OPEC bulletin

4/11

MDTC

– a 'window' of opportunity

Competitions for OPEC Awards open

The importance of skilled new generations for the industry

Staying ahead of the game! Keeping pace with changing technology! Penetrating new frontiers!

However you care to put it, the challenges facing the oil industry are countless, formidable, diverse in nature, familiar to many of us, well-defined and yet prone to both sudden change and steady evolution.

In such an environment, "Always be prepared" is a key maxim for responsible stakeholders, OPEC among them.

Even facing one of the most basic challenges for any business sector — meeting future demand — is not as straightforward as it may seem at first in the oil industry.

Our present reference case scenario shows world oil demand growing by 25 per cent by 2030. But, of course, even if this demand rise ultimately turns out to be close to the actual figure, the amount of new capacity that will be added will exceed this by significant amounts, because it must also accommodate declining output or even total depletion from many existing fields. Plant and equipment may need to be replaced or updated due to obsolescence. New incremental production may come from more difficult, remote areas. New regulations may add to the complexity — and cost — of future operations. Technology will continue to surprise us. And then there is the unpredictable nature of energy policy-making in consuming countries; OPEC has been highly critical of this, with its damaging impact on security of demand.

Therefore, how can one truly predict how much OPEC crude will be required over the next two decades? Scenarios point us in the direction of future possibilities, from today's perspective. But they can only go as far as the existing analytical tools allow.

However, this commentary is not about the whys and wherefores of scenario-building, market analysis or any other such matter.

Instead, it addresses the stages that precede this — human resources and the importance of training and bringing on skilled new generations to man the industry, as today's managers, executives, field-operators and other officials retire or move on for other reasons.

The above example has been chosen to illustrate the extent of the vision, the expertise, the application and the dedication that is required to ensure the future well-being of the oil industry. It is a formidable challenge. An enduring challenge. There are no quick fixes. And yet, at the same time, no stone should be left unturned.

OPEC has long recognized this. Our latest *World Oil Outlook* (WOO) reminds us of the impact of the recent financial crisis and the economic downturn on jobs: "This has been particularly apparent in industries that require significant numbers of skilled personnel for long-term projects, such as the petroleum industry." It continues: "Alongside the current global economic climate, the human resource challenges include the large-scale downsizing that led to a lack of recruitment into the energy sector during the 1980s and 1990s. At this time, many universities cut back drastically on the number of people taking energy disciplines because the industry did not need graduates in such numbers. In recent years, there has also been a dramatic expansion in the service and emerging knowledge economies, which has led to fierce competition for talent."

The oil industry must see people as long-term assets. "This means making the industry more attractive to prospective graduates and employees from across the world and broadening the ways and means available to keep talented people in the industry," WOO stresses.

This month, OPEC has been holding its 11th Multi-Disciplinary Training Course (MTDC) in Vienna. This internal course is designed to provide participants from Member Countries with a broad overview of the Secretariat's activities, as well as deepen their technical understanding of the oil industry, particularly with regard to the market. As was stated in the opening address: "We hope that, after this training course, you will be better able to participate in energy discussions and in the development of national energy policies." Another expressed hope was that participants would "develop a good network" with those from other Member Countries — ie dialogue and cooperation, another hallmark of OPEC's legacy.

The activities of the MDTC constitute only a tiny fraction of the training that takes place continually within our Member Countries, and are part of broader-based efforts to attract fresh new talent to the industry and, equally importantly, keep it there.

All in all, it is the responsibility of all parties to ensure that the industry functions well in the future and can handle the many challenges facing it for decades to come, and a well-trained, committed workforce is central to this.

Contents

OPEC bulletin

Cover

This month's cover reflects OPEC's Multi-Disciplinary Training Course, which was held at the Secretariat on April 18–21, 2011 (see article on page 18).

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OPEC Membership and aims

OPEC is a permanent, intergovernmental Organization, established in Baghdad, on September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective — to coordinate and unify petroleum policies among its 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 comprises 12 Members: Qatar joined in 1961; SP Libyan AJ (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007). Ecuador joined OPEC in 1973, suspended its Membership in 1992, and rejoined in 2007. Gabon joined in 1975 and left in 1995. Indonesia joined in 1962 and suspended its Membership on December 31, 2008.

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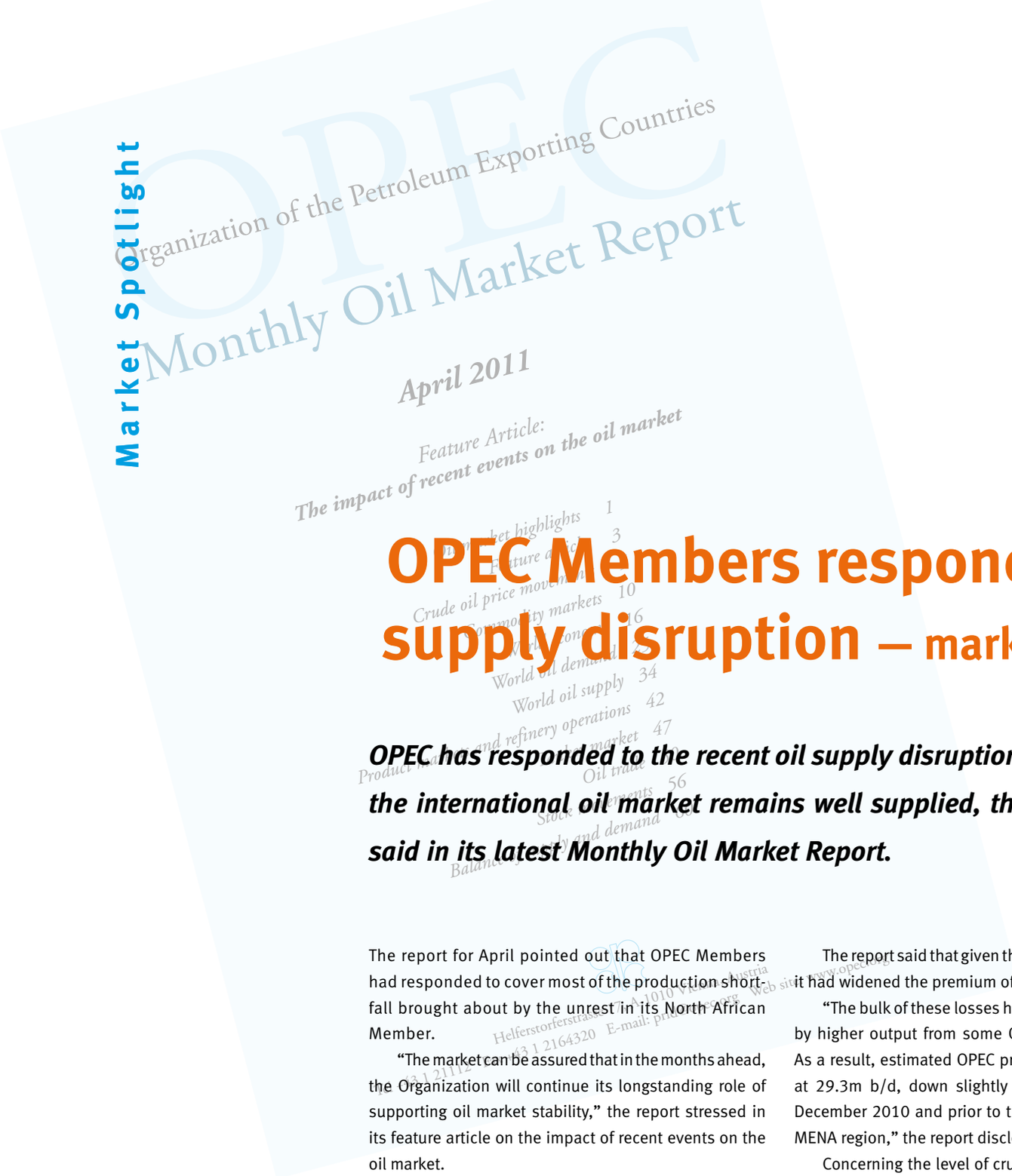


OPEC Members respond to oil supply disruption – market report

OPEC has responded to the recent oil supply disruption to ensure that the international oil market remains well supplied, the Organization said in its latest Monthly Oil Market Report.

The report for April pointed out that OPEC Members had responded to cover most of the production shortfall brought about by the unrest in its North African Member.

"The market can be assured that in the months ahead, the Organization will continue its longstanding role of supporting oil market stability," the report stressed in its feature article on the impact of recent events on the oil market.

It observed that crude oil prices initially spiked in February with the onset of the supply disruption in Libya and concerns that supply outages could spread to other producers in the Middle East and North Africa (MENA) region.

"Indeed, Libyan unrest has cut output by almost 80 per cent from normal levels of 1.6 million barrels/day to around 250,000–300,000 b/d, all of which is said to be consumed domestically."

The report said that given the quality of Libyan crude, it had widened the premium of light sweet grades.

"The bulk of these losses has been compensated for by higher output from some OPEC Member Countries. As a result, estimated OPEC production in March stood at 29.3m b/d, down slightly from the levels seen in December 2010 and prior to the onset of unrest in the MENA region," the report disclosed.

Concerning the level of crude oil prices, it said that up until recently, they had been trading in a higher but relatively narrow range, with the OPEC Reference Basket fluctuating between $106–$112/b.

However, at the beginning of April, prices moved sharply higher to stand at around $120/b.

Reviewing factors driving recent oil price movements, the report said the supply concerns and the associated risk premium were later dampened to some degree by the triple catastrophe of the earthquake, the tsunami and

the resulting nuclear problems in Japan, which led to a persistent disruption in the country's energy complex.

"The overall impact of the tragic events in Japan on oil consumption is far from clear. While the devastating earthquake caused a sudden decline in the country's use of oil, this is likely to be broadly offset by the need to substitute some of its shut-in nuclear power capacity with oil-based generation," it maintained.

"Moreover, with the start of reconstruction efforts — currently estimated at $300 billion — this is expected to require even higher energy use."

The report noted that in the immediate aftermath of the earthquake, Japan had responded to product shortages by maximizing refinery runs at unaffected plants to deliver more products. At the same time, Japan had released around 66m b from its strategic petroleum reserve to ease the fuel shortages.

"The country is also seeking a large inflow of crude oil to meet refinery demand and its need for crude-burning power generation."

It said that even before, the disaster, Japan's oil consumption was forecast to shrink by 1.5 per cent. With the exception of 2010, this decline was a continuation of the trend of the past few years. Japan's efficiency efforts, along with the reduced consumption needs of its aging population, were seen as the main factors behind this trend.

The report pointed out that the tragic events in Japan were also having a strong impact on the country's economic growth. The projection for expansion this year had been lowered to minus 0.1 per cent from a previous 1.5 per cent.

Those areas heavily affected by the earthquake and tsunami produced around six per cent of the country's GDP, while another one per cent might be impacted, due to associated factors, such as power shortages.

"While this seven per cent shortfall is expected to have some impact on the first quarter, the major effects will be seen in the second quarter of this year.

"However, counter-measures by the administration and catch-up effects in the second half of 2011 should partially compensate for some of the earlier decline."

The report said that the negative impact on Japan's trade partners in the Asian region was expected to be low and the shortfall for global economic growth was currently forecast at only 0.1 per cent. As a result, the forecast for global growth in 2011 stood at 3.9 per cent.

The report stated that while events in the MENA region and Japan continued to set the background for the market, more recently crude oil prices had moved higher on concerns about potential unrest in some West African producing countries.

"... crude oil prices still remain at high levels — out of step with the realities of supply and demand. In terms of fundamentals, the recent events alone do not justify the current high price levels. Instead, these represent a sharp increase in the risk premium, reflecting fears of a shortage in the market in the coming quarters."

Stocks still high

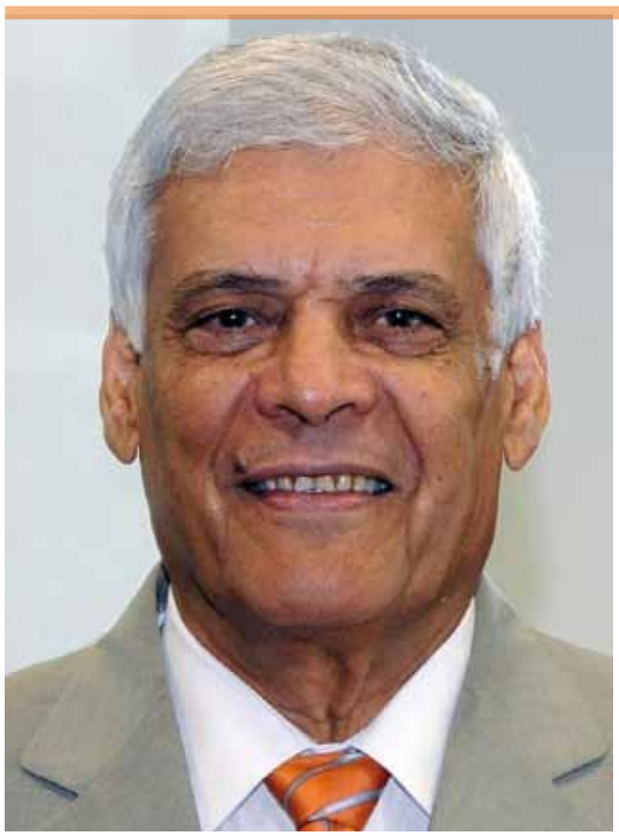
Although global petroleum inventories had gradually been declining, they still remained above the historical trend, especially in terms of days of forward cover. Moreover, the current supply/demand balance showed that demand for OPEC crude was expected to average 29m b/d in the second quarter, still below estimated OPEC production for March, indicating sufficient supply in the market.

"Despite this, crude oil prices still remain at high levels — out of step with the realities of supply and demand," the report contended.

"In terms of fundamentals, the recent events alone do not justify the current high price levels. Instead, these represent a sharp increase in the risk premium, reflecting fears of a shortage in the market in the coming quarters," it added.

El-Badri assures consumers of adequate crude supplies

Market adjusts to current situation and partial loss of oil production



*OPEC Secretary General, **Abdalla Salem El-Badri** (pictured), attended the Fourth Asian Roundtable on Sustainable Growth and Energy Interdependence in Kuwait, in April. In his remarks, he spoke about the current problems facing the oil market, including the recurrence of high prices, but stressed that, despite the situation, there was no shortage of oil for the consumers. El-Badri also highlighted the growing importance of the Asian region to future energy demand and stressed that, going forward, it was imperative that all stakeholders worked towards securing oil price stability, which, in turn, would ensure an efficient and orderly future for the market and its participants. This article is based on his address.*

There is no shortage of oil anywhere in the world, even with the partial absence of production from one of OPEC's Member Countries [Libya], the Organization's Secretary General, Abdalla Salem El-Badri, made clear at an industry gathering in Kuwait.

Addressing the Fourth Asian Roundtable on Sustainable Growth and Energy Interdependence, he said the fact that the market still enjoyed plentiful supplies, despite the current problems, had been indicated by OPEC on many occasions.

The OPEC Secretary General conceded that recent global events, as well as the continued uncertainties surrounding the global economy and its recovery, had obviously had an impact on the oil and energy markets.

However, he pointed out that the oil markets, which were global in nature, had rapidly adjusted to the situation, both in terms of volume and quality.

Moreover, said El-Badri, petroleum stock levels remained high, and OPEC's spare output capacity was at around 4.5 million barrels/day, even after the recent disruption.

In addition, he told delegates, the global refining system had adequate flexibility and OPEC's current production was at the level it was in December 2010.

El-Badri, who attended the Roundtable on the invitation of Kuwait's Oil Minister, Sheikh Ahmad Al-Abdullah Al-Ahmad Al-Sabah, noted that the first quarter of 2011 had seen a number of significant events that none could have predicted at the turn of the year.

In the Asian region, there was Japan's huge earthquake, devastating tsunami and subsequent nuclear crisis.

"Our sympathies are with all those affected by these catastrophic events," he said.

And in the North Africa and the Middle East (MENA) region, said El-Badri, unrest had been witnessed in a number of countries.

"Our thoughts and hearts are with all those civilians who have suffered tremendously and whose daily lives have been adversely impacted. Where unrest remains, it is hoped that peaceful solutions can be found," he affirmed.

"Our thoughts and hearts are with all those civilians who have suffered tremendously and whose daily lives have been adversely impacted. Where unrest remains, it is hoped that peaceful solutions can be found."

During the first three months of the year, he said, crude oil prices had been increasing, with speculator activity on the New York Mercantile Exchange (NYMEX) surging to record highs.

By mid-March, he explained, open interest for NYMEX West Texas Intermediate (WTI) crude exceeded the unprecedented level of 1.5 million futures contracts, some 18 times higher than the daily traded physical crude.

"Such an increase has been the result of concerns on supply further deteriorating beyond the current situation. A risk premium of about $15–20 is currently embedded in the price," the OPEC Secretary General maintained.

He stressed that it was important that the market focused on its balanced supply and demand fundamentals, stating that a curb in speculative activities was needed.

"None of us want a return to the price levels we witnessed in mid-2008," he professed, alluding to the time when the price of crude hit a record of near $150/b.

The recent rise in prices, he said, had been even more pronounced at the consumer end, where the effect of consuming country taxation was greatly felt.

"While OPEC has played its role by ensuring the market remains well supplied in crude, it would be helpful at this point in time if consuming countries that have a high level of taxation on oil products consider revising down these levels, at least temporarily, to alleviate the impact on end-consumers," he reasoned.

"While OPEC has played its role by ensuring the market remains well supplied in crude, it would be helpful at this point in time if consuming countries that have a high level of taxation on oil products consider revising down these levels, at least temporarily, to alleviate the impact on end-consumers."

"These are exceptional circumstances that need exceptional remedies," he said.

Looking to the longer term and the theme of the session — The Asian Energy Outlook up to 2030 — El-Badri said what was clear was that the Asian region had become, and would increasingly become, ever more important in terms of global economic growth and energy demand.

This, he said, was highlighted in last November's publication of OPEC's annual *World Oil Outlook*.

First, said El-Badri, in terms of demographics, Asia was home to two-thirds of the world's population, a population that was young, growing quickly and increasingly located in large urban areas.

In terms of the economy, Asia's role and its global weight was rapidly expanding.

"Today, it contributes 36 per cent of the world's gross domestic product and this share is expected to reach 49 per cent by 2030. Asia will economically be the fastest-growing region over the next 20 years," he said.

The OPEC Secretary General said that this economic strength could also be viewed in the region's recovery from the global economic crisis. Emerging economies, with China and India to the fore, were now back to strong growth rates.

"This is in contrast to many OECD countries that are juggling the need for additional monetary and fiscal policies to support fragile growth and the necessity for fiscal consolidation. This is particularly evident in the sovereign debt situations of a number of Euro-zone countries," he observed.

This expected economic growth, he said, also translated into Asia's expanding importance for energy demand, in general, and oil demand, in particular.

"In fact, the hub for oil demand has been progressively shifting towards Asia in recent years," he said.

For example, continued El-Badri, over the last five years, OECD oil demand had contracted by around 3.8m b/d, while Asia, including the Middle East, actually saw an increase of almost 4.8m b/d over the same period.

Looking ahead, he contended that developing countries were set to account for most of the long-term oil demand increase, with consumption rising by 22m b/d over the period 2009-30 to reach almost 57m b/d.

Of significance, around 75 per cent of the net growth in oil demand in this period was in developing Asian economies.

"It is clear that transportation will remain the main source of the region's oil demand growth. With strong economic expansion, improvements in living standards and greater disposable incomes, a significant increase in vehicle volumes for Asia's developing countries is expected," noted El-Badri.

"Today, 22 per cent of world passenger cars are in Asia; this figure is projected to reach 39 per cent in 2030. This represents phenomenal growth," he added.

El-Badri said, however, that it should be noted that per capita oil use in developing countries would remain far below that of the developed world by 2030.

For example, oil use per person in North America would still be more than ten times that in South Asia.

Moreover, energy poverty would remain a very real concern for many billions of people, the majority of whom were to be found in Asia.

"Of course, the region's growing energy use can be expected to result in higher levels of greenhouse gas emissions," said El-Badri, adding that it was important, however, to put this in context.

"This is specifically in terms of sustainable development, with its intertwined and mutually supportive pillars of economic development, social progress and the protection of the environment. And in regards to priorities

and responsibilities, with the United Nations Framework Convention on Climate Change stating that economic and social development and poverty eradication are the first and overriding priorities of developing country Parties. Developed countries should take the lead in combating climate change and the subsequent adverse effects," he stated.

Carbon intensity reduction

El-Badri said that, nonetheless, it should be stressed that many Asian countries were already playing a role in reducing their economy's carbon intensity.

For example, he said, China's recent five-year plan called for a drastic reduction in both energy consumption and CO_2 emissions per unit of GDP, by 16 per cent and 17 per cent, respectively, by the end of 2015.

"And many countries in the region are also seeing a significant expansion in renewables, albeit from a low base."

El-Badri told the Roundtable that there had also been much talk of nuclear in recent years, with a number of countries in the region looking to build nuclear plants.

Events at the Fukushima nuclear complex in Japan, however, had led to many questions being asked about nuclear power, particularly in terms of safety, waste and decommissioning, he said.

"From an oil market perspective, for fast-growing Asian economies it is important that there is adequate supply to meet the growing demand. This is clear, both in terms of production and available resources," he said.

El-Badri pointed out that while suppliers continued to face significant challenges, such as the impact of the global financial and economic crisis, market volatility and the role of speculation, and an often unclear demand picture as a result of a number of consuming country policies, investments to increase oil production capacity were being made.

In the medium-term to 2015, OPEC Member Countries were expected to invest an estimated $290 billion in upstream projects, with $120bn in Iraq alone.

"We remain committed to future investment plans to boost our capacity," affirmed El-Badri.

Resources, he said, were also plentiful. The Middle East alone had an abundant natural resource endowment of over 750bn b in proven crude oil reserves and almost 76 trillion cubic metres in proven gas deposits, which was around 56 per cent and 40 per cent of global totals, respectively.

"What all this underlines is the ever-expanding interdependence between the Middle East and Asian regions. This is not only in terms of oil trade, which continues to grow, but also from a broader economic perspective," he stated.

For example, said El-Badri, between 2000 and 2009, exports to the Middle East from Asia and the Far East increased by around 300 per cent, compared with an increase of about 120 per cent in terms of total world exports from Asia and the Far East.

"... our goal must be one of stability, with a clear and consistent environment that enables the industry to continue to develop, produce, transport, refine and deliver energy in an efficient and economic manner. This will benefit producers and consumers, as well as present and future generations ..."

Exports from the Middle East to Asia and the Far East also increased — by around 180 per cent — compared with a global figure of about 145 per cent.

"In looking at Asia's future energy outlook, it is clear that the relationship between this region and the Middle East is an extremely important one and one which will continue to grow. There is much that each can offer the other," said El-Badri.

"In general, the growing interdependence between us is all the more clear today given that many regions and countries are facing an array of challenges, such as those originating from economic and financial uncertainties, natural disasters and domestic social unrest," he said.

"With this in mind, our goal must be one of stability, with a clear and consistent environment that enables the industry to continue to develop, produce, transport, refine and deliver energy in an efficient and economic manner.

"This will benefit producers and consumers, as well as present and future generations, and hopefully deliver a better standard of living for all peoples around the world, as well as a greater hope that tomorrow will be better than today," he stated.

OPEC: established, mature and ready for the future – Qabazard

OPEC's Research Division Director, ***Dr Hasan M Qabazard****, recently gave a keynote address to a conference in Tulsa, the United States, convened specifically to pay tribute to the Organization's 50th Anniversary last year. In his address, Qabazard looked at OPEC's history, its continuing responsibility to the global energy community and what basically makes the Organization tick. The following article is based on his speech.*

Today, over half a century after it came into being and facing a more complex, globalized and interdependent world, OPEC is an established, mature and widely consulted member of an international energy community that is fully cognisant of its responsibility towards broader-based, interlinked multilateral concerns.

That was the view put forward by Dr Hasan M Qabazard, Director of the Organization's Research Division in Vienna, Austria, to the conference 'OPEC at 50: its past, its present, its future in a carbon-constrained world', at the University of Tulsa, the United States towards the end of March.

In a keynote luncheon address to the one-day gathering, organised by the US National Energy Policy Institute (NEPI), he stressed that OPEC was totally committed to ensuring future oil market stability.

This, he stated, involved timely and sufficient investment, minimizing uncertainties, developing a sound human

resource base and, more generally, providing an effective enabling environment.

"In a world of growing interdependence, this needs to be supported by a sound process of dialogue throughout the industry and in related areas, something that OPEC actively encourages," he told assembled delegates.

The conference, convened by NEPI to mark OPEC's 50th Anniversary last year, brought together leading voices in the energy field to explore the Organization's role in the 21st century, a period bringing many new challenges. The programme pointed out that participants would seek to answer the question as to whether a product of the 1960s (when OPEC was born) could adequately meet the needs of a rapidly changing world.

Qabazard answered the question by saying that as it looked to the future, the Organization attached even greater importance to long-term energy security and the steps its Member Countries took to achieve this through their timely and adequate investments in the oil and energy supply chain.

"However, it is important to recall that the oil and energy industry, being capital intensive, requires predictability in energy polices in terms of more realistic targets and the absence of extreme price volatility for the continuity of sound, long-term investments," he explained.

OPEC, he noted, grouped its present and future concerns into three 'guiding themes': stability of global energy markets; energy for sustainable development; and energy and the environment.

Qabazard said that as world energy demand was forecast to grow strongly for decades to come, oil and other fossil fuels would continue to play a major role in the energy mix. Renewables would grow fast, but from a low base.

"The demands of an increasingly carbon-constrained world will require universal access to the latest technology and broad, commercial-scale deployment of cleaner fossil fuel technologies. This is, however, likely to increase investment costs," he said.

Starting his address by looking at OPEC's history, why it was formed and what its underlying philosophy was, as expressed in its aims and objectives, Qabazard pointed out that again and again, the same simple word cropped up — "stability".

The quest for stability was central to OPEC's actions. But this was a necessary requisite for its survival, considering that averaged out across the Organization's Member Countries, around three-quarters of its export revenue was derived from petroleum sales.

"This revenue plays a vital part in financing our economic development. I need hardly tell anyone in the heart of the United States that sound investment strategies thrive on stability. It is the same the world over," he affirmed.

Looking back, he said OPEC had been around for about a third of the life of the modern petroleum industry "if we date that as starting from the famed Colonel Edwin Drake first pumping oil about a thousand miles from here, in Titusville, Pennsylvania, in August 1859."

Hence, the oil industry was already well established when OPEC was created in Baghdad, in September 1960.

Indeed, continued Qabazard, many characteristics of today's oil industry had already been played out on numerous occasions by the time OPEC arrived.

Sense of déjà vu

These included the constant quest for new sources of oil, the exploitation of more remote and extreme areas, the onward march of technology, 'boom' and 'bust' cycles, severe price volatility, excessive speculation, pioneering business practices, and the influence of corporate power, to name a few.

"In other words, there is very much a sense of déjà vu about many of today's challenges. But, of course, in today's global village, everything is now on a vaster scale, as well as being more complex, technologically advanced and fast-paced," he added.

When OPEC was formed in 1960, world proven crude oil reserves totalled 291 billion barrels and annual production averaged 21 million barrels/day. That compared with 1,337bn b and 69m b/d in 2009.

"In other words, reserves have expanded by more than four-and-a-half times over the past half century and production by more than three-and-a-quarter times. In short, the world has been adding to its reserves faster than it has been using them during this time," Qabazard pointed out.

Turning to OPEC specifically, he said that in 1960 the Organization's five Founder Members — Iran, Iraq, Kuwait, Saudi Arabia and Venezuela — accounted for 68 per cent of world reserves and 38 per cent of production. This compared with 80 per cent and 42 per cent, respectively, for its 12 Members in 2009.

"While these proportions have varied over the years, they have always highlighted the greater potential of OPEC producers to raise output than their non-OPEC counterparts," said Qabazard.

However, he stressed that OPEC's history was not just about numbers — there were other issues of a qualitative nature involved.

In the years leading up to OPEC's birth, the so-called 'Seven Sisters' international oil companies dominated the oil market at all stages of the supply chain and profited from selling large quantities of crude at very low prices.

In contrast, the oil-producing developing countries, which were almost totally reliant on petroleum sales for their export revenue, were paid only small royalties and not even consulted on important matters regarding their livelihoods, such as the pricing and production of their crude.

Matters came to a head in the summer of 1960 when the oil companies reduced oil prices once again without consulting the host governments.

"Thus, our five Founder Members met in Baghdad and created OPEC," noted Qabazard.

The first resolution from that inaugural meeting stated that "Members can no longer remain indifferent to the attitude heretofore adopted by the oil companies in effecting price modifications."

Qabazard told the conference that there were two outstanding issues OPEC had to address from the word go. One was the pricing of Member Countries' crude on world markets and the other was control of their domestic oil sectors.

In addressing prices, stability was recognised as a key OPEC objective in the first resolution. That was rubber-stamped by the OPEC Statute in 1965. Hence, oil price stability was right at the centre of the Organization's thoughts from its very first meeting.

Qabazard said the same was true for security of supply. However, energy security went much further and OPEC was pleased to see that this truism finally won wide acceptance on the international agenda half a decade ago.

"Energy security is a multi-dimensional matter, requiring the attention of all parties in the industry," he professed.

It should be reciprocal, since security of demand was as important to producers as security of supply was to the consumers. It should also apply to all energy sources in a manner free from prejudicial regulatory and legislative measures, to the entire supply chain, and it should be universal, applying to rich and poor nations alike and covering all foreseeable time-horizons. In addition, he added, it should focus on providing all consumers with the most modern energy products.

With regard to controlling domestic oil sectors, Qabazard said that OPEC waited until 1968 before making a formal pronouncement. That took the form of a 'Declaratory Statement of Petroleum Policy in Member Countries'.

"This important document referred to the inalienable right, as expressed by the United Nations, of all countries to exercise permanent sovereignty over their natural resources in the interests of their national development. It claimed that the exploitation of OPEC's indigenous, exhaustible resources should be aimed at securing the greatest possible benefit for its Member Countries. This could best be achieved if these countries themselves directly undertook the exploitation of these resources," he outlined.

All this, he said, helped prepare the ground for the major changes that occurred in the oil industry in the early 1970s. That saw OPEC Member Countries assert their sovereign rights over their domestic oil sectors, as well as having a significant influence on how their oil was priced on world markets.

"It essentially set the pattern for the way the industry is structured today, including the development and growth of national oil companies," he noted.

As time went by, OPEC broadened the scope of its activities. In 1976, the OPEC Fund for International Development (OFID) was set up as a fully-fledged multilateral development institution, fostering social and economic progress in the developing world.

"OFID's commitments now total around $12.6bn. If you add the total aid commitments by our Member Countries through numerous other multilateral and bilateral institutions, we are looking at a total aid figure from OPEC of well in excess of $110bn."

Qabazard said it was a short step from there to a broader expression of the issue when OPEC travelled the route of the World Summit on Sustainable Development in Johannesburg in 2002.

"Since then, our Organization has repeatedly stressed the importance of the eradication of energy poverty, to such an effect that the Ministers at the 12th International Energy Forum (IEF) in Cancun, in March last year, stated that this issue should become a ninth Millennium Development Goal," he stated.

Qabazard said that the past two decades had also witnessed much activity by OPEC and its Member Countries on the environmental front, addressing both climate change and local pollution.

"Like everyone else, we want a cleaner, safer world and we do our best to bring this about in the oil industry.

We are very much aware of the challenges of a carbon-constrained world. We have been actively engaged in the UN-sponsored climate change negotiations since the Rio Summit in 1992, to ensure that the interests of oil producers are properly represented, especially those from the developing world.

"In particular, in trying to reach a fair, comprehensive and equitable agreement, balancing the interests of developed, developing and emerging economies, we are committed to the principles of equity, common but differentiated responsibilities and respective capabilities," he said.

Exciting schemes

Qabazard said that in OPEC Member Countries themselves, there were exciting schemes underway, such as the pioneering carbon capture and storage project at In Salah in Algeria, the visionary scheme to conserve indefinitely an area rich in biodiversity in the Yasuni National Park in Ecuador, and the building of what was intended to be the world's first carbon-neutral zero waste city at Masdar, in the United Arab Emirates.

More generally, across the Middle East and North Africa, the geography and climate were clearly beneficial to the development of solar power and some Member Countries were already exploring the potential of this type of renewable energy.

The OPEC Research Division Director said the interlinkages of energy, economic development and the environment were recognised in the concluding Solemn Declaration from the Third OPEC Summit in 2007. This referred to the three guiding themes for the 'economic, energy and environmental endeavours' of OPEC and its Member Countries — stability of global energy markets; energy for sustainable development; and energy and environment.

"These three guiding themes are now considered to be a definitive statement of OPEC's approach to handling policy issues," he said.

Implicit in all that, said Qabazard, was OPEC's recognition of the fact that the oil industry was now operating in an interdependent world and that no single party could afford to 'go it alone' any more, if it wished to prosper in the future.

"That is why OPEC has gone to great lengths over the past quarter of a century to encourage dialogue and cooperation in the industry. The International Energy Forum is a good example of this. OPEC played a big part in setting up this high-level producer-consumer body, and, indeed, its headquarters are located in one of our Member Countries, Saudi Arabia," he said. The United States was one of the 86 countries that signed the IEF's new Charter in Riyadh two months ago.

Qabazard said OPEC engaged in frequent dialogue with other leading stakeholders, such as the International Energy Agency, the United Nations, the International Monetary Fund and the World Bank, as well as the European Union, Russia and China. It also played an active role in the G20 group of countries with regard to energy matters.

Turning to some of the topical issues affecting the oil market today, he said that the biggest area of concern at the moment was the return to high levels of oil price volatility.

"This has seen the price of OPEC's Reference Basket rise by around 40 per cent since October last year, after a long period of relatively high stability in a well-balanced market, a situation that was widely recognised by producers and consumers alike," said Qabazard.

"At first, this was put down to a combination of factors, notably the early onset of winter weather, forecasts predicting a quicker-than-expected rise in crude oil demand, a surge of investment flows into commodity markets, including crude, and so on.

"Most recently, however, the situation has escalated with the political developments in parts of North Africa and the Middle East and the associated risk premium has pushed crude oil prices to their highest levels since the onset of the financial crisis in 2008. Accordingly, speculator activity on the Nymex crude oil futures market surged to record highs earlier this month," he observed.

However, said Qabazard, in the physical market, supply and demand fundamentals did not support such a rise in prices. Stock levels pointed to a continued well-supplied global market, helped by the high levels of commercial oil inventories built up during the recent financial crisis. Strategic petroleum volumes were also high within the OECD region and some emerging economies.

He said that due to ongoing long-term investment by Member Countries, OPEC spare production capacity had reached almost 6m b/d over the past year, providing an adequate cushion to the market in the case of any supply disruption. This could be made available to the market quickly, and there were reports that this was starting to happen, in response to the recent geopolitical developments.

"Some people are worried about a return to the

dramatic price rises of 2008. However, there are no grounds for such fears," he said.

Qabazard said the situation then was very different to that of today. Three years ago, the market was still reacting to a demand surge that had begun earlier in the decade and had revealed inadequate investment in new capacity years before. Even though, throughout, the market always had enough crude, there was nevertheless the impression of a tight market. This was despite OPEC's repeated assurances that the short-to-medium term was well covered by the Organization's Member Countries' investment in new capacity.

"Quite clearly, we have moved on from 2008 and there is a different set of factors affecting the oil market today."

Also, downstream, refinery constraints were adding to the upward pressure on oil prices generally. During that year too, the pressures affecting the international financial sector were reaching breaking-point, justifying the warnings OPEC had been making since the middle of the decade about the damaging impact of that poorly regulated sector on oil prices.

"Quite clearly, we have moved on from 2008 and there is a different set of factors affecting the oil market today," maintained Qabazard.

"Indeed, despite the recent unrest, the world economy continues to enjoy a solid recovery, even though uncertainties remain that could reduce the current momentum."

These, said Qabazard, included the oil price surge lasting a long time, the Euro-zone's sovereign debt crisis, rising inflation, and overheating in the emerging economies.

"Nevertheless, the overall picture for the oil market in 2011 is a positive one. With the end of the winter season, the oil market is now heading towards a period of lower demand, as well as the maintenance season downstream. There should normally be no pressure in the physical oil market," he contended.

"Notwithstanding all this, more needs to be done to circumvent the use of oil by the financial sector as a major asset class. The fact that the paper market has greatly increased its role in price-discovery in recent years means that this function has been shifted away steadily from physical supply and demand fundamentals.

"This reduces the room for manoeuvre OPEC has in tackling price volatility — even though our Organization is always ready to adapt to changing circumstances in the interests of market stability."

Qabazard said OPEC's decision in the extreme market conditions of December 2008 to reduce oil supply by around 15 per cent from September levels to redress the balance in the market was widely recognised as being highly effective in first putting a floor under the collapsing oil prices and then supporting them as they rose to reasonable, sustainable levels.

"But, even though it remains valid today, its effectiveness has been overtaken by the recent dramatic turn of events, although this may be just a temporary phenomenon.

"We are watching the situation very carefully in the oil market at the present time, and our Ministers are ready to act in the interests of stability, should market conditions warrant this," he stated.

Qabazard stressed that monitoring oil market developments was an ongoing activity in the OPEC Secretariat in Vienna. "We extend this process well into the future with extensive research, scenario-building and other such activities. This is essential for an industry with high capital outlays and long investment lead-times."

In October last year, he said, OPEC adopted its latest comprehensive Long-Term Strategy, which again emphasised that "market stability remains OPEC's underlying ethos." It identified key issues for OPEC's attention, including global economic developments, oil as an asset class, oil prices, energy and environmental policies, technological developments, world liquid supply, and investment in the face of supply and demand uncertainties.

OPEC's latest reference case showed world energy use rising by more than 40 per cent by 2030, as economies expanded, the global population grew and living conditions across the world improved. Developing countries would account for most of the demand increase.

"This is not only due to larger populations and future higher economic growth, but also because of the huge pent-up demand for energy use in these countries as people gradually gain access to modern energy services," Qabazard explained.

Fossil fuels, he said, would play the major role, with their share of the energy mix remaining above 80 per cent throughout the period, although it would dip slightly. Renewables would grow fast, but from a low base, while both hydropower and nuclear power would witness some expansion.

"In the case of nuclear power, let me first express, on behalf of OPEC, our deepest condolences to the

government and people of Japan for the trauma and loss of life they are experiencing as a result of the recent earthquake, tsunami and damaged nuclear installations in the north-east of the country. The disaster has reopened debate across the world on the future role of nuclear power, especially with regard to safety issues, and this may affect future energy mix projections," said Qabazard.

Returning to OPEC's present reference case scenario, he noted that oil's share of the energy mix would drop by around five per cent to 30 per cent. Even so, liquid fuel demand was projected to rise by nearly 20 per cent to 106m b/d by 2030, with transportation remaining the main source of growth.

Oil resources plentiful

"The world has plenty of oil to support this demand, from both conventional and non-conventional sources. This is especially the case within OPEC, where the strong resource base means that Member Countries are well able to meet the projected rise in demand for their crude to 39m b/d by 2030," said Qabazard.

But he stressed that before committing large sums to investment, OPEC Member Countries needed a fair guarantee that consumers would want their oil when the new capacity was in place.

Qabazard said that to illustrate this, OPEC had produced 'optimistic' higher-growth and 'pessimistic' lower-growth scenarios. The former saw demand rising by more than 14m b/d by 2030 and the latter looked at essentially flat demand.

"In money terms, this results in a huge uncertainty gap of $230bn for upstream investment in our Member Countries," he stated.

Qabazard said that while some types of uncertainty were difficult to tackle, such as economic growth and technology, concrete measures could be taken when it came to policy-making.

"Here I refer to the discriminatory nature of consumer country policies aimed at reducing oil demand, subsidising alternatives, or taxing oil use heavily. Unrealistic policy targets send confusing signals to investors. This is why OPEC repeatedly asks consumer governments to recognize, in their policy-making, the reasonable investment needs of oil producers. Consumers themselves will benefit from this too, because it will improve security of supply," he affirmed.

Qabazard said that a related issue that needed addressing urgently was the human resource skills base, if the industry was to meet the growing number of challenges facing it in the future.

"This is, to a great extent, a long-term matter and means making the industry more attractive to prospective graduates and employees from across the world and, once they have joined our ranks, keeping them there," he noted.

Qabazard said that in speaking at length about 'OPEC at 50', it only served to show how much the Organization had achieved over the past half century.

Not only had it grown immeasurably from a small group of developing countries defending their legitimate interests in the oil industry, but it had also diversified its activities well beyond what anyone could have imagined in September 1960.

"It is now widely recognised as a mature Organization, well-versed in the ways of both the oil sector and the energy industry at large, and an integral part of global dialogue on these and associated multilateral issues, such as sustainable development and environmental protection," he stated.

Qabazard said one of the secrets of OPEC's success over the years had been its focus on the future, especially with regard to ensuring order and stability in the international oil market, so that producers and consumers alike benefited the world over.

"OPEC remains committed to addressing these enduring challenges. This is the first key message I should like to leave you with.

"Secondly, we have been witnessing a major structural change in the market in recent years, with oil becoming a financial asset class. This has greatly increased volatility and has been detrimental to OPEC's efforts to achieve market stability. At the moment, the market is well supplied with crude and OPEC has plenty of spare capacity to handle any shortages, should they arise.

"Thirdly, in addressing the challenges facing us in the energy industry today, these must be seen as going hand-in-hand with other broader-based concerns affecting mankind, notably sustainable development, environmental protection and the eradication of poverty.

"Fourthly, as world energy demand grows strongly for decades to come, oil and other fossil fuels will continue to play the major role in the energy mix. Renewables will grow fast, but from a low base. The demands of an increasingly carbon-constrained world will require universal access to the latest technology and broad, commercial scale deployment of cleaner fossil fuel technologies. This is likely to increase investment costs," he concluded.

OPEC calls for nominations for 2012

Research and Journalism Awards

OPEC has called for nominations for its two bi-annual Award competitions in Research and Journalism.

The two Awards honour distinguished individuals in the fields of research and journalism who have made outstanding contributions to the public's understanding of the petroleum industry.

The OPEC Research Award is given to researchers who have a demonstrated record of making contributions to improving the understanding of the key determinants that support oil market stability, and have exhibited a consistently critical yet impartial view on oil-related issues in public debates and discourse.

The selection process for the Award is entrusted to a panel of experts, whose knowledge and experience enable them to make an insightful judgment on the achievements of potential Award winners.

The OPEC Award for Journalism, which is open to both print and broadcast journalists, is given to an experienced journalist or media organization that has delivered objective and balanced reporting/analysis of the oil market and related issues for more than ten years.

Donation to charity

The Journalism Award consists of a plaque and a certificate. OPEC will also make a donation of 5,000 euros on behalf of the winner to an institution or charity of his/her choice.

OPEC established the two Awards to acknowledge and celebrate the past efforts of researchers and journalists working in the oil industry, and to encourage future research endeavours and objective reporting.

Both Awards will be presented by the President of the OPEC Conference on the occasion of the 5th OPEC International Seminar, scheduled to take place at the Hofburg Palace in Vienna, Austria, on June 13–14, 2012.

The OPEC Research Award — initially called the OPEC Award — was first made in 2004 at the 2nd OPEC International Seminar, which was held in Vienna, in September of that year.

It went to Professor Robert Mabro, Emeritus Fellow of St Anthony's College, Oxford University, and a Fellow of St Catherine's College, Oxford.

Mabro, a former Director of the Oxford Institute for Energy Studies, became Honorary President of the Institute in 2006.

In 2007, together with John Mitchell and Dr Daniel Yergin, he received the King Abdallah of Saudi Arabia Award for distinguished research on energy.

The second OPEC Award, made at the 3rd OPEC International Seminar in Vienna, in September 2006, was given to economist, Professor Peter Odell, then Professor Emeritus of International Energy Studies at Erasmus University, Rotterdam.

Odell, who was described at the presentation ceremony as a "gift to academia" and a legend in the global energy sector, has devoted his whole life to research in petroleum economics. In 1991, he was honoured by the International Association of Energy Economics for his "outstanding contributions to the subject and its literature."

The third winner of the OPEC Award and honoured at the 4th OPEC International Seminar, in Vienna, in March 2009, was Professor Paul Stevens, Emeritus Professor at the Centre for Energy, Petroleum and Mineral Law and Policy of the University of Dundee.

Stevens has also enjoyed a long and illustrious career in the oil industry.

Meanwhile, the inaugural OPEC Award for Journalism was also made at the 4th OPEC Seminar. It went to Dr Walid Khadduri, a respected journalist, eminent scholar

Professor Paul Stevens, winner of the 2009 OPEC Award.

Dr Walid Khadduri, winner of the 2009 OPEC Award for Journalism.

and academic, with four decades of experience in the industry.

A former Executive Editor and Editor-in-Chief of the Middle East Economic Survey (MEES), Khadduri was, at the time, Economics Editor of the London-based Dar Al-Hayat news service, in which he writes a regular weekly column.

Additional information about both the OPEC Award for Research and Award for Journalism, as well as application forms and the procedure for submitting nominations, can be found on pages 62–65. The information is also available on the OPEC website at: www.opec.org.

OPEC's Multi-Disciplinary Training Course holds 11th session

Member Country professionals gain valuable insight into vital work of the Secretariat

OPEC's Multi-Disciplinary Training Course (MDTC), which convenes in Vienna each year, has developed into a valuable tool for informing representatives from the respective Member Countries of the vital work carried out by the Secretariat and its various departments in support of OPEC's overriding goals.

This year in its 11th edition, the MDTC, which is held at the Organization's Headquarters, greatly assists knowledge-sharing among the professionals that take part and helps them to establish industry contacts and nurture important network-building.

One of its main aims is to give participants the unique opportunity to attain a first-hand and detailed understanding of OPEC's role in the global energy supply and demand balance.

Five candidates from each of the Organization's 12 Member Countries are invited to attend the annual gathering. The idea is to bring together a diverse mix of cultures, knowledge and experience, which can only improve the richness of the Organization's work and development going forward.

This year's MDTC, which was meeting as the OPEC Bulletin went to press, attracted over 40 participants.

A great deal of organization and planning goes into staging the MDTC, which always has a packed agenda.

Over the four days, participants hear about the activities of the Secretariat's various departments, especially the work of the Research Division.

In addition, throughout the course, officials give presentations on numerous topical oil market subjects, including prices, oil supply and demand, stock movements, national and international oil companies, oil data, legal and human resources and the world economic outlook.

One regular feature of the MDTC is to visit the Headquarters of the OPEC Fund for International Development (OFID), so that participants can attain a better understanding of the vital work carried out by OPEC's sister organization.

This is arranged by the OPEC Secretariat's Human Resources Section, which is responsible for coordinating the administrative and logistic aspects of the MDTC.

The Section provides the back-up and assistance for the Academic Committee to facilitate the design of the course programme.

Once the programme has been finalized and invitation letters sent to Member Countries, it starts building a task check list, in coordination with other Headquarters Departments, including Administration and the Public Relations and Information Department.

Upon receipt of the nominations from Member Countries, Human Resources proactively contacts the candidates, providing them with application instructions and to offer any assistance they may require in making their trip to Vienna

In particular, Human Resources issues letters of support to the Austrian embassies in the respective Member Countries to expedite the visa application process and to assist participants in making hotel arrangements.

In other administrative matters, Human Resources plans a welcome dinner for participants, selects appropriate gifts to mark their attendance, and coordinates the production of a CD containing all lectures. When possible, and when time allows, it also arranges a tour of the city of Vienna.

Finally, Human Resources also arranges for feedback from participants, in order to gauge and analyze the effectiveness of the course, so that any necessary improvements can be made for future annual events.

Ahead of the 11th OPEC Multi-Disciplinary Training Course on April 18–21, 2011, the OPEC Bulletin had the opportunity to speak with the Chairman of the MDTC Academic Committee, Dr Taher Najah, who gave as a brief insight into the course and spoke about its aims and objectives.

What is the objective of the MDTC?

The MDTC has developed over the years to become the main tool for knowledge-sharing and network-building among professionals from OPEC Member Countries. By participating in the course, the professionals develop a better understanding of how the Organization is contributing to the stability of energy markets and how research is been conducted by the Secretariat to continuously evaluate the energy markets, with particular focus on oil. Moreover, those attending the course can provide the Secretariat with useful comments and proposals and may develop an interest in joining the Secretariat team in a professional capacity in the future.

What are the participants expected to take back with them from the training?

The participants are expected to take back to their respective Member Countries a good understanding of the work of the Secretariat, as conducted by the various departments. They also form a better understanding of how the oil market is functioning and how supply and demand for oil and other energy products are developing in the near term and in the future. During the course work, they will also be introduced to the latest issues being tackled by the Secretariat research team. Eventually, they will develop a good network with participants from other Member Countries, as well as with members of the workforce at the Secretariat.

How beneficial has the MDTC been since it was started 11 years ago (this is the 11th edition)

Since it was initiated 11 years ago, the training programme has proved crucial and very beneficial in enhancing communication with professionals in Member Countries. The popularity of the course, as seen in the growing number of participants received each year, as well as the reactions and positive opinions expressed by attendees in their evaluation forms, provided to them at the end of each course, more than justifies the significance of convening the programme and highlights the success of the course in achieving the objectives envisaged in organizing the annual activity.

How does the Academic Committee arrive at the theme/topics for the Course?

At the beginning of every year, the Academic Committee commences its discussions on the MDTC programme. The theme and topics of the previous year's MDTC always serve as a starting point. The objective, first and foremost, is always to demonstrate the wide-ranging activities of all research and supporting departments of the Secretariat. The methodologies and activities of each department and the outcome of recent and ongoing research projects are always aimed to be covered by the programme. Improvements to the course are made each year, based on innovative suggestions by the Academic Committee members and based on ideas derived from the evaluation of the preceding course.

Is there any special feature in this year's programme?

This year's programme will only last for four days, leaving Friday for free activities by the participants. The visit to our sister organization, the OPEC Fund for International Development (OFID), which was being organized previously at the end of the programme, has this year been brought forward to the evening of the second day. This was done in response to a suggestion by the OFID management, in order to enable and encourage all participants to take part in the visit. In addition, several ongoing and recently completed research activities will be covered in this year's programme. The timing of the various receptions has also been altered to be more convenient to the participants.

How rewarding is it designing the content of such a training programme?

Participating in the preparation and execution of the MDTC activity is always rewarding. First and foremost, it is a good opportunity to meet every year with a new group of professionals from Member Countries with diversified backgrounds and varying cultures. The participation of these professionals in the discussions after each session and in the panel discussion session with the Members of Management always reveals how successful the programme is in creating interest in the subjects covered and in encouraging participants to take part in the debate about all aspects and factors that are in play in the energy markets. The positive comments in the evaluation sheets are always the final reward and the measure of the success of the programme.

A report with full picture coverage on the 11th MDTC will appear in the May edition of the OPEC Bulletin.

Latest EU-OPEC roundtable studies impact of biofuels

Energy Dialogue goes from strength to strength

The impact and effectiveness of the Energy Dialogue set up between the European Union (EU) and OPEC five years ago has been highlighted by the Director of OPEC's Research Division.

Dr Hasan M Qabazard, in opening comments to an EU-OPEC Roundtable on 'The impact of the use of biofuels on oil refining and fuel specification', in Brussels, at the end of March, stressed that the Dialogue, since its inception, had been marked by the adoption of a pragmatic approach to addressing very real topical issues, with the intention of reaching concrete, practical results.

"This is the latest chapter of the EU-OPEC Energy Dialogue which our two parties set up in 2005 and which has since gone from strength to strength as the process has consolidated itself," he told delegates from the two sides.

Qabazard noted that the issues covered by the Dialogue had broached a variety of topical subjects, including oil market developments, technology, energy policy, carbon capture and storage, investment, transportation, the offshore sector and human resources.

"Of special note was our workshop on the 'Impact of financial markets on the price of oil' in December 2006, which warned of the dangers of poor regulation two years before the crippling global financial crisis," he affirmed.

Qabazard's comments on the progress and effectiveness of the Energy Dialogue were echoed by EU Commissioner, Heinz Hilbrecht, who led the EU team to the Workshop.

On the subject of biofuels, the Research Division Director said OPEC had first turned its attention to the non-conventional oil resource at the Organization's Fourth ministerial-level meeting of the Energy Dialogue in Vienna, in June 2007.

It was at those talks that the two sides decided to hold a workshop on the oil refining sector, "including the implications of biofuels".

That, he continued, was followed two years later by the launch and execution of the study on the "Impact of biofuels on oil refining and fuel specifications", the subject of the latest roundtable.

Qabazard explained that biofuels acquired a new-found impetus in the middle of the last decade, as a result of the high oil prices at that time and various political statements in relation to securing energy supplies.

"At that time, both the EU and the United States of America set ambitious targets for biofuel usage in the early 2020s. However, it was also becoming clear then that the potential growth for world biofuels would have to be balanced against the global impact of large-scale biomass use and trade for energy purposes in terms of land-use changes, competition with food supply and other biomass uses, biodiversity and competition for water resources."

In addition, said Qabazard, it was recognized later that the impact of the widespread use of biofuels on air quality in urban areas had not yet been fully assessed.

"As a result of these and other sustainability issues, together with the fact that production costs were seen as often exceeding market value, targets and regulations have since been subject to further reconsideration, including here in the EU," he noted.

OPEC's own studies, published in the latest issue of its *World Oil Outlook*, indicate that first-generation technologies will continue to supply the vast bulk of biofuels over the medium term and that sustainability issues will place a limitation on how much first-generation biofuels can be produced.

"Therefore, our reference case scenario sees global supply of biofuels expanding in the medium term to 2.3 million barrels/day in 2014, up from 1.6m b/d in 2009," noted Qabazard.

Second-generation biofuels are assumed to start contributing increasingly to global supply from 2020 onwards. Further down the line, beyond the OPEC scenario's forecasting period of 2009–30, the third-generation technology of algae-based biofuels could potentially provide huge amounts of supply and become what some are calling a 'game changer' for the long term.

"Up to 2030, however, despite the reliance of the

instituted biofuel policy targets on advanced technologies in both the EU and the US, our reference case considers it unlikely that these targets will be met in full. This scenario sees global biofuel supply increasing by 3.5m b/d from 2009 to 2030, reaching 5.1m b/d by the end of the period," Qabazard maintained.

He said the report that the EU and OPEC had commissioned Wood Mackenzie and Ricardo to produce and deliver to the Roundtable looked at a specific topic with regard to the actual use of biofuels — namely the impact of it on oil refining and fuel specifications.

"We have studied the report carefully and look forward to the lively discussions that will follow the consultants' presentation," he told delegates. "These should guide us into the type of steps we should be taking, with regard to further action."

In expressing the appreciation of OPEC to the consultants for producing the "comprehensive and enlightening" study, Qabazard said he wanted to draw the Workshop's attention to certain concerns that needed to be addressed in discussions on biofuels.

First, he said, with regard to policy targets and regulations, clarity and feasibility were critical for a stable oil market.

"For example, if there is doubt about whether a particular target is achievable within the specified time-frame, this can create a serious dilemma for companies wishing to invest in capacity expansion upstream and downstream, in order to meet future demand," he affirmed.

Secondly, said Qabazard, when discussing emissions, one must take a global perspective. As illustrated in the report, the increased use of biofuels was likely to lead to reduced refinery throughputs and decreased emissions from refineries in Europe.

However, it may, at the same time cause more fuel to be imported from outside the EU, where less advanced technology may result in much higher global emissions.

"Moreover, we should not lose sight of the fact that many of the environmental challenges facing the world today originate from actions taken decades and even centuries ago, and that, as has been said so many times before in the climate change debate, the onus is upon the developed countries to take the lead in remedying the situation," he said.

And thirdly, continued Qabazard, the combination of a rise in demand for biofuels and the pressure to reduce emissions constituted a big challenge for European refineries, leading to reduced competitiveness and the increased potential for closures, with questionable effects on emission-reductions.

Concluding his address, the OPEC Research Division Head said he wished to remind delegates that overall there was no escaping the fact that the oil industry was a global business and that greenhouse gas emissions were a global phenomenon.

"Therefore only global solutions will work. This underlines once again the benefits of a sound process of dialogue and cooperation among stakeholders, such as we share with the EU-OPEC Energy Dialogue," he added.

A final report carrying Workshop conclusions and recommendations will be presented to the 8th Ministerial Meeting of the Energy Dialogue, due to be held in Vienna in June.

Currencies, regulation and learning from the past

With industrialized countries still trying to put their national economies back on a sustainable path to growth after the global financial crisis, the world's central bankers have a lot of work ahead of them. During a recent visit to the Oesterreichische Nationalbank (National Bank of Austria), the OPEC Bulletin's Alvino-Mario Fantini had an opportunity to hear first-hand about some recent challenges from its Governor, Ewald Nowotny, also a member of the Governing Council of the European Central Bank.

Many years ago, while stranded in Lima, Peru, after my Bolivia-bound flight had been diverted due to an airport strike in La Paz, I found myself sharing a rather pitiful lunch with another stranded passenger, a somewhat gruff, bearded man. He turned out to be the President of Bolivia's Central Bank, an unenviable position at the time. He was full of stories about five-digit inflation (!) and the growing dollarization of the Bank's foreign reserves. That was my first and only experience with a central banker — until this past March when I had the chance of a lunch-time get-together with Ewald Nowotny.

However, I first attend a keynote address Nowotny is giving at the Bank. This is part of a three-day workshop organized by the Salzburg Global Seminar on 'New rules for global finance: Which kinds of regulation are useful and which are counter-productive?'

I hear him offer a re-assessment of the origins of the recent financial crisis; he also speaks about the euro and balance of payment problems in the Euro-zone; and he concludes by addressing the importance of regulatory reform to prevent crises in the future. He is clear, succinct and it is apparent why he has been such an effective university professor to generations of Austrian students.

But it is his reference to the German philosopher Hegel that most catches my attention: "The only thing history is teaching us is that no one is learning anything out of it." I make a note to ask him about it later.

His lecture completed, the Governor returns to his office. An assistant from there collects me from the workshop and I ride up the sleek, metallic elevator. There is a dizzying juxtaposition of styles once we arrive on the top floor and walk out into the receiving room, elegantly wrought in wood with chandeliers and mirrors. I look around in wonder, taking in the splendour of the antique woodwork. It is vaguely reminiscent of 1920s art deco but

I know too little about Austria's architectural history to place it. A quick walk down a long, carpeted hallway, past two assistants, and I'm ushered into Governor Ewald's office.

His office is surprisingly warm, but it is likely an illusion because today it is absolutely frigid outside. The Governor rises immediately, greets me and we sit down at a divan next to a mirrored table. That is when I notice his arm is in a cast. "You see that I am a bit wounded," he says with a warm chuckle. "I went skating with my grand-daughter but ... I was not too successful."

The only thing I know about the Governor is that he was born and raised in Austria. He studied law and received his doctorate in law from the University of Vienna in 1967. Since then, he has held numerous academic positions as professor of economics at various universities in the country, as well as a professorship at Harvard University in Cambridge, Massachusetts.

From the start, he impresses me with his reasonableness, pragmatism and easy-going manner. As if to test him, I immediately allude to his country's history of free-market thinkers (known collectively as the Austrian School of Economics), people like Eugen von Böhm-Bawerk, Ludwig von Mises and Friedrich Hayek, but the Governor is un-phased. And as his responses to my questions begin to reveal in the course of the interview, his approach has far more in common with the Anglo-American economic tradition of John Maynard Keynes and his followers. "I am guided by practical matters above all," Nowotny explains.

This is no surprise. Nowotny is not only an academic, but has spent many years in the trenches of the political world and the private sector, including a stint as Vice President and Member of the Executive Board of the European Investment Bank in Luxembourg (1999–2003).

In 2008, Nowotny was elected a member of the European Central Bank's 23-member Governing Council. He has previously been mentioned as a possible successor to President Jean-Claude Trichet, whose term runs out in October. But Nowotny has ruled that out. I am bold enough to ask him what he would do were he ECB President, but Nowotny, true to form, is circumspect, simply saying that "as a member of the Council, I adhere to the alignment of the Council."

Currency matters

One of the first topics I touch on is the fate of the euro. A day or two before meeting the Governor, a widely-read piece appeared in the Wall Street Journal in which Barry Eichengreen (of the University of California at Berkeley), Martin Feldstein (Harvard University), Pedro Solbes (former Spanish Minister of the Economy) and Steve Hanke (Johns Hopkins University) seemed to question the future viability of the currency.

Nowotny smiles as I mention the names and says, "Ah, these are the usual suspects!" Ever the consummate academic, he proceeds to patiently parse my queries.

First, he says, one must distinguish between a currency's different roles. As a means of payment, Nowotny explains, "the euro does very well — both at the national level and at the international level — as an international currency." In fact, he adds, close to 30 per cent of the world's currency reserves are now held in euros, an interesting achievement for a currency launched only 12 years ago.

Second, as a store of value — a place that may be safe from the ravaging effects of inflation — the euro is also doing very well. "The euro has the lowest inflation rate of all the major currencies of the world," says Nowotny, pointing to the fact that over the past decade, average inflation has been below or close to two per cent.

So the euro is completely functioning and is fully intact as an international currency, he says. Nevertheless, he adds, it is true that some members of the Euro-zone have problems — "but not the euro, as such." This is something the markets have begun to understand more and more in recent years, he adds.

What about the US dollar? I mention that in recent years it has begun to be criticized by different world leaders, most notably, the Chinese. Nowotny is cautious. "It is quite clear that the dollar has its own strengths and weakness," he says. The weakness, he explains, has to do with the longstanding current account deficit, as well as a substantial budget deficit. At the same time, it is important to recognize that the dollar has very deep and extremely efficient capital markets behind it, making it easily fungible. In addition, "US treasuries are a very liquid asset that gives a clear strength to the dollar, as such."

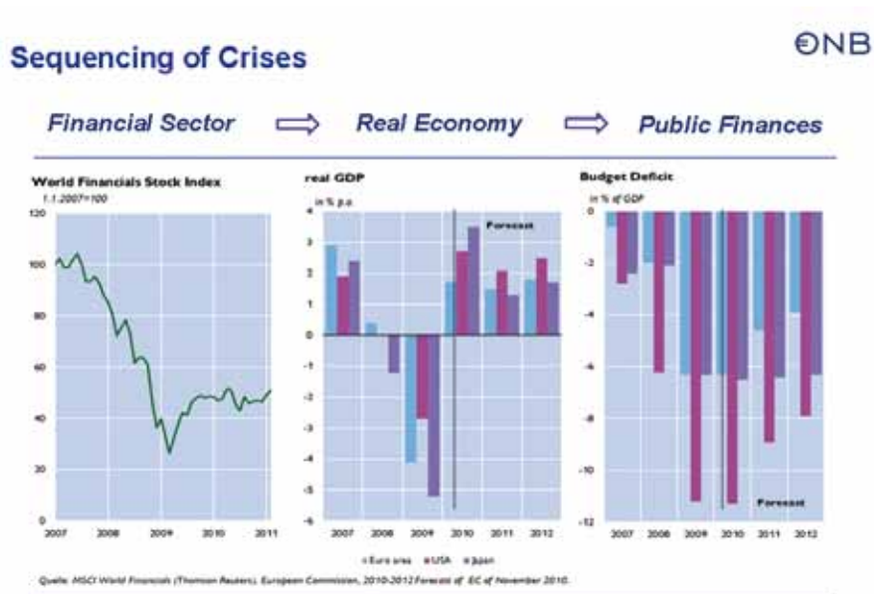
Nowotny pauses for a moment and then adds: "I have had talks with major investment funds and what I think is — and this refers a bit to OPEC Countries — that international investors see the role of political stability and of unequal income distribution as more prominent than before."

And what this means is that there is a tendency to strengthen the euro — something that has occurred in the capital markets in recent weeks. Of course, whether this means a future change in dollar-denominated oil transactions, the Governor is loath to consider. "That is

something OPEC would be much better suited to answer," he says with a smile.

Regulatory challenges

I take this opportunity to speak of OPEC's well-known position on the need for greater regulation of the financial markets, especially of speculative investment flows into the paper oil markets. During his earlier keynote address, he had spoken about the need to fully develop the vision of a new "architecture of [financial] supervision" for Europe and had described a revamped system composed of three regulatory agencies supporting a broader continent-wide regulatory system — what he calls "one European house and three coordinating houses."



A slide from Governor Nowotny's presentation.

Nowotny points out that the most important element in such a system has recently been created: the ESRB (European Systemic Risk Board), which deals with what he calls "macro-prudential issues". He explains that this refers to all the broader issues affecting many countries and regions, and involving challenges that are not only relevant for one bank, but that are systemic in nature.

The housing market in the US would be an example of a macro-prudential issue. "This ESRB already exists and it is attached to the European Central Bank (ECB)," he continues. "I myself, as Governor of the Austrian Central Bank, am a member of the decision-making board of this," he notes.

The three supporting regulatory agencies in Europe would address different spheres of activities: one for banks, one for insurance companies, and one for capital markets and financial institutions. "These are coordinating agencies," he notes, "that are based on the working of the national regulatory agencies." All of these began operating in the days preceding my interview with the Governor.

Of course, the existence of these new agencies does not guarantee stability. One of the problems that continues to exist, even with the new set-up, is that there is no system of burden-sharing. Nowotny explains that at the end of the day, if there is another major crisis that leads to a situation in which taxpayers have to pay, there will be strong resistance since it will be the national taxpayer who pays.

If another systemic crisis hits Europe, he clarifies, it would still be the citizens of individual European countries that end up paying. "And as long as we do not have a system of burden-sharing, the main responsibility will always remain with the national supervisors," he affirms.

I am intrigued. What possible solutions for this exist? "What you could do, for instance, is have a Europe-wide a tax on banks, their activities and bank assets," he offers. The revenues from such a tax could then be used for a fund for "super-national burden-sharing". What he describes seems analogous to the Federal Deposit Insurance Corporation in the US.

"So, technically, that is possible," he adds. "But of course, this could mean that there would be a certain uneven distribution between the countries concerned (those experiencing a financial crisis) and those countries that would be the payers." And many countries would be hesitant to agree to such a set-up, so the struggle for finding acceptable solutions is ongoing.

Capital controls

Nowotny's comments about preventing crises inspires me to ask about capital controls, often used by small, open economies to protect themselves against the destabilizing effects of "hot money" — or sudden inflows (and outflows) of portfolio investments. Countries like Chile have successfully imposed certain controls — primarily by imposing a minimum amount of time that capital can be invested in equity — on foreign capital to limit the damaging effects of sudden outflows.

The Governor agrees that there is a new awareness of the benefits of capital controls. "It is quite interesting

to see that even within the International Monetary Fund (IMF), there is a new discussion on capital controls," he says, approvingly. Although the IMF continues with its "basic line" of supporting fully liberated capital markets, it does so with "the understanding that there may be situations where some kind of direct or indirect capital controls may avoid future problems." But Nowotny hastens to add that "it is not about capital controls as a permanent feature, but about adding some kind of capital control to the instruments that you may have for specific problems."

Once again, even with regard to an often controversial topic like capital controls, the Governor's pragmatic approach shines through. I mention this to him and praise his non-ideological and supremely pragmatic stance. He laughs and says, "You have to be in this position!"

But he is also quick with a self-effacing comment. "Frankly speaking, I think this is not a unique position," he begins. "If you look at leading central bankers — Jean-Claude Trichet (of the ECB) and Ben Bernanke (of the US Federal Reserve) and so on, I think everybody has to be pragmatic. Otherwise, your institution pays a heavy price!"

Ewald Nowotny, Governor of the National Bank of Austria.

Economic history

Finally, I ask Nowotny about his reference to Hegel, the German philosopher of history, during his keynote address earlier in the day. He is amused by my question and I press him on his penchant for other references to history and philosophy, culled from different papers and addresses he has given over the years: 1870 testimony from the Secretary General of the Austro-Hungarian National Bank; the Budapest Crash of 1869; the 1873 crash of the Vienna stock exchange; and a series of financial crises in England in the late 19th century.

Smiling, he explains: "As you know, I have been a professor of economics and I have always very much stressed the need to study economic history," he explains. But it is also a bit of a hobby for me, he adds, and all this goes together.

But why, I ask, especially since the economics profession as it is taught today is dominated by model-building and quantitative methods. "Econometric and mathematical studies are, of course, helpful," Nowotny states, "but they cannot explain long-term developments." In fact, the empirical approaches that dominate the field of economics are not necessarily good methods to explain disequilibrium tendencies in the markets because they assume a condition of equilibrium. "So, if you are inclined to view disequilibrium economics, the study of history is indispensable."

Fortunately, Nowotny notes with satisfaction that a sea-change does seem to be taking place with regards to the nature of successful economic texts. "I think it is very interesting that we are just now seeing a reversal [of viewpoints]. The most influential books that we have now are all books based on studies of historical elements." These, he informs, include, This Time It's Different: Eight Centuries of Financial Folly (Princeton, 2009), co-authored by Carmen Reinhardt and Kenneth Rogoff, which looks at the long-term history of financial crises.

Reading these kinds of books and continually studying economic history is one of Nowotny's favourite weekend activities. "I have liked to do this since my student days," he admits. "Of course," he adds with a smile, "Austrian history offers good teaching material for problematic economic events!" I make a note to read a little about Austrian financial history and the crumbling of the Austrian-Hungarian Empire before thanking the Governor and saying goodbye.

As I walk out, I promise to come back next time with questions about Austria's past — since I now know that despite what may be going on around the world, Nowotny's great passion and love centres on the history of his country.

Kuwait Minister opens Islamic art and cultural exhibition

L–r: Austrian President, Dr Heinz Fischer; Kuwait's Minister of Oil and Information, Sheikh Ahmad Al-Abdullah Al-Ahmad Al-Sabah; Kuwait's Ambassador to Austria, Mohammad Saad Al Sallal; Sabine Haag, Director-General of the Kunsthistorisches Museum.

An exhibition displaying the rich and varied art and culture of the Islamic world has been opened in the Austrian capital, Vienna, by Kuwait's Minister of Oil and Information, Sheikh Ahmad Al-Abdullah Al-Ahmad Al-Sabah.

"We do not depend on 'black gold' alone," said Al-Sabah, in reference to Kuwait's crude oil resources, "But on the cultural gold and its precious jewelry," he said.

Speaking on behalf of the Emir of Kuwait, Sheikh Sabah Al-Ahmad Al-Sabah, he told assembled officials that the exhibition — Al-Fann, Art from the Islamic Civilization, by Dar Al-Athar Al-Ismaliyyah (DAI) — not only reflected the cultural heritage and wealth the State of Kuwait enjoyed besides oil, but also the fruitful efforts of its Government and people to reflect the beautiful image and message of Islam through art.

"It gives the opportunity for visitors to get a better understanding of the rich and colourful Islamic cultural heritage that contributes to the noble values Islam reflects," he affirmed.

In his comments, Al-Sabah also emphasized the deep and excellent relationship that had been established between Kuwait and Austria, under the current Presidency of Dr Heinz Fischer, who also attended the exhibition opening.

Other attendees included the General Director and owners of DAI, Sheikha Hussah and Sheikh Nasser Al Sabah, who assembled the art pieces for the unique exhibition.

Also present were Sabine Haag, the Kunsthistorisches Director-General, other high level delegates from the private and public sector, as well as representatives from international organizations and embassies based in Vienna.

The exhibition, which aims at sharing the rich and varied art and culture of the Islamic world, encompasses numerous masterpieces.

It offers visitors the opportunity to share in not only the wealth of over a thousand years of Islamic history, but also to understand and experience the tolerance and respect of Islamic civilization compared with other cultures, as reflected in the different pieces of art on display.

Kunsthistorisches Museum Vienna

General Director of DAI, Sheikha Hussah (l), with Abdullah Al-Shameri, Head of the Office of the OPEC Secretary General.

The exhibition is displaying some 350 art pieces, varying between jewelry, manuscripts, carpets, textiles, and work done in stone, metal and wood.

The displayed pieces reflect the unique and fascinating view of Islamic art and civilization from the 16th century, covering a considerable period in history — from the Othman, Safawi and Mongolian times, originating in countries as far apart as Spain in the West and China in the East.

The exhibition will run until June 22, 2011, and can be found in Vienna's prestigious Kunsthistorisches Museum in the city's First District.

No more easy rides for oil firms in challenging future — Al-Falih

Global energy map will be redrawn as consumption surges

A fundamental redrawing of the global energy map will take place in the years ahead as a result of increased growth in consumption in the world's emerging and developing countries.

That was the view put forward by Khalid Al-Falih, Chief Executive Officer of Saudi Aramco. However, he added that due to events, the supply side of the equation in the future was uncertain.

"Energy consumption in general and that of petroleum in particular, will continue to grow as a result of both demographics and economics," he told a forum of national and international oil companies in Paris.

"Demand for petroleum will taper off in the OECD countries over the next quarter of a century, but incremental consumption growth in the emerging markets and developing economies will more than compensate for those declines, heralding a fundamental redrawing of the global demand map," he was quoted as saying.

Supply side uncertain

Al-Falih noted, however, that while growth in energy demand was assured, the supply side of the equation was uncertain.

Fossil fuels, he told delegates, would continue to account for a considerable share of global energy supplies in the foreseeable future, but there was uncertainty over the exact energy mix.

The answers to these and other questions would have a bearing on the activities of both international and national oil companies and help boost relations between the two sides, he maintained.

"New patterns of international trade, commerce and investment are emerging. Social and political unrest is engulfing various parts of the Middle East," said Al-Falih. He pointed out that the world had also been shaken by the devastating and tragic earthquake and tsunami in Japan.

"For better, or worse — we live in a world that is both constantly changing and increasingly interdependent," he affirmed.

Al-Falih said that as they had recently been reminded, such momentous events could have an acute impact on economic stability, and in turn, energy, which needed quick and decisive action on the part of the energy companies and policymakers alike. But he contended that such events should not divert oil companies away from carrying out their long-term missions and fundamental responsibilities as energy providers.

"The day-to-day gyrations of the petroleum markets and the news feed rolling across our TV screens should be viewed in perspective and kept in context. So while it is imperative that we demonstrate short-term agility, it would be a mistake to overreact to events in a manner that throws us off course from our future goals," said Al-Falih.

He stated that while the traditional role of oil companies was no longer limited to the production and refining of oil and shipping it to markets, the role as a contributor to social stability could be expanded.

"Despite these improvements, the oil industry's contributions to growing the GDP of producing nations, to capacity-building, and to overall economic transformation and job creation remain limited. This led to discontent in many producing regions, elevating tensions, undermining trust, and even threatening supplies," he pointed out.

"Oil companies are called upon to go beyond simply supplying energy or paying taxes and royalties to promoting local manufacturing, maximizing local content, helping build national capacity, assisting in industrialization and economic diversification, and spurring meaningful job creation.

"These expectations also include helping to raise local education standards, knowledge-sharing and the dissemination of specialized industrial and business expertise, as well as helping to drive scientific research

Khalid Al-Falih, Chief Executive Officer of Saudi Aramco.

and applied technology development. There are no more easy rides, and no more free lunches to be had, neither for the national oil companies, nor the international oil firms," he maintained.

Economic optimization

Turning to domestic matters, the Saudi Aramco head said that the main role of the Kingdom's national oil company was to manage the country's massive energy resources as assets to be preserved for future generations.

He was quoted as saying: "Our long-term ethos is a key differentiating factor for Saudi Aramco where we emphasize the long-term management of our reservoirs alongside economic optimization. We view our oil fields as strategic assets to be managed for many decades to come as part of a wider petroleum portfolio, and as a precious national endowment for future generations."

Meanwhile, Saudi Arabia has stressed that following the troubles in North Africa, with Libya's oil production and supplies to the market falling, it was committed to the stability of the oil market.

In a statement carried by the state-run Saudi Press Agency (SPA), the Kingdom's Government said that the cabinet had met and reviewed the protests affecting Libya "and their repercussion on oil production in that country."

Saudi Arabia, it stressed, "is committed to the stability of the market" and to ensuring that oil supplies remain available, the statement said, adding that the Kingdom hoped that Libya's oil production would return to normal soon.

Algeria said to be sitting on vast amounts of shale gas

Algeria, according to geologists, possesses potential unconventional gas reserves of 25,000 trillion cubic feet, the country's Minister of Energy and Mines, Dr Youcef Yousfi, has said.

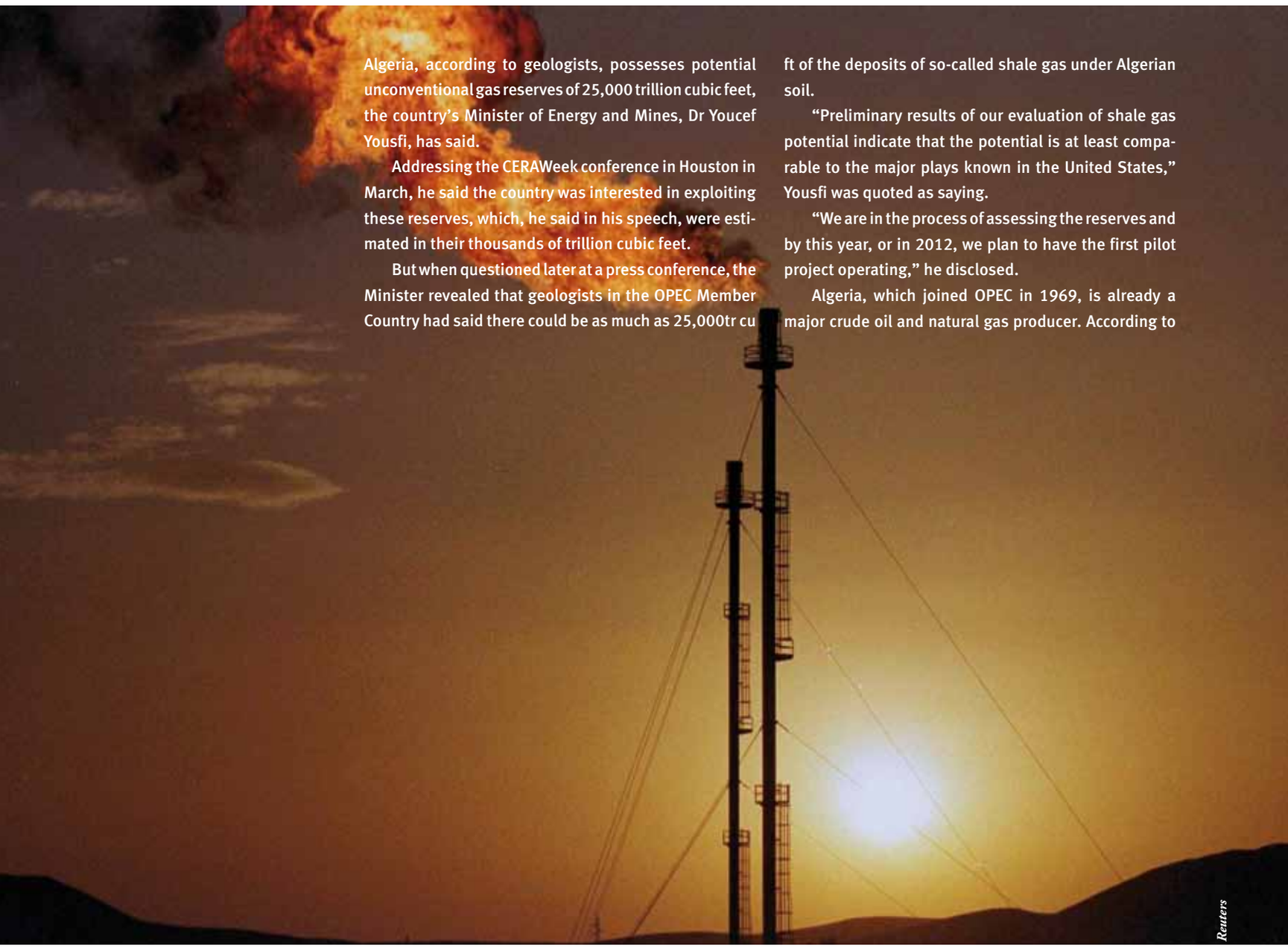
Addressing the CERAWeek conference in Houston in March, he said the country was interested in exploiting these reserves, which, he said in his speech, were estimated in their thousands of trillion cubic feet.

But when questioned later at a press conference, the Minister revealed that geologists in the OPEC Member Country had said there could be as much as 25,000tr cu ft of the deposits of so-called shale gas under Algerian soil.

"Preliminary results of our evaluation of shale gas potential indicate that the potential is at least comparable to the major plays known in the United States," Yousfi was quoted as saying.

"We are in the process of assessing the reserves and by this year, or in 2012, we plan to have the first pilot project operating," he disclosed.

Algeria, which joined OPEC in 1969, is already a major crude oil and natural gas producer. According to



Flame shoots from an Algerian gas plant at the Rhoude-Nouss gas field.

the 2010 edition of the *OPEC Annual Statistical Bulletin*, the country holds crude oil reserves of 12.2 billion barrels and in 2009 produced 1.22 million barrels/day.

Its proven gas reserves amount to 4.5tr cu m, out of which, in 2009, it saw gross output of 197bn cu m.

Yousfi pointed out at the press conference that state-owned Sonatrach had no experience in developing such unconventional resources, which lay trapped in shale rock some 1,000 metres underground, and would need the help of international partners.

"The development of the unconventional hydrocarbons will be a new experience that we will be willing to share with companies that have demonstrated their know-how in this field," Yousfi said. "We are already talking with some companies."

He said the shale gas, once exploited, would first be used to meet domestic demand. The surplus would then be exported in the form of pipeline gas, or as liquefied natural gas (LNG), to markets in Asia and Europe under long-term contracts.

Gas capability expanding

Algeria is already expanding its natural gas production capability in preparation for an expected global hike in demand for the environmentally friendly fuel, which is increasingly being used in power generation.

The country is adding another 9.2m tonnes of annual LNG output capacity from two new production trains and future export units could be provided as demand increases.

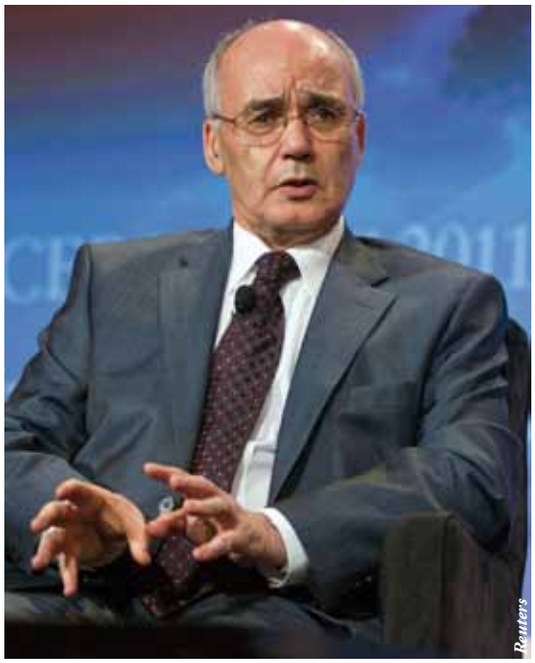
"In 2009 and 2010, there was a reduction in natural gas demand, but we think demand will be higher in the next two years," said Yousfi.

Some 85 per cent of Algeria's LNG production is sold under long-term contracts. The country plans to increase its gas output by 35bn cu m a year by 2014, which is more than 50 per cent of current production.

Yousfi maintained that European moves to cut dependence on long-term gas contracts and instead buy gas on the spot market were misguided.

Long-term deals indexed to crude oil prices were essential for funding exploration and production that would be required to meet the higher future demand.

Meanwhile, Sonatrach has signed five sales accords for the Medgaz pipeline to Spain, with supplies set to start right away.



Dr Youcef Yousfi, Algeria's Minister of Energy and Mines.

The agreements, signed at a public ceremony in the capital, Algiers, are with Cepsa, Iberdrola and Endesa, all of Spain, France's GDF Suez, as well as Sonatrach's own Spanish marketing division.

Under the terms of the deals, Cepsa and Iberdrola will each purchase 1.6bn cu m of gas annually, while Endesa and GDF Suez will each buy 0.96bn cu m annually. The Sonatrach Spanish arm will take the lion's share of the gas available — 2.88bn cu m a year.

Sonatrach said in a communiqué that the sales contracts signed were valid for 20 years.

"The conclusion of these commercial accords will allow Sonatrach to reinforce its position as a stable and secure supplier of natural gas to Europe ... while also consolidating its position as a direct player in the Spanish natural gas market," it added.

Pipeline delayed

The Medgaz pipeline was due to go onstream in 2010, but the start-up was delayed by technical problems and testing procedures. Test flows through the line, the second pipeline from Algeria to Spain, started earlier this year.

Algeria is Spain's main gas supplier, providing 30 per cent of the nation's gas imports.

The Medgaz operating company is owned by the five companies involved in the gas supply agreements — Sonatrach (36 per cent), Iberdrola and Cepsa (20 per cent each), and Endesa and GDF Suez (12 per cent each).

Iraq keen to maximize oil revenue, not production

Iraq is likely to review its oil capacity expansion plans after suffering what has been described as "teething problems" in its bid to have an output capability of 12 million barrels/day in place by 2017.

Dr Hussein Al-Shahristani, Iraq's former Oil Minister and now Deputy Prime Minister for Energy Affairs, said in Paris recently that discussions would be held with the oil companies working in the country to come up with a "more prudent plan".

He was quoted as saying that there was no point in making investments in new oil production capacity if the extra oil was not required by the market. He was referring to the uncertainty surrounding future levels of world oil demand, which have been restricted by the global financial crisis and resulting economic downturn.

"We are not fanatical about adhering to production if there is no market for it," he pointed out.

But he stressed that any change to the current 20-year oil deals would have to be carefully scrutinized, taking into account estimated demand growth in the years ahead, oil's share in the global energy mix, and the current geopolitical situation.

"All these are factors that will have to be taken into consideration when wanting to revise your plan. It is not a matter of being stubborn ... or of being concerned about the political backlash. It is really about needing more time to examine the situation," he affirmed.

Al-Shahristani stated that his country's oil strategy was to maximize its revenue from oil, not its production of crude.

He disclosed that crude oil production from oil fields in the country's Kurdistan region had now topped 115,000 b/d, up sharply from the 60,000–70,000 b/d recorded in February. Kurdish Natural Resources Minister, Ashti Hawrami, has stated that output could reach 250,000 b/d by the end of the year.

Iraq's crude oil exports were said to have managed a new post-war record of 2.2m b/d in February as a result of the resumption of shipments from the northern Kurdish region. Overall exports in January stood at 2.16m b/d.

Falah Alamri, Head of Iraq's State Oil Marketing Organization (SOMO), said exports of northern Kirkuk crude rose to 494,000 b/d in February, higher by 75,000 b/d than in the previous month, while Basrah Light exports in the south were gauged at 1.71m b/d, compared with January's 1.74m b/d.

Dr Hussein Al-Shahristani, Iraq's Deputy Prime Minister for Energy Affairs.

Al-Shahristani noted that all crude produced from Iraqi Kurdistan was flowing via pipeline and would be exported by SOMO.

Meanwhile, new Oil Minister, Abdul-Kareem Luaibi Bahedh, has announced that Iraq will hold its fourth bidding round in November this year for international energy companies interested in securing gas exploration deals.

"We expect to add 29 trillion cubic feet to Iraqi gas reserves from this bidding round," the Minister said at a news conference marking the announcement of the latest round, which was also expected to add some 10bn b of oil to reserves.

He revealed that 12 exploration blocs, including the first concession at sea, would be offered in the new round. In October last year, Iraq auctioned three natural gas fields to foreign concerns.

As joint refinery with Sinopec gets approval in China ...

Kuwait mulls foreign help to develop its heavy oil resources

Kuwait is mulling over the possibility of signing up international oil companies to help it develop its heavy oil resources, located in the north of the country.

Hashim Al-Rifaai, Managing Director for Planning at the Kuwait Petroleum Corporation (KPC), said on the sidelines of an oil conference that the country had an abundance of heavy oil deposits that could be developed by "more than one entity".

Several companies are said to be interested in cooperating with Kuwait, including the majors ExxonMobil, Total and BP.

KPC Chief Executive Officer, Farouk Al-Zanki, was quoted as saying that talks in this direction were continuing with ExxonMobil, but were still not settled.

The heavy oil — 11–15° API — in question is part of Kuwait's ongoing development programme to expand its oil production capability to four million barrels/day by 2020.

KPC recently forwarded plans for its long-delayed $14bn Al-Zour refinery and clean-fuels projects to Kuwait's Supreme Petroleum Council (SPC) for approval.

The 615,000 b/d plant, if approved, would be Kuwait's fourth such facility. It has been slated to produce low-sulphur fuel oil for use in local power stations. Plans for the scheme have been tendered on two other occasions, but failed to get approval.

Both KPC and its downstream unit, the Kuwait National Petroleum Company (KNPC), want the new refinery to process heavy oil.

Sami Al-Rushaid, Chairman and Managing Director of the Kuwait Oil Company (KOC), stated that as part of the country's oil development programme, the intention was to boost the production of heavy oil to 60,000 b/d by 2016 and to 270,000 b/d by 2030.

He was quoted as saying that some of oil development target would be met by light oil coming from non-associated gas fields in northern Kuwait being developed by Royal Dutch Shell. This was expected to amount to output of 350,000 b/d.

Of the remainder, said Al-Rashid, enhanced oil recovery projects would account for 32 per cent of the projected total capacity increase, while 20 per cent would be accounted for by new discoveries, or from previously undeveloped fields.

Meanwhile, Kuwait is in discussions with BP and other energy companies over possible involvement in the country's $9bn refining joint venture with Sinopec at Zhanjiang, in the southern province of Guangdong, China.

Mohammed Jasem, Vice President and Chief Planning Officer of Kuwait Petroleum International, told newsmen that it was hoped the choice of a partner would be made by May.

"But we are not at the final stage yet. Along with BP, there are others interested. The door is open for whoever is potentially interested," he was quoted as saying.


Reuters

Sami Al-Rushaid, Chairman and Managing Director of KOC.

The go ahead for the refinery and petrochemical unit, an equal partner project between Kuwait and Sinopec, was given by Beijing's National Development and Reform Commission in March.

The project, which has taken six years to come to fruition and should be onstream in 2014, forms part of Kuwaiti efforts to more than double its crude exports to China to 500,000 b/d.

The scheme entails a 300,000 b/d refinery and a 1m tonne/year ethylene cracker. China's economy has been booming in recent years and its demand for fossil fuels has been setting record after record. Kuwait has been keen to tap into the country's expanding need for energy supplies.

The two sides are now looking for another partner for the project, one with financial backing. The original $5bn cost of the project has since almost doubled, due to the delays.

Nigeria's 'gas revolution' plan to create 500,000 new jobs

Nigeria's President, Goodluck Jonathan.

Nigeria's President, Goodluck Jonathan, has announced a far-reaching gas, petrochemical and fertilizer plan that will create up to 500,000 new jobs for people in the West African OPEC Member.

"The investments agreed today will result in foreign direct investment of about $10 billion over the next three years," Jonathan was quoted as saying in Abuja at the unveiling of the plan to government officials, diplomats and industry executives.

"The economic impact of this agenda will be endless in terms of employment and wealth creation," the President pointed out.

His administration is already committed to a gas master plan in the country's bid to improve the level of gas supplies for domestic electricity generation.

Jonathan's "gas revolution" plans include two fertilizer plants in Delta state and Lagos, five fertilizer blending plants, a methanol unit and a distribution network to improve the supply of liquefied petroleum gas (LPG) to the northern areas of the country.

New projects

Nigeria's Minister of Petroleum Resources, Diezani Alison-Madueke, said at trhe launch of the new plan that Agip of Italy and Oando, a domestic energy company, would build a central gas processing plant, while Chevron of the United States would supply the gas.

In addition, Natpet of Saudi Arabia, a subsidiary of petrochemicals firm, Alujain, was set to invest $3.5bn in a petrochemicals unit, while India's Nagarjuna Fertilizers had committed to building two fertilizer plants with an investment of $2.5bn.

Mrs Alison-Madueke stated that the Natpet petrochemicals plant would be the biggest in sub-Saharan Africa, while K S Raju, Chairman of Nagarjuna Fertilizers, said: "We have a commitment to build two fertilizer plants. We will sell fertilizer to the local and international markets."

Nigeria is still awaiting passage of its Petroleum Industry Bill (PIB), major legislation that will govern all aspects of the country's petroleum operations in the future.

Meanwhile, trade and industry officials see Nigeria's crude oil exports increasing considerably in April after several months of reduced production, due to maintenance at oil fields.

Initial tanker schedules showed that 2.03m b/d of crude was due to be shipped in April in 68 cargoes, with actual figures likely to be nearer to 71 cargoes, totalling 2.1m b/d. This compared with March's schedule of 1.86m b/d.

Oil producers will need to invest heavily in the future

The Chief Executive Officer of French oil field services company, Schlumberger, has estimated that global producers of petroleum will need to invest $450 billion annually over the next 25 years to satisfy the expected surge in global demand for energy resources.

The hike in demand, said Andrew Gould, would mean that the international oil and gas industry would be required to develop "poorer quality hydrocarbons, smaller accumulations, and more complex reservoirs".

He said that, as a result, the industry would have to be prepared to commit itself to over $11 trillion in investment in the foreseeable future — and that did not include any unforeseen developments in the business cycle over the next 25 years.

Addressing the CERAWeek energy conference, Gould noted that it appeared international oil and gas companies were responding to the demands. A survey by Barclays Capital on global exploration and production outlay showed that an estimated $489.5bn would be invested by companies this year, which was higher than the $441.8bn recorded for 2010.

However, upstream development schemes were, by and large, becoming more intricate and thus more costly.

Gould stressed that the 200 projects or so currently in operation accounted for around one-third of the industry's capital expenditure.

Looking at Schlumberger's top 30 customers in 2002, he said that if one compared them with the firm's 2010 customer base, there had been little change in terms of the make-up with both lists including five major international oil companies (IOCs), while the number of national oil companies (NOCs) and independent firms showed only one difference.

However, explained Gould, a big change had occurred in the amount of capital expenditure each firm was now expected to outlay.

He said that in 2002, some 33 per cent of Schlumberger's earnings from its leading 30 customers came from IOC sources. That had since dropped to a 22 per cent share.

However, revenues accrued from its NOC customers had virtually doubled to 32 per cent from 17 per cent over the same period, while revenue earned from independents had fallen slightly.

Andrew Gould, CEO of Schlumberger.

Gould said it was an extraordinary development that NOCs and independents now accounted for 80 per cent of global upstream capital spending. But he added that more NOCs were now "perfectly competent" to manage the capital-intensive projects that were becoming more prevalent in the industry.

"And rather than give up their natural resources to foreign powers, these NOCs are willing to learn the skills to develop them themselves," he was quoted as saying.

For instance, continued Gould, many NOCs were taking a much more proactive approach towards oil reservoir management, seeking the highest ultimate recovery rates.

"They are doing a much greater, more thorough job of modeling their reservoirs and monitoring their drainage over a much greater period of time," he pointed out.

In addition, the NOCs were looking for ways to "innovate in fields where people in the oil and gas industry have not traditionally innovated. They do scale experiments ... because they have a very long-term view," he said.

1976-2011 35

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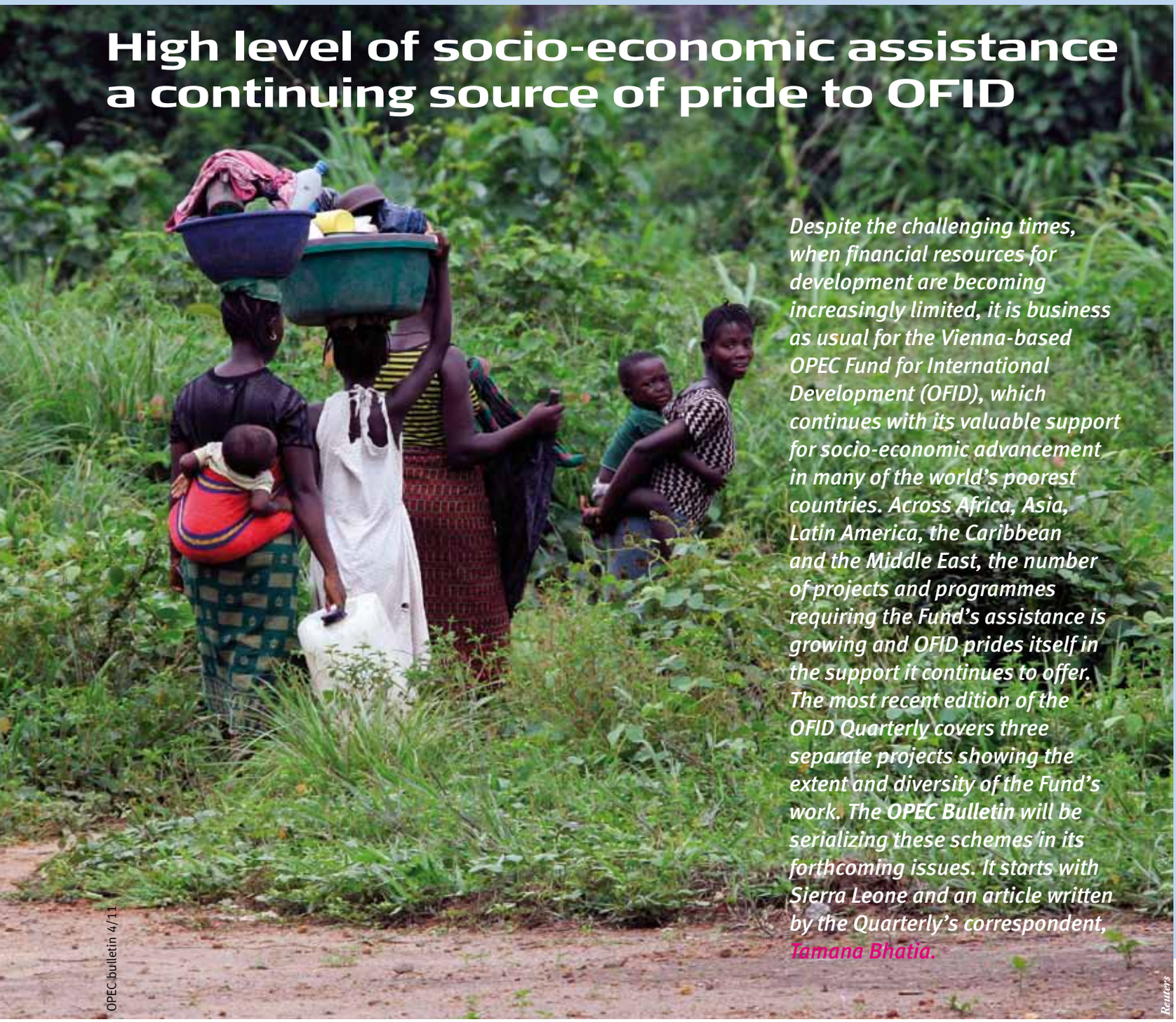


*Despite the challenging times, when financial resources for development are becoming increasingly limited, it is business as usual for the Vienna-based OPEC Fund for International Development (OFID), which continues with its valuable support for socio-economic advancement in many of the world's poorest countries. Across Africa, Asia, Latin America, the Caribbean and the Middle East, the number of projects and programmes requiring the Fund's assistance is growing and OFID prides itself in the support it continues to offer. The most recent edition of the OFID Quarterly covers three separate projects showing the extent and diversity of the Fund's work. The **OPEC Bulletin** will be serializing these schemes in its forthcoming issues. It starts with Sierra Leone and an article written by the Quarterly's correspondent, Tamana Bhatia.*

Reuters

Hygiene, water and sanitation are basic necessities for good health. In Sierra Leone, where people have to walk many kilometers just to fetch drinking water, OFID is striving to make a difference.

In partnership with the African Development Bank (AFDB), the Fund is working with the government to realize the 'Three towns water supply and sanitation' project.

The scheme targets the rehabilitation of damaged and dilapidated water supply facilities and improving access to safe water supply services in the urban and semi-urban areas of the West African country.

Beneficiary communities comprise the residents of Bo, Kenema and Makeni, which currently have limited access to clean water. The project will seek to improve sanitation in schools, health centres and other public places, such as markets and motor parks.

Sierra Leone went through a civil war from 1991 to 2002. The decade-long conflict worsened poverty across the country. Some 80 per cent of the population today lives in absolute poverty, with only 34 per cent having access to safe water and sanitation.

Traditionally, fetching water is considered a task for young girls, who spend their time doing this, rather than attending school, or busying themselves with something more productive.

The shortage of safe water profoundly affects the chances of survival for the country's children. Sierra Leone has a high level of infant mortality — over 280 out of every 1,000 children die before the age of five.

Diarrhea, malaria and acute respiratory diseases pose the greatest danger. There is, thus, a desperate need throughout the country for clean water, sanitation and healthcare services to help prevent many tragic and avoidable deaths.

Bo, Kenema and Makeni, with a total population of 496,000 (representing ten per cent of the population of Sierra Leone) were selected for the programme on the basis of their low service, as a result of the widespread destruction of facilities and rapid population growth during the years of the civil war and after.

The choice of the three, which are regional capitals, is also based on their importance as political, economic and cultural centres.

Access to safe water supply is available to less than five per cent of the population in these three towns.

Mona Alessa, OFID's Operations Officer for projects in Sierra Leone, pointed out that the scheme aimed at improving access to safe water supply services in the three cities from the current five per cent level to 50 per cent by 2015.

She noted that health statistics in the three towns showed a high incidence of water-borne diseases, including cholera, typhoid and diarrhea, especially during the rainy season. It was expected that the improvements the project would bring would, in turn, lead to a decrease in healthcare costs.

According to Ms Alessa, cross-cutting benefits of the scheme would include an improvement in living conditions and public health in the three cities, with the associated gender impact, such as better girls' education and improved economic activity among women.

She stressed that, when complete, the project would reduce the time that women and girls would spend in fetching and carrying water.

The project will equally promote community involvement in the management of water services and sanitation and include specific measures to enhance women's participation and rights.

It will enable access to pipe-borne water in the three cities and introduce a Revolving Social Connection Fund that will provide loans for house connections for the poor, who cannot afford the required high connection fees.

Currently, only about 12,000 people in the three cities have access to pipe-borne water. The project will increase this figure to 248,087 people by 2015.

Beneficiary communities will also be involved in the project, either as water kiosk operators, or as members of 'water-user committees'.

Better hygiene and health conditions will empower and activate the community. Adequate supply of clean water will contribute to the improvement of the country's economy where a reduction of water-borne and other diseases will lead to an increase in life expectancy.

The premise is that healthier people are in a better position to contribute to the economy and the development of their country.

April

This section includes highlights from the OPEC Monthly Oil Market Report (MOMR) for April 2011, published by the Petroleum Studies 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 OPEC Reference Basket, which moved above $100 a barrel on February 21, continued its upward trend in March to average the month at $109.84/b, the highest monthly level since the $112.41/b recorded at the onset of the financial crisis in 2008.

The increase of $9.55/b in March was the sixth in a row and the largest since the $11.38/b registered for June 2009. With this increase, the OPEC Basket averaged $101.27/b in the first quarter of 2011, up by $17.39/b, or 21 per cent, from the previous quarter and higher by $25.78/b, or 34 per cent, from the same quarter a year earlier.

The strong increase in the price of OPEC Basket, particularly in March, was attributed to bullish sentiment in the futures market as prices jumped amid worries about supply shortages following the crisis in Libya and unrest in some other countries in the Middle East and North Africa (MENA) region.

All OPEC Basket components increased in March, particularly Ecuador's Oriente, which jumped by almost $15/b, or 16.5 per cent, to average more than $105/b. Oriente benefited from bullish sentiment on the US Gulf Coast market as the North Sea Brent premium remained around $12/b.

Brent-related African crudes also strengthened further in March, each rising by over ten per cent and supported by increased buying from refiners to replace lost Libyan crude.

Nigerian Bonny Light stood at the top of list with $116.75/b, followed by Saharan Blend ($115.95/b) and Girassol ($115.35/b).

Premiums for Nigerian grades Bonny Light and Qua Iboe against Dated Brent moved to 32-month highs. Qua Iboe's premium over Dated Brent has almost doubled since the start of the unrest in Libya to reach around $4.4/b, the highest since July 2008. The strong premium was not limited to African crudes but spread to other grades, such as Russian Urals and Azeri Light, or Kazakh Kumkol.

Middle Eastern crudes followed the same trend, but showed lower gains as the tragic events in Japan dampened demand, following the shutdown of some refineries, but profitable gasoil cracks offset, to some extent, the slowdown in Japanese oil demand.

All Middle Eastern grades showed lower gains compared with the Basket, except Basrah Light. However, among Middle Eastern crudes, Basrah Light and Arab Light rose by more than nine per cent, supported by bullish sentiment, particularly in Europe.

Murban rose by $9.18/b. or nearly nine per cent, on the back of robust gasoil cracks and strong rival Russian Sokol crude, which sold at the highest premiums in more than two years in the first week of March. Murban was also lifted by lower volumes as ADNOC announced that it will supply Murban crude at ten per cent below contracted volumes in April, the same as in March.

Kuwait Export gained $8.91/b, or nine per cent, while Iran Heavy and Qatar Marine showed the lowest gains of around $8.70/b, or 8.8 per cent, among Middle Eastern crudes.

Venezuela's Merey firmed further, adding $8.71/b, or ten per cent, in the month to average $96.22/b, supported by strong transatlantic arbitrage and improving refinery margins in the region.

Driven by continued bullish sentiment in the futures market, the OPEC Basket increased further in early April, standing at $120.30/b on April 11.

Of other international crudes, on the Nymex, the WTI front-month contract settled at more than $102/b on March 2. That was the first time that a WTI front-month delivery had closed beyond $100/b since the end of September 2008.

Prices kept their momentum in the following two weeks before they tumbled on March 15 when the WTI front-month contract closed down by almost four per cent, the largest daily

OPEC Reference Basket: An average of Saharan Blend (Algeria), Girassol (Angola), Oriente (Ecuador), 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 Merey (Venezuela).

loss in nearly five months, pressured by sell-offs, to close at $97.18/b.

Other commodity prices saw the same phenomenon amid bearish macroeconomic sentiment, due to the impact of Japan's nuclear crisis on the world economy.

However, the drop was short-lived and prices again moved back above $101/b on March 17, driven by unrest in the MENA region and improving sentiment for the US economy, as positive macroeconomic data on initial jobless claims and factory activity provided more evidence that the recovery was on a firmer footing.

Bullish sentiment pushed prices higher in the following days to end the month of March beyond $106.7/b, the highest level in two-and-a-half years. Overall, for the month, the WTI front-month contract averaged $102.98/b, $13.24/b, or 14.8 per cent, higher than February's level and $26.53/b higher than a year earlier.

"It is worth mentioning that crude oil futures prices jumped, despite US crude oil stocks having increased over five consecutive weeks," the OPEC report observed.

Meanwhile, ICE Brent continued to trade higher than Nymex WTI, although at a slower pace. The Brent front-month contract jumped by more than $3.6/b, or 3.2 per cent, on the first day of the month to settle at $115.42/b. That was the highest settlement since August 27, 2008.

The sharp increase was attributed to the bullish sentiment for light sweet crude oil because of the lack of supply from Libya. In contrast to Nymex WTI, ICE Brent stayed the whole month of March above $110/b and reached $117/b on the last trading day, as positive macroeconomic data added more bullishness to the market.

For the whole month of March, ICE Brent averaged $114.67/b.

Both Nymex WTI and ICE Brent strengthened further in April. Nymex WTI for May delivery settled at a 30-month high of $112.79/b on April 8, after having increased during six trading sessions in a row.

In London, ICE Brent for May delivery jumped to $126.65/b on the same day. That was the highest level recorded for the contract since the end of July, 2008.

In addition to fears of prolonged losses of Libyan exports, crude oil, like other commodities, was lifted by a weaker US dollar, which fell against the euro to a 15-month low, pressured by the prospect of a US government shutdown.

The lower increase in ICE Brent relative to Nymex WTI resulted in a narrow Brent-WTI spread in March. Brent's premium to WTI narrowed to $10.64/b from $13.24/b in the previous month. The Brent-WTI spread hit almost $18/b in mid-February.

Commodity markets

Commodity markets were greatly impacted in March by the crisis in Libya and the tragic events in Japan. There has been a risk reduction in many industrial metals because of concerns on the potential risk posed by higher oil prices for the global economy if sustained over a longer period.

A drop in demand for commodities by the third largest economy in the world has taken place and it has been estimated that 20 per cent of the power generation in Japan was lost.

Energy prices increased in an extremely volatile market, following the Fukushima nuclear accident, which prompted demand for crude oil and other energy resources, such as coal and gas.

These events reshaped the risk profile across commodities. The risk is shifting away from industrial metals to tighter oil and causing a further upside risk to gold and agriculture.

There has been a considerable decline in traded volumes across major commodities, which may be reflecting caution from participants in commodity markets, while assessing the government response to recent events. This has created further market uncertainties.

The World Bank energy index (crude oil, natural gas and coal) increased by 9.6 per cent month-on-month in March, compared with a 4.4 per cent gain in February, on the back of events in Japan and political unrest in the MENA region.

Henry Hub natural gas prices declined by 2.5 per cent to $3.97/MMbtu in March, compared with a 4.3 per cent fall a month earlier.

By contrast, a 4.8 per cent m-o-m drop took placed in the World Bank non-energy commodity price index. Except for gold and silver, most non-energy commodities reported a price fall in March, due to the uncertain economic situation.

Industrial metals declined, while agricultural goods reported a mixed performance, with corn, soybean and rice being the most affected by the Japanese crisis. Precious metals were the only bullish non-energy commodity complex, due to their role as a safe haven.

Industrial metal prices fell by 2.9 per cent m-o-m in March, compared with a four per cent rise in February, dragged down by the political turmoil in the MENA region, macroeconomic uncertainty and the Japanese earthquake. A characteristic of the industrial metal markets was also extremely high volatility.

Weaker industrial metal imports from China also contributed to the bearish mood in the market complex. Except for aluminium and lead, all industrial metals saw a price decrease in March.

Aluminium prices grew by 1.9 per cent m-o-m to around $2,556/t in March, while that of lead also increased, reversing the losses seen in February. It was up by 1.4 per cent m-o-m to $2.62/kg in March.

Nickel prices received the major negative effect of the Japanese crisis among the industrial metal complex in the current month. The price declined by 5.5 per cent m-o-m to $26,710/t in March.

Zinc prices fell by five per cent m-o-m to $2.34/kg in March, compared with a 3.9 per cent gain a month earlier, while copper prices fell by 3.3 per cent m-o-m to around $9,364/t, continuing the slowing trend seen since January.

The price of gold increased further by 3.7 per cent m-o-m to $1,424/oz in March, supported by a second round of quantitative easing conducted by the US Federal Reserve, while silver prices jumped by 16.5 per cent m-o-m to $35.60/oz, tracking the path of gold as a safe haven.

Agriculture prices fell by 4.9 per cent m-o-m in March, reversing the 5.6 per cent gain recorded in February, mainly on the Japanese earthquake.

Corn prices fell by 0.8 per cent m-o-m to $290.50/t in March, while sugar prices on the US market rose, but at a slower pace of 0.1 per cent m-o-m to 87.51¢/kg, compared with a three per cent rise in the previous month.

Wheat prices in the US plummeted by 10.5 per cent m-o-m to $303.10/t, more than reversing the 5.7 per cent increase seen a month earlier, while soybean prices further declined by three per cent m-o-m to stand at $553/t in March.

World economy

The United States economy so far seems to be relatively unaffected by the many issues that are challenging other economies. So far, it has been quite resilient to concerns over sovereign debt and inflation, the natural disaster in Japan seems to have had a negligible effect so far, and the unemployment rate is even falling.

The fourth-quarter 2010 GDP number has been revised up again – from 2.8 per cent to 3.1 per cent growth, only slightly below the number of the first estimate of 3.2 per cent. Personal consumption has again been the main contributor at 2.8 per cent.

"The disaster on March 11 at the Fukushima Daiichi nuclear power plant in Japan has brought nuclear energy safety, in both developed and developing countries, into the spotlight again."

Consumer confidence has been relatively volatile over the last two years, but has picked up considerably since the low levels in 2009. The consumer index of the conference board has moved up from 25.3 in February 2009 to 72 in February 2011, but it should be highlighted that it has just now experienced a sharp decline in March of 8.6 index-points back to 63.4, which is the most significant drop for more than one year.

The same can be said for the well-established University of Michigan index, which dropped by ten index points in March, its steepest decline since October 2008.

Both numbers indicate that consumers might be concerned about the near future. This is a surprise, to a certain extent, as unemployment numbers continue declining, reaching 8.8 per cent in March, the second consecutive month below nine per cent.

The most recent ISM numbers were still on the positive side. While the ISM for the manufacturing sector declined marginally, it is still at a significant level that indicates an expansion. It moved from 61.4 in February to 61.2 in March.

The ISM for the services sector also declined slightly – from 59.7 to 57.3, but remained at a high level.

This economic situation that is still geared towards a solid momentum, has not changed from the last month, but needs careful monitoring, particularly when it comes to the development of consumption. Therefore, the 2011 GDP forecast for the US has been left unchanged at 2.9 per cent.

The most recent events in Japan continue to weigh on the country's economy with the full extent of the impact not yet known. Certainly, the economy of Japan will be significantly negatively impacted.

Furthermore, supply chain disruptions of its key trading partners might be affected, at least in the short-term. Potential second-round effects might have some impact on the global economy, although this is expected to be limited.

Uncertainty for the forecast comes from the fact that the government has so far not announced in great detail what countermeasures will be undertaken to mitigate, or compensate, the obviously negative effects for the economy.

The impact of the natural disaster has been estimated at ¥10,000–25,000bn by governmental sources (around $120–300bn). Therefore, at least a governmental support package of this magnitude should be expected.

On top of this, there are the consequences and the cost of the nuclear accident, which has been not accounted for in these estimates.

To establish a forecast for the Japanese economy is still very challenging. The magnitude of the GDP impact for the three affected provinces is estimated at six per cent of GDP.

In addition to that, a one per cent GDP impact has been considered, due to the interaction of the rest of the economy with the three provinces mostly affected by the earthquake. Countermeasures by the government in the range of $200bn were accounted for in the current forecast, starting in the second quarter and spread almost equally over the remainder of the year, although fading slightly in the fourth quarter.

The first half of this year is considered to be mostly impacted by the recent events, while the second half should see considerable growth, due to catch-up effects and the expected governmental support.

The first two months of the first quarter have been relatively resilient and the effect for the quarter is considered to turn out in only limited negative growth.

The most-affected quarter is forecast to be the second quarter, when the prolongation of the capacity shortfall from the end of the first three months is expected and government-led stimulus is not forecast to be able to compensate for this shortfall entirely.

Most of the current indicators are distorted as they reflect a situation of before the March 11 events. Even the latest indicators that were surveyed shortly after the events in March seem to not consider the full impact of the nuclear accident.

But the reading of the April PMI number provides some sense for the challenges the economy will have to deal with in the near future. The composite PMI fell sharply to 36.0 in March from 51.0 in February.

Given this situation and considering the scenario that the government will soon start to invest, the GDP forecast for 2011 now stands at minus 0.1 per cent. This compares with a forecast of 1.5 per cent in the previous month. Still, uncertainty is high and currently skewed to the downside.

The main focus for the Euro-zone continues to be the sovereign debt situation. Portugal's most recent announcement to request the financial support of the European Stability Fund – although to a certain extent expected – highlighted again the fragility of the sovereign debt situation in the peripheral countries.

Although the underlying growth momentum is still satisfactory, the challenges from the debt situation could have a serious impact if it unfolds at a bigger scale.

And while Spain is being highlighted to be safe by most Brussels officials and the European Central Bank (ECB), it has to be carefully monitored in the light of the most recent interest rate hikes and the expectation that more interest rate moves may follow soon.

Inflation is currently a key theme for the ECB as rising prices seem to leave no other choice than to raise rates, while some observers – including the International Monetary Fund – urge central banks not to raise interest rates too soon.

The current price pressure is coming from the commodities area, mainly from food and energy.

On the other side, a consideration to exclude these two price-drivers seems hard for the ECB as inflation has been rising now for some months and has been above the crucial benchmark of two per cent – which the ECB considers as a healthy level – since January 2011.

Besides the financial-market related issues, the Euro-zone's manufacturing sector has developed nicely, but again seems to be returning to some fragility. The forward looking industrial orders have risen by 0.1 per cent m-o-m in January only, a steep fall from the December and the November levels of 2.7 per cent m-o-m and 2.1 per cent, respectively.

Domestic orders declined by 0.3 per cent m-o-m, while – again – it has been the foreign orders, with growth of 2.8 per cent, that have been keeping the total order numbers in positive territory.

Industrial production remained almost flat in January and stood at 0.2 per cent, the same level as in December.

The composite PMI for March stood at 57.6, compared with 58.2 in February, and the manufacturing sector recorded a level of 57.5, after seeing 59.0 previously. Both numbers are still well above the growth indicating 50 level.

Given the fact that the Euro-zone's low growth dynamic has not changed in the past month and the interest rate situation so far is in line with expectations, the growth forecast for 2011 remains unchanged at 1.5 per cent.

The disaster on March 11 at the Fukushima Daiichi nuclear power plant in Northeast Japan has brought nuclear energy safety, in both developed and developing countries, into the spotlight again.

Nuclear energy accounts for 14 per cent of global electricity generation (27 per cent in Japan in 2010) and before the Japanese nuclear plant disaster it had looked set to enjoy a cautious renaissance.

Countries with high dependency on imported hydrocarbons have been in favour of a larger share of nuclear energy in their energy mix. It seems that despite the recent catastrophic events, because of its features, nuclear is likely to remain a significant part of the global energy mix, particularly in fast-growing developing countries.

Its main advantages are the low operational marginal costs (despite very high start-up costs) and the lack of carbon emissions. According to the IAEA, of the BRIC countries, Russia, India and China are among the world's top 11 countries when it comes to the number of operable nuclear reactors.

Nuclear energy has obvious appeal to fast-growing developing economies, such as China and India. In these countries a combination of massive populations, rapid economic growth and a heavy reliance on coal make nuclear power an alternative energy source with the favourable features of improving energy security and combating severe air pollution.

China, in particular, is poised to expand its nuclear industry massively in the next decade. By some accounts, the country aims to increase its nuclear-generating capacity by seven-fold by 2020, although in the wake of the recent Japanese nuclear disaster this ambitious target may be modified to some extent.

Currently, some 27 new reactors are under construction, according to the IAEA, and by 2020 the country may have as many as 75 reactors operating, up from 13 at present.

India, meanwhile, plans to increase nuclear capacity from 4.6 gw in 2009 to 40 gw by 2030. The country already has 20 nuclear reactors in operation.

Russia also seems reluctant to change its plans for more nuclear plants being built inside and outside the country. The country plans to build at least 14 new plants in the next 20 years, despite the fact that Russia is endowed with massive oil and gas reserves.

However, increasing the share of nuclear generation from 16 per cent of the total energy mix to nearly 20 per cent would free up more Russian fossil fuels for export.

In sum, opposition to nuclear power is certain to increase in many countries, particularly in the OECD. However, in emerging markets the growing need for energy would rule out a drastic change in nuclear energy plans.

Should political and public resistance to the construction of new plants, or to the extension of operating existing plants, prove significantly stronger in the developed world, the partial rebalancing of world nuclear capacity towards developing countries could accelerate.

According to the Economist Intelligent Unit (EIU), in 2010, China and India accounted for a combined 3.5 per cent of global nuclear electricity generation. That share could rise to 13.6 per cent in 2020.

In addition to the tragic events in Japan, the political crises in the Middle East and North Africa also could exert some negative impact on the global economy and emerging markets, mainly through rising oil prices.

However, the increase in oil prices appears to mainly be driven by speculation and negative expectations, rather than market essentials, considering the higher than average level of commercial inventory.

Recent events in the MENA region, at most, could have reduced less than three per cent of total oil exports which is compensated by a proper increase in other OPEC Member Countries' production.

Against this background, there is a consensus that Asia will remain the world's fastest-growing region this year.

Asia and Australasia (excluding Japan) grew strongly in 2010, at an average of 8.2 per cent, which was well above its trend growth rate.

Two factors contribute to this: The first is that Asia's economic fundamentals remain in good shape. The second important factor is the emergence of China as an independent engine of regional growth. However, this rapid GDP growth, coupled with rising commodity prices, is fuelling inflation in many emerging markets, including China, India and Brazil.

Food price inflation is particularly noticeable as for most developing Asia food accounts for 30–40 per cent of household spending.

In the circumstances, concerns over GDP growth and employment opportunities prevent authorities increasing interest rates to levels higher than that warranted and in most emerging markets real interest rates still remain in positive territory.

In Latin America, growth is expected to slow in 2011 as monetary tightening is underway to curb surging inflation. Renewed inflation pressures in recent months, in a context of rising global commodity prices and booming domestic demand, have produced a monetary policy dilemma, as they have been accompanied by persistent currency appreciation pressures, stemming from capital inflows into the region.

"Demand for OPEC crude for 2011 has been revised up by 100,000 b/d to currently stand at 29.9m b/d, reflecting mainly the upward adjustment in world oil demand."

Wide interest rate differentials, combined with strong growth prospects, have made Brazil particularly attractive to speculative investment inflows, and appreciation pressures have prompted authorities to commit to capital controls.

Colombia, Chile, Peru and Argentina are experiencing similar trends and have all also resorted to direct intervention in the foreign exchange market to contain currency appreciation in recent months.

Currently, there are two further issues that concern major emerging markets over their relation with the developed economies, namely the impact of monetary stimulus in the West on their real estate sector, and the sovereign debt crisis effect on their exports as Europe is an important export market.

Inflation poses a real challenge for economic stability of all members of the group, although, in general, a lower rate of inflation is expected for the BRIC countries in 2012, meaning that tightening policies are seen effective in curbing inflation.

The fiscal stance of the BRIC states is also expected to improve in 2011 and 2012, compared with 2010, although India still faces a huge public sector borrowing requirement that, considering its growing current account deficit, cannot be reduced without negatively affecting private spending. That might, in turn, jeopardize India's economic growth in the medium term.

Brazil has pursued two economic policy targets in recent months above other economic targets, although these targets seem contradictory to some extent. One important target of the Brazil economic policies has been curbing inflationary pressures.

The next target has been controlling the appreciation of the Brazilian real against the international reserve currency, the US dollar.

There has been around a $35bn inflow into the economy since last March. Government officials have stated that these measures are consistent with curbing credit expansion in the economy, in order to help control inflation.

Although GDP growth is expected to moderate this year, compared with 2010, February industrial production has been surprisingly higher than expected, growing by 1.9 per cent from January.

However, consumer durable goods showed a sequential contraction. Despite the February lift, production remained slightly below the peak reached in March 2010.

The March purchasing managers index (PMI) receded to 53.2 from 54.6 in February and business confidence in the manufacturing sector continues to drift lower.

Brazil's trade surplus widened in March to its highest level in three months as commodity price increases sent the value of exports surging.

The trade balance registered a surplus of $1.6bn in the month, up by 23.3 per cent from $1.2bn in February. The value of exports rose by 9.8 per cent to $19.3bn, while imports grew by 8.7 per cent to $17.7bn.

It is expected that the trade surplus will narrow as imports become cheaper and exports less competitive, owing to the appreciation of the real.

Healthy domestic demand will make imports grow more quickly than exports. The country's trade balance is expected to fall this year to $14.2bn from $20.3bn in 2010.

Economic growth in China is expected to remain robust as demand for investment is picking up and consumer spending rising.

In 2010, economic activities accelerated in all parts of the economy and the GDP growth rate reached 10.3 per cent.

A loose credit policy accommodated the economic growth surge. Although the Chinese authorities have stated they would moderate the pace of economic growth to prevent overheating and inflationary pressures and to promote the quality of economic expansion by reducing its negative environmental and social impacts, nine per cent GDP growth in 2011 looks reasonable.

China's March manufacturing PMI rose moderately, suggesting steady growth in industrial production. In particular, the PMI components on finished goods inventory and overstock orders each rose by more than four. In addition, the Markit PMI turned up moderately to reach 51.8 in March, compared with the seven-month low of 51.7 in February.

However, rising inflation is a major concern, as it is expected to reach around five per cent on average in 2011.

In March, the consumer price index (CPI) reached five per cent and it is expected that the inflation rate will remain elevated through the year.

India's economy rebounded more strongly from the 2008–09 global economic crisis than previously thought. Real GDP growth was estimated to be 8.5 per cent in 2010. For 2011, the GDP growth rate estimated by different organizations and institutions, differ significantly.

While the Central Statistical Office has estimated that economic growth in the second half of 2010/11 will slow to 8.3 per cent, the latest survey of professional forecasters by the Reserve Bank of India, the country's central bank, indicates that the economy is expected to grow by 8.5 per cent in fiscal 2011. The consensus on average predicts an 8.2 per cent expansion in the Indian economy in 2011.

OPEC believes that 8.1 per cent GDP growth is more realistic as various economic indicators point to moderation of GDP growth.

Industrial output, for example, grew at its slowest pace for 20 months in late 2010. Manufacturing output, which accounts for 80 per cent of the industrial production index, was up by only one per cent in December 2010, compared with 20 per cent a year earlier.

However, in March this year, new orders for manufacturing products rose for a third consecutive month.

The latest OECD leading indicators for India also point to a further slowdown in economic growth, although the agricultural, financial, insurance and property sectors are all expected to show stronger expansion in the second half of 2010/11 than in the first.

Export growth in the year as a whole should be higher too, thanks to a pick-up in overseas demand. In fact, exports continued to grow rapidly in February, compared with imports, narrowing the monthly trade deficit at a lower level.

FDI reduced in the first quarter of the year and net inflows stood at $ 2.1bn, almost 20 per cent lower than in the previous quarter and 50 per cent down from the corresponding quarter last year.

Russia's economy grew by four per cent in 2010, faster than expected. The greatest contribution to GDP growth came from a build-up in stocks, as these were run down in 2009.

Growth in external demand also contributed in GDP growth as exports grew by 11 per cent in 2010.

In addition to these two components of aggregate demand, domestic consumption and investment also recovered in 2010. The budget deficit shrank in 2010 to around four per cent of GDP from 5.9 per cent in 2009.

Russia's growth will remain below pre-crisis standards. Growth was dampened in the third quarter of 2010 by the severe summer drought and wildfires, but rebounded in the fourth quarter, driven by manufacturing and energy production gains.

Russian growth prospects will continue to be dependent on world commodity prices, especially for oil and gas, but higher inflation is weighing on consumer demand, and economic growth is expected to remain close to 4.1 per cent in 2011.

The country's Economy Ministry estimates that in unadjusted terms real GDP grew by 4.3 per cent year-on-year in January 2011.

Latest PMI appears to confirm a positive outlook for the manufacturing sector in Russia. In February, its PMI rose to its highest level since January 2008, reflecting accelerating new orders.

However, retail sales point to slowing household demand. Consumer demand has been affected by rising inflation, driven by higher food prices.

Data released by RosStat indicates a slowing growth in y-o-y disposable income expansion. The income growth rate dropped into negative territory by 5.5 per cent on an annual basis. This has been the first decline since August 2009.

OPEC Member Countries' economic performance was mixed in the first quarter of 2011.

Considering the continuation of the global economic recovery and rising oil prices, most Member Countries are believed to have experienced higher economic growth, compared with last year.

However, the MENA region conflicts will obviously have an impact on the economic performance of OPEC Countries. Uncertainties stemming from the regional events make it difficult to predict the economic expansion of OPEC Countries as a whole. Nevertheless, as the global economy expands, steady economic growth is expected for most OPEC Member Countries in 2011.

In fact, the rates of economic growth for eight out of the 12 OPEC Member Countries are estimated to be higher in 2011, compared with last year.

On average, the economies of OPEC Member Countries as a whole are expected to grow by around four per cent in 2011, compared with 3.5 per cent in 2010, which indicates a positive increase of economic activity.

World oil demand

Demand for OPEC crude for 2010 has been revised up by 200,000 b/d to currently stand at 29.5m b/d, reflecting mainly the upward adjustment in world oil demand.

All quarters saw an upward revision with the bulk of the adjustment occurring in the fourth quarter, which was increased by 300,000 b/d to reflect the most recent data.

Demand for OPEC crude is estimated to have risen by 400,000 b/d above the previous year. Compared with a year earlier, the first quarter showed a drop of 800,000 b/d, while the second quarter is estimated to have seen growth of 300,000 b/d. The third quarter is forecast to have seen positive growth of 1.7m b/d followed by 500,000 b/d growth in the fourth quarter.

Meanwhile, demand for OPEC crude in 2011 is now projected to average 29.9m b/d, following an upward revision of 100,000 b/d from the previous assessment, mainly due to an adjustment in world oil demand.

The first-quarter forecast remains unchanged, the second quarter saw a downward revision of 100,000 b/d, while the third and the fourth quarters were revised up by 100,000 b/d and 300,000 b/d, respectively.

Required OPEC crude is forecast to increase by 400,000 b/d this year over 2010. Compared with a year ago, the first quarter should have

seen growth of around 700,000 b/d, while the second is forecast to experience reduced growth of 200,000 b/d. The third quarter is projected to remain flat, while the fourth quarter is likely to see higher growth of 500,000 b/d.

Many changes have occurred in the world subsequent to OPEC's last report, the most important being the Japanese earthquake, but which is expected to affect oil demand only marginally.

Japan's disaster led to a sudden decline in the country's use of oil as areas of the economy came to a halt and the transportation sector experienced a decline; however, this is likely to be offset later in the year as the country substitutes some of its shut-in nuclear power capacity with crude-burning power generation. Furthermore, rebuilding operations later on will call for increased energy use.

As the world is approaching the second quarter, oil demand has already eased; this normally takes place at this time of the year. Early signs indicate higher-than-expected winter product use for the fourth quarter of last year, which led to an upward revision.

"Indian oil demand is forecast to grow by more than 100,000 b/d this year; however, the switching of the country's power plants to gas might reduce this estimate sharply."

March data indicated less growth in US oil demand than expected; however, for the entire OECD, the picture is the opposite of that in the US, leaving the region's total oil demand in the negative.

An upward/downward risk to the oil demand forecast still exists. International oil prices will have a slightly negative impact on transport fuel demand worldwide.

Furthermore, the future rebuilding of Japan will have an upward impact on total oil use, not to mention on the future fate of the country's ailing nuclear plants.

World oil demand in 2010 is forecast to have grown by 2.0m b/d and is expected to expand by 1.4m b/d in 2011, averaging 87.9m b/d.

The extreme winter affected oil demand more than anticipated, both directly and indirectly. Hence, last year's fourth-quarter oil demand was revised up by 150,000 b/d. Some of this growth was related to fuel switching in some parts of the world as natural gas prices went up, forcing some industries to use fuel oil instead.

The latest monthly US oil consumption data showed yearly growth of 3.2 per cent for January 2011. While distillates exhibited high growth, due to the cold weather, and improved industrial activity, motor gasoline consumption fell by almost 1.3 per cent.

This was the largest decline since March 2010, a fact that is mostly attributed to high fuel prices and, thus, lower mileage.

Nevertheless, preliminary weekly data for February and March 2011 displayed increases in transportation fuels. March weekly data showed weak y-o-y demand growth, compared with previous months.

Furthermore, US sales of light vehicles jumped by 17 per cent from last year, despite lower incentives and consumer unease over rising fuel prices. Small cars were the leading sector in sales.

The first complete set of US data for the first quarter demonstrated a yearly increase of 2.5 per cent, which is mainly driven by transportation and industrial fuels, while jet fuel/kerosene, residual fuel oil and propane/propylene were on the decline.

Industrial activity during February pushed Mexican oil consumption up by 2.4 per cent, compared with last year. Consumption of transportation fuels in Mexico remained on the negative side in February, a fact basically due to the struggling Mexican economy.

Driven by a low baseline and continuous cold weather, Canadian oil demand continued its high growth rates during January with sharp increases in distillates and gasoline.

Following remarkably strong oil demand in the fourth quarter of last year – the highest ever reported – Canadian oil consumption grew again in January by 360,000 b/d. It is expected to continue at a similar level in February and March, mainly due to the low baseline and colder-than-normal weather.

Cold weather in North America pushed up oil consumption by more than expected; hence, fourth-quarter oil demand was revised up slightly.

For the whole of 2010, North American oil demand is expected to have grown by 600,000 b/d, while in 2011, the region is forecast to see expansion of only 300,000 b/d.

Given the anticipated moderate economic growth, US oil demand is forecast to grow by 260,000 b/d in 2011.

Despite a 17 per cent increase, US auto sales were lower than those of February and January. The sectors with the largest increases were smaller, more efficient cars and crossovers.

In Canada, car sales increased during March by six per cent, compared with the same month last year, with light truck sales increasing and passenger cars decreasing slightly.

According to the Mexican Automobile Industry Association, Mexico's auto industry continued to grow strongly in February, with production of cars and light trucks rising by 16 per cent y-o-y.

European February oil consumption grew by 100,000 b/d, with Germany and Italy being its largest contributors. The increases were mainly due to exceptionally cold weather, indicated by significantly higher consumption of all heating oil product categories, especially middle distillates.

The short-term perspective of European oil consumption during 2011 is most certainly a decreasing trend as continuing debts in several European economies, in particular Greece, Ireland and Portugal, are putting strong downward pressure on oil demand.

The European Big Four's y-o-y oil demand increased by 82,000 b/d in February, compared with 65,000 b/d in January. Stronger distillate consumption during February in all four countries was the main driver of that growth, while,

during the same period, transportation fuels remained on the decline in Italy and France, despite the low baseline of 2010.

During February, German, Italian and UK oil consumption was up by four per cent, two per cent and one per cent, respectively, while oil consumption in France decreased by two per cent.

The region's total contraction in oil demand stood at 100,000 b/d in 2010, OECD Europe oil consumption is expected to shrink again in 2011; however at a lower magnitude of 10,000 b/d.

According to the latest information by ACEA, European demand for new passenger cars in February increased by 0.9 per cent over 2010.

Auto markets in most countries grew, with the exception of some major markets, such as the UK, Italy and Spain, which recorded yearly decreases of eight per cent, 22 per cent and 28 per cent, respectively.

During the same month, French and German new passenger car registrations increased by 13 per cent and 15 per cent, correspondingly.

Japan's triple catastrophe is taking the country in two directions as far as oil consumption is concerned. The first one is leading to less oil consumption as large segments of the country's economy have come to a halt after the earthquake, at least for a while.

The second situation will yield more oil usage. The loss of the country's 13 per cent of nuclear power generation capacity and the rebuilding efforts, which are estimated to cost more than $300bn, will demand more energy use.

As a result of the earthquake, all six reactors at the Fukushima nuclear power station, with a capacity of 4,696 mw – equivalent to around 90,000 b/d of direct crude burning – have been severely damaged.

Another eight reactors, with a total capacity of 9,674 mw, were automatically shut-down. Furthermore the supply of oil products, including gasoline, diesel oil and kerosene, in the Tohoku and Kanto regions faces shortages, due to the damaged distribution network.

Japan's oil consumption was 4.7m b/d in January; however, the new post-earthquake estimates expected a temporary drop, before picking up later in the year when the country starts its rebuilding process.

Japan's pre-disaster oil consumption was estimated to shrink by 1.5 per cent. This decline is a continuation of the trend of the past few years, excluding 2010. Japan's efficiency efforts, along with an aging population, have led to this trend.

The country's nuclear problem will of course have a negative impact on the economy. The collapsed nuclear power plant is estimated at 90,000 b/d of equivalent oil consumption. Any slowdown in economic growth could lead to a further contraction in the country's oil demand.

However, the magnitude of this is pending the result of the nuclear problem. Should the country substitute its lost nuclear power plants with crude-burning power generation, this will offset the decline in other parts of the economy.

Latest monthly data for February shows increasing oil consumption y-o-y, mainly due to fuel switching, and thus higher residual fuel oil usage.

Moreover, Japanese consumption of transportation fuels showed a slight increase, compared with last year, while, in January, direct crude-burning marked the highest increase in any product category. This was a result of unusually cold weather.

The direction of Japanese oil consumption for the rest of 2011 is heavily dependent upon the speed of resolving the ongoing nuclear crisis. Latest March data reported a huge drop of 37 per cent in Japanese auto sales as a result of the catastrophe.

It is also very likely that the Japanese auto industry will not recover in 2011, as several factories have been closed down and consumer confidence is understandably shaken.

In South Korea, January marked sharp increases in the consumption of all oil products, especially industrial and transportation fuels.

In a measure aimed at reducing growing public pressure to reduce energy taxes and inflation, South Korean refiners yielded to a governmental order to reduce petroleum product retail prices by five per cent for three months.

Half of South Korea's retail prices are taxed and amount to 13 per cent of total levied tax within the country.

OECD Pacific oil demand showed minor growth of 100,000 b/d in 2010, averaging 7.8m b/d. During 2011, however, OECD Pacific oil consumption is expected to fall by 60,000 b/d, while projections are heavily dependent upon the speed of recovery in Japan.

Indian February oil demand registered growth, despite the decline in industrial fuel usage. Strong transport fuel demand boosted the country's total oil consumption by 2.5 per cent y-o-y. Gasoline demand was pushed up by both the increase in driven mileage and strong growth in new car registrations.

The growth in gasoline demand in February reached seven per cent y-o-y and diesel was up by 5.6 per cent.

Indian oil demand is forecast to grow by more than 100,000 b/d this year; however, the switching of the country's power plants to gas might reduce this estimate sharply.

As was seen last year, Indian oil consumption is always affected by final natural gas prices. It is forecast that India oil demand will increase by 3.5 per cent this year, compared with 2010.

India's auto sales were up by 23 per cent in February from a year ago, according to latest data released by the Society of Indian Automobile Manufacturers (SIAM).

The reasons behind this large increase are governmental incentives, easy availability of loans, and a pick-up in new product launches.

Industrial fuel use, especially naphtha, experienced some decline in February reaching 6.3 per cent as demand by the petrochemical, fertilizer, and power plant sectors shrank.

Pakistan is planning to cut sulphur content in diesel by half starting in July 2012. Currently, diesel sold in the country has a limit of one per cent sulphur content.

This will, of course, put pressure on the country's refining industry and consequently raise the production cost of diesel. This new move is not expected to dent the country's local demand.

Industrial, agricultural, and segments of

the transport sector are the main consumers of diesel. Pakistan's oil demand grew by 2.8 per cent last year to average 435,000 b/d.

Taiwan's oil demand grew marginally last year, achieving y-o-y growth of 2.3 per cent, or 23,000 b/d, putting the country's oil consumption above 1.0m b/d.

Although the country's oil demand is expected to grow this year, January data indicated a minor decline of 0.8 per cent. A massive decline in industrial use of fuel oil caused the country's total oil use to fall in January.

Given the recent strength in India's oil demand, Other Asia oil demand growth is forecast at 200,000 b/d in 2011, averaging 10.3m b/d.

Middle East oil demand has continued its robust growth, despite the negative performance of Iran's oil demand. The region's oil demand in the first quarter grew sharply, exceeding the threshold of 200,000 b/d.

Economic activities are estimated to push the region's GDP up to 4.3 per cent this year.

Long-term energy-intensive projects are also keeping Middle East oil demand on the sturdy side. Being the strongest economy in the region, Saudi Arabia's oil demand is registering the highest figure this year. Middle East oil demand growth is forecast at 200,000 b/d, averaging 7.5m b/d.

"Preliminary figures indicate that global oil supply fell by 290,000 b/d in March to average 87.46m b/d."

Argentina's oil demand is estimated to show y-o-y growth of 40,000 b/d in the first quarter. Transport fuel demand, especially gasoline, has been on the rise with the help of regulated retail prices.

Due to the anticipation of marginal deregulation of the country's domestic retail prices, Argentina's oil demand is forecast to be half of what was seen last year.

Brazil's oil demand is expected to sustain its strong upward move this year. The alcohol-based energy sector is expected to show the highest growth. Brazil's oil demand is forecast to grow by 90,000 b/d in the first quarter and is expected to keep the same rhythm for the rest of the year.

Developing Countries' oil demand growth is forecast at 600,000 b/d y-o-y, in 2011, averaging 27.3m b/d.

As expected, a five per cent increase in Chinese domestic petroleum product retail prices last month, to partly reflect higher crude prices, did not strongly affect total oil consumption.

China has been adopting a pricing system which follows international prices if they swing by more than four per cent and are sustained for more than 22 days.

China's February net oil imports grew by 4.5 per cent y-o-y; however, this was down drastically from last month's growth of 35 per cent.

Some of the country's February oil imports were diverted to stocks, leaving monthly demand to grow by eight per cent, adding 665,000 b/d y-o-y.

According to China's latest OGP publication, the country's net commercial stocks increased by 620,000 b/d in February. This is excluding any stock movement in the country's SPR. Almost all of the commercial stock increase was related to petroleum products, mainly diesel.

February Chinese data indicated growth of over 500,000 b/d in diesel usage, or more than 16 per cent growth.

China's oil demand is forecast to keep its sturdy pace throughout the year. Chinese oil demand will add another 500,000 b/d to its total demand in the second quarter. Unlike other forecasters, this Chinese demand growth forecast assessment excludes any petroleum and product stock additions. All reported stock data is taken into consideration and treated, as in the OECD stock assessment.

Despite government efforts to slow down the country's energy demand, China's oil demand is expected to grow by 510,000 b/d in 2011 to average 9.5m b/d.

Sales of China's passenger vehicles, including cars, multi-purpose vehicles (MPVs), sport utility vehicles (SUVs) and mini vans, rose by three per cent in February, compared with 2010, according to the China Passenger Car Association.

The slowdown in sales growth was attributed to the removal of government incentives, the ending of a car scrappage scheme and the increase of car sales taxes.

World oil supply

Preliminary figures indicate that global oil supply fell by 290,000 b/d in March to average 87.46m b/d.

Non-OPEC supply experienced a healthy increase of 340,000 b/d, while total OPEC crude supply dropped by 630,000 b/d.

The share of OPEC crude oil production in March saw a minor decline to 33.5 per cent, compared with 34.1 per cent the previous month. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production based on secondary sources.

Meanwhile, non-OPEC oil supply is estimated to have averaged 52.26m b/d in 2010, representing growth of 1.13m b/d over the previous year.

The estimate for 2010 remained steady from the previous report with a minor downward revision of 10,000 b/d to growth. There were minor upward and downward revisions to all the quarters of 2010; however, annual supply estimates continued at the same level from the previous report as revisions offset each other.

Non-OPEC supply growth in 2010 was the highest since 2002. North America's oil supply growth in 2010 was the highest in the past ten years, while the decline in OECD Western Europe was the largest since 2006.

Similarly, China's oil supply growth in 2010 reached a record high of 280,000 b/d.

Total Developing Country oil supply in 2010 experienced the highest growth since 2005. On a quarterly basis, non-OPEC supply in 2010 is estimated at 52.13m b/d, 52.11m b/d, 51.93m b/d and 52.86m b/d, respectively.

There were a few revisions to non-OPEC supply estimates in 2010 in both directions,

compared with the previous report, with the bulk affecting the fourth quarter.

Supply estimates for the US, Other Western Europe and Brazil experienced the largest revisions. The revisions were introduced to adjust for updated production data.

US oil supply in the fourth quarter of 2010 experienced an upward revision as new data required an adjustment. In Brazil, a downward revision affected the whole year, due to revised production data. There were a few other revisions that affected the fourth quarter of 2010; however, they did not change the annual figure.

Non-OPEC supply is forecast to average 52.84m b/d in 2011, representing an increase of 580,000 b/d over 2010 and an upward revision of 60,000 b/d from last month.

Compared with the previous month, the upward revisions were in the first, third and fourth quarters, with the second quarter encountering a downward adjustment.

The first-quarter 2011 projection experienced the largest upward revision, driven mainly by adjustments to actual production data, as well as changes to some countries' supply profiles.

The OECD supply forecast encountered the highest upward revision, while Developing Countries experienced the largest downward adjustment, compared with the previous month.

On a regional basis, Latin America's oil supply is expected to achieve the highest growth among all non-OPEC regions in 2011, while OECD Western Europe is expected to see the largest decline.

On a quarterly basis, non-OPEC supply in 2011 is expected to average 52.89m b/d, 52.65m b/d, 52.60m b/d and 53.22m b/d, respectively.

Total OECD oil supply is anticipated to remain steady in 2011, compared with the previous year, with a minor increase of 10,000 b/d to average 19.94m b/d. The growth represented an upward revision of 50,000 b/d from the previous report.

Despite the relatively steady state, the OECD oil supply forecast for 2011 stands higher by 190,000 b/d over the average of the previous ten years and 100,000 b/d more than the average of the previous five years.

North America is expected to be the only contributor to growth in 2011, supported by projected growth in the US and Canada.

The upward revision to the OECD supply forecast came from North America and OECD Western Europe, while the OECD Pacific forecast encountered a minor downward revision.

Compared with the previous month, supply forecasts from the US, Mexico, Norway, the UK and Denmark experienced upward revisions, with the US experiencing the largest, while supply predictions for Canada and Australia saw downward revisions.

The upward revisions to individual countries' supply profiles more than offset the downward revisions.

The first-quarter supply forecast saw the highest upward revision, while other quarters encountered lower upward revisions.

On a quarterly basis, OECD oil supply in 2011 is seen to average 20.19m b/d, 19.86m b/d, 19.70m b/d and 20.03m b/d, respectively.

According to preliminary data, total OECD actual supply averaged 20.18m b/d in both January and February this year.

North America's oil supply is forecast to increase by 210,000 b/d over 2010 to average 15.16m b/d in 2011, indicating an upward revision of 46,000 b/d from the previous month.

The expected supply growth for the US and Canada is seen to more than offset the reduced decline in Mexico.

On a quarterly basis, North America's oil supply in 2011 is expected to stand at 15.26m b/d, 15.11m b/d, 15.04m b/d and 15.23m b/d, respectively.

US oil supply is expected to increase by 120,000 b/d to average 8.72m b/d in 2011, representing an upward revision of 40,000 b/d from the previous report.

The revision came mainly in the first quarter and was partially carried over to the rest of the year. Preliminary actual production data required the upward revision in the first quarter, where output came in higher than previously anticipated.

Furthermore, the approval of various Gulf of Mexico deepwater wells in March that were delayed after the Macondo spill, supported the upward revision. On a quarterly basis, US oil supply in 2011 is expected to average 8.77m b/d 8.72m b/d, 8.67m b/d and 8.74m b/d, respectively.

According to preliminary data, US oil supply is estimated to have averaged 8.77m b/d in the first quarter of 2011, a decline from the fourth quarter of 2010.

Oil supply from Canada is projected to average 3.51m b/d in 2011, representing growth of 120,000 b/d over the 2010 estimate and a downward revision of 15,000 b/d from the previous month.

The downward revision came despite positive indicators supporting growth in Canada, such as the record-high utilization of the oil and gas rigs fleet. First-quarter oil supply encountered an upward revision due to updated production data for the early part of the year. However, the downward revision for the rest of the quarters, especially the second quarter, more than offset the upward revision.

The downward revision came due to the expected maintenance effect on the output in the coming period.

On a quarterly basis, Canada's oil supply in 2011 is foreseen to average 3.52m b/d, 3.46m b/d, 3.48m b/d and 3.57m b/d, respectively.

Mexico's oil supply is expected to decline by 30,000 b/d in 2011 to average 2.93m b/d, following an upward revision of 20,000 b/d from the previous report.

The relatively healthy production level during the first quarter of 2011, with data covering more than half of March, indicated growth compared with the fourth quarter of 2010.

On a quarterly basis, Mexico's oil supply in 2011 is expected to average 2.97m b/d, 2.93m b/d, 2.89m b/d and 2.92m b/d, respectively.

Oil supply from OECD Western Europe is forecast to decline by 180,000 b/d in 2011 from the previous year to average 4.21m b/d, indicating an upward revision of 40,000 b/d over the previous month.

The bulk of the upward revision occurred in the first quarter, due mainly to adjust for updated production data. All main producers

in the region saw upward revisions to their supply projections.

On a quarterly basis, OECD Western Europe's oil supply in 2011 is anticipated to stand at 4.42m b/d, 4.15m b/d, 4.06m b/d and 4.21m b/d, respectively.

Norway's oil supply is expected to average 2.02m b/d in 2011, a decline of 110,000 b/d from the previous year, indicating an upward revision of 10,000 b/d from the previous report.

On a quarterly basis, Norway's oil supply in 2011 is expected to average 2.15m b/d, 1.97m b/d, 1.93m b/d and 2.03m b/d, respectively.

According to preliminary data, Norway's oil supply averaged 2.14m b/d in January and February, a drop of around 200,000 b/d compared with the same period of 2010.

UK oil supply is predicted to decrease by 50,000 b/d over a year earlier to average 1.32m b/d in 2011, an upward revision of 15,000 b/d from the previous month.

The upward revision came mainly in the first quarter where production data suggested higher-than-previously-expected output.

On a quarterly basis, the UK's oil supply this year is forecast at 1.38m b/d, 1.30m b/d, 1.27m b/d and 1.31m b/d, respectively.

"Total Developing Countries' oil supply is expected to increase by 340,000 b/d over 2010 to average 13.09m b/d in 2011, indicating a downward revision of 60,000 b/d from the previous report."

OECD Asia Pacific oil supply is forecast to average 570,000 b/d in 2011, a decrease of 20,000 b/d over the previous year and a downward revision of 10,000 b/d from the previous evaluation.

The bulk of the revision occurred in the first quarter of 2011. Australia saw a downward revision of 15,000 b/d, while New Zealand experienced an upward revision of 6,000 b/d.

On a quarterly basis, OECD Asia Pacific oil supply in 2011 is expected to average 520,000 b/d, 600,000 b/d, 600,000 b/d and 580,000 b/d, respectively.

Australia's oil supply is anticipated to experience a minor decline of 20,000 b/d in 2011 to average 480,000 b/d, following a downward revision of 15,000 b/d from the previous month.

According to preliminary estimated data, Australia's oil supply averaged 420,000 b/d in the first quarter of 2011, down by 100,000 b/d from the same period a year ago.

On a quarterly basis, Australia's oil supply this year is seen to average 420,000 b/d, 500,000 b/d, 510,000 b/d and 500,000 b/d, respectively.

Total Developing Countries' oil supply is expected to increase by 340,000 b/d over 2010 to average 13.09m b/d in 2011, indicating a downward revision of 60,000 b/d from the previous report.

The downward revision came from the Middle East, Other Asia and Africa oil supply forecasts, while Latin America's supply encountered an upward revision.

Latin America remains the region with the highest projected growth among all non-OPEC regions.

The revision came mainly in the first half of 2011, while the second half experienced smaller revisions. The downward revision was introduced to adjust for preliminary actual production data, as well as changes to various countries' supply elements, as well as political factors.

On a quarterly basis, Developing Countries' total oil supply in 2011 is estimated to stand at 12.86m b/d, 13.01m b/d, 13.15m b/d and 13.35m b/d, respectively.

Other Asia oil supply is foreseen to remain steady in 2011, compared with the previous year, with a decline of 10,000 b/d, representing a downward revision of 30,000 b/d from the previous month.

The downward revision came mainly from India, Indonesia and Malaysia supply forecasts. Partial first-quarter oil output data, as well as minor changes to the supply forecast elements, required the downward revision.

India's oil supply in 2011 is expected to average 900,000 b/d, representing growth of 40,000 b/d and a downward revision of 10,000 b/d, compared with the previous report.

On a quarterly basis, Other Asia oil supply this year is expected to stand at 3.66m b/d, 3.67m b/d, 3.69m b/d and 3.71m b/d, respectively.

Indonesia's oil supply is forecast to decline by 40,000 b/d in 2011 to average 980,000 b/d, indicating a downward revision of 10,000 b/d from the previous month's assessment.

The downward revision was driven by lower output in the early part of the first quarter.

Malaysia's oil supply is seen dropping by 40,000 b/d in 2011 to average 660,000 b/d in 2011, a downward revision of 10,000 b/d from the previous month.

Latin America's oil supply is forecast to increase by 270,000 b/d to average 4.95m b/d in 2011, indicating an upward revision of 20,000 b/d from the previous month.

Argentina's oil supply forecast experienced an upward revision of 10,000 b/d, due to healthy production figures during the early part of the first quarter, supported by strong biodiesel production.

Colombia's oil supply is expected to grow by 100,000 b/d to average 890,000 b/d in 2011, with an upward revision of 10,000 b/d from the previous month.

The healthy production level during the first two months of the year supported the upward revision. Colombia's oil output in February registered a new record high with a monthly increase of 30,000 b/d.

On a quarterly basis, Latin America's oil supply in 2011 is expected to average 4.82m b/d, 4.92m b/d, 4.98m b/d and 5.09m b/d, respectively.

Brazil's oil supply is projected to increase by 180,000 b/d in 2011 to average 2.85m b/d, unchanged from the previous report.

Brazil's oil supply forecast encountered upward and downward revisions that offset each other. The lower output in February, compared with January, required a downward adjustment to the first quarter.

The decline in February was mainly due to maintenance on several offshore platforms. Despite the monthly decline, the February production figure indicated annual growth of 80,000 b/d, or three per cent.

On a quarterly basis, Brazil's oil supply in 2011 is seen to stand at 2.75m b/d, 2.85m b/d, 2.87m b/d and 2.94m b/d, respectively.

Middle East oil supply is estimated to remain steady in 2011 with a minor increase of 10,000 b/d to average 1.78m b/d, indicating a downward revision of 35,000 b/d from the previous month.

The downward adjustment came from Oman, Syria and Yemen as political turmoil and demonstrations affected production.

On a quarterly basis, Middle East oil supply this year is expected to average 1.76m b/d, 1.77m b/d, 1.79m b/d, and 1.81m b/d, respectively.

Africa's oil supply is seen increasing by 80,000 b/d to average 2.68m b/d in 2011, a downward revision of 20,000 b/d from the previous month.

The downward revision came on the back of adjustments to updated production data from Sudan. The estimated lower output in the first quarter was partially carried over to other quarters.

On a quarterly basis, Africa's oil supply in 2011 is expected to average 2.63m b/d, 2.65m b/d, 2.69m b/d and 2.74m b/d, respectively.

Total Former Soviet Union oil supply is projected to increase by 140,000 b/d over the previous year to average 13.36m b/d in 2011, indicating a minor upward revision of 10,000 b/d from the previous month.

The minor upward revision came from Kazakhstan and Other FSU, while the Azerbaijan oil supply forecast experienced a minor downward revision. Updated production data during the first quarter was the main driver to this month's revisions.

However, high levels of risk and uncertainty remain associated with the FSU supply forecast. The expected growth in FSU supply remains limited compared with the 500,000 b/d average growth over the past ten years. All FSU major producers are still expected to experience supply growth in 2011, although lower in terms of volume compared with the previous years.

On a quarterly basis, total oil supply in the FSU in 2011 is expected to stand at 13.38m b/d, 13.37m b/d, 13.31m b/d and 13.38m b/d, respectively.

Other Europe's oil supply is seen to remain flat in 2011, compared with the previous year, to average 140,000 b/d.

Russia's oil supply is forecast to increase by 50,000 b/d over 2010 to average 10.19m b/d in 2011, unchanged from the previous report.

Despite the steady state, the supply outlook experienced a minor downward revision in the first quarter that did not influence the annual figure.

According to preliminary data, Russia's oil supply in March experienced a minor decline compared with the previous month; however, on an annual basis, output in March indicated an increase of 70,000 b/d.

Russia's oil supply is expected to remain within the first quarter level until the second half of the year, where production is foreseen to slightly decrease.

On a quarterly basis, Russia's oil supply this year is anticipated to average 10.21m b/d, 10.21m b/d, 10.17m b/d and 10.18m b/d, respectively.

March preliminary data indicates that Russia's oil supply stood at 10.20m b/d, down 20,000 b/d from the previous month.

Kazakhstan's oil supply is predicted to increase by 60,000 b/d to average 1.65m b/d in 2011, indicating a minor upward revision of 10,000 b/d from the previous month.

The upward revision reflects updated production data in the early part of the first quarter, which was partially carried over throughout the year.

On a quarterly basis, Kazakhstan's oil supply this year is seen to stand at 1.67m b/d, 1.64m b/d, 1.63m b/d and 1.68m b/d, respectively.

Azeri oil supply is anticipated to increase by 20,000 b/d to average 1.09m b/d in 2011, representing a downward revision of 10,000 b/d from the previous report.

The revision was experienced due to adjustment to updated production data in the first quarter that came lower than expected. However, production is expected to increase slightly in the second quarter.

On a quarterly basis, Azerbaijan's oil supply in 2011 is estimated to average 1.07m b/d, 1.09m b/d, 1.09m b/d, and 1.10m b/d, respectively.

China's oil supply is estimated to average 4.23m b/d in 2011, an increase of 90,000 b/d over the previous year and an upward revision of 30,000 b/d from the previous month.

The strong production figures from the first two months required the upward revision, which was partially carried over to the rest of the year.

In February, China's oil supply averaged 4.21m b/d, slightly lower than the previous month, but still representing y-o-y growth of 200,000 b/d, or five per cent.

On a quarterly basis, China's oil supply in 2011 is seen averaging 4.24m b/d, 4.21m b/d, 4.22m b/d and 4.24m b/d, respectively.

OPEC oil production

Total OPEC crude oil production averaged 29.31m b/d in March, according to secondary sources, a drop of 627,000 b/d from the previous month.

Crude oil output increases came from Angola, Iraq, Saudi Arabia, Venezuela, Kuwait and the United Arab Emirates, which partially offset the disruption in Libyan oil production in March.

OPEC crude oil output, not including Iraq, averaged 26.56m b/d in March, a drop of 690,000 b/d from the previous month.

Output of OPEC NGLs and non-conventional oils, which are estimated to have averaged 4.79m b/d in 2010, representing growth of 440,000 b/d over the previous year, are expected to increase by 460,000 b/d in 2011 over the previous year to average 5.25m b/d.

Downstream activity

The sustained momentum in the middle distillates market received further support from

stronger diesel demand, due to the rise in container activity in the US industrial sector.

Additional support came from the supply side, as a result of the temporary European and Asian market tightness generated by the disruption in Libyan supplies and lower exports from Japan, which has allowed the gasoil crack to jump to a record level in Asia.

Product markets have been impacted by the tragic events in Japan, which triggered bearish sentiment for the top of the barrel as almost 25 per cent of Japan's ethylene production capacity is currently offline.

In contrast, middle distillates and low sulphur fuel oil cracks have been boosted, not only in Asia, but also in the US and Europe because of the stringent Japanese product specifications.

Healthy middle distillate demand amid moderated refinery runs will continue to support refinery margins in the coming months and could offset the lower cracks in the top of the barrel.

US refining industry performance remained healthy in March on the back of gasoline and middle distillate cracks. The margin for WTI crude on the US Gulf Coast showed a slight drop to stand at $17/b, down $1.80/b from the previous month when the margin reached the highest level seen in years.

However, these high margins have been artificially inflated by the relatively low benchmark WTI price, which has been disconnected from other benchmark grades over the last months, due to the build in inventories in Cushing, Oklahoma.

"Total OPEC crude oil production averaged 29.31m b/d in March, according to secondary sources, a drop of 627,000 b/d from the previous month."

The margin for Arab Heavy crude on the US Gulf Coast was around $5/b, dropping by $1/b from the previous month.

In Europe, the improvement in middle distillate cracks, due to stronger regional demand, was not able to offset the weakness in the top of the barrel, where naphtha felt a very negative impact from the disruption in the petrochemical sector in Asia, but particularly Japan, and the margin for the stronger Brent crude in Rotterdam dropped by 80¢/b.

Refining margins for Dubai crude oil in Singapore gained support from the record-high middle distillate crack spread, which was able to more than offset the loss in the weaker naphtha and fuel oil cracks, allowed refinery margins to show a sharp rise of 80¢/b.

American refiners increased refinery runs by two per cent in March as refiners returned from the turnaround season amid healthy refining margins.

Refinery runs increased to an average of 83.6 per cent in March from 81.6 per cent a month earlier.

Gasoline demand increased in the US, despite the uptick in pump prices during March, and inventories dropped on the back of fewer imports from Europe and several cracking units being in maintenance in the Houston area.

The bullish gasoline market situation, along with strong diesel demand and the relatively smaller increase in the price of WTI, has contributed to keeping refining margins healthy.

European refiners have reduced throughputs to below 80 per cent, driven by low refinery margins and the maintenance season.

Asian refiners in China and India have started to reduce runs due to maintenance turnarounds. The natural disaster in Japan damaged some refineries and although other plants have been running higher throughputs since, preliminary figures estimate 70 per cent of installed capacity as being the average level in March.

Looking ahead, further improving demand for the middle of the barrel could offset the bearish situation in the top of the barrel ahead of the driving season; however, refinery utilization rates are not expected to increase sharply, taking into account the maintenance season and more expensive crude oil, which is pressuring refinery margins.

According to the EIA, US gasoline demand rose to 8.99m b/d in March, a gain of 90,000 b/d over the previous month and 204,000 b/d above the same month last year.

Despite higher US refinery runs, gasoline inventories dropped on the back of fewer imports from Europe, due to higher maintenance and the refinery and trader de-stocking of winter-grade gasoline. Additionally, the supply side in the US lent support to the gasoline market, due to the maintenance of several catalytic cracking units in the Houston area.

Higher export opportunities to Latin America, mainly to Mexico, Chile and Uruguay, further supported the US gasoline market.

Middle distillate demand remained strong in the US at 3.88m b/d in March, a gain of 128,000 b/d over the previous month, and 39,000 b/d above the y-o-y average.

Diesel demand received support from the stronger trucking activity associated with the container traffic industry sector, which, along with the tight jet fuel situation in the Atlantic, retained the positive sentiment in the US distillates market.

This was reinforced by additional export opportunities of diesel to some countries in Latin America, such as Mexico, Brazil and mainly Chile, where drought has limited hydroelectric power generation.

Product market sentiment in Europe continued to be mixed as light distillates remained weaker, while middle distillates and fuel oil maintained the momentum.

The European gasoline market has kept losing ground since the start of the year because of low winter demand within the region, which became worse during the transition from winter to summer grades, due to the abrupt halt of Libyan imports and limited arbitrage to the US and Africa.

The European naphtha market kept losing ground, due to the oversupply situation. In addition, bearish sentiment was fuelled by the earthquake in Japan – one of the major naphtha-consuming countries for its huge petrochemicals and manufacturing industries.

Stronger regional diesel demand, mainly in northern Germany, along with the supply side support coming from lower throughputs and refinery maintenance in Europe and reduced arbitrage shipments from the US and the Asia Pacific, have tightened and supported the middle distillate market, thus offsetting poor heating oil demand resulting from the mild weather.

The European fuel oil market maintained the ground gained last month on the back of tightened supply of low-sulphur fuel oil, due to lower refinery runs – driven by poor margins – and the loss of Libyan supply.

Asian naphtha market sentiment continued to be bearish in March, due to the earthquake in Japan causing disruptions at petrochemical plants, with several naphtha crackers shut down.

This has dramatically reduced demand in one of the main consumers in the region, exacerbating the impact of the typical regional cracker maintenance season.

Despite refinery maintenance, the Asian gasoline market recovery was tempered by lower regional buying interest caused by the increase in domestic retail prices.

Chinese and Vietnamese gasoline demand weakened following an increase in domestic retail prices.

The gasoline market was pressure by higher Singapore light distillate stocks, while some export opportunities were materialized from South Korea to the US West Coast.

The middle distillate market remained supported by strong regional demand, mainly for low-sulphur diesel, led by Japan, India, Vietnam and Australia. Additional support was lent by the tightened supply because of refinery turnarounds and less availability from Taiwan.

Political unrest and refinery maintenance in several countries have kept market supply tight for jet and gasoil; however, expectation of a jump in demand from Japan was cooled after the authorities permitted the release of product stocks.

The Asian fuel oil market lost part of the recovery exhibited in February, due to higher inflows from the West, attracted by higher prices, while low-sulphur fuel oil was boosted by expectations of higher demand from Japan for power generation.

The expectations of stronger regional demand for power generation could lend additional support to the market.

Oil trade

According to preliminary data, US crude oil imports jumped by more than 600,000 b/d, or 7.3 per cent, in March to average nearly 8.9m b/d.

In the week ending March 25, US crude oil imports averaged 9.1m b/d. Imports fell to around 8.2m b/d in the previous month, the lowest level since December 2009.

The recovery in US crude oil imports can be seen in a strong build in crude inventories, which rose for four consecutive weeks in March.

In addition, the jump in crude oil imports also translated into higher refinery throughputs, although they remain lower than seasonal levels.

Compared with a year earlier, US crude oil imports still show a decline of 440,000 b/d, or 4.7 per cent.

In contrast, oil product imports stood at 2.4m b/d in February, down by 25,000 b/d, or one per cent, from the previous month, but were up 106,000 b/d, or 4.6 per cent, from a year earlier.

Among products, the trend was mixed. Gasoline imports fell by 84,000 b/d to average 810,000 b/d in March. Jet fuel dropped to average just 44,000 b/d, compared with around 140,000 b/d in the first half of 2010. In contrast, distillate fuel oil imports rose by 6.6 per cent to stand at more than 610,000 b/d, up by six per cent from a year earlier.

Combined, total US crude oil and product imports rose to more than 11.2m b/d, but remained 330,000 b/d lower than a year ago.

For the first quarter, US oil imports were almost unchanged at 11.3m b/d. Distillate fuel oil exports increased by 35,000 b/d, or 3.2 per cent, to 1.1m b/d, corresponding to almost 50 per cent of total US product exports.

US crude oil exports stood at 34,000 b/d, while product exports increased by 120,000 b/d, or 5.5 per cent, to average 2.27m b/d in February. That was 210,000 b/d, or ten per cent, higher than a year earlier. For the whole first quarter, oil product exports were 400,000 b/d, 20 per cent higher this year.

Consequently, US net oil imports jumped by 460,000 b/d, or 5.4 per cent, to stand at almost 9m b/d in February.

However, despite this increase, US net oil imports during the first quarter remained below the level seen a year ago when net imports averaged more than 9.3m b/d.

Japan's crude oil imports fell below 4m b/d in February for the first time since the 3.4m b/d seen in October 2010.

At 3.9m b/d, Japan's crude oil imports were 130,000 b/d, or 3.3 per cent, lower than in January, but they showed y-o-y growth of 130,000 b/d, or 3.4 per cent.

Despite the decline, Japan's crude oil imports during the first two months of this year remained higher than a year earlier. However, Japan's crude imports are expected to be lower in March because of the recent catastrophic events in which many facilities were damaged.

In contrast, the country's oil product imports, including LPG, jumped by more than 100,000 b/d, or ten per cent, to average 1.13m b/d, the highest level since June 2007.

The main imported products – naphtha and LPG – remained stable at 500,000 b/d and 400,000 b/d, respectively, as demand declined.

Imports of naphtha, the main product in the import mix, remained stable at 500,000 b/d. Kerosene imports almost doubled to 92,000 b/d and fuel oil more than doubled to average 62,000 b/d.

Japan's total oil imports amounted to 5.0m b/d in February, almost the same level as a month earlier.

At the same time, Japan exported almost 570,000 b/d of oil products in February, up 2.4 per cent from a month earlier and 11 per cent more than a year ago.

That resulted in a net oil import of 4.4m b/d, slightly lower than January's level. However,

a y-o-y comparison shows that Japan's net oil imports in February were 230,000 b/d, or 5.6 per cent, higher than a year earlier.

China's crude oil imports increased further in February by 68,000 b/d, or 1.3 per cent, to average 5.22m b/d, the third highest level after the 5.7m b/d seen last September and the 5.4m b/d of June 2010.

The increase in imports over January and February can be seen in the rise of refinery throughputs and the level of inventories.

Chinese refiners increased imports on expectations of an increase in the retail ceiling prices of gasoline and diesel to fresh highs by the Chinese government.

The growth in imports was much higher compared with a year earlier. On an annual basis, Chinese crude oil imports showed growth of 380,000 b/d, or 7.7 per cent.

So far this year, China's imports have averaged almost 5.2m b/d, up by 760,000 b/d, or 17.2 per cent, from a year earlier.

The jump over a year ago reflects the upward trend in demand. However, crude oil imports are expected to decline in March as some refineries started their seasonal maintenance.

"The fall in total US commercial oil inventories to 1,042.1m b put them 10.7m b, or one per cent, below a year ago ..."

In contrast to crude oil, China's oil product imports fell again to average 1.16m b/d, down by 140,000 b/d, or 10.8 per cent, from January's level.

The drop in product imports was compensated by the increase in local production and to some extent in the level of inventories, which would have declined, according to preliminary data.

Gasoline exports fell by 30,000 b/d, or 20 per cent, to nearly 123,000 b/d as refiners expected a hike in domestic prices. Jet fuel exports fell by 36,000 b/d, or 30 per cent, to average 84,000 b/d.

Nevertheless, when compared with a year ago, Chinese product imports showed strong growth of 220,000 b/d, or 23 per cent, in February. Again, this reflects the sustained growth in oil demand.

Stronger demand also pushed China to reduce exports in February. Crude oil exports stood at 20,000 b/d, down from 66,000 b/d in January and petroleum product exports averaged 580,000 b/d, 35,000 b/d less than in the previous month.

The drop in product exports was seen over all the components, except fuel oil and LPG, which rose by 60,000 b/d and 10,000 b/d, respectively.

As a result, Chinese net oil imports rose for the third consecutive month to hit a record of 5.78m b/d, although the growth of February was marginal.

However, when considering the period January-February, China's net oil imports averaged 5.8m b/d, some 1.15m b/d, or 25 per cent, higher than a year earlier.

India's crude oil imports, excluding figures for Reliance Industries' 580,000-b/d Jamnager refinery in western India, recovered from their strong decline of more than 660,000 b/d in January, to average 2.74m b/d in February, up by 66,000 b/d from the previous month.

In contrast, the country's oil product imports dropped by 58,000 b/d, offsetting the increase of the previous month, to average 32,000 b/d, almost the same level as seen in December 2010.

All products saw import declines, except kerosene, which rose slightly to nearly 32,000 b/d. Gasoline was the main contributor to the decline after having dropped by 38,000 b/d, or 88 per cent, to average a marginal 5,000 b/d.

Diesel imports showed the second-largest decline of more than 10,000 b/d to stand at nearly 16,000 b/d.

LPG, the largest imported product, showed a slight decline to stand at around 110,000 b/d. Naphtha and fuel oil dropped also to average 53,000 b/d and 17,000 b/d, respectively.

Oil product exports, excluding exports from the Reliance Industries refinery, dropped to an average of 540,000 b/d, down by 118,000 b/d, or 18 per cent, from January.

All products witnessed the same trend, except fuel oil. Gasoline exports fell sharply to 64,000 b/d, half the level of the previous month. The same decline of 50 per cent was observed in diesel imports, which halved to 62,000 b/d.

Jet fuel exports fell by 27 per cent to 70,000 b/d. Naphtha, which accounts for more than a third of India's product exports, stood at 178,000 b/d. That was the third decline in a row.

The exception came from fuel oil exports which rose by nine per cent to 144,000 b/d, but remained below the level of December 2010.

Thus, India's net oil imports, excluding Reliance Industries figures, rose by 126,000 b/d, resulting from an increase of 66,000 b/d in crude oil imports and a drop of 60,000 b/d in product exports to average 5.3 per cent, or 2.52m b/d, in February.

Total crude oil exports from the FSU fell for the second month in a row to stand at 6.51m b/d in February, down 75,000 b/d, or 1.1 per cent, from the previous month and 466,000 b/d, or 6.7 per cent, from December 2010, when exports rose sharply to average almost 7m b/d.

With this second decline in a row, FSU crude oil exports were the lowest since September 2010.

Total oil product exports from the FSU rose by 127,000 b/d, or 4.7 per cent, in February to average 2.8m b/d, the highest level since the third quarter of 2010.

Stock movements

At the end of March, US commercial oil inventories continued their seasonal downward trend, declining by 9.0m b, for a cumulative loss of nearly 35m b over the last two months.

The draws were driven by oil products, which fell strongly by 18.3m b, while US crude oil stocks reduced the decline, increasing by 9.3m b.

The fall in total US commercial oil

inventories to 1,042.1m b put them 10.7m b, or one per cent, below a year ago, while the surplus with the five-year average narrowed to 24m b, or 2.3 per cent, in March, from 31m b, or three per cent, a month earlier.

The build in US commercial crude oil stocks to 355.7m b, the highest level in five months, put them 400,000 b, or 0.1 per cent, above a year earlier at the same period and 13.6m b, or four per cent, above the seasonal norm.

The build came on the back of higher crude oil imports, which increased by almost 800,000 b/d to average 8.9m b/d, but still remained slightly lower than a year ago over the same period.

Since the beginning of 2011, US crude oil imports have not sustained the increase to 9m b/d as they dipped by almost 1m b/d during the week ending February 25 on reduced refinery needs, due to lower capacity utilization rates.

This came despite a strong rebound in the economy since the fourth quarter of 2010.

With the exception of early January, refineries have operated below 85 per cent of capacity. At the end of March, refiners were running at 84.4 per cent, 2.4 per cent above the previous month, but remained almost at the same level as last year.

This corresponds to US crude oil refinery inputs of 14.4m b/d, around 300,000 b/d more than in the previous month and a year ago.

Cushing crude stocks at the end of March moved to 42.0m b from 38.6m b the previous month, contributing to the widening of the WTI-Bent spread to almost $14/b at the beginning of April.

Should crude oil at Cushing hold or build more, this will favour more weakness in the front-month WTI contract.

US oil product stocks continued to drop significantly in March to end the month at 686.4m b. They have drawn almost 49m b since the beginning of this year.

The stock-draw has widened the deficit with a year ago to 11.1 per cent from 7.3 per cent a month earlier. The surplus from the five-year average has also shrunk – to 1.5 per cent – from 2.4 per cent in the previous month.

With the exception of residual fuel, all other products experienced stock-draws, with the bulk coming from gasoline, followed by distillates.

Gasoline inventories entered their seventh week of decline, decreasing by 17.7m b to end the month at 217.0m b.

As refinery runs remain weak, production of gasoline in March has declined by about 200,000 b/d, supporting the fall in gasoline stocks.

At the same time, fewer imports combined with higher exports have also contributed to the gasoline stock-draw.

The decrease in gasoline demand has limited the fall in gasoline inventories. Indeed, gasoline demand has declined by 150,000 b/d to average 8.9m b/d, lower than a year ago by almost the same amount.

If gasoline retail prices remain high, growth of gasoline demand going into the summer will be very slow.

At the end of March, US gasoline inventories stood at 7.0m b, 3.1 per cent below a year ago, but still showed a surplus with the historical average of 2.3m b, or 1.1 per cent.

Distillate stocks saw a drop of 5.9m b for the third consecutive month to stand at 153.3m b.

However, despite their draw, gasoline inventories remained 7.3m b, or five per cent, above a year ago and showed a surplus of 25.4m b, or 20 per cent, compared with the historical average.

The decline in US distillate stocks could be attributed to higher exports and lower imports. The decline in distillate demand has abated the stock-draw as demand decreased by 130,000 b/d to average 3.7m b/d.

During the last two weeks of March, gasoline stocks saw a build, indicating that domestic market factors point to continued sluggishness in the market.

Middle distillate output rose on the back of higher production, reaching 4.3m b/d, around 300,000 b/d more than a year ago.

Distillate demand went down, hovering in the range of 3.7m b/d, less than the previous year for the same period.

However, the strength of the US distillate market will come from abroad, leading to higher export demand, notably in Latin America, as seasonal demand increases and Asia supply is reduced.

Residual fuel oil and jet fuel oil saw a mixed picture as residual fuel oil stocks rose by 400,000 b, while jet fuel inventories declined by 200,000 b.

Residual fuel stocks ended March at 37.4m b, showing a shortage with a year ago and the five-year average of 7.8 per cent and 6.1 per cent, respectively.

At 40.6m b, jet fuel oil stocks stood at 1.4 per cent below last year over the same period, and indicated a deficit of 1.5 per cent with the seasonal norm.

In February, commercial oil stocks in Japan continued their downward trend for the previous three months, declining by 8.3m b to stand at 160.9m b, the lowest level since September 2010.

With this draw, Japanese oil inventories stood 5.3m b, or 3.4 per cent, above a year ago, while the deficit with the five-year average widened to 6.2 per cent from five per cent a month earlier.

Both crude and product inventories fell – by 6.5m b and 1.9m b, respectively.

Japanese crude oil stocks fell in February for the second consecutive month to stand at 92.0m b, the lowest level in four months.

At 92.0m b, Japanese crude oil stocks stood 5.1m b, or 5.9 per cent, above a year ago, while they remained 5.6m b, or 5.8 per cent, below the five-year average.

The drop in crude oil stocks in February came from a robust refinery utilization rate that reached 89.2 per cent, one per cent higher than the previous month and 6.8 per cent more than a year ago.

This corresponds to crude throughput of 4.03m b/d. During the week ending February 26, the refinery utilization rate reached a three-year high close to 90 per cent as refiners raised their runs ahead of the refinery turnaround season.

Additionally, the fall in refinery capacity in Japan amid slowing demand forced refiners to increase their runs. The drop in crude oil imports also supported the decline in crude oil stocks.

Indeed, crude oil imports in February fell

by 130,000 b/d to average 3.9m b/d. However, crude oil imports remained 3.4 per cent above a year ago.

Total products also fell in February, reversing the slight build seen in January.

At 68.9m b, total products stood at their lowest level since May 2010, indicated a slight surplus of 0.2 per cent with a year ago, but remained 4.9m b, or 6.7 per cent, below the five-year average.

The drop in product stocks could be attributed to the increase in Japanese oil product sales, which rose by 6.9 per cent, compared with the previous month.

At 3.9m b/d, Japanese oil sales were 0.8 per cent higher than a year ago, reflecting some improvement in the economy, which helped to boost demand for four straight months.

Japan's economy was showing signs of picking up after a contraction as Japanese factory output rose in January and February, but the outlook turned gloomy as the triple disaster of the earthquake, tsunami and nuclear safety crisis struck, shutting factories and disrupting fuel sales.

Within products, the picture was mixed as distillate and gasoline stocks saw a drop, while residual fuel oil and naphtha indicated a slight build.

Distillate inventories fell by 1.9m b to end the month at 27.8m b, the lowest level since April 2010. With the draw, distillate stocks remained 3.3 per cent below the five-year average and 3.9 per cent less than a year ago.

Within the components of distillates, jet fuel and gasoil fell by 7.4 per cent and 12.5 per cent, respectively, while kerosene stocks rose by 0.4 per cent.

The drop in gasoil stocks could be attributed to the decline of 9.3 per cent in production, combined with higher domestic sales, which rose by 5.8 per cent. The fall in jet fuel stocks came on the back of lower production as domestic sales also went down.

In contrast, kerosene stocks rose as mild weather in northern Japan curbed demand for heating oil.

In February, kerosene demand fell by 12.8 per cent, or 3.1 per cent, from a year earlier.

Gasoline stocks fell by 100,000 b to 14.3m b, leaving them 0.2 per cent above the five-year average. However, they remained 1.7 per cent below a year ago at the same period.

The fall in gasoline stocks is mainly attributed to the decline in production, which dropped by 7.2 per cent as domestic sales saw a minor decline. However, motor fuel sale is expected to see a significant drop in March as gasoline stations were temporarily closed in Tokyo and eastern Japan after the March 11 earthquake disturbed supplies.

Residual fuel oil stocks saw a slight build, leaving them 19.3 per cent below the historical norm and 7.8 per cent less than a year earlier.

The build in residual fuel oil was driven by the increase in fuel oil B C as fuel oil A indicated a drop. The build in fuel oil B C could be attributed to lower domestic sales as they declined by 2.3 per cent, combined with an increase in imports, which more than doubled.

The decline in fuel oil A came on the back of a 4.5 per cent increase in domestic sales.

Naphtha stocks saw a slight build, ending the month at 12.5m b, remaining 2.8m b, or 1.6 per cent, above a year ago at the same time.

At the end of February, oil product stocks held in Singapore reversed the downward trend incurred during the last five months to rise by 2.9m b, ending the month at a level of 43.2m b.

With this build, product stocks narrowed the gap with a year ago to 8.3 per cent from 10.4 per cent a month earlier.

Within products, the bulk of the build came from middle distillates, which rose by 2.5m b, while light distillate stocks saw a slight build of 400,000 b.

Fuel oil stocks indicated a minor drop at the end of February. At 14.3m b, middle distillates stood at the highest level since October 2010, reversing the deficit with a year ago incurred over the last two months to a surplus of 4.6 per cent.

The build in middle distillates stocks was led by higher inflows from mainly India, Taiwan, Saudi Arabia and South Korea.

Taiwan and South Korea raised crude runs in February ahead of maintenance, resulting in higher product exports.

Additionally, more Saudi gasoil barrels could have entered Singapore, attracted by higher cargo prices.

Light distillate stocks rose to 9.6m b, but remained 2.3 per cent below a year earlier. However, gasoline stocks are expected to rise in coming weeks, benefiting from higher gasoline exports from Europe as some sellers were forced to redirect barrels to Asia and the US, which were initially booked for Libya.

Fuel oil stocks fell marginally to end the month at 19.0m b, 18.2 per cent below a year ago. Fuel oil stocks reached more than 20m b during the week ending February 24, reflecting strong inflows from the West. However, this started to ease and inventories dropped to a little over 19m b at the end of the month.

With fuel oil imports expected to remain low, combined with projected higher demand, fuel oil stocks in Singapore are expected to fall further.

Oil product stocks in Amsterdam-Rotterdam-Antwerp (ARA), in February, dropped by 1.8m b after three consecutive months of rise.

At 36.7m b, products stood at their lowest level since October 2010, but still representing a surplus of one per cent over a year ago.

Within products, the picture was mixed; gasoline and gasoil saw a build, while fuel oil, jet oil and naphtha indicated a drop.

Gasoline stocks went up by 300,000 b to 7.4m b, representing a 12.8 per cent surplus with a year ago.

Gasoil stocks also saw a build of 300,000 b to end the month at 19.5m b, four per cent more than a year ago in the same month.

Fuel oil stocks saw the largest drop of 2.0m b, ending the month at 3.4m b, plunging to the lowest level in more than a year. With this draw, fuel oil stocks stood 19 per cent below a year earlier.

Naphtha stocks fell slightly by 100,000 b, remaining five per cent below a year ago, driven by increasing flows to the petrochemical industry.

Jet fuel inventories saw a slight drop of 200,000 b to end the month at 6.0m b, leaving them 6.4 per cent below a year earlier.

Table A: World crude oil demand/supply balance															*m b/d*
World demand	**2005**	**2006**	**2007**	**2008**	**2009**	**1Q10**	**2Q10**	**3Q10**	**4Q10**	**2010**	**1Q11**	**2Q11**	**3Q11**	**4Q11**	**2011**
OECD	49.9	49.6	49.3	47.6	45.5	45.8	45.2	46.6	46.7	46.1	46.5	45.3	46.6	46.9	46.3
North America	25.6	25.4	25.5	24.2	23.3	23.5	23.8	24.2	24.0	23.9	24.0	23.9	24.4	24.3	24.2
Western Europe	15.7	15.7	15.5	15.4	14.5	14.2	14.1	14.8	14.7	14.4	14.3	14.1	14.7	14.6	14.4
Pacific	8.6	8.5	8.4	8.0	7.7	8.2	7.3	7.6	8.0	7.8	8.1	7.2	7.5	8.0	7.7
Developing countries	22.8	23.6	24.7	25.5	26.1	26.3	26.7	26.9	27.0	26.7	27.0	27.3	27.5	27.6	27.3
FSU	3.9	4.0	4.0	4.1	4.0	4.0	3.8	4.2	4.3	4.1	4.0	3.9	4.3	4.4	4.2
Other Europe	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.6	0.7	0.7	0.7
China	6.7	7.2	7.6	8.0	8.3	8.4	9.1	9.2	9.1	9.0	8.9	9.6	9.7	9.6	9.5
(a) Total world demand	**84.1**	**85.2**	**86.5**	**86.0**	**84.5**	**85.2**	**85.4**	**87.7**	**87.9**	**86.5**	**87.1**	**86.7**	**88.8**	**89.2**	**87.9**
Non-OPEC supply															
OECD	20.4	20.1	20.0	19.5	19.7	20.0	19.9	19.5	20.3	19.9	20.2	19.9	19.7	20.0	19.9
North America	14.1	14.2	14.3	13.9	14.4	14.7	14.9	14.9	15.3	14.9	15.3	15.1	15.0	15.2	15.2
Western Europe	5.7	5.3	5.2	5.0	4.7	4.7	4.4	4.0	4.4	4.4	4.4	4.1	4.1	4.2	4.2
Pacific	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6
Developing countries	11.9	12.0	12.0	12.2	12.5	12.7	12.7	12.8	12.8	12.8	12.9	13.0	13.1	13.3	13.1
FSU	11.5	12.0	12.5	12.6	13.0	13.2	13.2	13.2	13.3	13.2	13.4	13.4	13.3	13.4	13.4
Other Europe	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.2
Processing gains	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Total non-OPEC supply	49.6	49.9	50.4	50.3	51.1	52.1	52.1	51.9	52.9	52.3	52.9	52.7	52.6	53.2	52.8
OPEC NGLS and non-conventionals	3.9	3.9	3.9	4.1	4.3	4.6	4.8	4.8	5.0	4.8	5.1	5.2	5.3	5.4	5.2
(b) Total non-OPEC supply and OPEC NGLS	**53.5**	**53.8**	**54.4**	**54.5**	**55.5**	**56.7**	**56.9**	**56.7**	**57.8**	**57.0**	**58.0**	**57.9**	**57.9**	**58.6**	**58.1**
OPEC crude supply and balance															
OPEC crude oil production[1]	30.7	30.5	30.2	31.2	28.7	29.2	29.1	29.2	29.3	29.2	29.7				
Total supply	84.2	84.4	84.6	85.7	84.2	85.9	85.9	85.9	87.1	86.2	87.7				
Balance[2]	0.1	-0.9	-1.9	-0.3	-0.4	0.8	0.5	-1.7	-0.8	-0.3	0.6				
Stocks															
OECD closing stock level *m b*															
Commercial	2587	2668	2572	2697	2664	2680	2771	2742	2663	2663					
SPR	1487	1499	1524	1527	1564	1567	1563	1549	1561	1561					
Total	4073	4167	4096	4224	4228	4247	4334	4291	4223	4223					
Oil-on-water	954	919	948	969	919	894	897	926	871	871					
Days of forward consumption in OECD															
Commercial onland stocks	52	54	54	59	58	59	59	59	57	57					
SPR	30	30	32	34	34	35	34	33	34	34					
Total	82	84	86	93	92	94	93	92	91	91					
Memo items															
FSU net exports	7.7	8.0	8.5	8.5	9.0	9.2	9.4	9.0	9.0	9.1	9.3	9.5	9.0	9.0	9.2
[(a) – (b)]	**30.6**	**31.4**	**32.1**	**31.5**	**29.1**	**28.4**	**28.6**	**30.9**	**30.1**	**29.5**	**29.1**	**28.8**	**30.9**	**30.6**	**29.9**

1. *Secondary sources.*
2. *Stock change and miscellaneous.*

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

Table 1 *above, prepared by the Secretariat's Petroleum Studies 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 1 and 2*** *on page 56, while* ***Graphs 1 and 2*** *on page 57 show the evolution on a weekly basis.* ***Tables 3 to 8*** *and the corresponding graphs on pages 58–59 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

$/b

Crude/Member Country	2010 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2011 Jan	Feb	Weeks 9–13 (week ending) Mar 4	Mar 11	Mar 18	Mar 25	Apr 1
Arab Light – Saudi Arabia	77.24	82.75	75.50	73.84	72.63	74.21	74.55	79.93	83.32	89.24	93.59	101.21	110.37	110.71	110.97	108.23	111.22	111.20
Basrah Light – Iraq	77.17	81.35	73.15	72.09	72.14	73.39	73.70	79.36	82.14	88.09	92.33	99.52	109.16	109.54	109.36	107.01	110.16	110.21
Bonny Light – Nigeria	80.40	86.14	76.87	76.00	77.04	78.82	79.65	84.35	86.83	93.08	98.10	105.66	116.75	116.54	116.54	114.81	117.57	118.65
Es Sider – SP Libyan AJ	78.85	84.49	74.87	73.65	74.84	76.27	77.15	82.60	84.93	91.13	96.10	103.51	114.35	114.19	114.14	112.41	115.17	116.25
Girassol – Angola	79.45	84.38	75.53	74.85	74.78	76.55	77.25	82.55	85.80	91.36	96.18	104.42	115.35	115.19	114.88	113.06	116.64	117.31
Iran Heavy – IR Iran	76.93	82.09	74.09	71.83	71.07	73.20	73.58	78.99	82.24	87.81	92.22	99.29	108.05	108.24	108.88	105.97	108.72	108.94
Kuwait Export – Kuwait	76.29	81.64	74.23	72.03	70.69	72.42	72.92	78.10	81.59	87.25	91.45	98.75	107.66	107.88	108.56	105.60	108.34	108.39
Marine – Qatar	77.35	83.62	76.58	73.97	72.54	74.48	75.26	80.31	83.41	88.98	92.69	100.18	108.87	109.03	109.94	106.87	109.41	109.49
Merey* – Venezuela	70.65	73.12	65.86	65.10	65.99	67.19	66.91	71.21	73.07	77.30	80.09	87.51	96.22	95.71	96.45	94.06	96.88	98.75
Murban – UAE	79.18	85.38	78.57	75.90	74.42	76.12	76.93	82.20	85.36	91.06	95.04	102.75	111.93	111.56	112.86	109.99	112.71	112.70
Oriente – Ecuador	72.11	75.45	68.62	69.19	68.72	69.27	70.69	76.42	77.45	82.99	84.80	90.14	105.04	103.36	105.12	102.33	106.56	107.60
Saharan Blend – Algeria	79.70	84.99	75.67	75.05	76.49	78.22	78.95	83.90	86.28	92.46	97.50	105.01	115.95	115.77	115.74	114.01	116.77	118.15
OPEC Reference Basket	77.21	82.33	74.48	72.95	72.51	74.15	74.63	79.86	82.83	88.56	92.83	100.29	109.84	109.90	110.29	107.77	110.63	111.04

Table 2: Selected OPEC and non-OPEC spot crude oil prices

$/b

Crude/country	2010 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2011 Jan	Feb	Weeks 9–13 (week ending) Mar 4	Mar 11	Mar 18	Mar 25	Apr 1
Minas – Indonesia[1]	81.60	90.24	82.47	78.87	75.59	77.93	79.47	83.35	85.96	94.98	99.74	105.29	114.62	114.10	114.81	112.41	115.48	117.14
Arab Heavy – Saudi Arabia	75.87	81.13	73.72	71.19	69.59	71.42	71.88	76.98	80.62	86.11	90.26	97.20	105.80	105.97	106.88	103.79	106.37	106.46
Brega – SP Libyan AJ	79.10	84.89	75.37	74.35	75.49	77.12	77.95	83.00	85.58	91.78	96.75	104.16	115.00	114.84	114.79	113.06	115.82	116.90
Brent – North Sea	78.90	84.79	75.57	74.85	75.64	77.07	77.80	82.75	85.33	91.53	96.35	103.76	114.60	114.44	114.39	112.66	115.42	116.50
Dubai – UAE	77.31	83.59	76.49	73.99	72.49	74.28	75.13	80.22	83.72	89.17	92.33	99.93	108.71	108.78	109.77	106.71	109.30	109.20
Ekofisk – North Sea	79.71	85.59	75.96	76.15	76.75	78.22	78.87	83.68	86.33	92.72	97.54	104.65	116.27	115.98	115.95	114.28	117.33	118.19
Iran Light – IR Iran	77.70	82.70	73.21	73.13	73.39	75.06	76.82	82.32	84.38	90.60	94.90	100.91	111.44	110.74	111.16	109.64	112.69	113.14
Isthmus – Mexico	79.00	83.42	73.73	73.41	74.30	75.50	74.16	79.58	82.03	88.17	90.46	94.56	107.97	107.60	108.07	105.24	108.91	110.17
Oman – Oman	77.72	83.67	76.75	74.18	72.59	74.57	75.43	80.44	83.91	89.24	92.49	100.27	109.00	109.20	110.09	106.98	109.53	109.61
Suez Mix – Egypt	74.00	79.70	70.42	71.47	70.91	72.58	74.63	78.76	81.97	86.88	90.87	98.64	108.40	108.88	108.37	106.55	109.00	109.80
Tia Juana Light[2] – Venez.	77.50	81.67	72.04	71.65	72.74	74.07	72.60	77.91	80.14	85.97	88.37	92.85	105.60	105.32	105.69	102.92	106.51	107.75
Urals – Russia	77.04	82.51	74.10	74.37	73.80	75.45	77.39	81.53	84.74	89.74	93.56	101.49	111.50	112.31	111.46	109.47	112.03	112.76
WTI – North America	81.25	84.44	73.65	75.29	76.11	76.62	75.14	81.89	84.08	89.15	89.49	89.40	102.99	101.08	103.65	100.00	104.42	105.61

Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the ORB 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 ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).

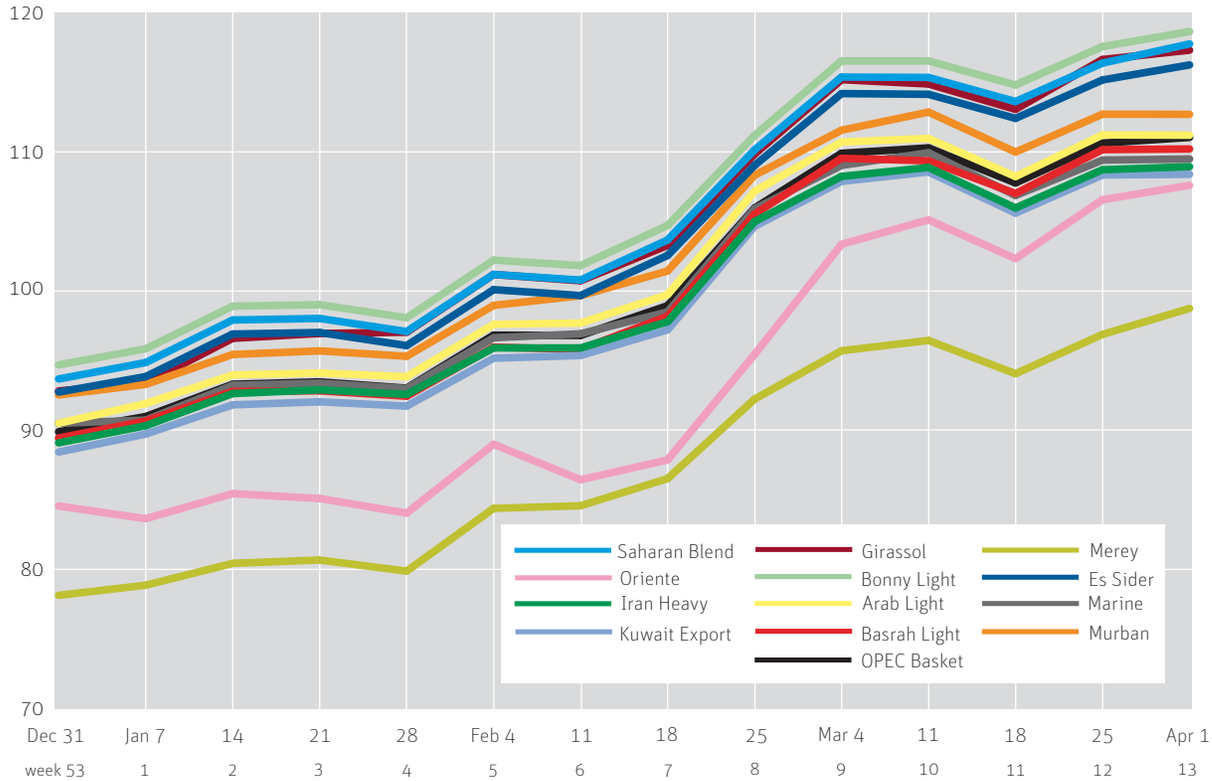
* *Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.*

1. *Indonesia suspended its OPEC Membership on December 31, 2008.*
2. *Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.*

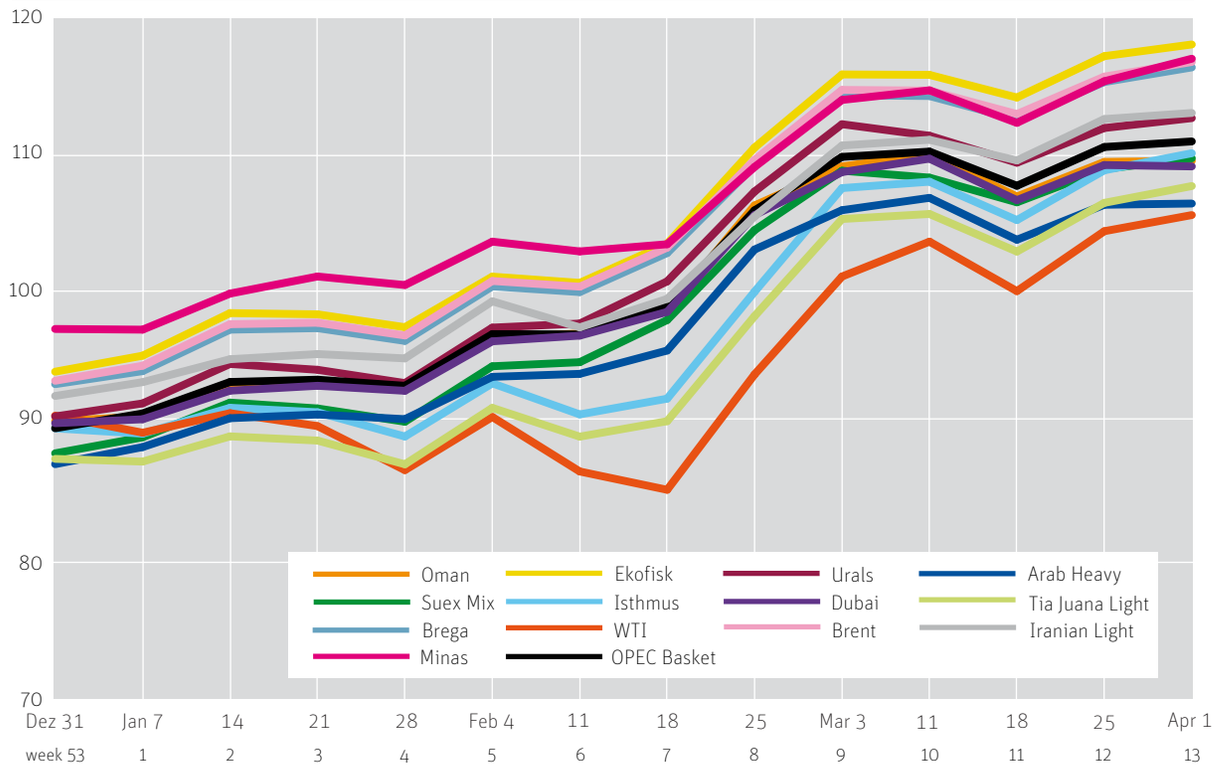
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt's; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket crudes, 2010 *$/b*



Graph 2: Evolution of spot prices for selected non-OPEC crudes, 2010 *$/b*



Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) 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 ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).
Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.

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
2010	March	80.82	71.54	92.38	88.75	89.50	72.55	71.29
	April	81.43	72.19	94.75	95.83	96.16	69.94	67.51
	May	75.25	71.87	85.03	87.79	88.68	73.25	70.47
	June	72.81	71.29	85.50	87.03	84.66	76.70	73.31
	July	69.33	72.22	85.63	89.10	84.77	70.16	67.44
	August	73.29	72.97	86.77	88.21	89.01	70.33	66.24
	September	75.12	73.31	89.26	90.47	90.19	71.28	66.74
	October	83.47	73.65	96.08	96.88	96.35	72.50	68.62
	November	86.37	74.36	99.26	98.67	99.07	75.18	74.09
	December	93.15	75.66	103.44	104.15	105.26	76.54	76.19
2011	January	100.10	77.75	104.18	111.35	113.13	78.28	81.73
	February	103.29	79.10	107.91	116.47	115.17	82.77	84.65
	March	104.63	80.22	108.35	117.35	115.96	83.16	85.59

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

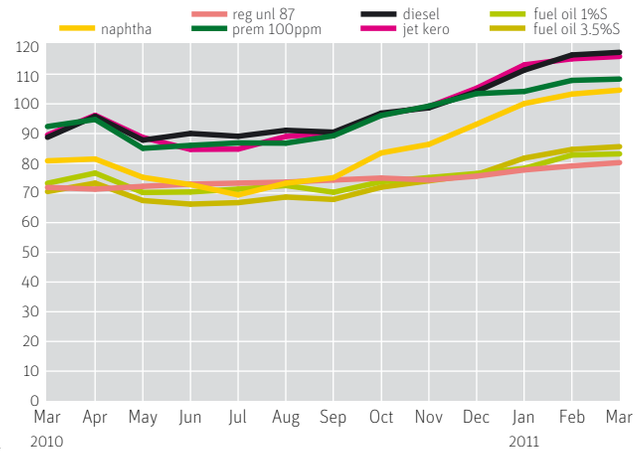


Table and Graph 4: South European market — spot cargoes, fob Italy

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1%S	fuel oil 3.5%S
2010	March	78.63	57.55	65.24	72.39	68.79
	April	79.52	56.58	64.30	76.90	73.02
	May	73.26	59.76	59.76	69.78	66.58
	June	70.99	59.98	60.01	68.04	65.99
	July	66.56	59.99	60.23	70.62	65.61
	August	71.39	59.99	60.23	71.80	68.87
	September	73.69	60.19	60.26	70.21	66.78
	October	81.91	60.22	60.40	72.90	71.76
	November	84.55	61.15	60.52	74.36	72.38
	December	90.81	61.60	60.55	75.98	73.77
2011	January	93.16	64.63	67.86	78.79	75.93
	February	95.86	69.33	70.41	83.19	80.26
	March	96.09	69.49	71.14	84.82	81.40

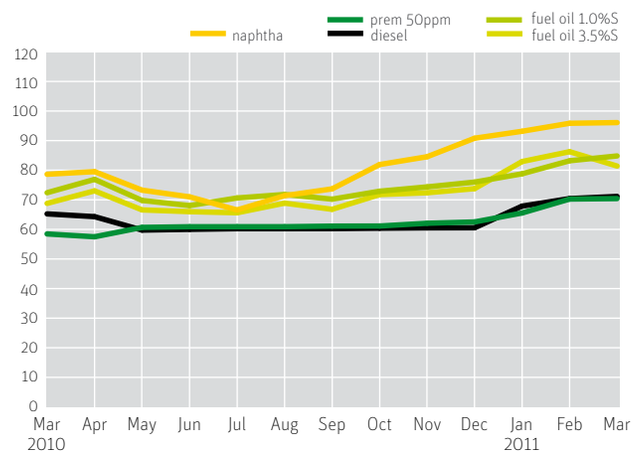
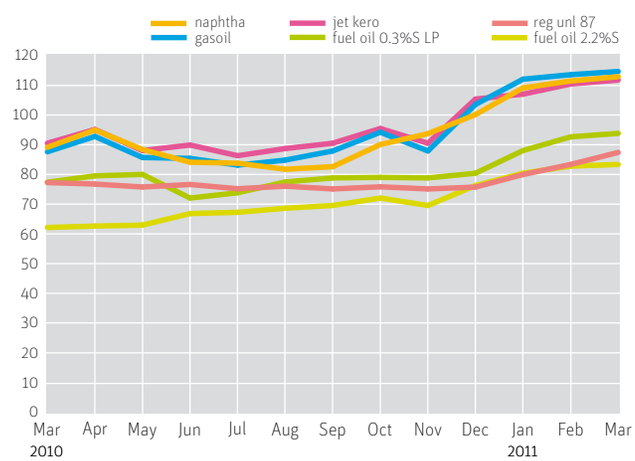


Table and Graph 5: US East Coast market — spot cargoes, New York

$/b, duties and fees included

		naphtha	regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3%S	fuel oil 2.2%S
2010	March	77.68	89.13	86.11	88.23	76.17	62.67
	April	78.10	94.96	83.05	84.96	76.68	62.74
	May	77.27	88.39	87.63	90.51	77.38	62.16
	June	76.76	84.12	92.79	95.13	79.53	62.63
	July	75.77	83.78	85.69	88.03	80.00	62.95
	August	76.62	81.74	85.41	89.91	72.06	66.84
	September	75.19	82.62	83.14	86.31	73.83	67.26
	October	76.05	90.07	84.83	88.71	77.47	68.63
	November	75.12	93.72	87.90	90.51	78.83	69.56
	December	75.74	100.15	103.55	105.38	80.41	76.28
2011	January	79.97	109.14	112.07	107.02	88.04	80.43
	February	83.36	111.45	113.57	110.43	92.65	82.80
	March	87.41	112.90	114.66	111.77	93.82	83.35



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
2010	March	85.40	57.63	89.96	74.99	76.40
	April	88.59	59.41	96.02	77.41	76.40
	May	81.08	57.03	88.07	70.78	69.65
	June	81.67	56.93	87.77	70.14	68.99
	July	79.60	56.29	86.41	70.51	69.36
	August	77.25	57.07	89.08	71.88	70.80
	September	79.04	57.72	89.93	68.79	67.39
	October	83.85	59.70	95.56	68.95	67.49
	November	86.27	60.57	98.63	70.47	69.02
	December	93.71	62.32	104.16	73.13	71.68
2011	January	98.29	62.38	104.78	82.79	77.74
	February	99.77	67.77	106.59	87.31	79.43
	March	100.55	69.12	107.04	88.24	81.57

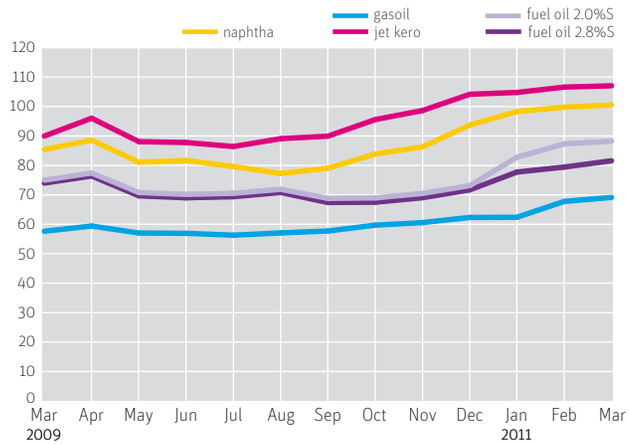


Table and Graph 7: Singapore market — spot cargoes, fob

$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	diesel ultra light	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2010	March	80.84	90.86	88.48	88.63	94.82	73.04	71.89
	April	83.13	94.06	95.24	95.91	94.82	76.33	75.57
	May	77.43	85.12	88.30	89.24	88.12	71.10	71.15
	June	72.42	83.26	81.54	87.36	86.64	71.45	68.31
	July	68.57	82.42	81.99	86.32	85.32	69.68	68.46
	August	73.31	82.52	80.83	88.10	87.23	71.32	69.58
	September	74.52	82.55	80.58	88.53	87.81	70.07	68.92
	October	82.97	89.71	87.66	94.97	94.30	74.42	73.05
	November	87.26	93.21	91.15	98.59	97.87	77.71	75.85
	December	93.83	102.09	100.02	104.40	103.53	80.20	78.57
2011	January	96.87	110.17	108.52	108.17	110.43	82.59	82.95
	February	97.39	112.20	110.97	111.46	112.29	84.69	86.62
	March	98.13	113.95	111.25	112.94	113.07	85.17	87.14

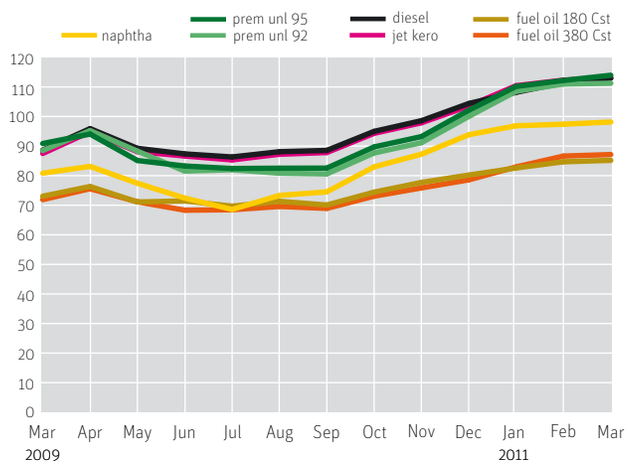
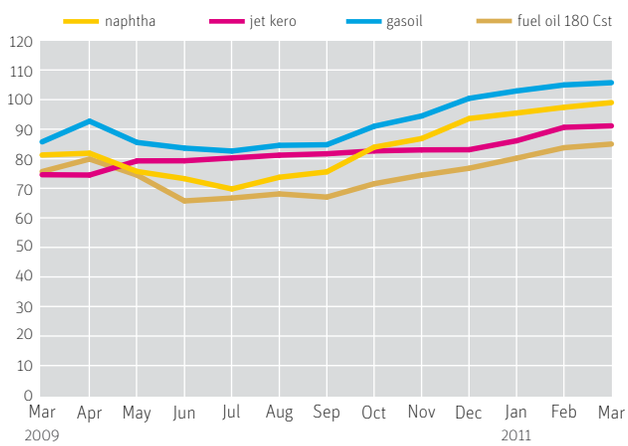


Table and Graph 8: Middle East Gulf market — spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2010	March	81.27	85.71	74.59	75.66
	April	81.87	92.71	74.48	79.88
	May	75.69	85.51	79.27	74.46
	June	73.25	83.59	79.31	65.72
	July	69.77	82.60	80.26	66.69
	August	73.73	84.53	81.20	68.10
	September	75.56	84.73	81.68	67.01
	October	83.91	90.99	82.65	71.55
	November	86.82	94.47	82.99	74.43
	December	93.59	100.43	83.05	76.78
2011	January	95.46	102.94	86.08	80.18
	February	97.39	104.97	90.62	83.73
	March	99.00	105.74	91.12	84.97



Source: Platts. Prices are average of available days.

Secretariat briefings

Pictured above is a group of students from the Landau Legal Court, who visited the OPEC Secretariat on April 7, 2011.

Pictured above is a group of officials from Russia's Gazprom. They visited the OPEC Secretariat on April 8, 2011.

Pictured above is a group of students from the Mannheim University in Germany, on a study visit to the OPEC Secretariat on March 24, 2011.

Pictured above are students from the Sciences Po University in Paris, France. They visited OPEC on March 10, 2011.

Pictured above is a group of students from the Gymnasium Oberpullendorf, Austria. They visited OPEC on March 28, 2011.

The OPEC Award for Research 2012

Call for nominations

The call for nominations for the 2012 OPEC Award for Research has begun. The OPEC Award for Research recognizes past efforts and encourages future endeavours. In this regard, it honours individuals who have made outstanding contributions to knowledge of the petroleum industry and oil-related issues. Instituted in 2004, the Award is conferred by the President of the OPEC Conference on the occasion of the biennial OPEC International Seminar.

The presentation of the fourth prestigious OPEC Award for Research will take place in Vienna, Austria, in June 2012. Organizations and institutions are invited to nominate qualified candidates to be considered for this Award.

Objective of the Award

The OPEC Award for Research recognises past efforts and encourages future endeavours. In this regard, it honours individuals who have made outstanding contributions to knowledge of the petroleum industry and oil-related issues.

Frequency of the Award

Instituted in 2004, the OPEC Award for Research is conferred by the President of the OPEC Conference on the occasion of the biennial OPEC International Seminar.

Eligibility

To be eligible for the OPEC Award for Research, the recipient must:

i. Be well-known in the energy industry and/or academia;
ii. Have consistently maintained high achievement levels over many years, including the production of a substantial record of publications;
iii. Have shown dedication to research and analysis of important oil-related issues;
iv. Have contributed to an improved understanding of key determinants that support oil market stability;
v. Have played a role in enhancing dialogue between producers and consumers;
vi. Have demonstrated a high level of objectivity and integrity in his/her work;
vii. Have consistently presented a critical, yet impartial view on oil-related issues in public debates and discourse;
viii. Have furthered knowledge in the oil industry by encouraging and promoting young researchers within OPEC Member Countries and the developing world;
ix. Have demonstrated innovative thinking throughout his/her career.

Nominations

Candidates for the OPEC Award for Research can be nominated by individuals, institutions and/or organizations by filling out the nomination form. This can also be downloaded from the OPEC Website www.opec.org. Completed nomination forms, accompanied by a 500-word biography of the candidate and a list of some of his/her publications, should be sent either by email to prid@opec.org or by post to:

The Chairman
The OPEC Award for Research
Organization of the Petroleum Exporting Countries
Helferstorferstrasse 17, A-1010 Vienna, Austria

Deadline for nominations is Tuesday, May 31, 2011.

Winner

The recipient of the OPEC Award for Research will be chosen by a panel of professionals in the industry from within and outside OPEC Member Countries and the OPEC Secretariat.

Presentation of the Award

The OPEC Award for Research will be presented at the close of the Fifth OPEC International Seminar in Vienna, Austria, on June 13–14, 2012

Nomination form for Research Award 2012

Name of the nominee: _____

Position: _____

Company/Organization: _____

Street address: _____

_____

City: _____ Country: _____

Telephone: _____ E-mail: _____

Nominating Institution: _____

Address: _____

City: _____ Country: _____

Telephone: _____ E-mail: _____

Please send completed nomination forms and samples of published work by email to prid@opec.org or by post:

The Chairman
The OPEC Award for Research
Organization of the Petroleum Exporting Countries
Helferstorferstrasse 17
A-1010 Vienna
Austria

All material should be received by May 31, 2011.

The OPEC Award for Journalism 2012

Call for nominations

Nominations for the second OPEC Award for Journalism are now on. Interested journalists, analysts and media organizations are invited to nominate candidates for this Award, which will be presented in Vienna, Austria, in June 2012.

Objective of the Award

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

Eligibility

The competition is open to all print and broadcast journalists and analysts (including those from OPEC Member Countries) that have reported on — and analysed — the industry for more than ten years.

Nominations

Completed nomination forms — together with five samples of work previously published or broadcast (CDs/DVDs) covering the required time-frame — should be e-mailed to prid@opec.org or posted to:

The Chairman
The OPEC Award for Journalism
c/o Public Relations and Information Department
Organization of the Petroleum Exporting Countries
Helferstorferstrasse 17
A-1010 Vienna, Austria

Nomination forms are also available on the OPEC website, www.opec.org. All material should be received by **Tuesday, May 31, 2011**. Eligible candidates may nominate themselves, while third-party nominations are also permitted.

Winner

All entries will be judged by a panel of academics, journalists and oil industry experts. The winner will receive a plaque and a cheque for 5,000 euros which will be donated on his/her behalf to any institution or charity of his/her choice.

Presentation of the Award

The OPEC Award for Journalism will be presented at the close of the Fifth OPEC International Seminar in Vienna, Austria, on **June 13–14, 2012**.

Nomination form for Journalism Award 2012

Name of the nominee: _____

Position (for individuals/groups): _____

Company/Organization: _____

Street address: _____

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City: _____ Country: _____

Telephone: _____ E-mail: _____

Nominating Organization (if applicable): _____

Address: _____

City: _____ Country: _____

Telephone: _____ E-mail: _____

Please send completed nomination forms and five samples of published/broadcast (CDs and DVDs) work by email to prid@opec.org or by post:

The Chairman
The OPEC Award for Journalism
c/o Public Relations and Information Department
Organization of the Petroleum Exporting Countries
Helferstorferstrasse 17
A-1010 Vienna, Austria

All material should be received by May 31, 2011.

Forthcoming events

Economic and sustainability challenges in the future development of sour gas, May 8–13, Bali, Indonesia. 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: +60 36201 3220; e-mail: spekl@spe.org; website: www.spe.org.

World renewable energy congress 2011, May 8–13, 2011, Linköping, Sweden. Details: WREC 2011 Secretariat, Travel Team AB, Ågatan 23, SE-582 22 Linköping, Sweden. E-mail: info@wrec2011.com; website: www.wrec2011.com/.

Oil and gas taxation, May 9–10, 2011, London, UK. Details: SMi Group Ltd, Unit 122, Great Guildford Business Square, 30 Great Guildford Street, London SE1 0HS, UK. Tel: +44 207 827 6000; fax: +44 207 827 6001; e-mail: client_services@smi-online.co.uk; website: www.smi-online.co.uk.

Intergas, May 10, 2011, Cairo, Egypt. 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.

Fundamentals of oil and gas, May 11, 2011, 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.ibcenergy.com.

4th annual Crude oil markets, May 12–13, 2011, London, UK. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 1766142; fax: +44 207 176 8512; e-mail: cynthia_rugg@platts.com; website: www.events.platts.com.

4th annual Midstream development and management, May 12–13, 2011, Houston, TX, USA. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 1766142; fax: +44 207 176 8512; e-mail: cynthia_rugg@platts.com; website: www.events.platts.com.

Advanced well architectures to optimise reservoir management, May 15–20, 2011, Dubai, 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.

Transforming ageing economies, May 16–17, 2011, London, UK. Details: Chatham House, 10 St James's Square, London SW1Y 4LE, UK. Tel: +44 207 957 5700; fax: +44 207 957 5710: e-mail: contact@chathamhouse.org; website: www.chathamhouse.org.uk.

Power Uzbekistan, May 16–18, 2011, Tashkent, Uzbekistan. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: ite-exhibitions.com.

2nd Eastern Africa oil, gas and energy conference, May 16–18, 2011, Nairobi, Kenya. Details: Global Pacific Partners, Suite 7, 4 Montpelier Street, Knightsbridge, London SW7 1EE, UK. Tel: +44 207 589 7804; fax: +44 207 589 7814; e-mail: babette@glopac.com; website: www.petro21.com.

Oil and gas industry fundamentals, May 16–19, 2011, London, UK. Details: Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK. Tel: +44 207 467 7116; fax: +44 207 580 2230; e-mail: jwarner@energyinst.org.uk; website: www.energyinst.org.uk.

China downstream 2011, May 17–18, 2011, Tianjin, PR of China. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel. +44 20 7357 8394; fax: +44 20 7357 8395; e-mail: enquiries@europetro.com; website: ww.europetro.com.

Elite Saudi careers, May 20, 2011, Washington DC, USA. 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.

Oil and gas pipelines in the Middle East, May 22–25, 2011, Abu Dhabi, UAE. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

Reservoir management 2020: surveillance, analysis and optimization, May 22–27, 2011, Santa Fe, New Mexico, USA. Details: Society of Petroleum Engineers, PO Box 833836, Richardson, TX 75083-3836, USA. Tel: +1 972 952 393; fax: +1 972 952 9435; e-mail: spedal@spe.org; website: www.spe.org.

Exploration and production logistics, May 23, 2011, 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.ibcenergy.com.

Fossil fuels, May 23, 2011, London, UK. Details: Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK. Tel: +44 207 467 7116; fax: +44 207 580 2230; e-mail: jwarner@energyinst.org.uk; website: www.energyinst.org.uk.

LNG Americas 2011, May 23, 2011, San Antonio, TX, USA. 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.

World LNG series: Americas summit 2011, May 23–26, 2011, San Antonio, TX, USA. 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.

73rd EAGE conference and exhibition, May 23–26, 2011, Vienna, Austria. Details: Society of Petroleum Engineers, Part Third Floor East, Portland House, 4 Great Portland Street, London W1W 8QJ, UK. Tel: +44 207 299 3300; fax: +44 207 299 3309; e-mail: spelon@spe.org; website: www.spe.org.

13th Annual NOC IOC 2011, May 24, 2011, Surrey, UK. 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.

Future grids Asia 2011, May 25–26, 2011, Singapore. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44

207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: http://futuregridsasia.com/Event.aspx?id=445820.

Turkmenistan gas congress, May 25–26, 2011, Turkmenbashi, Turkmenistan. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: ite-exhibitions.com.

17th Latin oil week, May 25–27, 2011, Rio de Janeiro, Brazil. Details: Global Pacific Partners, Suite 7, 4 Montpelier Street, Knightsbridge, London SW7 1EE, UK. Tel: +44 207 589 7804; fax: +44 207 589 7814; e-mail: babette@glopac.com; website: www.petro21.com.

11th anniversary annual CIS oil and gas summit, May 25–27, 2011, Paris, France. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

Enhanced oil recovery world congress 2011, May 29–June 1, 2011, Manama, Bahrain. Details: Terrapinn Holdings Ltd, First Floor, Modular Place, Turnberry Office Park, 48 Grosvenor Road, Bryanston 2021, South Africa. Tel: +27 11 516 4000; fax: +27 11 463 6000; e-mail: enquiry.za@terrapinn.com; website: www.terrapinn.com.

Shale gas, May 29–June 1, 2011, Beijing, PR of China. 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: +60 36201 3220; e-mail: spekl@spe.org; website: www.spe.org.

Asia oil and gas conference, June 5–7, 2011, Kuala Lumpur, Malaysia. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

Fundamentals of FPSOs, June 6, 2011, London, UK. Details: IBC Global Conferences, The Bookings Department, Inforfma 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.ibcenergy.com.

Gasifcation, June 6–7, 2011, London, UK. Details: SMi Group Ltd, Unit 122, Great Guildford Business Square, 30 Great Guildford Street, London SE1 OHS, UK. Tel: +44 207 827 6000; fax: +44 207 827 6001; e-mail: client_services@smi-online.co.uk; website: www.smi-online.co.uk.

11th World XTL summit, June 7–8, 2011, London, UK. 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.

Nigeria oil and gas technology 2011, June 7–9, 2011, Lagos, Nigeria. 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.

Renewable energy world Europe 2011, June 7–9, 2011, Milan, Italy. Details: Pennwell, The Water Tower, Gunpowder Mill, Powdermill Lane, Waltham Abbey, Essex EN9 1BN, UK. Tel: +44 199 265 66 00; fax: +44 199 265 67 00; e-mail: exhibitpge@pennwell.com; website: www.renewableenergyworld-europe.com/index.html.

World NGL congress 2011, June 7–9, 2011, London, UK. Details: Terrapinn Holdings Ltd, First Floor, Modular Place, Turnberry Office Park, 48 Grosvenor Road, Bryanston 2021, South Africa. Tel: +27 11 516 4000; fax: +27 11 463 6000; e-mail: enquiry.za@terrapinn.com; website: www.terrapinn.com.

Caspian oil and gas conference, June 8–9, 2011, Baku, Azerbaijan. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: ite-exhibitions.com.

Fundamentals of petroleum economics, June 9, 2011, 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.ibcenergy.com.

Improving hydrocarbon recovery and productivity from the mature fields, June 9–10, 2011, Cartagena, Colombia. Details: Society of Petroleum Engineers, PO Box 833836, Richardson, TX 75083-3836, USA. Tel: +1 972 952 393; fax: +1 972 952 9435; e-mail: spedal@spe.org; website: www.spe.org.

Portfolio management in oil and gas assets, June 9–10, 2011, London, UK. Details: Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK. Tel: +44 207 467 7116; fax: +44 207 580 2230; e-mail: jwarner@energyinst.org.uk; website: www.energyinst.org.uk.

China (Guangzhou) international energy congress and exhibition, June 9–11, 2011, Guangzhou, China. Details: 29th floor, Unit A, South tower, Continental Center, No.1068, Xingangdong Road, Guangzhou, Guangdong, PR of China. Tel: +86 20 89 04 80 57; +86 20 89 04 80 97; fax: +86 20 89 04 80 96; e-mail: info@enertechexpo.com; website: www.enertechexpo.com/en/index.asp.

5th annual Texas power markets, June 11–12, 2011, Houston, TX, USA. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 1766142; fax: +44 207 176 8512; e-mail: cynthia_rugg@platts.com; website: www.events.platts.com.

Deep wells challenges, June 12–14, 2011, Egypt. 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.

8th MidEast North Africa upstream, June 13, 2011, Geneva, Switzerland. Details: Global Pacific Partners, Suite 7, 4 Montpelier Street, Knightsbridge, London SW7 1EE, UK. Tel: +44 207 589 7804; fax: +44 207 589 7814; e-mail: babette@glopac.com; website: www.petro21.com.

BioGas, June 13–14, 2011, London, UK. Details: SMi Group Ltd, Unit 122, Great Guildford Business Square, 30 Great Guildford Street, London SE1 OHS, UK. Tel: +44 207 827 6000; fax: +44 207 827 6001; e-mail: client_services@smi-online.co.uk; website: www.smi-online.co.uk.

CAT TECH 2011, June 13–14, 2011, Dubrovnik, Croatia. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel. +44 (0) 20 7357 8394; fax. +44 (0) 20 7357 8395; e-mail: enquiries@europetro.com; website: ww.europetro.com.

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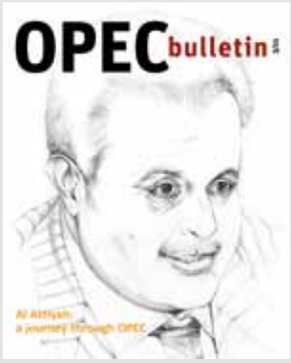

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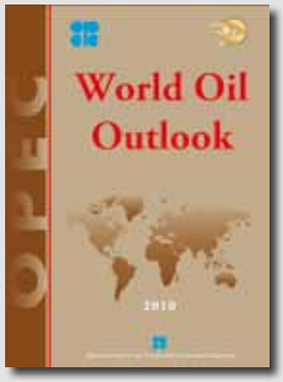

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