of hydrocarbons and rich cultural and political history, its contribution to the cook books of the world is often overlooked. The OPEC Bulletin's Alvino-Mario Fantini and Steve Hughes, who recently visited the country, take a closer look and uncover a traditional Algerian recipe.

Some things are so inextricably linked with their place of origin that the mere mention of them immediately conjures up vivid region-specific images. Take Mozart and Vienna, for instance, or big red busses and London. Then there is tea and China, or Salsa music and Latin America — the list goes on.

But mention dates — the small, sticky-sweet, edible fruit of the date palm — to most people, and more often than not you will be met with a blank stare. Although a staple on Middle-Eastern menus for centuries — and particularly popular during the month of Ramadan, due to their high-energy content — dates are now grown throughout Africa, the Middle East, Asia and beyond. Even Californians have jumped on the bandwagon. But despite this, those in the know will never let anything but the succulent flesh of an Algerian-grown date pass their discerning lips.

And it is not surprising. Algeria is, to many, the home of dates. Mention the fruit to any knowledgeable consumer, and they will tell tales of the much revered Deglet Nour, or 'finger of light' — a super high-quality date that is almost transparent when held up to the sun and has been grown in Algeria since the 8th Century. Known as the 'queen of dates', due to its rich, juicy flesh, it is revered the world over and has become especially popular throughout Europe.

While no visitor to Algeria can miss the country's many orange groves — or incidentally, fail to hear about the French missionary, Father Clément Rodier, who is thought, when in Algeria, to have grown the first ever clementine by accident — it is the date that has become Algeria's flagship agricultural product. The Ministry of Agriculture reckons production topped a record 550,000 tons during 2006.

Algeria's dates are grown at the very gates of the desert in south-east Algeria, in a municipality known as Tolga, in the Wilaya of Biskra. Aficionados reckon you can actually taste this land — home to date growing for more than 14 centuries — in the fruit. They say that nothing else comes close.

Did you know?

- It takes between ten and 15 years for a date palm to reach 'full profit' when it can produce between 25 and 35 kilos of dates.
- Date palms can be productive for 50 years or more, but the quality and quantity of fruit may decrease over the years.
- Every 100 grams of dates contains more than 300 calories, 73 g of carbohydrates, 20 g of water, 2.2 g of protein, 0.2 g of fat and 2.2 g of fibre, among other things.

Dishing up a taste sensation

Rfiss are small sweets typical of Algeria and are eaten with mint tea, fresh milk or coffee. They are simple to prepare. Following a traditional recipe, you will need:

500 g of semolina, 500 g of dates kneaded into a soft paste, 150 g to 200 g of soft butter, cinnamon, and honey.

In a frying-pan, roast the semolina until golden. Meanwhile, knead the date paste further until it is easy to use. Add the hot semolina and butter (as well as the cinnamon and honey, to taste), and knead for several minutes until it forms a stronger paste. Form the paste into small balls and refrigerate before eating.

Angola appoints new Minister of Petroleum

Angola has appointed **Eng José Maria Botelho de Vasconcelos** as its new Minister of Petroleum, the second time he has held the position.

Before his appointment to the oil portfolio in October this year, he was Minister of Energy and Water (2002–08). Before that, between 1999 and 2002, he undertook his first term as Petroleum Minister.

De Vasconcelos began his career as Technical Electrical Engineer with the Industrial Technology Institute of Luanda in 1974.

In the same year, he became Engineer Maintenance Technician of the Cabinda Gulf Oil Company, a position he held for two years.

In 1976, he moved into the position of Marketing of Derivatives of Petroleum, Belgium, and the following year became Deputy Inspector of the Directorate of Technical Fina Petroleum, National Directorate of Petroleum Marketing.

Five years later, with Shell France, he worked in the area of Lubrication and Application of Lubricants and in 1998 moved to London where he undertook the position of Strategic Planning for Executives in the Oil Industry.

De Vasconcelos was appointed Chairman of the Committee of the South African Development Community (SADC) Ministers of Energy, SADC National Committee, in 1999, the same year he became Petroleum Minister for the first time.

He attended the 150th (Extraordinary) Meeting of the Conference in October.

Ecuador appoints new Minister of Mines and Petroleum

Eng Derlis Palacios Guerrero has been appointed Ecuador's Minister of Mines and Petroleum.

Born in Ecuador in June 1961, he studied at the University of Cuenca in Ecuador, where he attained a BSc in Engineering.

His working career started in 1985, when he joined the Technical Department of the Ecuadorean Institute for Hydraulic Resources (INERHI) as an engineer.

Five years later, he was appointed Director of the Water Agency of INERHI, a position he held for one year.

Also in 1990, he was appointed to the Board of Directors of the Civil Engineers School of Azuay and in 1993 became a Board Member of the Construction Chamber of Cuenca.

In 1992, he became Treasurer of the Civil Engineers School of Azuay (CICA), moving up to become President of CICA in 2001.

In the same year, Palacios Guerrero was appointed President of the Professional University Schools Association of Azuay. Also in 2001, he became a Member of the Emerging Works Planning Council for the River Basins of the Rio Paute and its Affluents, a position he held for five years.

His first ministerial portfolio came in April 2005, when he was appointed Minister of Infrastructure and Communications.

At the same time, he was appointed Vice-President (later President) of Integration of Regional Infrastructure in South America.

In August 2007, he became State Secretary for Institutional Coordination, and in January this year was appointed Minister for Coordination of Strategic Sectors.

Palacios Guerrero, who is married with two children, was appointed Minister of Mines and Petroleum in October. He attended his first OPEC Conference in Vienna in the same month.

Tribute:

Professor Thomas Wälde (1949–2008)

Professor Thomas Wälde, a leading scholar and specialist in international investment, economic, oil, gas, energy and mineral law, has died at the age of 59, following a tragic accident at his holiday home in Southern France in October.

A former inter-regional adviser on petroleum, mineral and investment law with the United Nations (UN) and then the Executive Director of Dundee University's Centre for Energy, Petroleum and Mineral Law and Policy, Wälde's most important work was drawing up contractual agreements between governments that controlled mineral deposits, such as oil and gas, and the multinational companies that were looking to explore and exploit the reserves.

Although based in a small village just outside St Andrews, Scotland, for the last 15 years, Wälde's reach and influence was global. Among the countries he worked with were Burkina Faso and Mozambique in Africa; Thailand and Uzbekistan in Asia; Colombia and Venezuela in South America; and Estonia and Serbia in Europe. He also had dealings in Saudi Arabia, the Islamic Republic of Iran, India, China, Russia, Brazil and the United States.

A prolific writer, speaker and educator — he spoke and wrote fluently in English, German, French and Spanish and had a working knowledge of Italian, Russian and Arabic — Wälde was a noted expert on investment law as it applied to the energy sector. He developed his understanding of legal frameworks relating to energy and natural resources as an adviser to governments and companies, as a mediator and as an academic researcher. He served as an expert witness, counsel and arbitrator in many international investor-state disputes and was involved with the legal positioning of environmental legislation, investment, taxation, the decommissioning of offshore operations, and the privatization of state-owned companies.

Born in Germany, in January 1949, Thomas Walter Wälde grew up in Heidelberg. He attended school at the Kurfürst Friedrich Gymnasium and went on to study law at the universities of Heidelberg, Berlin and Frankfurt, as well as Lausanne-Geneva, in Switzerland, before gaining his Master of Laws (LLM) advanced academic degree from Harvard University.

His family had a great influence on his development. His great uncle, Reinhold Maier, was the first prime minister of Baden-Württemberg and another uncle, Heinz Maier-Leibnitz, was a professor of nuclear physics and President of the German National Science Foundation.

In 1980, Wälde joined the UN, where,as inter-regional adviser, he guided more than 60 governments on legislative reform and contract negotiations. Of note, he was a UN investigator on occupation practices in Palestinian territories. He initiated the UN project for environmental guidelines in mining, and was chair of the drafting group that produced the first version of the "Berlin Guidelines" in 1990.

In 1991, Wälde took up his position with the University of Dundee's Centre for Energy, Petroleum and Mineral Law and Policy. Under his leadership, the centre saw a period of rapid growth and Wälde established the examination of so-called production-sharing contracts as a separate discipline within academic study of the law. He used and extended his global networks to develop a virtual campus of leading practitioners and scholars around the world.

After stepping down from the post as Executive Director in 2001, he maintained his role as a teacher and expanded his activities in the field of dispute resolution and arbitration, where he quickly enhanced his already formidable reputation. At the time of his death, he was Professor and Jean-Monnet Chair of International Economic, Natural Resources and Energy Law at Dundee University.

Wälde was also the driving force behind wide-ranging discussions on his internet-based discussion forum, OGEMID (oil-gas-energy-mining-investment disputes). Despite the name, the forum concerned itself with much more than litigation in the energy and mining sector, due to Wälde's enthusiasm for fuelling intellectual discourse on a wide range of issues.

Those who knew him personally described Wälde as an inspirational mentor and leader who always had time to offer advice and guidance. His vibrant personality helped him in his work — bringing opponents together. He supported coherent and just policy-making, but did not shy away from confrontation when addressing global mining issues that were embroiled in shady deals and corrupt practices.

He displayed an infectious enthusiasm for his work and was an enemy of prejudice. He once said that his aim in life was to understand "what lay underneath the emperor's clothes" and to "reveal and explain truths — however, unpalatable they might be."

Wälde is survived by his wife, Charlotte, and two children, one from his first marriage.

Dedicated manpower is OFID's greatest resource

Suleiman Jasir Al-Herbish, Director-General of the OPEC Fund for International Development (OFID).

Al-Herbish begins new five-year term with heartfelt message ...

Suleiman Jasir Al-Herbish of Saudi Arabia has just completed his first term as Director-General of the OPEC Fund for International Development (OFID). And on November 1, 2008, the former OPEC Governor, who has a long history in the oil sector, as well as extensive experience in development issues, began his second five-year period at the helm of the Vienna-based institution, following unanimous approval by the Fund's Ministerial Council. To mark the occasion, **Farouk U Muhammed**, Officer-in-Charge, Department of Information at OFID, spoke to Al-Herbish on his impressions concerning the success of his first five years and what challenges he thinks the institution will face during his second term.

On behalf of my colleagues, I would like to congratulate you on your re-appointment for a second five-year term as Director-General of this institution by the OFID Ministerial Council.

Thank you very much. Actually, the tribute should go to my colleagues, in fact the whole family of OFID. I am extremely proud of the people I work with here and I want to thank them for their dedication, cooperation and support. It is because of them that I am getting this renewal of my contract from the Ministerial Council. And that is exactly what I said when I addressed the Council following the approval of my appointment.

On October 31, 2008, you completed your first five-year term as Director-General. During that time, you introduced many innovations and, of course, saw numerous achievements. Could you perhaps reflect on what that period has meant for you and how it will help you prepare for the next five years?

Well, if I can just briefly mention my background — I actually came from the oil sector and spent a lot of time working closely with OPEC. But my involvement with development issues began in 1968. In fact, my very first mission out of Saudi Arabia was to do with development — in attending the second session of the United Nations Conference on Trade and Development (UNCTAD). I started to familiarize myself with development issues from that year and, as it turned out, that second session of UNCTAD proved to be the most important session in the organization's history.

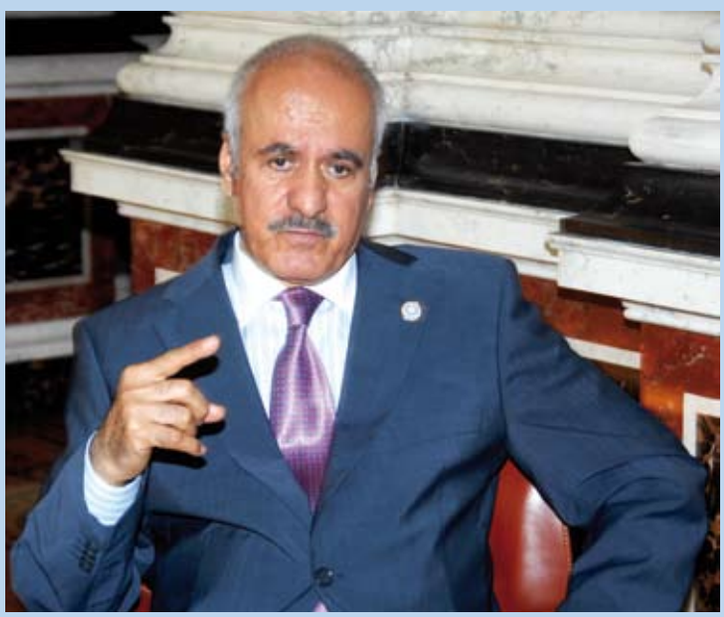
Over the years, I gained more experience in energy and development projects, particularly the problems associated with poverty. So when I came to OFID, I came with the full awareness of the noble mission of this institution. The first concern, or challenge, I found was the pressing need to increase our involvement, our resources, in the work we were doing. You might remember that in OFID's 16th lending programme, we introduced something that was called the Blend Facility which actually set out to accommodate more projects in different countries and based on different criteria.

Then, in 2006, we obtained approval from our Ministerial Council in Jeddah to launch another instrument which has proved to be very, very important. That was the Trade Finance Facility and today it is working extremely well. So, when I came to OFID we had the private sector operations, the public sector activities and the grants programme. And then we added the Blend Facility, which was a different kind of public sector financing and the

Trade Finance Facility. And then in the grants programme, we also, as you know, introduced a separate account for emergency relief.

I am sure that the vast experience you have gained, especially over the last five years, must have prepared you for tackling your next term. What is your vision for the challenges that lie ahead and what specifically will you be focussing on?

The challenges I, and the institution, faced in 2003 are still with us today. The problem is that, unfortunately, these challenges are increasing in number and intensity. For example, we are now facing a food crisis, and we are facing an energy crisis, and this is especially acute for the poorest countries of the world, in Africa, for example. Mindful of the situation, the Third Summit of OPEC Heads of State and Government, which was held in Riyadh, Saudi Arabia, in November 2007, stressed in its final declaration, a commitment towards bringing about better conditions for supporting energy and sustainable development, especially the eradication of energy poverty.



We in OFID were instructed to do some work in this regard and I am really proud — and I thank my colleagues — that OFID took the first step in the implementation of the Riyadh Declaration by holding an energy workshop in Abuja, Nigeria, which was inaugurated by the Nigerian President. This was held specifically to address the problem of energy poverty. This is really one of the toughest problems we and the world are facing — energy poverty, combined with the food crisis, with biofuels being developed at the expense of food supply and the basic needs of the people. These are challenges that I must add to the challenges I first faced in November 2003.

You have touched on the issue of the shortage of food supply and the high prices for staples like maize, which are being used in the biofuels process. You have also talked about a research project being conducted by OFID to address this issue. Can you elaborate on this?

Yes, this project is part of efforts we are undertaking. In principle, we are looking at the issue in general and trying to determine ways and means of solving the problem, or at least contributing to the solution of the problem. Earlier in the year, I participated in a meeting of the International Fund for Agricultural Development (IFAD) and I chaired one of the panels on this very same subject. I also delivered a paper to this meeting.

We have also had dealings with the United Nations Committee on Sustainable Development and spoken at length on the subject with World Bank Group President, Robert B Zoellick. We are doing all this to familiarize ourselves with the problem. And, in-house, we are conducting a research study with a well-known institute to

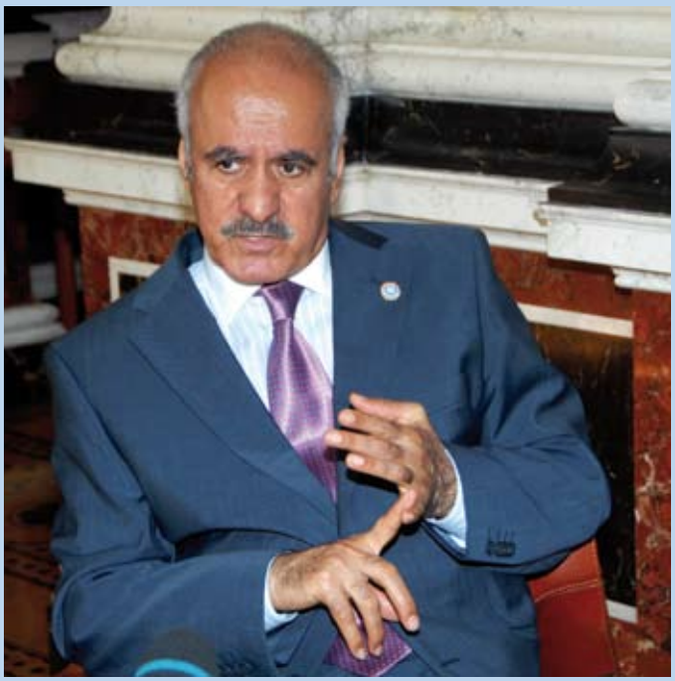
examine the scientific part of the problem and to come up with suitable solutions.

Undoubtedly, demand for the kind of financial assistance that OFID offers will continue to grow from the developing countries, especially the poorer nations, which means OFID will need to boost its resources to be able to provide the additional services required. What strategies will you be adopting to make this extra financing available?

This is the main challenge facing us. The demand on our resources is increasing in what I describe sometimes as an exponential way. And we are doing all that we can, not only to cope with the increasing demand, but also to further our proactive work on this subject. We call it enhancement of resources. We are doing something in-house, for example, in the investment field where our resources consist of contributions, plus reserves, which we then invest in different parts of the world. We are doing a lot of work in collaboration with our investment committee, which is a sub-committee of the Governing Board, to increase and enhance the resources. So far, we are doing very well.

Unfortunately, this year is a year of general decline (due to the overall economic situation), so we are losing somewhat, but we are trying to make up for it in other resource areas. But in order to meet the demand coming from four continents and from different parts of the world, in fact from more than 100 developing countries, most of them low-income states, we have to look for ways and means to enhance these resources. Last year, we had our Corporate Plan approved by the Ministerial Council. This plan is based on a model we developed in the Corporate Planning Department. The model is simple, it is flexible, we can add assumptions to it, and we can change the input or output schedule.

We are really thankful to our Ministerial Council for



approving the plan in principle. Now we are doing our homework and looking into the ways and means of running the facility, including borrowing. We may outsource some services and then report on our progress to the Ministerial Council and the Governing Board. This is the main issue when we talk about enhancing OFID's resources.

We are, of course, looking for other support — this is very important. For example, we are looking for more support from our Member Countries. And we expect our Member Countries to contribute more. They are fully aware of the severity of the problem nowadays with regard to energy and food and I am just hoping they will intervene and give us more support in terms of fresh contributions, or maybe utilizing the agreement, which is flexible, to accommodate contributions from a Member or Member Countries. Again, I have to stress that the main challenge facing OFID is the enhancement of its resources. The fact is

our resources are not coping with the increasing demand coming from our beneficiaries.

It is clear that OFID Member Countries have consistently supported the institution. And I am sure that this is highly appreciated. Could you comment on this support? Also, are there other areas that you think should be expanded in terms of giving the Fund additional support?

Yes, I agree with you, the strong support of our Member Countries goes right back to 1975 when the idea of OFID first came about and the following year when the Fund was legally established by the Finance Ministers of Member Countries. Let me put a footnote here. It is really interesting when one looks back to 1960, when our sister organization, OPEC, was created. It was established by representatives from Member Countries — I think only two of them were Ministers. And the idea of the OPEC Fund was born at the First Summit of OPEC Heads of State and Government in Algeria in 1975 when Member County finance ministers were delegated to set it up.

In the Algiers Declaration, if you remember, our Heads of State clearly stipulated their full support for developing countries and indicated their commitment and willingness to do more work for and with these nations. Hence, the next year the Fund was established. Then, in Caracas, Venezuela, in 2000, the Second Summit, hosted by President Hugo Chávez, reaffirmed this commitment and support. It specifically mentioned OFID.

The Heads of State said something very important in the final Declaration — that poverty is the most serious environmental problem facing the world today. Some eight years on, that situation is still the same and the problem of poverty is still with us. At the Third Summit in Riyadh, Saudi Arabia, which was hosted by King Abdullah, the format of the conclusions was different from the previous two. At this one there were three chapters — one for energy, one for climate change, and one that we, in OFID, consider our mandate, which covers energy and sustainable development. This support is really something we are very proud of and we are relying on our governments to continue supporting us because the problems we are facing today are getting deeper and deeper. You remember I mentioned my first involvement in development issues was when I attended UNCTAD II.

Well, I remember at that conference back in 1968, the price of oil was $1.80/barrel. But to be fair to our Member Countries, even before the establishment of OPEC, they were fully committed to the cause of the eradication of poverty. They have quite a record behind them. In fact, when the UN came with their request for nations to contribute a percentage of their gross domestic product to help the needy, some of our Member Countries exceeded the level requested by five or six times. That is truly commendable.

What steps are you contemplating in order for OFID to be able to cope with the internal challenge of the extra manpower you will need, both in terms of quantity and quality?

Whenever I am asked about OFID's resources, or capital, I mention that they come as a result of contributions from our Member Countries or from our reserves. But actually, the real asset of OFID is the manpower — the people here. We have so many different nationalities — in fact from 24 countries, comprising different cultures. Without this manpower, without the teamwork, the cooperation and the quality of the people we could not have achieved what we have already achieved. We are doing all we can to enhance and develop our manpower base. We are offering more training and trying to create

a level of qualified — and satisfied — manpower that will be able to deliver on the huge mission we are shouldering. We are right now engaged in a project that aims to look at ways and means of improving this cultural aspect of cooperation and friendship, which, in my eyes, is necessary for us to achieve our targets. Since I came here, we have undertaken considerable recruitment of "fresh blood", especially young university graduates. Together with the colleagues who have been working at the Fund for the last 10 or 20 years, this cooperation and mentoring is going very well, and we can be proud of it. I think it is going to help us deliver the mission the way we would like it.

OFID has been doing very well in the area of cooperation with its partner institutions — the World Bank group, the regional development banks, the UN organizations and OFID sister agencies, etc. Are there new areas in which you intend to build such bridges towards further enhancing cooperation?

Cooperation with like-minded organizations is part of the system — part of our programme and our culture. Through our work with such institutions, we are gaining two-way experience — us from them, and them from us. Over the last five years, we have hosted many workshops and meetings for these sister organizations. For example, during the celebrations we had for OFID's 30th anniversary, we hosted a meeting of Heads of Arab Institutions. We have also had many Coordination Group meetings and workshops here. We even hosted donors' meetings. This is the culture of OFID and we will continue to carry on in this vein.

Earlier in this interview, you mentioned that OFID held a workshop on energy poverty in Africa, in Abuja, Nigeria. That workshop was judged as being highly successful. Do you have plans to build on that success and maybe hold similar workshops elsewhere?

In my presentation to the OFID Governing Board, I paid recognition to the efforts carried out by my colleagues in this regard. In fact, I mentioned them by name, in recognition of their very good work in preparing for that workshop. The workshop, as you say, was a big success because we had very good participation and the quality of the papers delivered was outstanding. We had papers from the World Bank, UNIDO, the United Nations Environmental Programme, and from energy companies, such as Chevron.

It was really a big deal for us and I am really proud of the workshop and its outcome. Building on that success, we are thinking of having another workshop next year. But this kind of workshop is very involved. It is one with a particular chosen subject and requires the hiring of consultants — we have to talk to potential panelists and then come up with points for discussion.

We are planning, in principle, to have the next one in Venezuela, prior to our Ministerial Council meeting. I have already spoken to the Minister of Planning of Venezuela, who is the new representative of Venezuela on the Ministerial Council, and we have agreed to have a workshop. And I already have something in mind on the subject for this workshop — which is to do with the various obstacles that sometimes delay a project from being implemented.

But it is important that when we have these workshops we concentrate on a subject and try to analyze it fully with expert opinion and then arrive at some solutions. The workshop in Abuja was very successful because we were dealing with Saharan people where some 80 per cent of their energy consumption comes from primitive sources.

This section includes highlights from the OPEC Monthly Oil Market Report (MOMR) for November 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), provided OPEC is credited as the source for any usage.

Crude oil price movements

The global financial crisis dominated the bearishness seen in the marketplace in the month under review. The OPEC Reference Basket[1] in October dropped to its lowest level since March last year. The Basket averaged $69.16 a barrel in the month for a drop of $27.69/b, or nearly 29 per cent, the largest one-month loss ever recorded, to a level last seen in August 2007. The downward fluctuation of the Basket continued into November with the Basket falling to $53.79/b month-to-date, the lowest level since January 2007.

"Uncertainty over the bailout plans in the United States, while the turmoil spread worldwide, triggered recession fears," said the OPEC report.

"Adding to concerns were losses in the equity market, despite a move by central banks around the world in an attempt to safeguard the financial system," it added.

Early perception of an OPEC output cut boosted sentiment over tight supply. However, the reduction of expenditure plans by major multinational oil companies caused the equity market to further lose momentum.

The OPEC Basket plunged in the first week of October by $8.27/b, or 8.4 per cent, to settle at $90.01/b. "The outlook continued to deteriorate into the second week on concerns that the US financial market turmoil might spread worldwide, triggering an outflow of investment away from the dollar-denominated commodities," said the report.

Signs of a recession were seen to indicate a further decline in demand growth, spurring OPEC to call an Extraordinary Meeting of the Conference, first for the middle of November, but then brought forward to October 24.

The Basket declined in the second week of October by a further $12.03/b, or 13.4 per cent, to average $77.98/b. Scepticism over financial system liquidity around the globe raised fears of an economic downturn amid signs of demand destruction.

The petroleum market continued to lose momentum with the Basket falling in the third week by $10.10/b, or almost 13 per cent, to settle at $67.88/b. In the fourth week, the market digested a potential OPEC output cut which helped maintain some bullish momentum.

Nonetheless, said the OPEC report, a fall in multinational oil companies' shares on lower spending dominated the market bearishness and outweighed OPEC's decision to cut output by 1.5 million b/d.

However, OPEC's move did limit the decline of the Basket, which settled $6.35/b, or 9.4 per cent, lower in the fourth week of October at $61.53/b.

In the final week of the month, continued concern over demand growth amidst the spreading financial crisis worldwide was offset by the weakening of the US dollar against major currencies which prevented the petroleum market from a further fall.

"The volatility of the US dollar continued to swing oil prices, while signs that the OPEC cut was taking effect pointed to lower supplies ahead," said the report.

The interest rate cut by major central banks briefly boosted the stability of sentiment in the marketplace along with the covering of short positions in the final week of the month. The Basket averaged the fifth week at $3.89/b, or 6.3 per cent, lower at $57.64/b, the lowest level since March 2007.

On the US market, benchmark crude WTI averaged October at $76.62/b, a decline of $27.53/b, or 26 per cent, from the previous month. Crude prices did see some support from prolonged outages from the Gulf of Mexico on the back of hurricanes Gustav and Ike, but adding to the pressure was the tumbling economy as the bailout plan was yet to be approved by US Congress.

1. An average of Saharan Blend (Algeria), Girassol (Angola), Oriente (Ecuador), 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 (UAE) and BCF 17 (Bachaquero, Venezuela).

"The gloomy economic outlook exacerbated pressure on petroleum demand at the time of a healthy build in US gasoline and crude oil stocks amid rising imports," said the OPEC report.

In the North Sea market, Brent averaged October at $71.87/b for a drop of $26.26/b, or 27 per cent. Prices dropped as refineries returned from maintenance with fears over an economic downturn keeping buyers on the sidelines.

In the Mediterranean market, Urals averaged the month at $70.51/b, down by $27.10, or nearly 28 per cent, from the previous month.

In the Middle Eastern market, Dubai averaged October at $67.82/b, $28.08/b, or 29 per cent, lower than in September.

Commodity markets

Looking at trends in selected commodity markets, the OPEC report stated that commodity prices plummeted by 20 per cent in the month under review, alongside the deep financial crisis, the stronger dollar and the imminent economic recession in the US and the world.

"Commodity prices declined across the board, due to the speed and extent of the global economic deterioration and despite the adoption of an urgent policy response in an attempt to stop a major economic recession," it said.

"The worsening of all the economic and financial indicators in the US and the OECD economies casts little doubt on the imminent economic recession with a deep global impact and declining demand," it added.

The report said that commodity behaviour in general has been strongly correlated to the performance of global GDP. The IMF commodity price index recorded a dramatic fall of 21 per cent in October, compared with a decline of 10 per cent in the previous month, driven by negative growth of 16 per cent in non-fuel commodity prices and 23 per cent in energy prices month-on-month.

"This has continued over the first week of November with the deepening of the financial crisis, which has already affected the real side of the economy in the US, leading to estimates of expected global GDP growth for 2009 under the three per cent benchmark, which is seen as a recessionary level by the IMF," it stated.

"In this context, declining commodity demand this year and in 2009 is expected to lead to a short-term gloomy outlook for commodities, which are not expected to improve until financial markets stabilize."

The energy commodity index (crude oil, natural gas and coal) reported the worst performance in October m-o-m (22.9 per cent decline), with crude oil prices (the average petroleum spot price) recording a 27.8 per cent fall m-o-m to $76.61/b in October.

The Henry Hub gas price fell by 11.6 per cent m-o-m in October to average $6.69/MMBtu, while the US natural gas price lost 6.5 per cent from the beginning of October.

"As in the case of the whole commodity spectrum, this obeyed the equity market meltdown and the financial crisis," said the report.

Rising inventories (to an adequate level for the winter), together with the restoration of production in the Gulf of Mexico, also added to the bearish sentiment.

Coal prices dropped in October as a result of weakening demand and the improvement in port congestion at New Castle in Australia. Volatility for this commodity was very high.

Non-energy commodities slumped by 16 per cent m-o-m in October, 13 per cent lower than a year ago, on concern over the global economic recession and declining demand.

The industrial metal price index sank by 20 per cent m-o-m in October (and 27 per cent year-to-date through October), compared with 6.2 per cent m-o-m last September, and declined further in early November.

"The entire industrial metal complex has suffered strongly from the severe economic downturn that has caused a negative impact on demand for raw materials," commented the OPEC report.

It said that the worsening of the economic scenery and the likely global recession and lower demand, consistent with considerable inventory builds during the month, amid the dollar appreciation against the euro, weighed on industrial metals which are closely linked to the performance of industrial GDP.

Copper prices suffered a 30 per cent m-o-m drop in October, worsening the declining trend growth from last August with prices at below $4,000/tonne, some 39 per cent lower than the year-ago level. Copper spot prices have dropped by 57 per cent since last May when they peaked, representing the lowest level since August 2005. Rising inventories and the expectations of a severe world economic recession and lower demand explain this outcome.

The gloomy economic outlook exacerbated pressure on petroleum demand at the time of a healthy build in US gasoline and crude oil stocks amid rising imports.

Aluminium prices tumbled by 16 per cent in October, compared with a seven per cent drop last September, caused by weakening demand and rallying LME stocks.

Nickel prices reported the worst performance in the industrial metal complex, falling by 32 per cent m-o-m. Declining demand from the stainless steel sector and rising inventories on the supply side contributed to the dramatic price drop.

After no growth last September, zinc prices suffered a severe loss of 25 per cent, falling to a level some 56 per cent lower than a year ago. Zinc was hit by rising inventories and declining demand, in particular from the automotive industry in Asia and OECD countries.

The World Bank's agricultural price index posted a 16.7 per cent decline in October, the worst in four consecutive months, on weakening demand, falling crude oil prices, investor risk aversion and an improved supply outlook.

The IMF food price index lost further ground – declining by 20 per cent m-o-m in October.

This loss was 13.7 per cent higher than the drop seen in the previous month.

"All agricultural commodities have been badly hurt by the gloomy economic outlook," said the OPEC report.

Wheat prices dropped by 20 per cent m-o-m in October on projected record production by the latest USDA report. Soybean prices also gave back 20 per cent due to expectations of lower demand in China and for biodiesel, as well as the bearish news of a strong rise in global supply from the USDA report. The soybean market showed strong long-liquidation in October. The level of activity diminished too.

The price of gold declined by 2.8 per cent in October to average $806/toz on the back of the strengthening of the US dollar and weaker jewellery demand, which dropped sharply during the first half of 2008.

World oil demand

In its review of the market, the OPEC report projected that global oil demand growth will be boosted mainly by non-OECD countries, particularly those in the Middle East and Asia, particularly China.

For 2009, demand for OPEC crude is forecast to average 30.9m b/d, a decline of 910,000 b/d from the 2008 figure.

Deteriorating economies in OECD countries are estimated to yield in declining oil demand, which is forecast to pull total world oil demand growth down to less than 600,000 b/d in 2009. Hence, world oil demand in 2009 has been revised down by 300,000 b/d to show growth of 500,000 b/d year-on-year.

Demand for OPEC crude in 2008 is estimated to average 31.8m b/d, a decrease of 430,000 b/d over the 2007 figure. On a quarterly basis, demand for OPEC crude is estimated at 32.5m b/d, 31.0m b/d, 31.8m b/d, and 32.1m b/d, respectively.

For 2009, demand for OPEC crude is forecast to average 30.9m b/d, a decline of 910,000 b/d from the 2008 figure. On a quarterly basis, required OPEC crude next year is put at an average of 31.2m b/d, 30.2m b/d, 30.3m b/d, and 32.0m b/d, respectively.

Led by the US, OECD oil demand showed a drop of 1.7m b/d year-on-year in October this year, while non-OECD demand growth stood at 1.2m b/d, resulting in a decline of total world oil demand of around 500,000 b/d.

"Weather and the fall in prices might, to a certain degree, help 4Q oil demand, but demand is not expected to overcome the major decline resulting from the economic downturn," said the OPEC report.

It noted that vehicle sales reported a 30 per cent decline in October. "Given the world economic turmoil, 4Q oil demand is forecast to show minor growth of only 400,000 b/d y-o-y to average 87.4m b/d. In addition to the strong decline in transport fuel, petrochemical industry oil consumption is showing a strong decline as well."

Due to the declining oil demand in OECD, world oil demand in 2008 has been revised down by 260,000 b/d and is now expected to grow by 290,000 b/d to average 86.2m b/d. "Should the weather become warmer, then further downward revisions might be possible," said the report.

In OECD North America, the turmoil in the US economy has not only led to higher unemployment and tightening credit, but also a decline in oil demand of more than 1.0m b/d year-to-date.

Furthermore, gasoline demand declined by 3.1 per cent, while kerosene jet fuel fell by 5.3 per cent as a result of the slowing aviation industry. US oil demand is expected to decline by 1.05m b/d in 2008.

"High oil prices affected US oil demand in the first half of this year; however, in the second half, the deteriorating economy is the main reason behind the drastic slide in oil demand," said the report.

The anticipated cold winter would support heating and fuel consumption. However, the expected slowdown in transport and industrial fuel use resulting from the current economic situation will more than offset demand growth for winter products, it forecast.

Hence, as a result of declining US oil demand, North America's oil demand growth was revised down by another 200,000 b/d in 2008 to show a total decline of 1.0m b/d y-o-y.

The OPEC report stressed that, without any doubt, the world financial crisis has affected Europe, resulting in a considerable decline in oil demand. Although the winter period might require more oil consumption in the 4Q, OECD Europe oil demand for the whole year is forecast to decline by 40,000 b/d y-o-y to average 15.3m b/d.

In the OECD Pacific, the region's oil demand forecast was revised down to show a total decline of 120,000 b/d in 2008, while in the Developing Countries grouping, as a result of strong oil demand in Other Asia, Latin America, the Middle East and Africa, oil demand growth is forecast to reach 900,000 b/d in 2008 y-o-y to average 25m b/d.

Of note, Latin America's oil demand is on the rise. Oil demand in Brazil, Venezuela and Argentina is showing healthy growth as expected. Economic activities, along with controlled prices, were the factors behind this strong appetite for energy. Latin America's oil demand growth is forecast to reach 230,000 b/d y-o-y in 2008 to average 5.7m b/d.

In other regions, China's oil demand growth is forecast at 420,000 b/d y-o-y to average 8m b/d, while the former Soviet Union's oil demand growth is expected to reach 150,000 b/d y-o-y to average 4.1m b/d.

World oil supply

Preliminary figures indicate that world oil supply increased by 1.4m b/d in October from the previous month to average 86.18m b/d. Non-OPEC supply experienced an increase of

more than 1.5m b/d, while OPEC crude production fell. OPEC's share in global crude oil production declined slightly to 37.2 per cent in October. 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 is expected to average 49.65m b/d in 2008, an increase of 220,000 b/d over 2007 and a downward revision of 92,000 b/d from the previous OPEC assessment.

Downward revisions have been made for supply from the US, Norway, Australia, Vietnam, Russia, Kazakhstan, and Azerbaijan. Minor upward revisions made to supply from Argentina and Oman were not sufficient to offset the downward revisions made to the supply forecasts of other countries. On a quarterly basis, non-OPEC supply for this year is seen at 49.69m b/d, 49.75m b/d, 48.72m b/d and 50.42m b/d, respectively.

Total supply from OECD countries in 2008 is forecast to average 19.83m b/d, indicating a drop of 310,000 b/d from 2007 and representing a downward revision of 48,000 b/d from last month's OPEC figure. On a quarterly basis, OECD oil supply is estimated to average 20.04m b/d, 20.04m b/d, 19.25m b/d and 19.98m b/d, respectively.

Oil supply from the US this year is expected to increase by around 50,000 b/d over last year's total to average 7.54m b/d, a downward revision of 23,000 b/d from the previous month's OPEC assessment. Preliminary data for October saw supply stand at 7.18m b/d, up by around 730,000 b/d from September.

Canadian oil supply is forecast to average 3.40m b/d in 2008, indicating growth of around 90,000 b/d over the previous year. On a quarterly basis, Canadian supply stands at 3.33m b/d, 3.45m b/d, 3.39m b/d and 3.45m b/d, respectively. According to preliminary data, Canadian oil supply stood at 3.41m b/d in October.

Oil supply from Mexico in 2008 is forecast to decline by 280,000 b/d from 2007 to average 3.21m b/d, unchanged from last month's OPEC assessment.

Western Europe oil supply is anticipated to average 5.0m b/d in 2008, indicating a decline of 230,000 b/d over 2007 and a minor downward revision of 13,000 b/d compared with last month's OPEC assessment.

Oil supply from Norway is expected to decline by 130,000 b/d this year to average 2.43m b/d, indicating a downward revision of 16,000 b/d from last month's OPEC estimate. However, Norway's supply is expected to increase in 4Q as production and support facilities return from maintenance. The preliminary October supply figure was out at 2.56m b/d. On a quarterly basis, Norway's supply stands at 2.51m b/d, 2.39m b/d, 2.37m b/d and 2.45m b/d, respectively.

Oil supply from the UK is slated to see a drop of around 130,000 b/d in 2008 to average 1.55m b/d, unchanged from last month. On a quarterly basis, UK oil supply stands at 1.69m b/d, 1.63m b/d, 1.46m b/d and 1.44m b/d, respectively.

Oil production from the OECD Asia Pacific region is forecast to average 660,000 b/d in 2008, indicating an increase of 60,000 b/d from 2007, which represents a downward revision of 8,000 b/d from the previous month's OPEC assessment. On a quarterly basis, total oil supply from this region is estimated to average 580,000 b/d, 630,000 b/d, 640,000 b/d and 790,000 b/d, respectively.

Australia's oil supply is anticipated to average 550,000 b/d in 2008, indicating an increase of 30,000 b/d over 2007 and representing a downward revision of 5,000 b/d from the previous month's OPEC assessment. On a quarterly basis, supply from, Australia stands at 470,000 b/d, 530,000 b/d, 540,000 b/d and 660,000 b/d, respectively. The preliminary supply figure for October was put at 570,000 b/d.

New Zealand's oil supply forecast was revised down on the back of adjustments carried out for 3Q production to adjust to available actual figures.

In the Developing Countries, oil supply is estimated to average 11.22m b/d in 2008, an increase of 290,000 b/d from 2007 and higher by 13,000 b/d than the previous month's OPEC assessment. On a quarterly basis, total oil supply from this group is foreseen at 11.13m b/d, 11.10m b/d, 11.15m b/d and 11.50m b/d, respectively.

Oil supply from the Other Asia group is expected to increase by 30,000 b/d in 2008 over 2007 to average 2.75m b/d, lower by 8,000 b/d from last month's OPEC assessment. On a quarterly basis, Other Asia supply is expected to average 2.76m b/d, 2.67m b/d, 2.68m b/d and 2.91m b/d, respectively.

Preliminary figures indicate that world oil supply increased by 1.4m b/d in October from the previous month to average 86.18m b/d.

Oil production from Latin America is slated to rise by 210,000 b/d over 2007 to average 4.09m b/d in 2008, indicating a minor upward revision of 14,000 b/d since last month's OPEC estimate. On a quarterly basis, Latin America's supply now stands at 4.02m b/d, 4.06m b/d, 4.11m b/d and 4.17m b/d, respectively.

Middle East group oil supply is estimated to decline by around 10,000 b/d over 2007 to average 1.65m b/d in 2008, up by around 6,000 b/d from the previous month's OPEC assessment. On a quarterly basis, Middle East supply is put at 1.64m b/d, 1.65m b/d, 1.64m b/d and 1.66m b/d, respectively.

Oil supply from Africa is forecast to increase by 50,000 b/d in 2008 over 2007 to average 2.72m b/d, unchanged from the previous month's assessment. On a quarterly basis, supply for this group of countries stands at 2.71m b/d, 2.71m b/d, 2.71m b/d and 2.75m b/d, respectively.

FSU oil supply is projected to average 12.66m b/d in 2008, representing growth of 140,000 b/d over 2007 and a downward

revision of 56,000 b/d from last month's OPEC estimate. On a quarterly basis, total oil supply in the FSU is expected to average 12.62m b/d, 12.66m b/d, 12.40m b/d and 12.95m b/d, respectively.

China's oil supply is seen to average 3.85m b/d this year, indicating growth of around 85,000 b/d over 2007.

Supply growth from the Other Europe group is expected to remain flat over 2007 at 140,000 b/d.

Oil supply from Russia is anticipated to average 9.83m b/d in 2008, representing a decline of 40,000 b/d over 2007 and lower by 17,000 b/d from last month's OPEC assessment. On a quarterly basis, Russian oil supply is estimated to average 9.78m b/d, 9.74m b/d, 9.81m b/d and 10.00m b/d, respectively.

The current financial situation has pressured companies into cutting their planned capital expenditure, which has sharply influenced the supply forecast.

In the Caspian region, oil supply from Kazakhstan is forecast to average 1.42m b/d in 2008, an increase of 65,000 b/d over 2007, and representing a minor downward revision of 5,000 b/d from OPEC's previous estimate. On a quarterly basis, Kazakh supply is expected to stand at 1.42m b/d, 1.44m b/d, 1.31m b/d and 1.49m b/d, respectively.

Azerbaijan oil supply is estimated to grow by 90,000 b/d in 2008 over 2007 to average 950,000 b/d, which represents a downward revision of 34,000 b/d from the previous month's OPEC assessment. On a quarterly basis, Azerbaijan oil supply stands at an average of 960,000 b/d, 1.02m b/d, 820,000 b/d and 1.00m b/d, respectively.

China's oil supply is expected to average 3.85m b/d in 2008, higher by around 85,000 b/d over 2007 and unchanged from last month's OPEC estimate. On a quarterly basis, China's supply is expected to average 3.81m b/d, 3.86m b/d, 3.84m b/d and 3.91m b/d, respectively.

For 2009, non-OPEC oil supply is expected to increase by 740,000 b/d over the estimate for the current year to average 50.39m b/d. This represents a downward revision of 220,000 b/d from last month's OPEC assessment. On a quarterly basis, non-OPEC supply next year is expected to average 50.81m b/d, 50.30m b/d, 49.98m b/d and 50.48m b/d, respectively.

"The current financial situation has pressured companies into cutting their planned capital expenditure, which has sharply influenced the supply forecast. All regions contributed to the downward revision with the FSU coming on top of the list," said the OPEC report.

Turning to 2009, the OPEC report said that US oil supply is forecast to increase by 250,000 b/d over the current 2008 level to average 7.80m b/d, representing a downward revision of 48,000 b/d from the previous month's OPEC appraisal.

Mexico's supply is expected to decline by 160,000 b/d in 2009, lower by 25,000 b/d than the previous month's OPEC assessment.

Oil supply from Australia is forecast to grow by 100,000 b/d in 2009 over 2008, which represents a downward revision of 30,000 b/d from the previous OPEC assessment.

Malaysia's oil supply is slated to increase by 20,000 b/d in 2009 to average 800,000 b/d, a downward revision of 30,000 b/d from the last OPE assessment.

Oil supply from Brazil next year is foreseen to increase by 240,000 b/d to average 2.55m b/d, some 30,000 b/d lower than last month's OPEC forecast.

Russia's oil supply in 2009 is expected to average 9.84m b/d, relatively steady from the current 2008 level.

Kazakhstan's oil supply is projected to increase by 50,000 b/d in 2009 to average 1.46m b/d, which represents a downward revision of around 50,000 b/d from last month's OPEC figure.

OPEC oil production

Total OPEC crude oil production averaged 32.04m b/d in October, representing a drop of 132,000 b/d from the previous month, according to secondary sources. The majority of the decrease came from Saudi Arabia, Venezuela, the United Arab Emirates (UAE), and the Islamic Republic of Iran, while production increases were seen in Angola and Iraq. OPEC production, not including Iraq, stood at 29.73m b/d, a decline of 227,000 b/d from September.

Production of OPEC NGLs and non-conventional oils are estimated to average 4.71m b/d in 2008, representing growth of 490,000 b/d over the previous year. In 2009, output of OPEC NGLs and non-conventional oils are anticipated to increase by 660,000 b/d from the current 2008 level to average 5.36m b/d.

Alternative fuels

The OPEC report observed that low oil prices are putting pressure on the high-cost biofuel industry.

"Not only has the biofuel industry lived on governmental subsidies, but it has pushed food prices higher. In order to ease the pressure on food prices, some European countries are banning certain food products from the industry feedstock list," it stated.

Hence, it said, Germany has altered its mandate of biodiesel blend, which was set to reach 6.25 per cent next year. "Furthermore, the country is planning to increase taxes on biodiesel in the near future. This move is not limited to Germany only; it is spreading to other European countries, such as the UK."

Downstream activity

The OPEC report noted that upon completion of refinery maintenance and following resumption of normal operation by refineries, particularly in the US after the hurricane disruptions along the US Gulf Coast, product market sentiment changed significantly.

"These developments have combined with falling product demand resulting from the further deterioration of world economic growth exerting downward pressure on product prices and refining economics," it stated.

"Due to the disappointing outlook for the world economy and lower demand projections for different parts of the barrel components, the current bearish sentiment of product markets may continue in the coming months and put more pressure on both crude and product prices," it maintained.

However, the report said that possible cold weather in the Atlantic Basin may provide some support for crude prices, but it may not be enough to overcome the perceived bearish market prospects.

Refining margins for WTI crude on the US Gulf Coast fell to $20.69/b in October, compared with $22.90/b in September. Narrowing arbitrage opportunity to the US and lower regional demand also put pressure on European refining economics.

In line with these developments, Brent crude oil margins at Rotterdam fell to $6.14/b from $8.04/b the previous month.

Refining margins for Dubai crude oil in Singapore rose marginally by 4¢/b to $5.70/b from $5.64/b in September.

A combination of seasonal refinery turnarounds and hurricane activity negatively affected refinery operations in the US in September and resulted in lower refinery throughputs over the same month. Most refineries on the US Gulf Coast returned to normal operation and increased both product output and stocks in the US during October.

The refinery utilization rate in the US jumped by ten per cent in October, compared with the previous month, to reach 85.1 per cent from 74.8 per cent in September.

In Europe, the refinery utilization rate fell by 1.2 per cent to 82.9 per cent in October from 84.1 per cent the previous month, while in Asia, refiners followed suit and reduced their throughputs due to relatively low margins. In Japan, the refinery utilization rate declined by 1 per cent to 76.6 per cent from 77.6 per cent in September.

The OPEC report said that, looking ahead, given the comfortable product stock levels, the deteriorating demand situation resulting from the bleak world economic growth and fragile refining economics, refinery runs are not expected to follow their typical seasonal trend and increase significantly in the next months.

"It is worth noting that, due to persisting poor refining margins, there is the risk of slowing refining throughputs in the next months, if the current mild weather continues in the future months."

Oil trade

According to official data, US crude oil imports rebounded in October to average 10.2m b/d, the highest monthly average since October last year. US crude oil imports in October were 18.4 per cent or 1.59m b/d higher than the record-low monthly imports of 8.62m b/d seen the previous month. They were also 419,000 b/d, or 4.3 per cent, higher than in the same month last year.

Despite this substantial increase, average US crude oil imports for the first ten months of 2008 were 9.8m b/d, 2.6 per cent, or 257,000 b/d, lower than in the same period last year.

"This decline is attributed to the overall state of the slowing US economy, which has hit sales for almost all products, apart from gasoil, since December 2007," said the OPEC report.

Contrary to crude oil imports, US product imports were virtually steady in October, declining by only one per cent compared with the previous month to average 3.29m b/d. Yet they were three per cent higher than in October 2007.

Apart from distillate fuel oil, almost all major product imports were lower in October than in the previous month.

Finished motor gasoline imports dropped by 64,000 b/d, or 17 per cent, to reach 304,000 b/d, while average US gasoline imports for the first ten months of 2008 declined also by 17 per cent to 357,000 b/d.

Distillate fuel oil imports increased in October by 5,000 b/d, or three per cent, from the previous month to average 171,000 b/d. Average distillate fuel oil imports for the first ten months of 2008 stood at 204,000 b/d, indicating a drop of 112,000 b/d, or 35 per cent, compared with the same period last year.

Residual fuel oil imports dropped in October by 73,000 b/d, or 20 per cent, compared with the previous month, reaching 293,000 b/d. In the first ten months of 2008, the US imported five per cent less residual fuel oil than in the same period last year.

US stocks are still below the average of the previous five years, but are very comfortable in terms of days of forward cover.

On average, US product imports declined by 327,000 b/d, or 9.3 per cent, in the first ten months of 2008, compared with the same period last year.

Meanwhile, US product exports increased by 170,000 b/d, or 12.7 per cent, in October, compared with the previous month, to average 1.51m b/d. This represents an increase of 191,000 b/d, or 15 per cent, over the level recorded a year earlier.

Average US product exports for the first ten months of 2008 were 1.8m b/d, indicating an increase of 442,000 b/d, or 32.5 per cent, over the same period last year.

As a result, US net oil imports increased by 13 per cent in October, compared with the previous month, to reach 11.96m b/d. The 1.38m b/d increase in net oil imports in October came as a result of the 1.58m b/d increase in net crude oil imports and the 200,000 b/d decline in net product imports, compared with the previous month.

On a y-o-y basis, US net oil imports in

October were 2.6 per cent higher than in the same month last year. Average net oil imports for the first ten months of 2008 were 11.14m b/d, indicating a drop of 1.0m b/d, or 8.5 per cent, from the same period last year.

Meanwhile, in the FSU, total net oil exports are now forecast to decline by around 10,000 b/d in 2008 from the previous year's level to average 8.52m b/d. Total FSU net oil exports are expected to increase by around 190,000 b/d in 2009 over the 2008 level to average 8.72m b/d.

Stock movements

Concerning stock movements, the OPEC report said that US commercial oil inventories recovered from their low level in September after having lost 44m b due to the hurricanes.

Stocks rose by nearly 39m b in October, offsetting to some extent the draw of the previous month, to stand slightly below 1,000m b, the second highest level this year after August.

"However, at 998m b, US total stocks are still below the average of the previous five years, but are very comfortable in terms of days of forward cover," commented the report.

The huge build in October, due mainly to products, was attributed to the combination of strong arrivals of crude oil at US ports and an increase in production from refineries, following the recovery after hurricanes Gustav and Ike.

Crude oil stocks rose by 11.6m b to hit 312m b, the highest level since last April, and moving above the five-year average for the first time this year.

The build took place despite an increase of 1.6m b/d in refinery intake, implying that the main reason behind the increase was strong imports which averaged more than 10.2m b/d, compared with 8.6m b/d the previous month, when refineries and port installations were affected by hurricanes.

Following a draw of 43m b in September, US product inventories jumped by 27m b in October on the back of a surge of around ten percentage points in refinery runs. This pushed product inventories to 686m b.

Within products, gasoline inventories were the main contributor to the build with an addition of 16.5m b. This returned gasoline stocks to within the five-year range to stand at around 196m b. With the exception of September, gasoline inventories have been following a normal trend since the beginning of the year, although coming from very high levels in 1Q.

"Gasoline stocks are expected to continue their seasonal trend and increase further," said the report.

Similarly, distillate stocks gained more than 5m b to stand at nearly 128m b in October, which corresponds to two per cent below the five-year average.

Meanwhile, residual fuel stocks increased by 1.5m b to 38.9m b to remain comfortable, while jet fuel inched up by 100,000 b to 36.7m b, and still not yet able to recover from the hurricane disruptions.

The US Strategic Petroleum Reserve (SPR) dropped by a further 1.2m b to 702m b in October in the aftermath of the hurricanes, following the decision of the Department of Energy to release crude in the form of loans.

According to the latest data for the week-ending November 7, US commercial oil stocks increased by 1.2m b to stand slightly below 1,000m b. Crude oil stocks were stable for the second consecutive week, while gasoline inventories recovered from the low September levels to rise for the third consecutive week.

Concerning days of forward cover, all the main components (crude oil, gasoline, distillates) stand above the five-year average. Crude oil stocks represent the equivalent of 21.3 days, gasoline 21.9 days and distillates 32.2 days.

European (EU-15 plus Norway) oil stocks followed a normal seasonal trend, increasing by a further 1.7m b to approach 1,120m b, which corresponds to the average of the previous five years. However, compared with a year earlier, oil stocks displayed a surplus of almost 24m b, or 2.2 per cent, mainly attributable to crude oil.

Although inventories are at the five-year average in absolute numbers, they are very comfortable in terms of forward demand cover due to weak demand expectations.

Crude oil inventories rose by 2.6m b to stand at 475m b, in line with the five-year average. Stocks would have increased further if Caspian exports had not been disrupted. Also arbitrage opportunities to US markets prevented inventories from increasing more.

In contrast, product inventories fell by 1m b, mainly due to lower production from refineries. Contrary to the seasonal trend, gasoline continued its downward trend, falling by 700,000 b to move below the lower end of the five-year range, to hit 121m b, the lowest level in a year.

"Low gasoline stocks are due to lower refinery output on the back of poor margins and weak demand," said the OPEC report.

The situation of European gasoline inventories was exacerbated by export opportunities to US markets to replace lost production from the refineries affected by the hurricanes.

Distillate stocks dropped by 1m b, but despite this draw remained comfortably above the five-year average and the level of last year as well.

Arbitrage opportunities to Singapore pushed residual fuel stocks down by 1m b, but they remained well above the corresponding level of the previous year. Naphtha inventories added a further 1.8m b to approach 30m b, the highest level since last April.

In Japan, commercial oil inventories continued their upward trend in October, according to preliminary data. More than 7m b would have been added with crude oil contributing with more than 60 per cent. As a result, Japan's commercial oil stocks are at their highest level since late 2006 and at the top of the five-year range.

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**
OECD	49.4	49.8	49.6	49.2	48.9	47.2	46.9	49.0	48.0	48.3	46.5	46.3	48.6	47.4
North America	25.4	25.6	25.4	25.5	24.8	24.5	24.0	24.7	24.5	24.4	24.0	23.6	24.4	24.1
Western Europe	15.5	15.7	15.7	15.3	15.2	14.9	15.3	15.6	15.3	15.1	14.7	15.2	15.6	15.2
Pacific	8.5	8.6	8.5	8.3	8.9	7.8	7.5	8.7	8.2	8.8	7.8	7.5	8.7	8.2
Developing countries	21.8	22.6	23.3	24.2	24.8	25.2	25.1	25.2	25.1	25.4	25.8	25.8	25.8	25.7
FSU	3.8	3.9	3.9	4.0	4.0	3.9	4.2	4.4	4.1	4.0	3.9	4.3	4.5	4.2
Other Europe	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
China	6.5	6.7	7.2	7.6	8.0	8.2	8.1	7.8	8.0	8.4	8.6	8.5	8.2	8.4
(a) Total world demand	**82.5**	**83.9**	**84.9**	**85.9**	**86.7**	**85.4**	**85.3**	**87.4**	**86.2**	**87.1**	**85.7**	**85.8**	**88.1**	**86.7**
Non-OPEC supply														
OECD	21.3	20.5	20.2	20.1	20.0	20.0	19.2	20.0	19.8	20.2	19.7	19.5	19.9	19.8
North America	14.6	14.1	14.2	14.3	14.3	14.4	13.7	14.3	14.2	14.5	14.2	14.3	14.4	14.3
Western Europe	6.2	5.7	5.4	5.2	5.2	5.0	4.9	4.9	5.0	4.9	4.7	4.5	4.7	4.7
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.7	0.8	0.8	0.8	0.8	0.8
Developing countries	10.5	10.8	10.9	10.9	11.1	11.1	11.1	11.5	11.2	11.5	11.5	11.7	11.7	11.6
FSU	11.1	11.5	12.0	12.5	12.6	12.7	12.4	13.0	12.7	13.1	13.0	12.7	12.9	12.9
Other Europe	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.5	3.6	3.7	3.8	3.8	3.9	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Processing gains	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Total non-OPEC supply	48.4	48.5	48.9	49.4	49.7	49.8	48.7	50.4	49.6	50.8	50.3	50.0	50.5	50.4
OPEC NGLS and non-conventionals	3.9	4.1	4.1	4.2	4.5	4.7	4.8	4.9	4.7	5.1	5.2	5.5	5.6	5.4
(b) Total non-OPEC supply and OPEC NGLS	**52.3**	**52.5**	**52.9**	**53.6**	**54.2**	**54.4**	**53.5**	**55.3**	**54.4**	**55.9**	**55.5**	**55.4**	**56.1**	**55.8**
OPEC crude supply and balance														
OPEC crude oil production[1]	30.6	31.6	31.4	31.0	32.1	32.1	32.4							
Total supply	82.9	84.2	84.4	84.6	86.2	86.5	85.9							
Balance[2]	0.4	0.3	-0.5	-1.3	-0.4	1.1	0.6							
Stocks														
OECD closing stock level *m b*														
Commercial	2538	2585	2668	2574	2567	2603	2649							
SPR	1450	1487	1499	1524	1530	1529	1520							
Total	3988	4072	4167	4098	4097	4131	4169							
Oil-on-water	905	958	916	945	936	929	*na*							
Days of forward consumption in OECD														
Commercial onland stocks	51	52	54	54	54	56	54							
SPR	29	30	30	32	32	33	31							
Total	80	82	85	85	87	88	85							
Memo items														
FSU net exports	7.3	7.7	8.1	8.5	8.7	8.8	8.2	8.5	8.5	9.0	9.1	8.4	8.3	8.7
[(a) – (b)]	**30.1**	**31.3**	**32.0**	**32.3**	**32.5**	**31.0**	**31.8**	**32.1**	**31.8**	**31.2**	**30.2**	**30.3**	**32.0**	**30.9**

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 74 while* ***Graphs One and Two*** *(on page 75 show the evolution on a weekly basis.* ***Tables Three to Eight****, and the corresponding graphs on pages 76–77 show the evolution of monthly average spot prices for important products in six major markets. (Data for Tables 1–8 is provided courtesy of Platt's Energy Services).*

Table 1: OPEC Reference Basket crude oil prices, 2007–2008

$/b

	2007			2008										Weeks 40–44 (week ending)				
Crude/Member Country	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Oct 3	Oct 10	Oct 17	Oct 24	Oct 31
Arab Light – Saudi Arabia	79.31	89.02	86.29	88.75	91.26	99.23	106.05	120.59	129.35	132.75	113.69	97.57	69.14	89.85	77.63	68.16	61.38	57.98
Basrah Light – Iraq	77.47	86.26	82.79	85.21	88.80	97.19	103.28	116.35	124.46	127.00	109.16	94.84	67.99	87.91	76.54	66.78	60.45	57.02
BCF-17 – Venezuela	72.20	81.87	79.79	80.59	80.36	89.12	94.10	106.20	116.16	124.51	110.48	96.17	65.86	91.60	79.58	63.70	56.26	49.28
Bonny Light – Nigeria	85.60	95.32	93.55	94.85	96.98	106.68	112.52	126.55	136.44	137.64	116.93	100.48	74.57	94.87	83.51	72.42	67.57	63.51
Es Sider – SP Libyan AJ	81.80	91.92	90.75	91.40	94.28	103.03	108.42	122.50	131.69	132.14	111.98	97.28	71.22	91.58	80.16	69.07	64.22	60.16
Girassol – Angola	80.23	90.21	88.98	88.68	92.13	101.46	107.38	121.76	130.89	131.35	110.26	96.68	70.63	91.26	79.34	68.68	63.47	59.67
Iran Heavy – IR Iran	77.30	87.17	86.31	86.36	88.51	96.68	102.23	116.47	124.66	126.75	108.10	93.04	66.33	86.50	74.59	65.32	58.88	55.10
Kuwait Export – Kuwait	76.33	86.23	84.37	85.63	87.77	95.58	101.25	115.79	124.37	127.57	108.84	93.15	65.88	86.16	74.04	65.06	58.21	54.76
Marine – Qatar	78.68	87.94	87.54	88.35	90.12	97.67	104.30	119.27	129.25	132.73	113.53	97.78	68.94	90.57	77.41	67.93	60.90	57.31
Minas – Indonesia	84.96	93.64	94.53	95.33	95.55	104.62	109.02	126.50	136.49	139.76	119.07	101.63	76.80	95.61	83.96	76.51	70.46	65.73
Murban – UAE	81.98	90.95	90.72	92.04	94.25	102.15	109.44	124.84	134.56	137.94	119.50	101.32	71.52	92.63	79.28	70.81	63.92	60.26
Oriente – Ecuador	71.77	80.01	78.40	79.38	80.80	90.27	98.06	111.25	119.13	119.43	102.13	89.52	60.57	80.17	69.85	59.27	52.61	49.61
Saharan Blend – Algeria	84.45	94.57	93.15	93.60	96.73	105.68	111.57	125.15	133.94	134.49	114.33	99.48	73.02	93.54	81.96	70.87	66.02	61.96
OPEC Reference Basket	**79.32**	**88.84**	**87.05**	**88.35**	**90.64**	**99.03**	**105.16**	**119.39**	**128.33**	**131.22**	**112.41**	**96.85**	**69.16**	**90.01**	**77.98**	**67.88**	**61.53**	**57.64**

Table 2: Selected OPEC and non-OPEC spot crude oil prices, 2007–2008

$/b

	2007			2008										Weeks 40–44 (week ending)				
Crude/country	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Oct 3	Oct 10	Oct 17	Oct 24	Oct 31
Arab Heavy – Saudi Arabia	69.86	73.99	83.96	82.51	84.96	92.67	97.66	112.00	120.62	124.09	105.47	89.92	63.48	83.42	71.47	62.77	55.82	52.39
Brega – SP Libyan AJ	77.42	83.10	93.22	91.85	95.48	104.23	109.72	123.90	133.29	133.94	113.78	99.08	72.87	93.28	81.81	70.72	65.87	61.81
Brent – North Sea	76.87	82.50	92.62	91.25	94.98	103.58	108.97	123.05	132.44	133.19	113.03	98.13	71.87	92.31	80.81	69.72	64.87	60.81
Dubai – UAE	73.36	77.12	86.96	85.79	89.40	96.72	103.41	118.86	127.82	131.27	112.86	95.90	67.82	88.56	75.92	67.06	60.07	56.64
Ekofisk – North Sea	78.08	83.38	93.24	92.12	96.38	105.48	111.81	124.96	135.26	136.66	115.20	99.62	74.31	93.88	82.36	71.94	68.12	64.10
Iran Light – IR Iran	74.88	79.74	89.92	89.12	91.76	99.35	105.92	119.39	127.89	128.19	110.95	97.56	70.81	91.65	79.57	68.97	63.64	59.65
Isthmus – Mexico	72.65	78.79	88.59	87.53	90.28	99.79	106.60	120.43	129.90	130.98	112.63	100.15	71.96	92.74	81.83	70.38	64.02	59.87
Oman -Oman	73.56	77.55	87.16	86.82	90.12	97.82	104.09	119.15	128.32	132.81	113.28	96.13	68.34	88.68	76.22	67.67	60.77	57.34
Suez Mix – Egypt	71.41	76.90	87.60	85.80	88.49	95.81	102.44	115.40	124.58	126.68	109.32	94.76	67.57	88.14	76.33	65.05	60.41	57.14
Tia Juana Light[1] – Venez.	70.69	76.90	86.55	84.73	87.93	96.8	103.29	116.45	125.62	127.71	110.04	96.65	69.58	89.60	79.13	68.06	61.91	57.89
Urals – Russia	73.78	79.52	90.24	89.02	91.14	98.95	105.75	119.11	127.73	130.06	112.17	97.61	70.51	90.73	78.77	68.09	63.75	60.33
WTI – North America	79.69	85.87	94.91	91.69	95.32	105.41	112.64	125.66	133.93	133.82	116.58	104.15	76.62	96.69	86.24	75.23	68.24	65.45

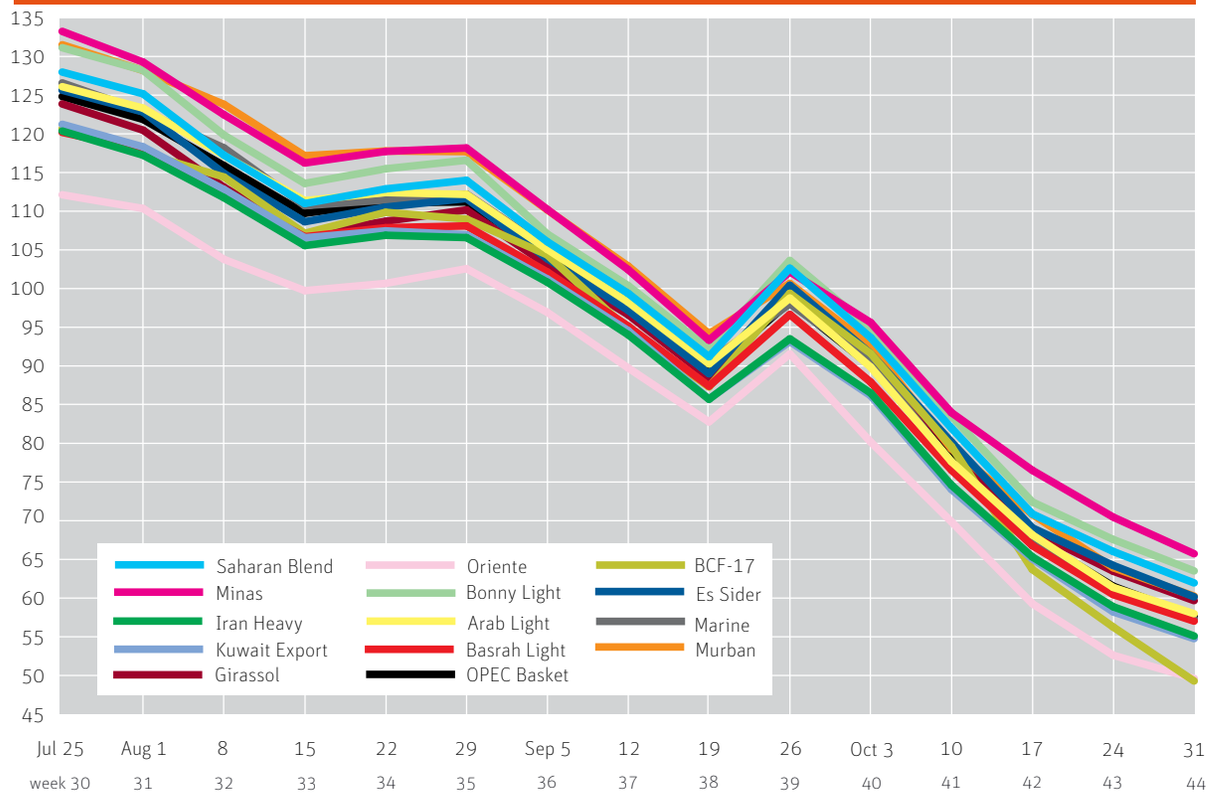
Note: As per the decision of the 109th ECB (held in February 2008), the basket has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th 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 136th (Extraordinary) Meeting of the Conference.

1. Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.

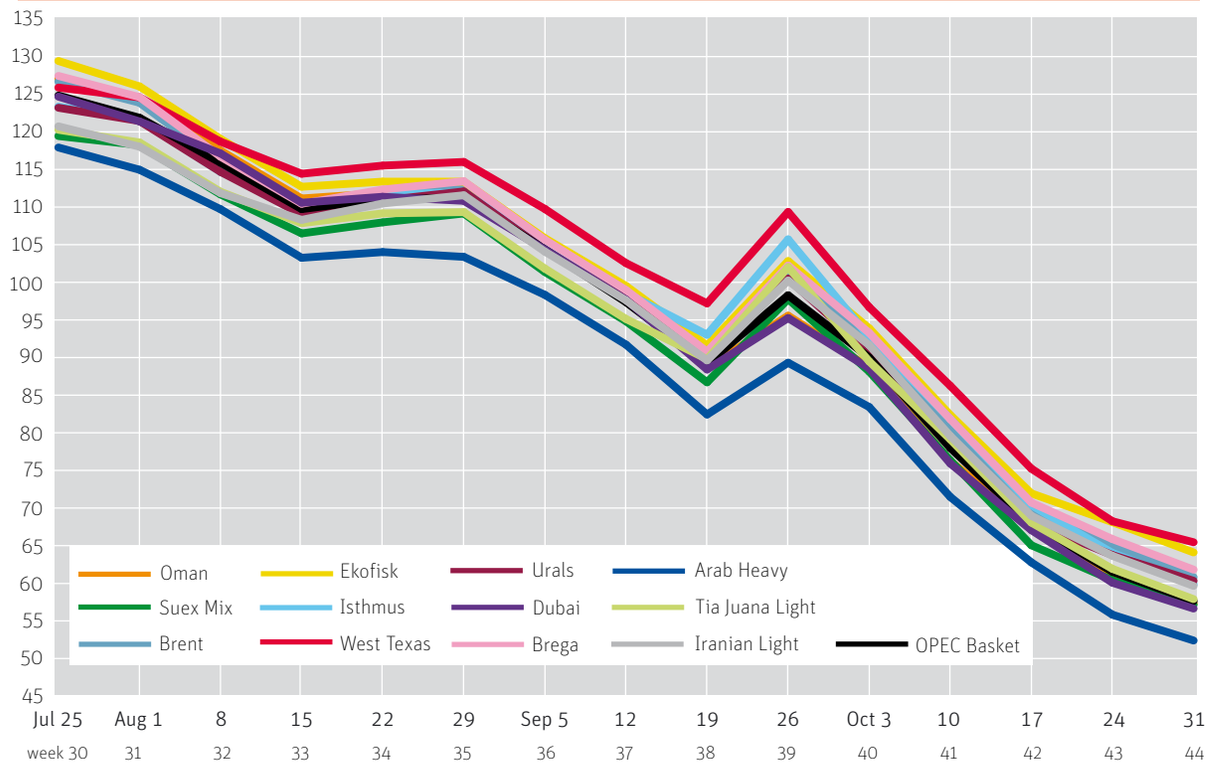
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

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 (2008) *$/b*



Graph 2: Evolution of spot prices for selected non-OPEC crudes (2008) *$/b*



Note: As per the decision of the 109th 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 108th 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 105th 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 136th (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
2007	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
2008	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
	July	142.28	130.36	145.48	165.10	169.44	114.61	100.80
	August	125.53	116.45	129.93	138.28	142.59	101.99	92.38
	September	111.21	105.00	120.10	127.29	128.97	84.40	81.22
	October	69.23	73.36	82.48	100.15	98.63	65.67	54.12

Note: Prices of premium gasoline and diesel from January 1, 2008, are with 10 ppm sulphur content.

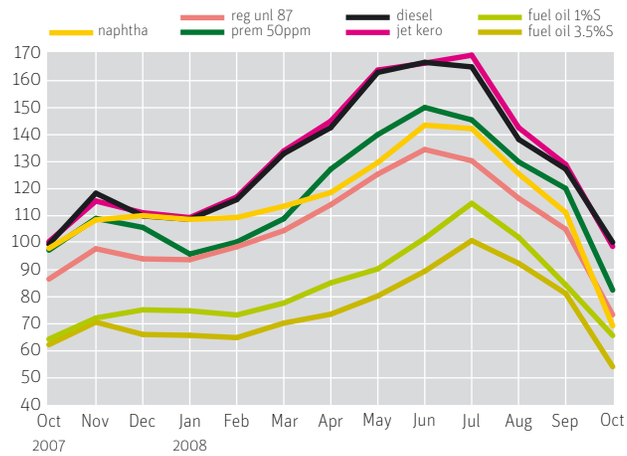


Table and Graph 4: South European market — spot cargoes, fob Italy

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1%S	fuel oil 3.5%S
2007	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
2008	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
	July	119.76	146.11	166.44	111.35	100.95
	August	105.72	130.39	139.48	97.12	92.32
	September	92.57	119.15	126.54	83.12	81.69
	October	56.67	84.00	98.56	61.31	54.87

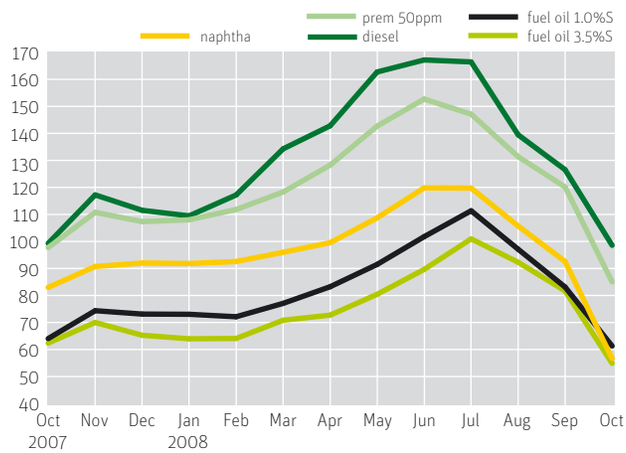
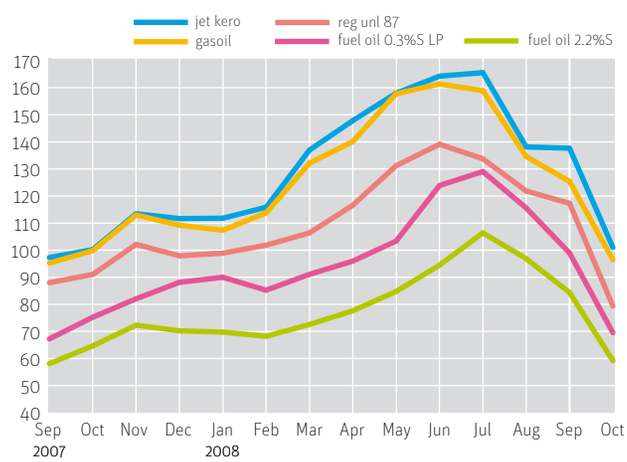


Table and Graph 5: US East Coast market — spot cargoes, New York

$/b, duties and fees included

		regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3%S	fuel oil 2.2%S
2007	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
2008	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
	July	133.75	158.93	165.57	129.03	106.40
	August	121.86	134.56	138.13	115.57	96.86
	September	117.30	125.38	137.65	98.95	84.37
	October	79.36	96.40	100.98	69.51	59.18



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
2007	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	65.00
2008	January	94.38	110.58	110.12	65.23	65.00
	February	115.08	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
	July	130.10	162.05	164.78	95.24	94.52
	August	120.15	136.29	140.10	88.27	87.52
	September	119.02	125.11	141.76	76.28	75.40
	October	68.55	94.64	99.09	52.42	51.29

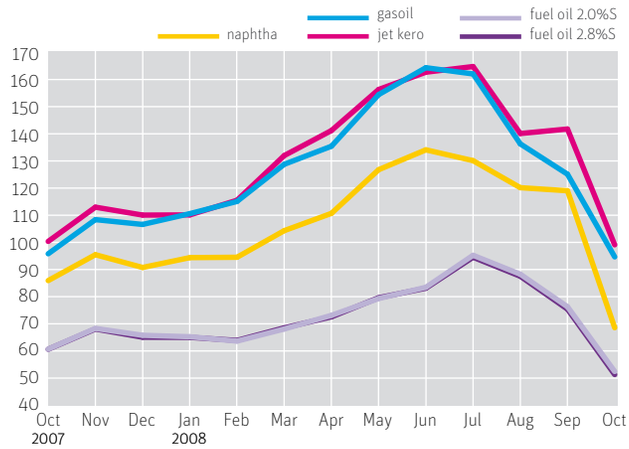


Table and Graph 7: Singapore market — spot cargoes, fob

$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	diesel ultra light	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2007	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	106.17	70.37	70.89
2008	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
	July	125.41	135.19	134.60	168.64	167.21	109.53	108.05
	August	108.24	115.42	113.91	135.87	137.57	101.07	99.84
	September	91.89	107.02	104.75	121.57	121.42	88.23	87.77
	October	51.04	79.38	77.07	90.00	89.97	59.99	59.08

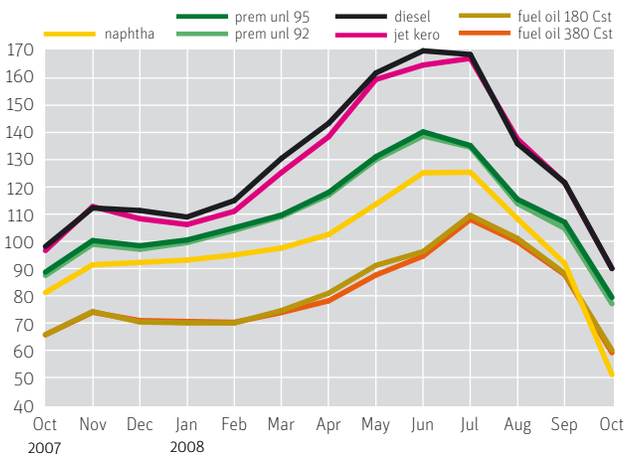
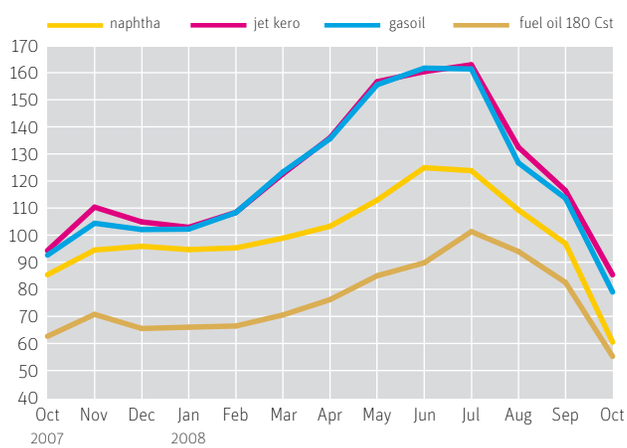


Table and Graph 8: Middle East Gulf market — spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2007	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
2008	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
	July	123.82	161.39	162.92	101.29
	August	109.30	126.68	132.46	93.96
	September	96.88	113.61	116.44	82.53
	October	60.48	78.97	85.35	55.21



Source: Platts. Prices are average of available days.

Secretariat visit

Dr Omar Farouk Ibrahim (front row centre), Head, PR & Information Department; Zoreli Figueroa (back row second left), Senior PR Coordinator; and Mahid Al-Saigh (back row right), Senior PR Assistant; among students from Wake Forest University, Winston-Salem, North Carolina, who paid a visit to the OPEC Secretariat on November 17, 2008.

Forthcoming events

Global floating production systems 2008, December 3–4, 2008, London, UK. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Byfleet KT14 6WL UK. Tel: +44 207 017 55 18; fax: +44 207 017 47 15; e-mail: energycustserv@informa.com; website: www.ibcglobalconferences.com/fps08.

ERTC reforming training course 2008, December 3–5, 2008, Brussels, Belgium. Details: Global Technology Forum, Highview House, Tattenham Crescent, Epsom Downs, Surrey KT18 5QJ, UK. Tel: +44 1737 365100; fax: +44 1737 365101; e-mail: events@gtforum.com; website: www.gtforum.com.

International petroleum technology conference, December 3–5, 2008, Kuala Lumpur, Malaysia. Details: Society of Petroleum Engineers, Suite B-11-11, Level 11, Block B, Plaza Mont'Kiara, Jalan Bukit Kiara, Mont'Kiara, 50480 Kuala Lumpur, Malaysia. Tel: +60 36201 2330; fax: +603 6201 3220; e-mail: spekl@spe.org; website: www.spe.org.

Energy Caribbean 2008, December 10–11, 2008, Port of Spain, Trinidad. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Byfleet KT14 6WL UK. Tel: +44 207 017 55 18; fax: +44 207 017 47 15; email: energycustserv@informa.com; website: www.ibcglobalconferences.com/caribbean.

Offshore technology, January 10–12, 2009, Abu Dhabi, UAE. Details: Society of Petroleum Engineers, Dubai Knowledge Village, Block 17, Offices S07–S09, PO Box 502217, Dubai, UAE. Tel: +971 4 390 3540; fax: +971 4 366 4648; e-mail: spedub@spe.org; website: www.spe.org.

FPSO Accra, January 12–14, 2009, Accra, Ghana. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Byfleet KT14 6WL, UK. Tel: +44 207 017 55 18; fax: +44 207 017 47 15; email: energycustserv@informa.com; website: www.fpso.com.

8th International oil and gas conference and exhibition, January 11–15, 2009, New Delhi, India. Details: Petrotech-2009 Secretariat, SCOPE Complex, Core–8, 3rd Floor, 7, Institutional Area, Lodhi Road, New Delhi, 110 003, India. Tel: +91 11 2436 4055, 2436 1866, 8468; fax: +91 11 2436 0872, 5820; e-mail: convenor_petrotech@iocl.co.in; website: www.petrotech2009.org.

India Petrotech 2009, January 11–15, 2009, New Delhi, India. Details: Reed Exhibitions India, Abhishek Bhatnagar, Reed Exhibitions India, 11th Floor Building No. 9A, DLF Cyber City, Phas III, Sector 25A, Gurgaon, Haryana, 122002, India. Tel: +91 1244 686 318; fax: +91 1244 686 309; e-mail: abhishek.bhatnagar@reedexpo.co.uk; website: www.reedexpo.in.

7th Annual gas storage outlook, January 15–16, 2009, Houston, Texas, USA. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 176 6142; fax: +44 207 176 8512; e-mail: cynthia_rugg@platts.com; website: www.events.platts.com.

Power storage, January 15–16, 2009, Las Vegas, Nevada, USA. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 176 6142; fax: +44 207 176 8512; e-mail: cynthia_rugg@platts.com; website: www.events.platts.com.

MENA-EX 2009, January 18–20, 2009, Jeddah, Saudi Arabia. Details: CWC Associates Ltd, Regent House, Oyster Wharf, 16–18 Lombard Road, London SW11 3RF, UK. Tel: +44 207 978 000; fax: +44 207 978 0099; e-mail: sshelton@thecwcgroup.com; website: www.thecwcgroup.com.

Gas hydrate challenges in oil and gas industry, January 18–21, 2009, Doha, Qatar. Details: Society of Petroleum Engineers, Dubai Knowledge Village, Block 17, Offices S07–S09, PO Box 502217, Dubai, UAE. Tel: +971 4 390 3540; fax: +971 4 366 4648; e-mail: spedub@spe.org; website: www.spe.org.

Vacancy announcements

Head, Multilateral Relations Department

Application deadline: December 31, 2008

Job description:
Within the Research Division, the Multilateral Relations Department is responsible for analyzing, reporting and advising on developments pertaining to ongoing multilateral debates, negotiations and treaties, such as on energy and sustainable development. This entails monitoring and analyzing energy related multilateral policy initiatives; actively following the pertinent, international dialogues on energy and emerging policies and conventions and reporting thereon; gathering and analyzing data and information in these fields; ensuring proper coordination among Member Countries and participation in relevant multilateral forums and discussions; further building up OPEC's networks with national, regional and multilateral organizations; enhancing and supporting coordination and collaboration among Member Countries themselves.

Required competencies and qualifications:
Advanced University degree (PhD preferred) in Economics, Political Science or other fields relating to Economic, International Trade and Development Cooperation Policy. A minimum of 12 years (ten years in case of a PhD degree) of applied experience in national government and in international assignments with a minimum of four years in a management/supervisory position. Training/specialization in international relations, representation and diplomatic relations. Team building and problem solving skills, project management skills and presentation skills.

Oil Price Analyst

Application deadline: December 12, 2008

Job description:
Studies and analyzes determinants of oil prices and price differentials between grades of crude oil, as well as different market crude spreads with potential arbitrage flows. He/she analyzes factors affecting petroleum future markets and their interaction with spot price and forecasts short- and medium-term oil price movements and — on the basis of forecasts of oil demand and supply, as well as current stock movements — undertakes market assessments under different scenarios and reports thereon.

Required competencies and qualifications:
University degree in Economics, Petroleum Economics, Marketing, Engineering or related fields. A minimum of eight years of experience in the oil industry sector (with university degree). A minimum of six years of experience in the oil industry sector (with advanced university degree). Training specialization in physical and future markets, supply/demand fundamentals, economics in the petroleum industry, trading tools, oil market and its fundamentals, in particular combination of all key factors influencing the oil market/prices.

Environmental Policies Analyst

Application deadline: December 31, 2008

Job description:
The Environmental Policies Analyst, in collaboration with the International Relations Analyst, studies and analyzes national and multilateral environmental policies, and assesses their impact on energy developments, in particular on the medium- to long-term oil outlook and on OPEC. He/she studies and analyzes developments in the global and multilateral debate on climate change and evaluates the impact on OPEC. Furthermore, he/she contributes to the coordination of OPEC Member Country positions in international forums on issues pertaining to the environment in general and to the United Nations Framework Convention on Climate Change (UNFCCC) negotiations in particular.

Required competencies and qualifications:
University degree in Environmental Sciences or Economics, Engineering or other Sciences, preferably with specialization in environment (advanced degree preferred). A minimum of ten years (eight years in case of an advanced degree) of applied experience, four of which with managerial experience, preferably at large national, regional/international institutions. Training/specialization in environmental policies; analysis of environmental issues related to energy and international debate on environment. Analytical, communication and presentation skills.

Status and benefits:
Members of the Secretariat are international employees whose responsibilities are not national but exclusively international. In carrying out their functions they have to demonstrate the personal qualities expected of international employees such as integrity, independence and impartiality.

Applications:
For above positions, applicants must be nationals of Member Countries of OPEC and should not be above 58 years of age. OPEC has a policy of non-discrimination which encourages qualified men and women to apply. Applicants are requested to fill in a résumé and an application form which can be received from their country's Governor for OPEC (see www.opec.org/home/vacancies/index.htm).

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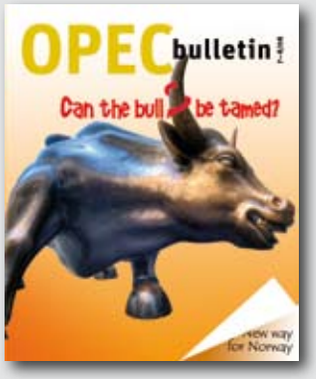

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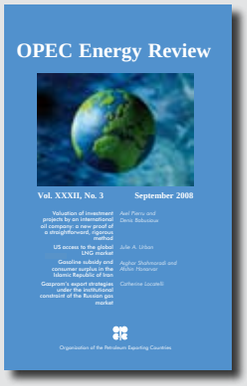

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