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The criteria for publication in the OPEC Energy Review are that the material is the product of research in an area of interest and value to the readership, and that it is presented in an objective and balanced manner. Submission of a paper will be held to imply that it contains original, unpublished work and is not being submitted for publication elsewhere. Manuscripts are evaluated by referees.

Abstracts of up to 150 words should be included. In the covering letter, or on a separate sheet, the following details of the principal author should be given: full name (and, if different, desired name for publication purposes), title, affiliation, full postal address, e-mail address and telephone numbers. Similar details should be provided for all co-authors. Authors will retain copyright to their papers, while giving the Publishers’ Exclusive Licence to publish.

Manuscripts should be written in clear English and not exceed 8,000 words. Submissions should be done electronically either via e-mail attachment or compact disc (CD). Tables and figures should carry titles, relate directly to the text and be easily comprehensible. Mathematical expressions should be clearly presented, with equations numbered.

Endnotes should be indicated in the text consecutively, with superscript numbers, and should be explained in a list at the end of the text. Reference citations in the text should be by last name(s) of author(s) and date (for joint authorship of three or more names, the words ‘et al’ should be inserted after the first name); references should be spelt out and listed in alphabetical order at the end of the paper (after the endnote listings). For more details of style, please refer to a recent issue of the OPEC Energy Review.

Submissions should be made to: Executive Editor, OPEC Energy Review, OPEC Secretariat, Helferstorferstrasse 17, 1010 Vienna, Austria (tel: +43 1 211 12-0; e-mail: prid@opec.org).
When OPEC’s Oil/Energy Ministers gathered in Vienna for the 162nd Meeting of the Conference on December 12, they were faced with the challenge of addressing an uncertain outlook for the international oil market in 2013.

This in turn was tied in to the stuttering performance of the world economy, which the latest OPEC Monthly Oil Market Report (MOMR), on the eve of the meeting, described as experiencing “another year of deceleration” in 2012, before adding a positive note: “Some indicators are pointing to a tentative recovery in the second half of the year and this momentum is likely to be carried over into 2013."

Then there was a word of caution: “Many uncertainties remain. The most important will be avoiding the fiscal cliff in the US, further decisions on austerity issues in the Euro-zone, and balancing the need to reduce the fiscal debt burden while stimulating growth in Japan. In the emerging economies, it remains to be seen how domestic demand will be improved, given the likely continuation of low growth in their main exporting markets in the developed world.”

Such doubts about the global economy, the MOMR added, were “causing a great deal of uncertainty for the forecast for world oil demand, which has a downward risk, especially in the first half of the year.” Turning to supply, the report noted that the growth in non-OPEC supply, together with OPEC natural gas liquids and non-conventional oils, was expected to outpace the increase in world oil demand growth in 2013. Indeed, this was already happening, with some notable downward pressure on oil prices since mid-September.

This provided the backdrop for the Ministers as the 162nd Meeting began. In the closing press release, the Conference was emphatic that the biggest challenge facing global oil markets in 2013 was uncertainty surrounding the global economy, at the same time noting that projected demand for OPEC crude in 2013 was expected to contract to 29.7 million barrels/day. Accordingly, the Conference had decided to maintain the current production level of 30.0m b/d. However, it added the important rider that Member Countries would, if necessary, take steps to ensure market balance and reasonable price levels for producers and consumers. This would mean responding swiftly to developments that might have a detrimental impact on an orderly oil market. The Conference also directed the Secretariat to continue monitoring closely supply and demand, as well as non-fundamental factors, so as to keep Member Countries abreast of developments at all times.

The Meeting, which also extended Secretary General Abdalla Salem El-Badri’s term of office for one year, effectively brought to an end a busy year for the Organization which, as ever, remains committed to achieving oil market stability in support of steady world economic growth.

Following a winding down of activity across much of the world for the festive season around the turn of the year, in the northern hemisphere, the days will continue getting shorter for about a week and the weather may even turn colder and bleaker.

But then a transformation in the general mood is likely to occur.

As we settle into the New Year, the promise of a warmer, brighter spring soon becomes apparent, even though there may still be lots of wintry weather to come in the meantime. People will have benefitted from the long festive break itself when they had the chance to relax with family and friends.

The result of all this is that, as the pace of life picks up again in early January, it will do so with a newfound freshness and vigour in the minds and bodies of many people. This will energise them in their day-to-day tasks at home and at work.

The challenges facing the oil industry may not change much as one year passes into the next, but, at the same time, there will be a new drive and spirit among many people who must handle them. It is, in effect, opening a new chapter, with all the promise this can hold.

It is with this mood of optimism that we send seasonal greetings to all our readers, as we all look forward to peace and prosperity in 2013, supported by a sound, stable international oil market.
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OPEC Membership and aims
OPEC is a permanent, intergovernmental Organization, established in Baghdad, on September 10–14, 1960, by 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; Libya (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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The current dampened trend for world oil demand is not expected to change in the coming year, with the market continuing to be characterized by high volumes of crude supply and increasing production capacity, according to OPEC’s Monthly Oil Market Report (MOMR) for October.

It said that given the uncertainty facing the global economy and the ongoing downside risks, world oil demand growth for 2012 had been frequently revised down, while non-OPEC supply and output of OPEC natural gas liquids (NGLs) had continued to perform well, outpacing demand growth.

In reviewing the state of the world economy in its leading article, the MOMR noted that the global economy had experienced a continuous deceleration since the beginning of 2012.

The combination of an austerity-driven Eurozone, the weakening recovery in Japan and clear signs of a slow-down in the major emerging economies had been the main factors behind this development, it maintained.

However, the report noted that despite the prevailing weakness in the world economy, the slowing momentum was expected to bottom out later in 2012.

As a result, global growth was projected to be slightly higher in 2013 at 3.2 per cent, compared with a downward adjusted performance of 3.1 per cent for this year.

But the MOMR warned that two major structural weaknesses represented continued risks to the forecasts.

Firstly, most of the incremental growth was set to come from developing and emerging economies, which to varying degrees were reliant on exports to the developed economies.

“Secondly, and even more of a concern, the growth forecast is dependent on the effectiveness of the
recently-announced monetary supply facilities provided by central banks, as well as fiscal measures taken by some governments,” it said.

The article maintained that such efforts might offer the opportunity to alleviate the underlying problems, which were mostly debt-related in the developed economies and primarily growth-related in the developing economies.

“As monetary measures can only offer support to some extent, if this momentum is not taken up in the real sectors of the economy, the opportunity will be lost,” it affirmed.

The MOMR pointed out that while the developed countries were clearly underperforming the emerging and developing economies in terms of growth — at 1.4 per cent compared to 5.0 per cent in the current year — they remained the main source of global output through their aggregate demand and hence imports from the emerging markets.

**Domestic consumption**

“Overall, the OECD represents more than 60 per cent of international trade. Therefore, the challenges facing the major OECD economies will continue to be a key cause of concern, particularly as domestic consumption in the emerging and developing economies remains at a relatively low level and is even decelerating in some cases,” the report observed.

It noted that the United States continued to show a better performance than the other major developed economies, although growth was expected to slow from 2.2 per cent for this year to 2.0 per cent in 2013, as quantitative easing and other loose monetary supply measures became less effective.

“However, major challenges remain, given the still high levels of unemployment and the looming automatic budget cuts scheduled for the start of next year.”

In Japan, said the MOMR, the economy was facing a continued deceleration after a good performance in the first half of 2012.

“As stimulus measures taken in response to last year’s triple catastrophe are tapering off, low domestic demand growth, appreciation of the yen and the slowdown in international trade, particularly with its major trading partners China and the European Union, are likely to lead to a decline in the second half.”

As a result, growth in Japan was expected at 2.2 per cent for 2012 and at 1.1 per cent in 2013.

The report stressed that the fragility of the Euro-zone continued to be a core concern for the global economy.

The sovereign debt issues of Spain and Italy — countries which constituted almost a third of the Euro-zone’s economy — had so far been contained, but certainly needed continued close monitoring.

“The European Central Bank’s sovereign debt-buying programme should help to alleviate some of the burden facing these ailing economies in the short to medium term. However, debt issues will remain a challenge, particularly given the increasing opposition to austerity measures.”

In 2013, said the MOMR, the Euro-zone was expected to expand by a marginal 0.1 per cent, following a contraction of 0.5 per cent in the current year, as many of its economies were currently in recession.

It contended that both the situation in Europe and the recent slowing pace of growth in the US had significantly impacted China’s exports.

Despite government efforts to support growth domestically, China’s economy was facing a continued deceleration from around ten per cent in past years to a forecast of 7.6 per cent this year and 8.0 per cent in 2013.

“This reflects expectations that further monetary and fiscal stimuli will compensate for the lagging momentum, as the government could still engage a wide range of support measures.”

The report said that, in contrast, given continued high inflation, India was not expected to introduce further major stimulus efforts and was forecast to expand by 5.7 per cent this year and 6.6 per cent in 2013.

Other emerging and developing economies were facing similar challenges, due to the lowered export base.

“Nevertheless, developing and emerging economies are still forecast to represent almost 80 per cent of global growth,” the article added.
Brent-WTI spread narrows as stature of North Sea benchmark grows

Brent light crude, since long the benchmark blend of the North Sea oil sector, and estimated to be the marker for pricing up to two-thirds of the crude oil traded internationally every day, is in line to take an even stronger foothold in global energy markets, as early as next year.

A new set of circumstances, especially in the United States, looks like paving the way for Brent to finally overtake the US premier crude, West Texas Intermediate (WTI), as the leading global oil benchmark.

Trading volume of Brent

According to a report by Reuters, Brent is becoming the hedge of choice for big investors, even those in the US.

It noted that the trading volume of Brent futures and options had soared, boosting liquidity, at the expense of WTI.

Quoting exchange figures, it revealed that average volumes this year for Brent futures on the InterContinental Exchange (ICE) had overtaken WTI traded on the New York Mercantile Exchange (NYMEX) by more than 30,000 lots per day. Brent was recorded at over 600,000 lots, while WTI stood at around 570,000.

The report conceded that while combined volumes
of the London and New York exchanges still showed WTI futures ahead in terms of volume and open interest, Brent was closing the gap and looked set to outperform its US rival early in 2013.

The November issue of OPEC’s *Monthly Oil Market Report (MOMR)* also alluded to the changing position of Brent over WTI in its feature article.

It maintained that the Brent-WTI spread was expected to decline as a number of factors were expected to contribute to an easing of the supply glut at Cushing, Oklahoma, in the US, the price settlement point for the NYMEX WTI futures contract.

The *MOMR* observed that the opening of the Seaway pipeline to the first crude flows in June 2012 had resulted in a marginal short-lived decline in crude oil stockpiles at Cushing.

“However, the fall in inventories coincided with a widening of the spread between Brent and WTI, when logically it should have narrowed. Instead, the spread extended to its widest in a year.”

The report said that this counter-intuitive behaviour was a result of differing pressures affecting the two benchmarks. The factors affecting Brent were escalating Middle East tensions and the physical shortage of Brent crude in the North Sea, because of an overall decline in production in the region, seasonal maintenance and persistent problems at the Buzzard oil field.

In contrast, WTI continued to be impacted by growing US shale oil production, which had pushed US oil output to an estimated 9.7 million barrels/day in 2012, its highest level in over 24 years. Moreover, planned and unplanned outages at a number of US refineries had also affected WTI negatively.

The *MOMR* noted that US crude oil inventories currently stood at around 43.4 m b, some 35 per cent higher than a year ago. Already, a jump in rail tank car traffic out of the Bakken shale play had increased the flow of crude past Cushing. There had also been an expansion in the use of barges to move crude down the Illinois and Mississippi rivers to the Gulf Coast, also bypassing Cushing.

“However, the most important factor will be the expansion of the Seaway pipeline in early 2013 from 150,000 b/d to 400,000 b/d, which will increase flows out of Cushing direct to the Gulf Coast,” the report stated.

“All of these domestic barrels reaching the coast will relieve the Cushing stockpile — thus supporting WTI — as well as exerting downward pressure on rival imported grades, which are priced against Brent. As a result, the Brent-WTI spread is expected to narrow.”

**Pipeline capacity**

Moreover, said the *MOMR*, the potential impact of additional takeaway pipeline capacity out of the Permian Basin, with the expansion of the West Texas Gulf pipeline, would allow 80,000 b/d of Permian crude to flow to the Gulf Coast.

“Altogether, by 2013, these additions will provide a route to the Gulf Coast for about 330,000 b/d of crude that can currently only be sent by pipeline to Cushing, or to the Midwest.

“At the same time, the increasing trend in US shale oil production will also impact WTI prices, consequently affecting the spread. Furthermore, the trend of the future forward curve appears to point to a narrowing in the Brent-WTI spread, “ it affirmed.

Looking at the forward curve of the Brent-WTI spread, as of October 2012, it disclosed that the spread declined quite rapidly from $20/b currently to $14/b in July 2013 and then more slowly to $8/b in November 2014.

“Although expected to narrow, the Brent-WTI spread is likely to persist, driven by ongoing constraints in infrastructure, combined with rising crude production from US shale oil fields.

“At the same time, the strengthening of ICE Brent, due to a continued decline in the mature North Sea fields, combined with growing Asian demand for North Sea grades, as well as Brent-like crudes from West Africa, will support a continuation of the Brent premium over WTI,” the report concluded.
OPEC’s Oil and Energy Ministers have again decided to maintain the status quo concerning the Organization’s crude oil production levels moving into 2013, due to the continuing uncertainties surrounding global energy demand.

At their 162nd Meeting of the OPEC Conference, held in Vienna, Austria, in December, the Heads of Delegation of the Organization’s 12 Member Countries agreed to maintain the current production ceiling of 30 million barrels/day. Under the Chairmanship of its outgoing President, Abdal-Kareem Luaibi Bahedh, Minister of Oil of Iraq (see opening address on page 17), the Conference stipulated that Member Countries would, if necessary, take steps to ensure market balance and reasonable price levels for producers and consumers.

“In taking this decision, Member Countries confirmed that they will swiftly respond to developments that might have a detrimental impact on an orderly oil market,” the Ministers said in a communiqué issued after the one-day Meeting, held at the OPEC Secretariat.
It was similar action to that taken at their previous Conference in June 2012, when the Conference decided that Member Countries should strictly adhere to the existing oil production ceiling of 30m b/d, the ceiling that was first decided upon during OPEC’s December 2011 Conference.

At their latest Meeting, Ministers directed the OPEC Secretariat to maintain its close monitoring of developments in supply and demand, as well as non-fundamental
factors, such as macroeconomic sentiment and speculative activity, keeping Member Countries abreast of developments at all times.

“...it is vital to remain vigilant in the face of the uncertainty surrounding the outlook for the world’s major economies, as well as the implications of the enduring weaknesses in the international financial system that are expected to continue to pose downside risks for both the global economy and the oil market,” the communiqué stressed.

The Conference also decided to extend the tenure of Abdalla Saleem El-Badri as Secretary General for a period of one year, with effect from January 1, 2013 (see accompanying story on page 18).

During their deliberations, the Ministers reviewed several reports and studies, including those from the

The Iranian Delegation — headed by Eng Rostam Ghasemi (c), Minister of Petroleum; seated with Seyed Mohammad Ali Khatibi Tabatabai (l), Governor for OPEC; and Safar Ali Keramati (r), OPEC National Representative. Standing (l–r) are Delegates, Amir Mansour Mirzabaghi; Mohammed Reza Naraghi; A Hamidi Younessi; and Ehsan Taghovezejad.

President of the OPEC Conference for 2012, Abdul-Kareem Luaiby Bahedh (c), Minister of Oil, Iraq; seated with Dr Falah J Alamri (l), Governor for OPEC; and Hameed Abdulrazzaq Salim Al-Saedi (r), Delegate.
Members of the Kuwait Delegation, headed by Siham Abdulrazzak Razouqi (c), Governor for OPEC; with Mohammad Saad Al Sallal (l), Ambassador of Kuwait to Austria; and Sheikh Nawaf Saud Al-Sabah (r), Delegate.

Libya’s Minister of Oil and Gas, Dr Abdel Bari Ali Al-Arousi (c); with Samir Salem Kamal (r); Governor for OPEC; and Abdulla Hebrara (l), Chargé d’affaires at the Libyan Embassy in Vienna.

Nigeria’s Delegation — headed by Diezani Alison-Madueke, CON (c), Minister of Petroleum Resources; seated with Ambassador Abdul Abdulkadir Musa, mni (l), Governor for OPEC; and Andrew Yakubu (r), Group Managing Director of the Nigerian National Petroleum Corporation (NNPC).
Secretary General, the OPEC Economic Commission Board (ECB) and the Ministerial Monitoring Sub-Committee (MMSC), whose Members the Conference again commended for their continued and appreciated efforts on behalf of the Organization.

El-Badri’s report on the oil market outlook particularly focused on the supply/demand projections for 2013. It highlighted that although world oil demand was forecast to increase slightly during 2013, this was likely to be more than offset by the projected increase in non-OPEC supply. Forecast demand for OPEC crude in 2013 was expected to contract to 29.7m b/d.

Concerning crude oil prices, it was observed that the volatility witnessed throughout 2012 remained mostly a reflection of increased levels of speculation in the commodities markets, exacerbated by geopolitical tensions and, latterly, exceptional weather conditions.

The Conference pointed to mounting pessimism over the global economic outlook, with downside risks continuing to be presented by the sovereign debt crisis in the Euro-zone; high unemployment in the advanced economies, especially the Euro-zone; and inflation risk in the emerging economies.

“Indeed, the biggest challenge facing global oil...
Left: The United Arab Emirates (UAE) Delegation — headed by Mohamed Bin Dhaen Al-Hamli (c), Minister of Energy; with Ali Obaid Al Yabhouni (r), Governor for OPEC; and Mohammed Hamad Omran (l), UAE Ambassador to Austria.

Right: Dr Bernard Mommer (l), Governor for OPEC, who headed the Venezuelan Delegation; with Fadi Kabboul (r), Venezuela’s National Representative to OPEC.

Posing for a group photograph — (standing l–r): José Maria Botelho Vasconcelos, Minister of Petroleum, Angola; Eng Rostam Ghasemi, Minister of Petroleum, Iran; Wilson Pástor-Morris, Minister of Non-Renewable Natural Resources, Ecuador; Dr Falah J Alamri, Governor for OPEC, Iraq; Dr Bernard Mommer, Governor for OPEC, Venezuela; Dr Youcef Yousfi, Minister of Energy and Mines, Algeria; Ali I Naimi, Minister of Petroleum and Mineral Resources, Saudi Arabia; Dr Mohammed Bin Saleh Al-Sada, Minister of Energy and Industry, Qatar; Mohamed Bin Dhaen Al-Hamli, Minister of Energy, UAE; Abdalla Saleem El-Badri, OPEC Secretary General; and Dr Abdel Bari Ali Al-Arousi, Minister of Oil and Gas, Libya. Seated (l–r) are: Siham Abdulrazzak Razzouqi, Governor for OPEC, Kuwait; Abdul-Kareem Luaibi Bahedh, Minister of Oil, Iraq, President of the OPEC Conference (2012); and Diezani Alison-Madueke, CON, Minister of Petroleum Resources, Nigeria.
markets in 2013 is uncertainty surrounding the global economy, with the fragility of the Euro-zone remaining a major concern,” the communiqué stressed.

In attending to various administrative matters, the Ministers also exchanged views on developments in multilateral environment matters, including the outcome of COP18/CMP8 held in Doha, Qatar; the status of the Organization’s ongoing Energy Dialogue with the European Union; its continued cooperative work for the G20; and its dialogue with the Russian Federation.

The Conference paid a special tribute to the government and people of Qatar on the successful hosting of COP18/CMP8, noting with satisfaction that the event’s positive conclusion “paved the way for a new course of
action for designing the future climate change regime.”

In this connection, the Ministers also applauded the work being done in this important area by climate change negotiators from around the world.

The Conference elected Hani Abdulaziz Hussain, Minister of Oil of Kuwait, as President of the Conference for one year, with effect from January 1, 2013, and Dr Abdel Bari Ali Al-Arousi, Minister of Oil and Gas of Libya, as Alternate President, for the same period.

Al-Arousi was attending his first OPEC Conference as Head of his country’s Delegation and the Ministers congratulated him on his recent appointment as Minister of Oil and Gas. They also thanked his predecessor in office, Eng Abdurahman Benyezza, for his contribution to the work of the Organization.

The Conference appointed Yasser M Mufti, Saudi Arabian Governor for OPEC, as Chairman of the OPEC Board of Governors for 2013, and Dr Ali Obaid Al Yabhouni, the United Arab Emirates’ Governor for OPEC, as Alternate Chairman for the same period, with effect from January 1, 2013.

The Ministers decided that the next Ordinary Meeting of the OPEC Conference would convene in Vienna on May 31, 2013.
New appointments for 2013

Kuwait’s Minister of Oil, Hani Abdulaziz Hussain, who was elected OPEC Conference President for 2013.

Dr Abdel Bari Ali Al-Arousi, Libya’s Minister of Oil and Gas, who was elected Alternate President of the OPEC Conference for 2013.

Yasser M Mufti, Saudi Arabia’s Governor for OPEC, who was elected Chairman of the OPEC Board of Governors for 2013.

Dr Ali Obaid Al Yabouni, United Arab Emirates Governor for OPEC, who was elected Alternate Chairman of the OPEC Board of Governors for 2013.
OPEC continues to do what it can to achieve and maintain a stable oil market by ensuring that the market remains well supplied with crude at all times, with fair and reasonable prices.

That was the central message conveyed by OPEC Conference President Abdul-Kareem Luaibi Bahedh at the opening of the Organization’s 162nd Meeting of the Conference at OPEC Headquarters in Vienna in December.

He stressed the importance of clear planning for the future, with sound investment strategies ensuring the necessary levels of production capacity in the years ahead.

But, Bahedh told delegates, the drawing up of such strategies was impeded by uncertainties on both the demand and the supply fronts, as well as by the high levels of price volatility.

“Clearly there are many doubts about the market outlook today.”

He continued, “Without market stability — that is, sustainable market stability — all parties will suffer, producers and consumers alike.”

Bahedh, who is Iraq’s Oil Minister, reminded delegates in his opening address that they were faced with a period of continuing uncertainty about the oil market outlook that reflected the lack of a clear vision on the economic front, with the global economy experiencing a persistent deceleration since the beginning of the year.

“The combination of an austerity-driven Euro-zone, the weakening recovery in Japan and clear signs of a slowdown in the major emerging economies has provided the main factors behind this development,” he affirmed, noting that in the light of these developments, world oil demand growth forecasts for this year had been revised down frequently.

The Conference President stressed that OPEC’s focus would be on enhancing market stability in the interests of all parties, as well as in support of steady world economic growth.

However, he continued, this was not the responsibility of OPEC alone. “If we all wish to benefit from a more orderly oil market, then we should all be prepared to contribute to it. This includes consumers, non-OPEC producers, oil companies and investors, in the true spirit of dialogue and cooperation.”

The Minister said that, on the supply side, non-OPEC supply and the production of OPEC natural gas liquids had continued to perform well, outpacing demand growth.

“This trend is not expected to change in the coming year, with the market continuing to see high volumes of crude supply and increasing production capacity,” he added.

Bahedh noted that oil prices had strengthened since the Conference last met in June, but with continuing fluctuations.

“In June, at around the time of the Conference, prices were at their lowest daily levels for the year, with the Reference Basket price below $100/barrel throughout the month. It even fell below $90/b for three days.

“However, the Basket price then rallied strongly past $110/b in the middle of August. But after that, for most of the time since mid-September, it has been several dollars a barrel beneath this mark.”

Bahedh explained that this drop reflected mounting concern about the global economic slowdown, the pessimistic future demand outlook and significant stockbuilds of crude in the United States.

“Such downward pressures have outweighed supply concern arising from geopolitical factors,” he pointed out.

The Conference President also used the occasion to extend a special welcome to Dr Abdel Bari Ali Al-Arousi, Minister of Oil and Gas of Libya, who was attending the Conference for the first time as Head of his Country’s Delegation.

“Let me also thank his predecessor, Eng Abdurahman Benyezza, for his contributions to the Conference during his time in office,” Bahedh added.
El-Badri’s tenure as OPEC Secretary General extended for one more year

The 162nd Meeting of the OPEC Conference, held in Vienna in December 2012, decided to extend the tenure of Abdalla Salem El-Badri as Secretary General for a period of one year, with effect from January 1, 2013.

El-Badri had been due to leave the Organization at the end of December on completion of two terms as Head of the OPEC Secretariat in the Austrian capital.

“We have an experienced Secretary General in position, extending (his tenure) by one year is a very, very, good decision,” Ali I Naimi, Minister of Petroleum and Mineral Resources of Saudi Arabia, was quoted as saying after the one-day Ministerial Meeting. He stressed that he was very happy with the decision to keep El-Badri in place for another year.

Libya’s OPEC Governor, Samir Salem Kamal, also welcomed the move to extend El-Badri. He said the decision to retain his services for a year “will give us time to reconsider the candidates again.” Three applicants were considered for the Secretary General position, but no agreement was reached by the Conference.
New Libyan Oil and Gas Minister appointed

Dr Abdel Bari Ali Al-Arousi has been appointed Libyan Oil and Gas Minister. He succeeds Eng Abdurahman Benyezza.

Born in Zawia, Libya, in 1961, Al-Arousi obtained a PhD in Engineering and Corrosion Science in 1992.

He started his career at the Sirte Oil Company (SOC) in 1982 as a Corrosion Engineer and ten years later became an Engineering Specialist with the firm. He then worked as a Superintendent in the SOC’s Corrosion Department in 1993.

In 2006, Al-Arousi was appointed Senior Corrosion Engineer for SOC’s Tripoli-Mellitah gas-pipeline project. He then worked as an Operations Manager at the British Technica firm from 2007. In 2009, he became Operations General Manager at the Libyan Taknia Company for Engineering.

In 2011, he served as Chairman and General Director of the Libyan Al-Khadhra Holding Company for one year, before being appointed Minister of Oil and Gas in November.

Al-Arousi is a member of the American Association for Corrosion Engineers and the British Institute for Corrosion.

He is married with four children.
OPEC Secretary General in Berlin

Common understanding among stakeholders essential for oil industry’s future — El-Badri

“OPEC places much value on its policy decisions to pursue a committed, cooperative and coordinated approach with other stakeholders in the industry that fosters oil market stability in both the short and long terms.”

— Abdalla Salem El-Badri
“When looking to the future,” we need clarity to understand stakeholders’ viewpoints,” Abdalla Salem El-Badri, OPEC Secretary General, said in an energy debate in Berlin at the end of September.

“We need to develop a common understanding and positive dialogue. And we need to find the right balance in handling the uncertainties and challenges before us in a manner that allows us to achieve the overall objectives of energy for economic growth and social progress.”

El-Badri told the gathering, organized by the German Council on Foreign Relations and Wintershall Holding GmbH, that this was true for producers and consumers, national and international oil companies and service firms — “in fact, all stakeholders.”

He maintained that the oil industry’s key challenge going forward was meeting the forecast growth in world energy demand, which, according to the Organization’s latest calculations, was expected to rise by around 50 per cent by 2035.

And he stressed that the challenge was not just for the producers and investors, but also the consumers.

“To meet this challenge, we need a stable and predictable market. We need to focus on the efficient and sustainable development of all energies. We need to appreciate just what each energy source can offer to this future. And we need to allow producers and investors to make sure future energy demand can be met,” he affirmed.

In underscoring the continuing importance of energy to the world’s future welfare, the OPEC Secretary General reminded officials at the debate that energy had been central to a great deal of humanity’s progress over the centuries.

“It has positively impacted the lives of billions. And energy will be just as important to our future economic and social progress.”

El-Badri said it was easy to understand why that was. Firstly, the global population was expected to reach more than 8.6 billion by 2035, an increase of over 1.6bn from today’s level.

“To put this into perspective, the world will add more than a combined India and United States to its population in just over 20 years.”

Secondly, he said, the global economy would rebound in the longer term. “Of course, I cannot stand here and say the current economic outlook is rosy. But, as we have learned from the past, downturns do not go on forever.”

Thirdly, said El-Badri, with around 3bn people living on less than $2 and 50¢/day, 1.4bn people having no access to electricity and some 2.7bn relying on biomass for their basic needs, there was huge potential for socioeconomic development.

Energy poverty

“This latter point also highlights the fact that, unfortunately today, billions of people continue to suffer from energy poverty. Let me stress — it is vital that every single one of us in the world has access to modern energy services,” he stated.

Referring to the expected expansion in world energy demand, El-Badri noted that OPEC’s World Oil Outlook (WOO) for 2011, forecast that all energies would witness growth, although overall shares would shift over time.

Fossil fuels, which currently account for 87 per cent of the world’s energy supply, would still contribute 82 per cent by 2035.

Oil would retain the largest share for most of the period to 2035, although its overall share was slated to fall from 34 per cent to 28 per cent. It would remain central to growth in many areas of the global economy, especially the transportation sector. Coal’s share would remain
similar to today, at around 29 per cent, whereas gas was expected to increase from 23 per cent to 25 per cent.

El-Badri said that in terms of non-fossil fuels, renewable energy was forecast to grow fast. But as it started from a low base, its share would still be only three per cent by 2035. Hydropower would increase only a little, to three per cent by 2035. Nuclear power would also witness some expansion, although prospects had been affected by events in Fukushima, Japan. It was seen as having only a six per cent share in 2035.

But he said he was in no doubt that the industry could meet all the demand requirements in the years ahead.

Focusing specifically on the oil industry, El-Badri said the WOO showed that demand for oil was expected to increase by close to 23 million barrels/day over the period 2010-35, reaching almost 110m b/d by 2035. This was driven mainly by developing Asia, which was home to 80 per cent of the oil demand growth over the period.

In contrast, said the OPEC Secretary General, the OECD region actually witnessed a fall in demand.

“To meet this oil demand growth, resources are clearly sufficient. Improved technology and enhanced recovery have, over the years, increased the resource base to levels well above past expectations. And today we are seeing significant new resources and supplies,” he professed.

He pointed to recent estimates from the US Geological Survey which showed ultimately recoverable resources stood at around 3,500bn b.

“To put this into some context, cumulative oil production has been less than a third of this. Moreover, we can expect further advances to extend the reach of the industry, helping to reduce costs, unlock additional resources and increase supplies.

“So when some people talk about peak oil, let me say it will not be any time soon. Of course, one day it will come, but that day is certainly not yet.”

But El-Badri said that to push this day further and further into the future, technologies needed to be continually developed in all spheres of the oil industry.

There was also the need to employ high-calibre people to utilize the technologies to explore for oil in new frontier areas, which were often in remoter, harsher and deeper locations.

“Above all, however, you need management who has the guts to take risks, because this is the name of the game in the oil industry.”

In this regard, El-Badri had high praise for Wintershall and its operations in his home country, Libya.

He recalled that the company had maintained a local exploration and production presence in Libya since 1958, but until the 1980s it was only a very small producer in the country.

“Most people at that time knew little of the company’s operations, but in the late 1980s and early 1990s the company’s management changed its thinking and policy. They decided to take some risks and invest considerable resources into new exploration and developments. It proved to be a successful decision as it led to significant new discoveries and production. As of 2011, the company had drilled over 150 wells and become one of the largest oil producers in the country.”

El-Badri said it was an example of how investment could yield significant new resources and supply and position a company as a significant producer.

“Of course, this type of risk-taking only tells part of the story. We need to remember that all investments require certain conditions. These obviously vary, but in general the focus for producers is on stability,” he said.

At the heart of this, maintained El-Badri, was security of demand. This was just as important to producers as security of supply was to consumers. “Energy security should be viewed as a full circle.”

He said that for producers, it was critical to have a better understanding of demand side developments, particularly policies that discriminated against oil. If not, it could lead to investment uncertainty and, in turn, future market instability.

“To put it simply — producers do not want to waste
precious financial resources on infrastructure that might not be needed. At the same time, however, if timely and adequate investments are not made, then future consumer needs might not be met.”

El-Badri said that this point was brought home to him when looking at the investments OPEC Member Countries were making today. For the five-year period 2012–16, there were currently 116 upstream projects in OPEC’s portfolio.

“Should all projects be realized, this could translate into an investment figure of close to $280bn. These are major investments, none of which our Member Countries want to see as wasted,” he affirmed.

Turning to the many other challenges and uncertainties facing the industry, the OPEC Secretary General said that the one most talked about today was the global economy.

The Euro-zone continued to struggle with such issues as sovereign debt, the banking crisis and high unemployment. The Euro-zone’s economy was expected to contract this year.

He noted that the US was one of the more resilient developed economies, but the most recent indicators offered a somewhat mixed picture.

And in normally fast-growing China, while economic growth remained at around eight per cent, El-Badri said recent data suggested the economy had slowed. However, it was unclear whether this was a long-term trend, or just a short-term issue.

He said that in the developing countries, in general, there were concerns as to whether the problems in the OECD region would spill over into their economies, particularly in terms of reduced demand for their exports.

There was also the human resource challenge. El-Badri contended that the industry needed to make sure it was attractive to prospective graduates, to keep its talented people and to transfer knowledge to the next generation.

“They will be the ones that push the industry’s boundaries in the years ahead,” he told the debate.

The OPEC Secretary General said there was also the challenge of protecting the environment, both locally and globally.

In this regard, he said, it would be essential to promote the early development and deployment of cleaner energy technologies.

“Given the continuing dominance of fossil fuels in the energy mix, we need to look at options that allow the continued use of fossil fuels in a carbon-constrained world.”

“It is clear the market is currently well-supplied. Supply and demand fundamentals point to a stable market. We see no shortages,” he stressed.

However, he pointed out that the current global economic situation remained a major uncertainty in the Organization’s short-term forecasts.

From an oil price perspective, said El-Badri, while there had been both ups and downs in 2012, the volatility witnessed had not been because of market fundamentals. Speculation had been behind much of the price volatility.
Oil & Money 2012

Energy strategies in turbulent times

James Griffin reports from this year’s 33rd Annual Oil & Money conference held in London on November 13–14. Organized under the theme ‘Energy Strategies in Turbulent Times’, the event explored many pressing issues, such as the continuing uncertainty surrounding the global economy, US shale developments, geopolitics, investments and capacity expansion, and the ever-increasing need to expand dialogue and cooperation.
On arriving in London for the Oil & Money conference, I was reminded by one delegate that it had been a week since Barack Obama had tied up the US Presidency for another four years. And that week, he said, had been a blissful one, to which, I asked him why. Because he no longer had to listen to the same old US election messages and the same old speeches, he said in reply.

In fact, this may have been the reason why the organizers of this year’s Oil & Money conference scheduled it later than normal. Having the US election behind them meant speakers and delegates could focus on other issues. While true, the US was certainly not off the agenda altogether. The conference saw much focus on the future role of US shale resources.

US shale developments

This was evident in the opening panel session — the Ministerial Discussion on the Global Oil Market. On the panel were Abdullah bin Hamad Al Attiyah, Chairman, Administrative Control and Transparency Authority of Qatar; Abdalla Salem El-Badri, OPEC Secretary General; Maria van der Hoeven, Executive Director of the International Energy Agency (IEA); Aldo Flores-Quirgoa, Secretary General of the International Energy Forum (IEF); and the Chair, Nordine Ait-Laoussine, President of the energy consulting firm, Nalcosa.

The main thrust of the panel’s discussion about US shale stemmed from an IEA report earlier that week that projected the US would become the largest global oil producer by around 2020 — overtaking Saudi Arabia until the mid-2020s.

There was a consensus that shale would play an increasing role in the future, with Al Attiyah saying the US shale gas boom “gives trust that the world has 300 years of using gas”, El-Badri highlighting the added diversity that shale resources bring to the energy mix and van der Hoeven underscoring the impact these resources were already having in the US. While an expanded role for shale was not in doubt, there was much debate, however, over exactly what this role will be. It was a question that many speakers came back to during the conference, with some deeming it a ‘revolution’ and others speaking more of an ‘evolution’ in shale’s development.

A number of speakers highlighted the vast potential resources, as well as last year’s record gas production from the Marcellus shale gas play and the recent ramp-up in production for shale oil at the Bakken play. Others, however, underlined the fact that many shale developments were already seeing a peak in production and rapid decline rates, which raised questions about their sustainability. And in regard to gas, reference was made to the recent US gas production glut and the slide in US gas prices, which have led to a significant scaling back in shale gas drilling activities.

El-Badri’s views were that shale should not be viewed as anything more than a positive new addition to the energy mix. He highlighted, and later reiterated in interviews with the media, that while a forecast is only a forecast, it was important to appreciate what certain messages (such as the one about the US overtaking Saudi Arabia as the world’s biggest oil producer) might mean “to producers, to consumers, to the market.” The worry for him, he said, is how other oil producers may interpret this forecast and apply it to their upstream investment plans.

Upstream investment plans

In talking about investments, El-Badri said that despite uncertainties — such as the global economy and some policies in consuming countries — OPEC Member Countries...
continue to invest to maintain and expand supply capacities, in order to meet future demand expectations. The latest list of upstream projects, he said, shows Member Countries undertaking or planning about 116 projects during the 2012–16 period. “This corresponds to estimated investments of about $270 billion,” he added. Given current assumptions and projections in its Reference Case, as well as natural decline rates in existing fields, it is estimated that total OPEC liquids capacity will rise by five million barrels/day over the period 2012–16. Thus, OPEC’s spare capacity is set to stay at healthy levels.

On an individual country basis, this was further elaborated on later that morning by Hussain Al-Shahristani, Deputy Prime Minister of Iraq. He said “Iraq has been able to overcome many challenges to increase production and exports” and is on its way to produce 4m b/d in around 12 months. When asked about plans beyond this, he said that “we are constantly reviewing our plans about net production levels for Iraq and working with IOCs to look at this.” He added that new numbers could possibly be published early next year, but no decisions have been made as yet.

Looking long-term, however, the world will certainly need more oil and Iraq can help meet this, said Al-Shahristani. He added that for many decades there have been no serious exploration efforts in Iraq and, given that the success rate for finding oil and gas in Iraq is round 70 per cent, there was much still to be explored.

Current oil market situation

Of course, there was also much talk of the current oil market situation. El-Badri and van der Hoeven both agreed that the market has been and continues to be well supplied, with El-Badri also pointing to the healthy level of total commercial stock levels and the comfortable levels of OPEC spare capacity. He said he expected the market would continue to be well-supplied in 2013.

The main concern, however, remained the global economy, particularly the Euro-zone debt situation and impending US ‘fiscal cliff’. These issues were also touched on by a number of speakers, with Christopher Allsopp, Director of the Oxford Institute of Energy Studies, singling out the Euro-zone crisis in particular as perhaps the biggest threat on the horizon. In terms of the US, however, there was a general feeling that if the country’s policymakers could agree on a deal to avoid falling off the ‘fiscal cliff’, then the country, helped by the prospect of continued cheap domestic energy sources, could potentially emerge as a bright spot in the developed world.

El-Badri also stressed that excessive speculation and price volatility remained a challenge for the market. While stressing that the challenge is not about eliminating speculation and expectation altogether, since these are part of the market, he believed more needed to be done to tackle the issue and prevent extremes.

While it was evident that differences of opinion continue to exist in regard to the impact of speculation on prices, there was general agreement that there was a need to continue to push for greater transparency in the market. This was underlined by the IEF’s Head, Flores-Quirgoa, who stressed that the Joint Organizations Data Initiative (JODI) had brought about more transparency, improvements in data coverage and more frequent reporting of information. But he added that it was “still a work in progress,” pointing out that there was particularly a need for more information from the demand side.

Masdar award

Given the widespread recognition that fossil fuels will remain dominant in the global energy mix for the foreseeable future, it was issues surrounding these that dominated the conference’s proceedings. However, the importance of diversifying the energy mix was underscored by a number of speakers. One of the global leaders in this regard, Masdar, was honoured as the first recipient of the ‘Leadership in New Energy’ award, created by the Energy Intelligence Group, one of the conference’s organizers.

Masdar, with its home in an OPEC Member County, the UAE, is at the forefront in looking at ways and means to diversify the energy mix. Dr Sultan Ahmed Al Jaber, CEO of Masdar, said: “This award underscores the visible impact Masdar is making around the world. From developing the world’s largest wind farm in the United Kingdom to the largest solar installation in the Middle East, Masdar is moving the industry forward and playing a role in diversifying energy sources in the UAE and around the world.

“As an oil-producing nation we are leveraging our hydrocarbon resources and capitalizing on our deep energy expertise to develop a renewable energy industry,” said Al Jaber. “We view this as a natural step forward to support economic growth and diversification, while also extending the UAE’s energy leadership. Masdar is contributing to Abu Dhabi’s transition from a resource-based economy to one based on knowledge and innovation,” he added.
Deepening cooperation

The opening panel session also pointed the way for another key element that became a mainstay of the two days of discussions: the ever growing importance of cooperation. This was highlighted by both El-Badri and van der Hoeven, who were quick to stress that despite their respective organizations not agreeing on everything, relations between OPEC and the IEA were positive.

Looking at the industry as a whole, El-Badri also stressed the importance of all industry stakeholders striving to advance cooperation. This point was later picked up on by Nassed Al-Jaidah, CEO of Qatar Petroleum International, who underscored the importance of partnerships between national oil companies and international oil companies. He added that these kinds of relationships had helped Qatar get to where it is today.

In an earlier keynote address to delegates, which seemed to provide a succinct summary of the fundamental message of cooperation in order to meet the diverse challenges facing the energy industry, Al Attiyah said that working together “requires a serious engagement and a firm commitment from all of us, in order to mitigate the risks, develop winning strategies, find sustainable solutions and make appropriate investment decisions.” He called on industry leaders to “work in partnership, in order to reduce uncertainties and take the necessary actions to ensure stability in the energy markets.” Judging by the conversations and discussions that took place over the two days, it was a message that no one would want to ignore.

Below (l–r): Abdullah bin Hamad Al Attiyah, Chairman, Administrative Control and Transparency Authority of Qatar; Maria van der Hoeven, Executive Director of the IEA; Abdalla Salem El-Badri, OPEC Secretary General; Aldo Flores-Quirgoa, Secretary General of the IEF.
OPEC and Russian Federation rekindle Energy Dialogue

Delegates from the Russian Federation at their meeting with officials from the OPEC Secretariat in Vienna.
The Russian Federation’s Minister of Energy, Alexander Novak, has held talks with OPEC Secretary General, Abdalla Salem El-Badri, to enhance the long-established Russia-OPEC Energy Dialogue.

The meeting, held at the OPEC Secretariat in Vienna towards the end of September, was attended by a high-ranking delegation from the Russian Federation, as well as officials from OPEC.

According to a joint press release issued after the talks, the parties exchanged views on the current oil market situation.

Both sides underscored the importance of stable and predictable markets for the long-term health of the petroleum industry and future investments, and above all, the well-being of the global economy.

The discussions also covered the Russian Federation’s Presidency of the G20 in 2013 and prospects for cooperation from OPEC.

Information exchange

The communiqué stressed that the parties proposed to broaden their cooperation and look at the possibility of establishing a joint working group, which would focus on information exchange and analysis of the petroleum industry.

It was agreed that the next high-level Russia-OPEC meeting would be held in the second quarter of 2013.

In comments to the meeting, El-Badri noted that Russia and OPEC had a long history of cooperation.

In 2003 and 2004, the OPEC Secretariat had held two workshops with the Moscow State Institute of International Relations. The first looked to enhance the exchange of information, research and cooperation, while the second covered a variety of issues of mutual interest, such as the oil market, climate change and trade-associated challenges.

Constructive collaboration

The Russia-OPEC Energy Dialogue was then formally established in 2005 during a meeting between ministers and delegations.

“Since then, we have witnessed a number of constructive collaborations, including the effective engagement during the Russian Federation’s Presidency of the G8 in 2006; a third workshop in October 2008 to examine various oil market and related issues; and I also recall my own positive meeting with the then President of the Russian Federation, Dmitry Medvedev, that took place at the same time as this workshop,” said El-Badri.

He said that in the last few years there had been less activity, “but I believe we still all appreciate and understand the benefits of dialogue and cooperation between our two parties.”

Continued El-Badri: “Given the various global positions
of OPEC and Russia, there are many areas where we can look to cooperate.”

He pointed out that OPEC Member Countries and the Russian Federation were major oil producers, exporters and investors in the industry.

“Thus, we both need predictable and steady markets and a stable price level. Stability is crucial for investments to be made; for our economies to grow; and for producers to realize a fair return from the exploitation of their exhaustible natural resources.

“This is particularly true in the current economic environment,” he added.

Multilateral issues

El-Badri said he looked forward to sharing analysis, thoughts and opinions on both the current oil market and the future outlook in the meeting’s discussions.

“In addition, there are various multilateral issues and fora that we see as potential areas where we can exchange ideas and possibly enhance our cooperation.”

As an example, said El-Badri, there was the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol, post-2012.

“As oil producers, I am sure we can all appreciate the possible implications these negotiations could have on our industries. It is important for oil producers to make their voices heard and ensure the balanced integration of economic development, social development and environmental protection,” he maintained.

El-Badri also mentioned the G20, with the Russian Federation taking up the Presidency of the group in 2013.

“OPEC has already been involved in collaborative work related to the G20 Energy Agenda. We would, of course, be interested in what the Russian Federation is proposing for its Presidency,” he affirmed.

The OPEC Secretary General stressed that OPEC placed great credence on enhancing its understanding with the Russian Federation.

“We are continually looking to explore and evolve our dialogue and cooperation with other parties. We recognize the value of strong and mutually-beneficial relationships.
And I hope that today’s meeting can reinforce the bond of cooperation between the Russian Federation and OPEC,” he concluded.

The Russian Minister, who was appointed to his position in May this year, was later quoted as saying that he had gone to Vienna at the invitation of El-Badri, who, he said, wanted to develop contacts with the new government of the Russian Federation.

In turn, he had invited the OPEC Secretary General to visit Moscow to take part in an energy conference.

Demand and supply

“We discussed in detail the issues of demand and supply, the balance and oil prices,” Novak was quoted as telling Reuters.

He stated that Russia’s opinion was the same as OPEC’s, in that crude prices should be more or less stable, adding that the current level of prices, at around $100 a barrel, was “normal”.

The Minister said the reality was that crude oil prices could fluctuate between $80/b and $120/b in the near term. But he felt that high volatility was bad for market participants.

Exchange of information

He maintained that producers had little leverage over prices, which were increasingly influenced by oil futures trading.

Novak said he and El-Badri had also discussed stepping up the exchange of information between Russia and OPEC.

“Speculative games on the futures markets could result in serious price fluctuations,” he said.

Russia has been one of the world’s top oil and gas producers for many years. Its current crude output stands at around 10.3 million barrels/day and it possesses the world’s largest gas reserves. The country depends on oil and gas revenues for half of its budget revenue.

In the past, Russian officials have participated as observers at OPEC Ministerial Conferences.
Closer cooperation, dialogue a must for oil’s future stability

Following the Russia-OPEC Energy Dialogue talks in Vienna in September, OPEC’s Secretary General, Abdalla Salem El-Badri, was invited to attend the 7th International Energy Week ‘Moscow Energy Dialogue’ towards the end of October. Due to prior commitments, he was represented at the event, organized by the Ministry of Foreign Affairs of the Russian Federation, by OPEC’s Legal Counsel, Asma Muttawa (pictured left), who, in speaking about the oil market and global economic situation from an OPEC perspective, stressed the importance of concerted cooperation and regular dialogue for ensuring a smooth path for oil’s future welfare.
Today, more than ever, closer cooperation between the oil industry’s main stakeholders is essential, particularly in view of the huge scale of investments required in the petroleum sector, coupled with the current economic uncertainties, according to OPEC’s Legal Counsel, Asma Muttawa.

Addressing the Moscow Energy Dialogue on behalf of the Organization’s Secretary General, Abdalla Salem El-Badri, she said that today, more than ever, regular structured dialogue at various levels between the producers, the consumers and the investors was critical for reaching a better understanding of each other’s viewpoints, handling the uncertainties and finding solutions to the numerous challenges in a manner that allowed for future economic growth and social progress.

“Energy — especially oil — will continue to be important for the world’s future welfare, so it is imperative that the industry continues to evolve and look to expand cooperation and collaboration in the years ahead. OPEC, for one, is fully committed to such an approach,” she told delegates in a keynote speech to the two-day conference.

Important dialogues

She pointed out that the Organization was already involved in several important dialogues, including the global producer-consumer dialogue, under the auspices of the International Energy Forum (IEF), the European Union, the Russian Federation, as well as with other international organizations, such as the International Energy Agency, the International Monetary Fund, the World Bank, and the G20, in regard to energy-related issues.

Mrs Muttawa pointed to the meeting of the OPEC-Russia Energy Dialogue, which was held in September and attended by the Russian Federation’s Energy Minister, Alexander Novak.

“The discussions were both forthcoming and fruitful and once again demonstrated how valuable such interaction among key energy stakeholders is to gaining clarity and understanding on the various energy sector issues and challenges we face.”

She stressed that OPEC placed much value on the views and position of Russia in the world energy scene as one of the most important oil and gas producers.

Mrs Muttawa told delegates that such cooperation and understanding was particularly important going forward. One of the main challenges for OPEC Member Countries, she said, in fact for all oil producers, was knowing, with some accuracy, just how much oil they would need to supply to the relevant markets in the years ahead.

“We term this security of demand, which compli - ments the notion of supply security. It is an aspect that is vital to our long-term investment planning. Producers need to have a better understanding of future demand requirements, particularly concerning policies that could discriminate against their oil,” she explained

Mrs Muttawa pointed out that without accurate information, coupled with assurances over demand levels, uncertainty over future investment could arise.

“And no producer wants to waste precious financial resources on spare capacity that might not be needed.”

Alternatively, she continued, if timely and adequate investments were not made, then future consumer needs might not be met.

“It is an important issue that we in OPEC feel warrants closer attention than it is getting from the consuming side.”

OPEC’s Legal Counsel stated that OPEC, for its part, remained committed to ensuring security of supply to all. And it would not only continue to satisfy demand for OPEC crude, but continue to maintain sizeable spare capacity ready for use when it was needed.

Towards this end, she disclosed, the Organization was pursuing 116 upstream oil projects for the period 2012–16. This involved huge investment of around $270 billion.

Looking at the current global landscape, Mrs Muttawa noted that, today, the repercussions of the world financial
crisis, which erupted in 2008, and the subsequent recession, were still being felt.

The global economic recovery had at best been stuttering, she said, and was currently forecast to expand by 3.2 per cent in 2013, slightly higher than the 3.1 per cent estimated for this year.

However, there was a significant imbalance in regional economic performance with developing and emerging economies continuing to contribute most of the incremental growth.

Some leading OECD industrialized nations were still struggling with sovereign debt issues. Significantly, the Euro-zone’s economy, already in recession in 2012, was only expected to rise by 0.1 per cent in 2013.

Outside the OECD region, there was also cause for concern. Recent data revealed that normally fast-growing China was showing signs of slowing down, while there were fears the developing countries would also suffer from reduced demand for their exports and lower capital investment as a result of the Euro-zone’s downturn.

However, she said it was not all bad news. There were brighter spots emerging in the United States and Japan, although some experts were saying it could take several more years yet before “we are fully out of the woods”.

Mrs Muttawa said that this macroeconomic malaise had brought a high level of uncertainty for OPEC and the global oil industry in general.

The knock-on effect of the global downturn for the oil sector was that demand had been significantly dampened.

She said that the OPEC Secretariat’s latest short-term forecasts showed that global oil demand growth in 2012 was down to 800,000 barrels/day and expected to remain at a similar level over the next year, though with risks tilted towards the downside.

With OECD demand largely stagnating, the bulk of the growth would continue to come from the developing countries, she observed.

“Fortunately, there is no such problem from the supply side. Crude deliveries, despite several disruptions, are more than ample now. OPEC has been producing in excess of 31 million b/d this year, 1.5 m b/d more than in 2011, and its output of natural gas liquids is also rising.

“Non-OPEC production is expanding too. In fact, it is set to increase by around 900,000 b/d through 2013, a performance supported by the exploitation of shale oil formations in North America, particularly in the US, as well as expanding biofuels output.

“And with all this extra oil, commercial petroleum stocks in the OECD are comfortable with over 58 days of forward cover,” she said.

Mrs Muttawa said that clearly, with the oil market being well supplied, one might ask why prices in the international energy markets remain volatile.

“That is because they are being affected by factors other than the fundamentals of supply and demand — mainly speculation over such issues as the current economic uncertainties, geopolitical events, and even weather patterns.”

And she said that since 2008, oil had increasingly been seen as an asset class on world equity markets, where speculators bid it up and down in paper transactions, causing significant price swings.

“The industry is keenly awaiting market reform and regulation that will limit these harmful actions,” she stated.

Concerning prices, OPEC’s Legal Counsel made it clear that OPEC had no interest in a price that was extremely high or low.

Fair and reasonable price

“What we strive for is a price that is fair and reasonable, one that sits comfortably with all the main parties ...”
in this period was expected to expand by more than 20 m b/d to around 110 m b/d.

With OECD oil demand peaking, over 80 per cent of the overall demand increase would come from developing countries in Asia.

“Significantly, by 2015, non-OECD oil demand will exceed that of the OECD for the first time,” she informed.

Renewables

Of the other energy sources in the mix, gas demand was slated to rise strongly, backed by its environmental credentials and shale capability. Coal would remain stable, while the picture for nuclear was still unclear after the Fukushima accident. Demand for renewables would increase, but from a low base.

Looking at the oil supply portfolio, Mrs Muttawa said it was estimated that by 2035 total non-OPEC liquids output would rise to around 61 m b/d, 9 m b/d higher than today. OPEC would be required to supply 39 m b/d of crude to the market, in addition to 10 m b/d of NGLs and GTLs.

“With supplies increasingly shifting from the low-demand West to the emerging market economies of Asia, the Middle East will become the key supplier, with exports to the Asia-Pacific region reaching over 20 m b/d by 2035,” she said.

Again, said OPEC’s Legal Counsel, uncertainty cast a cloud over the energy forecasts, especially in relation to the contribution expected from shale oil, biofuels and renewables.

Turning to the industry’s downstream sector, Mrs Muttawa said it was a somewhat mixed picture. On the one hand, the stalling demand in Western nations had led to a spate of plant closures, especially in Europe, while, on the other, over 7 m b/d of new crude distillation capacity was expected to be provided over the medium term, primarily in the major growth regions.

She stressed that one of the key elements governing future oil production capability would continue to be technology. Technological developments were expected to push the exploration and exploitation boundaries even further in the coming years.

“Such high-tech innovations upstream are already finding and freeing up oil previously considered inaccessible, or non-commercial, especially in the deep offshore, thus leading to significant growth in recoverable resources and supply.

“Technology is also a crucial factor in transforming the demand side, enabling better efficiency in industrial applications and particularly in the oil captive transportation sector, thus increasingly impacting future world oil demand,” she stated.

Equally as important, she continued, state-of-the-art applications were helping in the environment, presenting solutions for cleaner oil products and ground-breaking processes, such as carbon capture and storage (CCS), which dealt with harmful emissions.

“This is indeed a reflection of what the industry realized a long time ago — that it needed to reduce its environmental footprint by adapting and searching for technological options that accommodate the continued use of fossil fuels in what is increasingly becoming a carbon-constrained world,” Mrs Muttawa told delegates.

In conclusion, she said that one of the areas of discussion at the 7th International Energy Week was sustain-
OPEC continually strives to make oil market data available to the public. Through different monthly and annual publications, it provides statistical data and analytics about all aspects of the global oil industry, with an emphasis on its Member Countries. Two of the most important annual publications are the Annual Statistical Bulletin (ASB) and the World Oil Outlook (WOO). The OPEC Bulletin offers the following summary of the November 8 press conference marking the release of the 2012 editions. By Alvino Mario Fantini.
The Annual Statistical Bulletin and the World Oil Outlook are the annual flagship publications of the OPEC Secretariat. They contain the Organization’s in-depth analysis of the global oil industry from past, present and future perspectives.

The ASB, now in its 47th year, gathers statistical data about crude oil and natural gas activities in OPEC’s Member Countries, while also providing detailed time-series data on other aspects of the global petroleum industry, including imports and exports, and exploration, production and transportation activities.

The WOO was first published in 2007. It provides an extensive review and assessment of various scenarios and time periods, covering both the upstream and downstream sectors. The publication also provides critical analyses of a wide range of key industry issues — such as supply and demand, investments, costs, policies and the environment — and has thus become an important reference tool.

The 2012 editions of both publications were presented on November 8 in front of assembled press and analysts at the OPEC Secretariat in Vienna, with OPEC Secretary General, Abdalla Salem El-Badri, presiding over the event and answering questions after the launch.

The Annual Statistical Bulletin

Puguh Irawan, Statistical Systems Coordinator, in charge of the Data Services Department, presented the ASB’s key findings. He said there were three main messages.

First, the growth in reserves has been solid. During the last five years, Irawan explained, OPEC Member Country crude oil reserves were reported to have continued increasing, reaching around 1.2 trillion barrels by the end of 2011.

At the same time, non-OPEC oil reserves stood at 282 billion b in 2011. Specifically, the net addition to OPEC Member Country oil reserves between 2007 and 2011 was over 250bn b. In terms of world share, OPEC Member Countries held around 81 per cent of total world crude oil reserves (1.48tr b).

In addition, Irawan pointed out that during the last ten years alone, in the period 2002–11, the net additions to OPEC Member Country crude oil reserves exceeded their overall cumulative production during the same period: 346bn b of oil reserves increment, compared with only 108bn b of cumulative production. He explained that this meant that the reserves-to-production replacement ratio for OPEC was 320 per cent.

However, this was not the case for non-OPEC countries, where oil reserve additions were less than 13bn b, which was much lower than their cumulative production of 146bn b during the last ten years. This meant that the reserves-to-production replacement ratio for non-OPEC countries was only nine per cent.

Irawan said the second message was that OPEC Member Countries played an important role in the global natural gas market.

As a whole, OPEC Member Countries currently hold 95tr standard cubic metres, or 48 per cent of the world’s gas reserves (196tr cu m). And in terms of production, OPEC produced 618bn cu m, or around 19 per cent of the world’s gas output, which stood at over 3.3tr cu m.

The main OPEC Members involved in gas production were: Iran (189bn cu m), Qatar (117bn cu m), Saudi Arabia (92bn cu m), Algeria (83bn cu m), the United Arab Emirates (52bn cu m), Nigeria (41bn cu m), Venezuela (21bn cu m), Kuwait (14bn cu m) and Libya (8bn cu m).

The third message this year from the statistical data assembled had to do with trends in oil upstream activities and, specifically, with the number of active rigs, observed Irawan.

Active rigs, he explained, could consist of offshore rigs (such as jack-up rigs, platform rigs, drill ships and drill barges) and onshore rigs (which were basically rotary drilling rigs). Rigs that were in transit from one site or place to another, or which were being rigged up or being used in non-drilling activities, such as completion or production testing, were not counted as active rigs.

More importantly, a rig was considered to be active from the moment a well was “spudded” until it reached its target depth. But then, to be properly counted as active, Irawan explained, a rig must be on location and actively drilling.

Drilling activities continued to increase to meet the growing oil demand and consumption seen over the last two years.

Irawan noted that the data indicated that the number of active rigs in OPEC Member Countries was up from 529 in 2010 to 640 rigs in 2011, a 21 per cent
increase. OECD countries also saw an increase in rig activity of around 26 per cent in 2011, while the rest of the world exhibited a drop of 22 per cent. Nevertheless, the world’s total still increased by 12 per cent.

Another key message had to with world oil consumption. For the past two years, world oil consumption had increased from 85 million barrels/day in 2009 to 87m b/d in 2010 and almost 88m b/d in 2011.

The 2011 consumption level suggested an increase of 800,000 b/d (0.9 per cent) over 2010 and was the result in part of the increase in consumption in non-OECD countries with 1.3m b/d of net additions. In the OECD, however, consumption was down by 500,000 b/d.

The increase in the non-OECD region was especially apparent in the emerging economies, particularly China (460,000 b/d, an increase of five per cent), Latin America (225,000 b/d, an increase of 2.7 per cent) and the Middle East (191,000 b/d, an increase of 2.6 per cent).

In OPEC Member Countries, oil consumption in 2011 increased by 160,000 b/d (two per cent over 2010) to reach almost 8.3m b/d.

The ASB provides much more data about many other aspects of the oil industry and the markets for many countries and regions around the world.

Every year, the publication provides comprehensive time-series and up-to-date data on the oil-related industries of OPEC Member Countries and the world. All of this data is freely available and can be easily downloaded from the OPEC website.

The on-line version of the ASB for 2012 was already officially uploaded onto the OPEC website in July.

Who Gets What from Imported Oil?

Irawan concluded his presentation with a look at the latest version of the OPEC publication, Who Gets What from Imported Oil?

This brochure simply and graphically illustrates the tax burden imposed on oil in OECD consuming countries and provides a breakdown of the average price per litre of imported crude oil and the industry margin, which includes the costs of refining, transportation and distribution, as well as the taxes charged on different oil products in the oil-consuming countries.

Irawan explained that the price end-users paid per litre of oil was not only made up of the actual price of crude and industry margins, but also the taxes imposed by the national governments of the largest oil-consuming countries.

According to the data, the proportion of the cost of a litre of oil that went to taxes in most OECD countries was much higher than the actual price of a litre of crude oil.

For the five-year period 2007–11, Irawan noted, the total level of oil taxes received by OECD nations totalled $5.5tr, of which the G7 nations absorbed $3.4tn.

This compared with revenue of just $4.2tr for OPEC Member Countries over the same period.

In other words, the OECD earned $1.1tr per year from the taxation, much higher than the earnings of OPEC Member Countries at $832bn annually.

The main message of the brochure is that clearly, when looking at the actual numbers for revenues, prices and taxes, the price burden on consumers and end-users comes from oil taxes, not from the original prices paid for crude oil — and the main beneficiaries of this are the governments of consuming countries themselves.

World Oil Outlook

Facts about the WOO 2012 were presented at the press briefing by Garry Brennand, Senior Research Analyst at the OPEC Secretariat. In his presentation, he explored some of the most important outcomes for oil and energy supply and demand, focusing on several key themes in this year’s publication and examined the implications of various scenarios used in the publication.

One of the main messages was that oil would continue to play a major role in satisfying world energy needs.
Nevertheless, Brennand noted, the WOO also stressed the existence of many demand uncertainties that blurred the future of oil in the medium to long term.

One of the sources of uncertainty, he stated, was the ongoing economic problems faced by leading oil consumers. Five years after the onset of the financial crisis, and despite the extraordinary fiscal and monetary support, the economic recovery remained fragile and world economic prospects were highly uncertain.

In addition, while oil resources were recognized as being sufficient to satisfy future needs, shale gas and tight oil were changing future prospects.

The refining system, too, given the future product mix and more stringent quality specifications, also needed to go through a process of rationalization and adaptation.

With all these factors, the WOO called for serious monitoring of future developments in the energy scene and suggested remaining alert to various possible outcomes.

Brennand then talked about the OPEC Reference Case and its assumptions. The WOO stressed that speculative activities persisted as an issue in the current crude oil price market.

The current push to strengthen the regulation and oversight of the paper oil markets was a clear recognition of the harmful impact that excessive speculation could have on oil price volatility, he said.

Separately, short-term economic growth rates saw a downward adjustment, compared with last year’s WOO. The impact, too, of the Eurozone crisis was expected to be continued to be felt moving forward, he explained.

Demographics were another key driver for economic growth, Brennand explained, as well as for energy demand. It was important in terms of changes to the total number of people and in changing age structures.

Global population, he said, was seen rising from 6.9bn in 2010 to 8.6bn in 2035. This increase would come predominantly from developing countries, which accounted for 92 per cent of the growth. By 2022, India would have overtaken China to become the most populous country on the planet.

Long-term economic growth rate assumptions reflected these demographic trends, as well as progressively smaller rates of productivity improvement, he explained. And over the period 2012–35, long-term economic growth rates average 3.4 per cent per annum.

Brennand said another important set of assumptions was related to energy policies. Those that had been passed into law had been incorporated into the OPEC Reference Case, but it did not include the effects of policies that were currently being proposed — or which may be considered likely in the longer term.

Turning to the WOO itself, over the period 2010–35, he disclosed that primary energy demand in the Reference Case increased by 54 percent. Fossil fuels, currently accounting for 87 per cent of the total, would still make up 82 per cent of the global figure by 2035.

For most of the projection period, he said, oil would have the largest share of all energy types. Towards the end of the projection period, however, the Reference Case saw coal use reaching a similar level as that of oil, with oil’s share having fallen from 35 per cent in 2010 to 27 per cent by 2035.

Natural gas use, in turn, would rise at faster rates than either coal or oil, both in percentage terms and quantities, with the fuel’s share rising from 23 per cent to 26 per cent.
Turning to shale developments, Brennand said there was clearly potential for shale gas on the world energy scene. In the foreseeable future, the main use of this gas would be to replace coal in electricity generation and as a feedstock in the petrochemicals sector.

The development of shale gas, however, was in its infancy and Brennand said there were considerable uncertainties about the size of the resources, the economics of development and the potential contribution to future supply.

After speaking more on other alternatives to oil, such as coal and nuclear energy, Brennand turned to the subject of carbon emissions.

He pointed out that the Reference Case used by OPEC was not carbon-constrained and saw fossil fuels contributing the largest share to the energy mix over the entire projection period, with coal eventually becoming the fuel type with the highest share.

These developments could be interpreted in terms of carbon dioxide (CO₂) emissions. By the end of the projection period, non-Annex I emissions would account for 67 per cent of the global total.

But Brennand said it should be noted that, like energy use, the per capita situation for CO₂ emissions painted a different picture, and by 2035, Annex I countries were seen as emitting double the CO₂ emissions of non-Annex I countries per capita.

Moreover, cumulative emissions from Annex I countries would continue to be far higher than those from non-Annex I countries and by 2035, they would still represent 61 per cent of cumulative CO₂ emissions since 1900.

Brennand then turned to the demand prospects as seen in the WOO. Growing concern over the immediate prospects for economic growth around the world, particularly in the Eurozone, had forced downward revisions.

In the 2012 Outlook, for example, oil demand was more than 800,000 b/d lower than in the WOO 2011. And the medium-term outlook for oil demand reflected a corresponding revision from last year’s publication.

Brennand observed that long-term oil demand prospects had not only been affected by the medium-term downward revisions, but by higher oil prices, too.

Additionally, he said, the implications of technological developments and deployment, especially in the transportation sector, had also contributed to some downward long-term revision.

In the Reference Case, demand increased by over 20m b/d for the period 2010–35, reaching 107.3m b/d by 2035. The long-term saw a steady decline in demand in all OECD regions, with fully 87 per cent of the global demand increase coming from developing Asia, where demand reached 90 per cent of that of the OECD by 2035.

Brennand noted that global demand in 2035 was more than 2m b/d lower than in the WOO 2011.

At the global level, transportation, which accounted for close to 60 per cent of global oil demand, was expected to continue to dominate growth over the projected period, said Brennand.

This increase, however, would come only from non-OECD countries. The key to future demand growth remained in the transportation sector in non-OECD countries, he said, which accounted for close to three-quarters of the oil demand increase in the period to 2035.

Turning to supply, Brennand said the medium-term Reference Case outlook envisioned growth in non-OPEC liquids supply, which rose by over 4m b/d over 2010–16, mainly from shale oil in the United States, Canadian oil sands and crude oil from the Caspian and Brazil, which compensated for expected declines elsewhere.

These supply projections, he said, along with those already outlined for demand, implied that the amount of OPEC crude required over the medium-term would stay essentially flat.
However, total OPEC liquids supply, including natural gas liquids (NGLs) was seen to increase. In this Reference Case, OPEC crude oil spare capacity was expected to exceed 5m b/d as early as 2013 or 2014, noted Brennand.

He said that one of the conclusions that began to emerge from OPEC’s assessment of long-term liquids supply was that resources were plentiful and that the sources of supply were diverse.

Total non-OPEC liquids supply in the long-term increased strongly, by more than 10m b/d over the years under review: supply increased in crude and NGLs from the Caspian, Russia, Brazil and US shale oil, as well as steady increases in biofuels and oil sands, and combined they were far stronger than declines projected elsewhere.

Non-OPEC supply from Canadian oil sands and biofuels in the US, Europe and Brazil continued to grow strongly, by close to 11m b/d. Global NGLs supply was seen rising by close to 7m b/d over the projected time period.

These developments, Brennand suggested, meant that OPEC crude supply needed to rise in the Reference Case, but at a modest rate. In other words, by 2035, he said, supply from the Organization would need to be 35m b/d, around 5m b/d higher than in 2010.

This meant that the share of OPEC crude in global liquids supply would need to remain more or less constant — at around 32 per cent — throughout the whole time period.

Brennand was careful to emphasise that the Reference Case outlook was not a forecast of how the future would evolve, but rather an “internally consistent and feasible benchmark” derived from a set of Reference assumptions and current policies. He went on to detail how these assumptions were incorporated and pointed out that different patterns of oil and energy demand and supply could emerge, with alternative sets of assumptions.

Brennand then went on to explain how, accordingly, different scenarios had been developed by the OPEC Secretariat to assess the future of demand for OPEC crude oil.

As he neared the end of his presentation, he explained that the WOO contained three scenarios that were considered a Lower Economic Growth (LEG) scenario, one for Higher Economic Growth (HEG) and a third scenario called Liquids Supply Surge (LSS), which estimated the possible impact on OPEC crude if the overall supply of liquids other than OPEC crude was higher than estimated in the Reference Case.

These scenarios, of course, led to important implications for the range of required OPEC oil and investment and underscored the uncertainties that lay behind Reference Case projections — which is why the annual publication of the WOO was considered by many to be such a useful resource in the ongoing attempt to understand the oil industry and the market, especially to assess the many factors that may impact it.

Charting the future

Together, the ASB and the WOO complement each other and provide a detailed look at the past, present and future of the global oil industry, underscoring the links among the industry’s different stakeholders.

With the publication of the ASB, OPEC continues to provide statistical data about all aspects of the industry in its ongoing effort to generate greater transparency in the market.

And with the WOO, the Organization once again demonstrates its commitment to research and to understanding and anticipating some of the challenges in developing a more sustainable energy future in an increasingly interdependent world.

Both publications are available for free download at: www.opec.org. The ASB is also available as an interactive online version with time-series data going back to 1960.
OPEC Research Division Director addresses IMF Committee

OPEC committed to oil market stability, ensuring regular supplies

OPEC is committed to continuing to work towards providing a stable oil market and ensuring a regular supply of petroleum to consumers around the world.

That was the overriding message conveyed by the Organization’s Research Division Director, Dr Hasan M Qabazard, to an International Monetary Fund (IMF) Committee meeting in Tokyo, Japan, in October.

He told the 26th International Monetary and Financial Committee (IMFC) that OPEC also supported international crude oil price levels that did not harm the world economy. But importantly, he added, such a price level must also provide the necessary support for investments in the industry to ensure sufficient supplies in the years ahead.

Qabazard’s comments to the Committee formed part

IMF Managing Director, Christine Lagarde (r), with IMFC Chairman, Tharman Shanmugaratnam (l), at a joint news conference.
of OPEC’s increasing relations and dialogue with international organizations such as the IMF, aimed at providing stability to global energy markets and widening the understanding of the workings of petroleum industry in general.

The IMFC, which usually meets twice a year, reports to the IMF Board of Governors. It discusses matters of concern affecting the global economy and also advises the IMF on the direction of its work. The IMFC has 24 members who are central bank governors, ministers or other officials of comparable rank and who are drawn from the governors of the Fund’s 188 member countries.

In giving the Committee an outline of the latest oil market developments, Qabazard said international oil prices had been showing considerable volatility of late.

For example, he said, OPEC’s crude Reference Basket, which stood at almost $125/barrel in April this year, had fallen to below $90/b by July, before again rising to almost $115/b in September.

This fluctuation in prices, he observed, was a reflection of conflicting factors. On the one hand, prices had been pushed higher by such factors as supply outages in the North Sea, the hurricanes in the Gulf of Mexico,
geopolitical factors in the Middle East and further monetary easing by some governments.

On the other hand, economic concerns regarding the Euro-zone and the potential spill-over to other regions, along with signs of weakening oil demand in the United States and China, had contributed to the decline in prices.

“While some supportive fundamental elements were evident during this period, they were not sufficient to explain a 20–30 per cent change in prices over such a short period,” maintained Qabazard.

Speculative activity

“This fluctuation in prices was accompanied by massive inflows and outflows of speculative investments. The strong co-movement between West Texas Intermediate (WTI) crude prices and net long positions on the New York Mercantile Exchange (NYMEX) clearly demonstrates the influence of speculative activity on the oil market and crude prices,” he affirmed.

Qabazard pointed out that interestingly this volatility in crude oil prices had occurred despite a well-supplied market, with OPEC producing more than 31 million barrels/day, well-above market needs, while total OECD crude stocks remained above the five-year average.

Looking specifically at the world economy, he said that with the fading impact of fiscal and monetary stimuli, there had been decelerating growth in 2012, estimated at just 3.1 per cent. In 2013, the world economy was expected to grow by 3.2 per cent, broadly in line with the 30-year average.

“However, the imbalance of economic growth remains significant, with developing and emerging economies continuing to contribute the majority of additional growth, although remaining mainly driven by exports to, and foreign investments from, developed economies.”

Qabazard noted that while this imbalance was forecast to continue into 2013, the global economy was expected to stabilize in the fourth quarter of 2012.

However, the fragility of the Euro-zone remained a core concern, he said. The sovereign debt issues of Spain and Italy, constituting around a third of the Euro-zone’s economy, had been contained so far, but needed to be closely monitored.

“The announcement of the European Central Bank’s buying of sovereign debt in September certainly helped in the beginning to alleviate some of the burden facing these ailing economies, but given the austerity measures that will need to be implemented, it is too early to consider the debt problems as solved,” he contended.

This, said Qabazard, was visible in the sovereign debt yields, which remained at high levels. The Euro-zone’s economy was expected to decline by 0.4 per cent in 2012 and to grow by only 0.1 per cent in 2013.

He observed that while the US, the world’s biggest energy consumer, had shown some resilience, it remained to be seen how the discussion about fiscal tightening would play out, as it could lead to a further reduction in growth. The US was forecast to grow at 2.3 per cent this year and by 2.0 per cent in 2013. This assumed that a way was found to avoid the automatic budget cuts at the start of next year.

“This expectation for US growth, in combination with the forecast for lower growth in the coming year in Japan of only 1.2 per cent, after this year’s forecast of 2.3 per cent, could also prove challenging for the export-driven developing and emerging economies.”

In China, said Qabazard, despite the country’s efforts to support growth domestically, the economy was facing a continued deceleration from around ten per cent growth in the past years to a forecast of 7.6 per cent this year and 8.0 per cent in 2013.

He maintained that the impact of slowing exports had lowered growth in the country’s economy, which would have to be offset by domestic demand. It was expected that the Chinese economy would be able to compensate for the lagging momentum via further monetary and fiscal stimuli as it could still engage a wide range of stimulus measures.

Turning to India, Qabazard said that given the country’s continued high inflation, it was not expected to introduce further major stimulus efforts and was forecast to see growth of just 5.7 per cent this year, rising to 6.6 per cent in 2013.

“Other emerging and developing economies are facing similar challenges, due to the lower export base. However, developing and emerging economies are forecast to contribute around 80 per cent of global growth.”

Qabazard’s comments on the world economy were echoed by the IMFC in its meeting communiqué, which stated that global growth had decelerated and substantial uncertainties and downside risks remained.

It said that key policy steps had been announced, but their effective and timely implementation was critical to rebuilding confidence.

“We need to act decisively to break negative feedback loops and restore the global economy to a path of strong, sustainable and balanced growth,” said the communiqué.
“Advanced economies should deliver the necessary structural reforms and implement credible fiscal plans. Emerging market economies should preserve or use policy flexibility as appropriate to facilitate a response to adverse shocks and support growth,” it observed.

The OPEC Research Director told the meeting that the ongoing uncertainties facing Europe and the slowdown in the emerging economies had resulted in downward revisions in world oil demand growth for this year to a level of 800,000 b/d.

This growth, he noted, could be reduced further if the recent trend in consumption in the US and China was confirmed. Total oil consumption in China rose by only 300,000 b/d in the first eight months of this year, compared with 500,000 b/d a year ago.

US oil consumption had also contracted by 300,000 b/d between January and August this year, compared with negative growth of only 100,000 b/d a year ago.

Qabazard disclosed that world oil demand growth in 2013 was expected to be almost at the same level as this year, with the bulk of the increase coming from non-OECD countries, albeit at a slower pace than in 2012.

Uncertainties

China’s oil demand growth would remain unchanged from this year, in line with only slightly higher GDP growth. However, the OECD region would continue contracting, although an improvement in economic conditions, along with a severe winter, could reduce the decline.

But Qabazard pointed out that risks to the global demand forecast remained on the downside should the economic malaise in Europe be prolonged and spill over to some regions of the non-OECD.

He said that among the uncertainties for world oil demand, non-OPEC supply for this year was seen to perform well with growth of 700,000 b/d, much higher than in the previous year. This trend was expected to continue in 2013 as non-OPEC supply was projected to increase by 900,000 b/d.

Qabazard said the key non-OPEC growth area was North America. The US accounted for almost half of this growth, with an anticipated surge in onshore production, especially from shale developments.

In Canada, steady growth in oil sands and shale production was forecast to add an additional 170,000 b/d of crude supply in 2013.

After a significant fall in African output in 2012, due to the disruption in supply from the Sudans, production in the region was expected to expand in the coming year by more than 100,000 b/d.

Qabazard said the outlook for non-OPEC supply in 2013 was subject to upward and downward risks from economic, technical, environmental, geopolitical and weather-related factors.

He said the forecast 900,000 b/d increase in non-OPEC supply next year included an estimation of a rise of around 100,000 b/d in biofuels. This figure was associated with a high level of risk and uncertainty driven by weather conditions, as well as government regulations.

Output of OPEC natural gas liquids (NGLs) was expected to increase by 240,000 b/d in 2013. This subsequently resulted in total non-OPEC supply, including OPEC NGLs, growing by around 1.1m b/d.

Qabazard said the strong growth in non-OPEC supply and OPEC NGLs would outpace projected demand in 2013, leading to a reduction in demand for OPEC crude for the second consecutive year — to average 29.5m b/d.

“This will contribute to an upward trend in OPEC spare capacity, which is expected to increase by 1.1m b/d in the coming year, putting total OPEC capacity at nearly 36.7m b/d. This will leave a high supply buffer to meet any demand in the market,” he assured.

Qabazard said OECD commercial stocks indicated a divergent picture between crude and products. While crude stocks were at a comfortable level above the five-year average, product inventories showed a deficit, mainly due to unplanned shutdowns in several refineries and ongoing export opportunities.

However, he stated that the shortage in OECD product stocks could be readily met by utilizing the available idle refinery capacity and available crude from inventories.

Within the OECD region, US inventories indicated a surplus, Japanese stocks were in line with the five-year average, but European inventories were below the average.

However, despite falling crude stocks in Europe, days of forward cover remained at 65 days, in line with the last five-year average, due to weakening demand in the region.

Overall, total OECD commercial inventories in terms of days of forward cover stood at a comfortable level of around 58.5 days. Moreover, non-OECD stocks had continued to show a steady increase, particularly in China, added Qabazard.
Kuwait celebrated the 50th Anniversary of its Constitution in early November. The occasion was marked by a number of festivities, including a world record-breaking fireworks display in the capital of one of the world’s most important oil and gas producers and a Founding Member of OPEC.

The Emir of Kuwait, Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, led the Golden Jubilee celebrations with a tribute to Sheikh Abdullah Al-Salem Al-Sabah, the prime author of the Constitution.

“We ought to express gratitude to personalities
credited with establishing the regulated parliamentary system, laying its foundations with guidance by the predecessors who paved the path for this objective, issuing a comprehensive Constitution that was worded with great efforts, sweat, enlightened thinking; it will remain an ever-lasting source of pride for all of us,” he said.

Sheikh Al-Sabah emphasized the importance of freedom and democracy as a basic guarantee for Kuwaiti security and stability.

“Today, while I congratulate our dear homeland and
you all on this ever-lasting occasion, I recall with you provisions of the Constitution that came as an embodiment of the natives’ principles and values, the basis of the security of the homeland and the real guarantee for stability of the political system of Kuwait, under the shadow of which freedom and democracy are being practiced as a means for construction and accomplishment for the sake of supporting the society, boosting its might and uniting its ranks,” he affirmed.

Political freedom

In his speech, the Emir underlined Kuwait’s historical achievement for granting political freedom to women.

“Our most important achievement is this historic event, our democratic experience, represented by the woman attaining her political franchise for elections and nomination, which is complementary of her vital role in making and bolstering Kuwaiti society.” He also asked all Kuwaiti citizens, men and women alike, to participate in the 14th parliamentary elections session.

“My dear sons and daughters: marking this noble anniversary coincides with the start of the procedures of the election of the 14th parliamentary session. As I emphasize the importance of ballot casting, which is a national duty, I want to urge all dear compatriots to better choose their representatives to be able to shoulder this responsibility and achieve aspirations and hopes and the prominence of our dear country,” he stated.

Looking ahead, the Kuwaiti leader emphasized the development of human capital as the basic most important future reserve of the country.

“Our youth are the basic resource of the present and hope of the future. Caring starts from the family and extends to the school and the whole society. There is a great responsibility on our shoulders to plant in them loyalty to and sacrifice for the country and prioritizing its interests.

“We have a responsibility to promote the values of tolerance, love and cooperation among our youth and counter carelessness and chaos and also promote abidance by law, responsible freedom, enhancing the spirit of work, production and creativity,” he added.

The 50th Anniversary celebrations stretched for 4.5 km along the coastal Gulf Road. They were divided into nine different zones, with surprises coming from the sea, sky and land.

The daytime celebrations included various activities, including air and sea shows, parachute and acrobatic spectacles, as well as a photo exhibition.

However, the evening proved to be the highlight of the festivities with a spectacular fireworks display that set a new benchmark in the Guinness Book of World Records for the number of fireworks used — 77,282.

“These mega fireworks took off from different locations within the celebration area from both the sea and the land, enabling everyone to watch them from wherever they happened to be,” one organizing committee member told the Kuwait Times.

Commemorative book

Of the other activities marking the Golden Jubilee, the Research and Information Centre of the Kuwait News Agency (KUNA) issued a 225-page commemorative book — ‘Kuwait a Constitutional State’ — which sheds light on the process of the issuance of the Constitution and related historical events and rights and freedoms.

In addition, the Central Bank of Kuwait issued gold-plated silver and silver-plated bronze commemorative coins. Weighing 162 grams, the coins are available for sale at the establishment’s Banking Hall.

Kuwait is one of the Founding Members of OPEC, which was established in Baghdad, Iraq, in 1960. The country’s petroleum revenues account for nearly half of its gross domestic product, 93 per cent of export revenues and 80 per cent of government income.

Currently, Kuwait is headed for its 14th consecutive year of budget surplus. The country is expected to post a
surplus of between 9.8 billion and 12.8bn dinars ($34.8 to 45.4bn) in the 2012–13 fiscal year, the National Bank of Kuwait stated.

The projections are based on an average oil price of between $104 and $107/barrel for Kuwaiti crude and the country’s current oil production of more than 2.8 million barrels/day.

Kuwait plans to spend an estimated $56bn over the next five years on developing its oil and gas projects. The Chairman of the state-owned Kuwait Oil Company (KOC), Sami Al-Rushaid, told delegates at the Abu Dhabi International Petroleum Exhibition and Conference in mid-November:

**Capital expenditure**

“The capital expenditure programme we need to manage will be $56bn.” This included $11.6bn during the current fiscal year.

Kuwait aims to boost its oil production capacity to 4m b/d by 2020. “In KOC, we are on track to grow from 3m to 3.65m b/d by 2020,” Al-Rushaid stated. The remaining 350,000 b/d was targeted to come from the Neutral Zone shared with Saudi Arabia.

Under Kuwaiti law, ten per cent of state revenues are deducted every year in favour of the country’s Future Generation Fund, managed by the Kuwait Investment Authority. This fiscal year, the Gulf state decided to transfer 25 per cent of its oil revenues into the fund.

However, Kuwait will not cut down on spending as a result of a plan to invest a greater percentage of its revenues in the Future Generation Fund.

The decision “will not be at the expense of investment spending,” Finance Minister, Dr Naif Al-Hajraf stated, according to KUNA. He said he hoped the increased contribution would continue the following fiscal year.

“Our youth are the basic resource of the present and hope of the future. Caring starts from the family and extends to the school and the whole society.” — Emir of Kuwait
IEA, IEF and OPEC hold first joint symposium on gas and coal market outlooks

OPEC has taken part in a first joint symposium on the outlook for international gas and coal markets during which delegates studied just how such markets are regulated.

The symposium, held in Paris in early October, was convened by the International Energy Agency (IEA), the International Energy Forum (IEF) and OPEC.

According to a joint press release issued after the meeting, more than 90 speakers, participants and national representatives from the energy industries, business, government and academic world attended the gathering. The meeting was held under Chatham House Rules to enable open and frank discussions.

The symposium followed a request contained in the G20 Cannes Summit Leaders’ Declaration in November 2011 that “further work on gas and coal market transparency be made.” It asked the IEA, IEF and OPEC to provide recommendations in this regard.

In addition, the G20 declaration called for “annual symposiums and communiqués on short-, medium- and long-term outlooks and forecasts for gas and coal.”

The symposium was divided into three sessions. The first session discussed recent developments in the gas markets, including the impact of increased production of non-conventional gas, the evolving role of liquefied natural gas (LNG) in world markets and improvements in access to market data, including the extension of the Joint Organizations Data Initiative (JODI) to gas.

In the second session, participants looked at current and future drivers of coal demand, the impact of energy and environmental policy and the effects of competition in power generation on the evolution of coal demand. They also discussed the sources and quality of coal market data and ways in which this might be improved.

The third session covered issues related to gas and coal markets at both national and international levels, how they compared with other commodity markets and how proposed financial regulation in energy derivative markets might impact them.

Symposium proceedings

The three secretariats of the IEA, IEF and OPEC will provide their member governments with a full summary of the symposium proceedings and will report to the G20.

From OPEC’s side, Dr Hasan M Qabazard, Director of the Organization’s Research Division, told delegates that the convening of the symposium was once again recognition of the big progress made in dialogue across the energy industry since the turn of the century, involving in particular the IEA, the IEF and OPEC.

“The fact that the meeting has been called for by the G20 enriches further the flavour of the dialogue,” he stated.

Qabazard pointed out that the symposium came at a time of a major reassessment of the world energy mix. Concerning gas, he said, there had been a rapid development of shale gas, particularly in the United States.

“There, it has transformed the energy sector, with production growing at an average rate of 48 per cent per annum since 2006,” he observed.

“Whether this growth rate will be repeated elsewhere in the world is open to debate, despite the present wide interest in shale gas. At the same time, however, there are large geological and technical uncertainties about shale gas, as well as concern about environmental issues.”

Qabazard said another factor in the energy mix concerned nuclear energy. The Fukushima accident in Japan
last year had led to major reappraisals of nuclear power in some leading consumer countries, such as Japan and Germany, and their eventual outcomes were still unclear.

A third issue, he said, involved the extensive climate change talks on a post-Kyoto Protocol agreement.

“We still seem to be as far away as ever from a conclusion and this could, when it comes, have a significant impact on the future energy mix. The situation has been compounded, of course, by the weakness and uncertainty in the global economy, particularly in the large consumer nations,” he affirmed.

Qabazard said that clearly the stakes were very high. The world population was expected to reach 8.6 billion by 2035 and energy would remain pivotal to economic development and social progress.

OPEC’s reference case projections showed that, by 2035, world energy demand would be more than 50 per cent higher than today. They also indicated that gas’s share of the energy mix would rise from 22.8 per cent in 2010 to 25.3 per cent in 2035. On the other hand, that of coal would dip slightly from 29.4 per cent to 28.5 per cent.

Regarding OPEC’s stand in the energy equation, Qabazard maintained that although the Organization was primarily seen as an oil concern, OPEC was also heavily involved in the gas sector.

“Arguably, however, one could say that, collectively, we are producing natural gas well below potential, when viewed in a global context. While OPEC’s share of world proven natural gas reserves is 48 per cent — that is, nearly half — our proportion of marketed natural gas production is just 19 per cent,” he revealed.

Qabazard said there were some significant differences among OPEC’s Member Countries in their focus on the gas sector, with some putting a greater emphasis on developing the resource as an export revenue-earner, or as a means of fuelling their domestic economies.

Pioneering work in areas such as gas-to-liquids, liquefied natural gas and carbon capture and storage could also be found among Member Countries, he observed.

“In other words, OPEC Member Countries constantly seek to access and implement the sharp end of technology when developing their gas sectors, just as they do with oil.

“We are keen to expand and develop them in a way that is fully compatible with the needs of expanding world energy demand in the coming decades, at the same time meeting the most stringent environmental challenges,” he concluded.
Libya is looking forward to creating a modernized oil and gas industry of the highest international standards, an industry built on trust, transparency and strong partnerships, according to the Chairman of the Libyan National Oil Corporation (NOC), Dr Nuri A Berruien.

“The primary objective is to maintain and develop the hydrocarbon resources and to optimize exploitation and development, according to the latest technologies, and to upgrade and develop the refining, petrochemical and gas-processing industries, with emphasis on the enhancement and involvement of the Libyan content on all industry levels,” he said in a keynote address at the opening of the North Africa Oil and Gas Summit in Vienna, at the beginning of November.

“The development of our human resources will be given a high priority. Health, safety, as well as the preservation of the environment, will receive much greater attention.”

Berruien, who was representing then Libyan Minister of Oil and Gas, Eng Abdurahman Benyezaa, at the event, disclosed that, currently, Libyan oil production had reached 1.6 million barrels/day, exceeding all expectations.

“We succeeded in quickly bringing our oil production back onstream, despite many difficulties and technical and financial hardships,” he said, in paying tribute to the young people of Libya for their efforts in restoring the country’s oil and gas fields, oil terminals and refineries, which had been safely put back into operation.

“Most of our major facilities currently have enough capacity and are reasonably in good condition and able to accommodate projected planned increases of production, requiring only minor overhauling and upgrading,” he observed.

Concerning the downstream sector, Berruien said the NOC presently refined more than 350,000 b/d of crude oil through five refineries of various capacities.

“The five domestic refineries are all simple
hydro-skimming units. These refineries cover most of our domestic requirement, except for gasoline, where we import more than 75 per cent of our local requirement. We plan to upgrade and increase the capacities of the existing refineries and to study different options of adding new refineries.”

The objective, he added, was to increase gasoline and diesel production with improved specifications, through the use of the latest available technologies.

In his presentation, Berruien spoke of Libya’s short-term plan for increasing the country’s oil production capacity to around 2m b/d and gas output capacity to a level of 3.5 billion standard cubic feet/day.

This would be achieved through improved operational conditions, more drilling of development and infill wells, improvement of oil field production and injection facilities, development of many small fields, optimizing artificial lift systems and conducting comprehensive well work-over programmes, in addition to constructing new gas-processing facilities and increasing compression capacity.

The NOC Chairman went on to introduce delegates to his country’s long-term strategy of increasing its hydrocarbon reserves and production volume.

Firstly, he said, there was a need to embark on extensive exploration activities in the areas of substantial oil and gas reserves potential. “This will require highly qualified human resources and expertise, modern seismic and drilling equipment and technologies.”

Secondly, large amounts of Libyan future oil could be targeted in already discovered mature fields. “Advances in technology in recent years, as well as the relatively high oil prices, will direct the industry to investing more in all areas of hydrocarbons extracting.

“Improvements to production capacity are expected from our existing producing fields through the implementation of improved oil recovery (IOR) and economically applicable enhanced oil recovery (EOR) projects.”

Such programmes, he added, may contribute additional recoverable reserves of at least 7–10bn b of oil.

Thirdly, stated Berruien, Libya’s medium-to-long-term plan was to develop its natural gas resources. He explained that until recently and because of economic reasons the use of gas was limited to partially meeting local demand for power generation and limited industrial uses.

“More attention will now be given to exploration for gas, including unconventional gas. We will be developing existing gas discoveries, onshore and offshore, in order to meet current and future industrial and export commitments, hoping to become a major producer in the region. Our proximity to the European market enhances our opportunities,” he affirmed.

**Investment opportunities**

The NOC Chairman emphasized that the implementation of such programmes required the evaluation of different investment options. In this regard, he said, Libya was keen to attract international companies, interested in promoting economic partnerships.

“We welcome such moves, which will help us to develop our hydrocarbon resources for the benefit of the Libyan people and take part in securing the supply of energy to the world,” he said.

Berruien pointed out that new policies would need to be drawn up to transform the national economy, in general, and the energy sector, in particular.

“Our emerging political scene is our road to a brighter future for all. In this context, many positive changes are foreseen and among these basic changes are fair competition transparency and treatment of all companies on equal grounds and a clear commercial basis,” he stressed.

“In our new Libya, we are looking forward to creating a distinct oil and gas industry built on trust and transparency,” he added.
Iraqi oil

set to become game-changer for world markets — IEA

Iraq’s energy sector, currently being developed under ambitious long-term plans, is poised to make a major contribution to the stability and security of global energy markets.

That is the view of the Paris-based International Energy Agency (IEA), which sees Iraq’s abundant petroleum reserves as being the key to the country’s future prosperity after years of conflict and hardship.

In a special report, the Agency maintained that Iraq would make by far the largest contribution to global oil supply growth over the coming decades, with current production of three million barrels/day more than doubling by 2020 and going on to reach more than 8m b/d by 2035.

It said that Iraq was becoming a key supplier to fast-growing Asian markets, mainly China, and the world’s second-largest oil exporter by the 2030s, overtaking Russia. It would account for 45 per cent of the growth in global production to 2035.

Iraq’s oil and natural gas resources were described as being “immense” with the costs of production being among the lowest in the world.

According to OPEC’s Annual Statistical Bulletin (ASB), Iraq possesses 141.35 billion barrels of proven crude oil reserves, and 3.16 trillion standard cubic metres of proven natural gas deposits.

The IEA special report, part of the Agency’s World Energy Outlook, represents the first time that the IEA has conducted a comprehensive review of the energy sector of a major Middle East producer.

“This landmark study confirms the increasing importance of Iraq to the global energy system, highlighting the key role it is expected to play in meeting growing energy needs and the responsibilities it will assume as a strategic source of world oil supply,” commented IEA Executive Director, Maria van der Hoeven.

“Put simply, this report shows that we all have an interest in Iraq realizing its potential and revitalizing its economy.”

Fatih Birol, the IEA’s Chief Economist and the report’s principal author, pointed out that developments in Iraq’s energy sector were critical for the country’s prospects and also for the health of the global economy.
“But success is not assured and failure to achieve the anticipated increase in Iraq’s oil supply would put global oil markets on course for troubled waters,” he warned.

The report highlighted that catching up with rising demand for electricity was a critical domestic challenge for Iraq, as prolonged power cuts were still experienced on a daily basis in many parts of the country.

However, it estimated that if planned new capacity was delivered on time, electricity generation would meet Iraq’s demand for power in 2015.

Reduce flared gas

Natural gas, it said, could play a much more important role in Iraq’s future and a vital first step would be to reduce the amount of gas that was currently flared.

“Once domestic needs are met, Iraq can also provide a cost-competitive source of gas supply to neighbouring countries, to European markets and to Asia,” maintained the report, which has been produced in close cooperation with the federal government of Iraq.

It forecast that meeting the anticipated levels of oil, gas and power supply over the period to 2035 would require over $530 billion in energy investment in Iraq, with the annual investment need highest in the current decade.

But the study added that Iraq stood to gain much more — almost $5 trillion in revenues from oil exports over the same period (an average of $200bn per year).

“Revenues of this magnitude can transform Iraq’s future prospects, with the potential to stimulate much-needed economic growth and diversification,” the report stated.

It said that to achieve these ambitions, Iraq would need strengthened institutions and human capacity, a stable regulatory framework and sound long-term strategies for the energy sector, as well as efficient, transparent management of revenues and spending.

Iraq’s oil fortunes are now changing after years of stagnated production, even though the country holds the world’s fourth-largest oil reserves. Output started to rise in earnest in 2010, after Baghdad secured contracts with companies such as BP, ExxonMobil, Eni and Royal Dutch Shell.

New infrastructure and oil terminals have also boosted the country’s export potential. In September, Iraq’s crude oil exports rose to an average of 2.6m b/d, the highest level in more than three decades. This compared with exports of 2.56m b/d in August.

And in October they were forecast to go even higher. The country’s Oil Minister, Abdul-Kareem Luaibi Bahedh, was quoted as saying that oil exports would hit 2.7m b/d in the month.

This, he said, was being supported by oil exports from Iraqi Kurdistan, which had risen to 170,000 b/d and were forecast to reach 200,000 b/d following a recent deal between Baghdad and the autonomous region over oil payments.

Shipping data showed that Iraq’s oil exports from its southern ports had already risen by 120,000 b/d to 2.3m b/d in the first 18 days of October, compared with the previous month.

This figure was set to rise to about 2.4m b/d by the end of the month. The country’s northern Kirkuk oil fields were due to pump around 450,000 b/d.

Meanwhile, Iraq’s Deputy Prime Minister for Energy, Hussain Al-Shahristani, has announced that the country would invest around $500bn in energy and related industries by 2030, generating around $6tr in revenues. Some $80bn of the investment figure would come from the private sector.

The former Oil Minister was quoted at an investment conference as saying that around 250,000 jobs would be created in tandem with the nation’s economic development.

For fiscal 2013, the Iraqi Cabinet has approved a budget of $115bn on the back of increased oil exports of 2.9m b/d and a projected average crude export price of $90/b. The budget must still be approved by Parliament.

Iraq’s 2012 budget stood at $100bn. Iraq’s oil revenue accounts for nearly all state income and thus the country is solely dependent on exports.
Angola, Africa’s second-largest oil producer after Nigeria and an OPEC Member Country since 2007, plans to diversify its oil-based economy by starting up iron ore production at the end of 2014.

Angolan national iron firm, Ferrangol-EP, along with two private operators, would extract iron and manganese ore from the Kassala-Kitungo area in Kwanza Norte province and the Cassinga mine in southern Huila province.

“We foresee that possibly towards the end of 2014, or in 2015, we can start up production at a still low level and then pass on to other output phases,” Diamantino Pedro Azevedo, Head of state-owned Ferrangol-EP, told Reuters during the African Iron Ore Conference in Johannesburg in early November.

Iron ore concentrate

The Ferrangol-EP Chairman saw initial iron ore production at an annual rate of about three to four million tons, increasing up to 30m t/year.

Currently, the project is aimed at output of iron ore concentrate, but also includes plans for the production of steel.

The Cassinga mine, operated under Portuguese rule prior to Angola’s independence, had already exported 6m t of iron ore concentrate by the existing Mocamedes railway to an Atlantic Coast port in the 1960s. The old infrastructure is currently being renovated for the project.

Azevedo said the private Singapore-based DT Group, Angolan Genios, and Ferrangol-EP had 60 per cent, ten per cent and 30 per cent respective stakes in the Angolan integrated iron ore and steel project.

Angola’s capital, Luanda, continues to develop after years of civil war.
Iraq’s oil exports rise again as 2013 budget gets approval

Iraq’s oil exports have shown a further increase in October, while the country’s cabinet has given the green light to the nation’s 2013 budget.

Oil exports stood at 2.62 million barrels/day in the month, up from 2.6m b/d in September, according to figures from the Oil Ministry.

The Ministry disclosed that with an average crude export price of $105.5/b in the month, oil revenues in October amounted to $8.6 billion.

Exports from the southern ports of Basra were recorded at 2.17m b/d, while 451,000 b/d of crude was exported from the northern fields of Kirkuk, via Ceyhan.

“Iraq’s October oil exports were more than in September, despite repeated halts from the southern ports, due to bad weather and sabotage action against the Kirkuk-Ceyhan pipeline,” Oil Ministry spokesman, Asim Jihad, was quoted as saying.

He stressed that exports were expected to attain successive record levels in the coming months as the country’s production capability increased. It was aiming for a potential export level of 6m b/d by 2017.

Meanwhile, the Iraqi cabinet has approved a 138 trillion Iraqi dinar ($115bn) budget for 2013 on the back of increased oil exports of 2.9m b/d and a projected average crude export price of $90/b. In 2012, Iraq’s budget was set at $100bn. The new budget must still be approved by parliament.

The new budget has an operating allocation of 83tr dinars, with 55tr dinars earmarked for investment.

The energy sector, including the oil and electricity ministries, will have the biggest share of the budget at 29.45tr dinars, with security and defense being allotted a sum of 19.86tr dinars.

The proposed budget carries a deficit amounting to 18.8tr dinars, but, as in the past, this could be wiped out with higher crude oil prices.

It also again contains the, now, three-year-old ‘petro dollar project’, which grants paymnets to provinces that produce or refine crude or natural gas.

In addition, the budget stipulates that five per cent of state oil revenues in fiscal 2013 will be sent to the United Nations compensation commission to pay for damages associated with Iraq’s conflict with Kuwait in 1990.
Nigeria’s credit rating has been upgraded by Standard & Poor’s as a result of improved financial stability and optimism over reforms in the domestic banking and electricity sectors.

“Nigeria’s external reserve buffers have ... been strengthening on the back of high oil prices and strong exports,” the agency was quoted as saying in a statement.

Reforming the power sector

“The government has sustained reform momentum in several key areas, including cutting the fuel subsidy and reforming the power sector, and the authorities have restructured and strengthened the previously troubled banking sector,” it added.

Nigeria, Africa’s second-largest economy after South Africa, and a leading crude oil exporter, has continued to see healthy economic growth of around 6.5 per cent this year, despite the slowdown in countries importing the country’s oil.

Standard and Poor’s raised its long-term foreign and local currency sovereign credit rating to BB- with a stable outlook, three levels below investment grade, from B+.

The move brings its ratings in line with those of the Fitch agency.

“The stable outlook assumes that the government will continue to pursue its reforms ... and that there will be no worsening of political tensions and no significant return of insurgency in the Niger Delta,” Standard and Poor’s said in the statement.

Meanwhile, the Moody’s ratings agency has expanded its dealings to include Nigeria, assigning a BA3 rating with a stable outlook.

Nigeria’s foreign exchange reserves have expanded to around $42 billion, up from $33bn at the start of 2012. The country’s Excess Crude Account now contains some $8.4bn, compared with just $2bn at the end of 2010. This is contributed to by excess oil earnings.

The country also has a sovereign wealth fund, which it set up earlier this year to help with its savings. It currently contains around $1bn.

The importance of these facilities were alluded to recently by the country’s Finance Minister, Ngozi Okonjo-Iweala, who said that with more and more countries pinpointing potential oil and gas reserves, Nigeria needed to be prepared in case oil prices began falling.

She told reporters in London: “We are concerned because with so many countries discovering oil and gas, supplies will be increasing over the next few years. Therefore, we need to plan accordingly to make sure we have the necessary buffers in our own economy.”

The Minister pointed out that oil made up around 80 per cent of Nigeria’s revenues. The draft budget for 2013 assumed a crude oil price of $75/b, up from $72/b in 2012.

“In terms of benchmark price, we strongly believe that $75/b is the right benchmark for us. It will help us to build buffers,” she said.
New projects strengthening Saudi Arabia’s role in global energy sector

Saudi Arabia, the world’s leading oil exporter and a Founding Member of OPEC, expects to complete a number of oil and gas related mega-projects by the end of 2016.

Ali I. Naimi, Minister of Petroleum and Mineral Resources, and Chairman of the Board of Directors of the state oil company, Saudi Aramco, launched the Manifa field’s reservoir water-injection operations during a tour of the company’s mega-projects in mid-October.

Saudi Aramco expects to begin Manifa’s first-phase production of Arabian Heavy crude oil at an initial rate of 500,000 barrels/day in the first half of 2013, with a gradual rise up to 900,000 b/d.

The field, expected to be fully operational by the end of 2014, is not aimed at boosting Saudi Arabia’s oil production capacity, but will serve to keep output volumes stable by offsetting declines expected from the Kingdom’s older fields.

The crude oil from the Manifa field will flow to domestic refineries that are currently under construction, namely SATORP, a new, 400,000 b/d plant located at Jubail, a joint venture with France’s Total, and YASREF in Yanbu, a joint project with China’s Sinopec.

The field is also expected to feed the upcoming Jazan facility, a 400,000 b/d refinery and terminal project, which recently received Saudi Aramco Board approval for financing.

The company has awarded key contracts for two engineering, procurement and construction packages to local-foreign joint ventures — Petrofac Saudi Arabia and the Hyundai Arabia Company. Another five contracts were awarded to South Korea’s Hanwha Engineering and Construction Corporation and the SK Engineering and Construction Company, Japan’s JGC Corporation, Hitachi Plant Technologies, and Tecnicas Reunidas of Spain.

Meanwhile, Saudi Aramco has also given an update on its large Wasit and Karan natural gas projects, which are likely to boost the Kingdom’s natural gas output by around 40 per cent.

The Karan gas field, the company’s first offshore non-associated gas project, has helped increase Saudi gas production by 18 per cent. Completed ahead of schedule and below budget, the scheme already reached its full production capacity of 1.8 billion cubic feet/day during the peak summer consumption period.

The Wasit gas project is proceeding as scheduled and due to come onstream in mid-2014. With an estimated production capacity of 2.5bn cu ft/day, it will increase the Kingdom’s gas production capacity by 21 per cent.

The gas projects will help to meet Saudi Arabia’s rising energy demand. They will support the Kingdom’s economy, water and industrial sectors and provide mining projects in Ras Al-Khair City with the gas and sulphur needed to produce aluminum, phosphate fertilizers and related manufactured goods.

Saudi Aramco has stressed that through such endeavors, it was enhancing Saudi Arabia’s role in the world energy sector, and serving as an enabler of opportunities in the Kingdom’s economy and in the diversification of investments in the downstream sector, particularly in refining and petrochemicals.
Venezuela has entered a new phase of growth which is both stable and sustainable, according to the country’s Finance Minister, Jorge Giordani.

Speaking at a news conference together with Venezuelan Central Bank President, Nelson Merentes, he was announcing that the country’s economy expanded by 5.2 per cent in the third quarter of 2012, higher than the five per cent targeted for the whole of the year.

The third-quarter figure followed growth of 5.4 per cent in the second quarter. For the first three quarters of the year, expansion was pegged at 5.6 per cent.

Venezuela has now managed to record gross domestic product (GDP) growth in the last eight quarters. It is projecting GDP growth to rise further to average six per cent in 2013.

Figures showed that the country’s non-oil sector expanded by 5.4 per cent in the third quarter, while the oil sector grew by 1.1 per cent.

Construction led the way with growth of 12.6 per cent. This was boosted by the country’s extensive house-building programme.

The Central Bank announced a third-quarter current account surplus of $3.55 billion, down from $6.96bn in the same period last year.

Meanwhile, Giordani has outlined Venezuela’s budget for fiscal 2013 to the National Assembly.

He said the total budget came in at around $92bn, which was up by 33 per cent from the initial 2012 budget. The country’s total income in 2011 was just over $88bn.

The new fiscal budget is based on an average crude oil export price of $55/b, almost half the level of current prices on international markets. In 2012, the price level projected in the budget was $50/b.

“Given the context of high external insecurity we are maintaining a criteria of prudence as a strategic guideline in fiscal policy. This price conservatively takes into account the expectations of the international crude market,” the Minister was quoted as saying.

The Venezuelan government places any excess revenues accrued in the budget into a special fund. The money is invested in a variety of projects, including agriculture, electricity and construction schemes.
China’s crude oil imports surge in October

China’s crude oil imports showed their fastest growth in five months in October, rising by 13.8 per cent.

According to official figures, the country’s crude oil imports in the month surged by 692,000 barrels/day over September levels and were 680,000 b/d more than in the same month last year.

China’s domestic output of crude oil fell by 26,000 b/d from September levels, while October crude exports were 32,000 b/d higher than in the previous month.

Higher demand

October refining throughput was only marginally weaker than in September, while China’s commercial crude stocks fell by 8m b, or 258,000 b/d, in October, the largest drop in eight months, and indicating the higher demand.

Refinery throughput in the month was recorded at 9.44m b/d, just below the record 9.47m b/d seen in September, and 6.7 per cent higher than in October 2011.

The country’s commercial oil product stocks, which stood at a high of 162.6m b in February this year, were estimated to have fallen to 124m b in October.

China’s apparent oil demand in October was higher by almost seven per cent at 9.91m b/d, compared with 2011 figures. In September, demand was gauged at a record-high 9.8m b/d, an impressive 9.2 per cent more than in the same month last year. This was after declining by 1.5 per cent in August.

September demand bettered the previous record of 9.77m b/d set in February this year.

Meanwhile, China’s National Bureau of Statistics has announced that the country’s economy expanded by 7.4 per cent in the third quarter of this year, down for the seventh straight quarter in a row.

However, for the first nine months of 2012, the economy was said to have grown by 7.7 per cent, which was just above the 7.5 per cent target for full-year growth set by the government.

Bureau data showed that September oil demand was boosted by refinery runs and net oil product imports. Refinery use rose by an annual seven per cent, while oil product imports amounted to 323,680 b/d, the highest since June. In August, refinery runs stood at 8.92m b/d.

In the third quarter, apparent oil demand averaged 9.31m b/d, 3.2 per cent higher than in the same period last year. It was also up from 9.25m b/d in the second quarter, but down from the 9.64m b/d recorded for the first three months of the year. So far this year, China’s apparent oil demand has risen by 1.7 per cent to 9.4m b/d.

Over the same period, refinery throughput is higher by 1.6 per cent at 9.1m b/d, while net product imports have shown 6.4 per cent growth over last year.

Many analysts have been pointing to signs of an economic recovery. HSBC was quoted as saying that “China’s recent numbers suggest that the worst is over on the mainland. The economy should accelerate from here”, while Morgan Stanley recently upgraded its GDP growth forecast for the country in 2012 from 7.5 per cent to 7.7 per cent.

And, according to Barclays, key economic indicators remained encouraging, suggesting that the Chinese economy “is now on a steady path to recovery, which should buttress real demand” for oil.

Further evidence of an improving economy came in November with the news that China’s manufacturing sector had accelerated for the first time in 13 months.

The latest indicator of recovery in the real economy, the China HSBC Flash Manufacturing Purchasing Managers’ Index (PMI), rose to a 13-month high of 50.4 in November. And a sub-index, which measures output, rose to 51.3, also the highest since October 2011.

“This confirms that the economic recovery continues to gain momentum towards year-end,” Qu Hongbin, Chief Economist at index sponsor HSBC, was quoted as saying in a statement.

“However, it is still the early stage of recovery and global economic growth remains fragile. This calls for a continuation of policy-easing to strengthen the recovery,” he added.
Public relations experts from OPEC Member Countries met with their counterparts at the Organization’s Secretariat on November 5–8 to discuss how to forge a closer working relationship through the exchange and sharing of information.

The occasion was the First Annual PR Workshop for Member Countries’ Public Relations Managers. The participants consisted of 22 delegates from ten Member Countries, together with staff members from the Secretariat’s PR and Information Department (PRID).

The workshop was opened by OPEC Secretary General, Abdalla Salem El-Badri, who stressed the importance of promoting such an initiative in today’s challenging environment.

“Even though the subject of public relations is becoming very, very critical and important to OPEC, unfortunately we are not really paying that much attention to it,” he told assembled delegates.

“So we decided to have this workshop, where we can exchange ideas and thoughts ... (and) really tackle some of the problems that we are facing.”

El-Badri pointed out that there should be the clear message across OPEC Member Countries that “we should talk the same language (and use) the same technology for the benefit of our Member Countries.”

During the gathering, six presentations were made by PRID, given by the Department’s Head, Angela Agoawike, and her team, comprising Zoreli Figueroa, Alaa Al-Saigh,
Keith Aylward-Marchant, James Griffin and Ghada Sahab. These gave a broad overview of the Department’s work, covering public relations, editorial and speechwriting, media relations, design and production, and the website.

The purpose was to acquaint Member Country delegates with how public relations and information dissemination are conducted by OPEC, as well as the instruments used by the Department in carrying out such responsibilities.

Two presentations were made by the Secretariat’s Research Division on issues relating to the ongoing United Nations-sponsored climate change negotiations.

The workshop was held just three weeks before the 18th Meeting of the Parties to the UN Framework Convention on Climate Change (COP18/UNFCCC), which took place in an OPEC Member Country, Qatar.

The Research Division presentations, made by Mohamed Hamel, Senior Advisor to the OPEC Secretary General, and Dr Mohammad Taeb, Environmental Coordinator, covered the activities of the UNFCCC generally, as well as the COP18/CMP8 specifically (CMP: Meeting of the Parties to the Kyoto Protocol).

Presentations were also made by all the Member Countries present. These related mostly to the work of the PR Managers in their respective Ministries and national oil companies, in particular on their relations with the media.

Two outside guest speakers spoke about the public relations activities and challenges in an international oil company.

Michaela Huber, Senior Vice President, Corporate Communications
and Sustainability, of the Austrian national oil company, OMV AG, talked about ‘The challenge of public relations in an oil and gas company: the OMV experience’.

And Sally Jones, External Communications Advisor, Chevron Europe, Eurasia and Middle East, Exploration and Production Ltd, focused on the issue of the ‘Imperatives of a planned organizational communication strategy for the oil sector’.

Ms Jones had joined Chevron earlier this year from the OPEC Secretariat, where she had been the Media Relations Advisor for five years, working closely with the Secretary General.

In addition, a special training session was held on the positive possibilities of media management by Eithne Treanor, Chief Executive Officer of etreanor.com. Ms Treanor is a media consultant and OPEC’s webcast moderator.

The workshop delegates were later divided into two groups to discuss the following themes: widening the scope of PR cooperation between OPEC and Member Country national oil companies and Ministries of Petroleum; and the role that Member Country media can play in furthering OPEC’s objectives.

All the workshop sessions were interactive and participatory. The delegates engaged in lively debates and discussions throughout the four days of the event, which also included a visit to the Austrian television station, ORF.

The event finished with participants being invited to attend the press conference in the Secretariat featuring the official launches of this year’s OPEC Annual Statistical Bulletin and OPEC World Oil Outlook (see page 36).

The idea was for workshop participants to witness firsthand how OPEC interacts with the media at such an event.

The second edition of the annual PR Workshop will take place at the OPEC Secretariat in Vienna in 2013.

Ehsan Taghavinejad, Ehsan Jenabi and Eshagh Rooyvar (Iran); Paola J Herrera (Ecuador); Hashim Faraj Al Musawi, Alya Sabeel Jameel, Ihsan I Al-Attar and Amar A Hassan (Iraq).
In the course of his official duties, OPEC Secretary General, Abdalla Salem El-Badri, visits, receives and holds talks with numerous dignitaries.

These pages are dedicated to capturing those visits in pictures.

Günther Oettinger (r), European Commissioner for Energy, paid a visit to Abdalla Salem El-Badri, OPEC Secretary General, on October 8, 2012.

Ramachandran Swaminathan (l), Ambassador of India to Austria, paid a courtesy visit to Abdalla Salem El-Badri, OPEC Secretary General, on October 9, 2012.

Cheng Jingye, Ambassador, Permanent Representative of the PR of China to the United Nations and other International Organizations in Vienna, visited Abdalla Salem El-Badri, OPEC Secretary General, on November 9, 2012.
Dr Inyang Ebong-Harstrup (l), Deputy Director of the Special Unit for South-South Cooperation, UNDP, visited Abdalla Salem El-Badri, OPEC Secretary General, on November 19, 2012.

Dr Badr Mohamed Zaher Al Hinai, Ambassador of Oman to Austria, during a visit of a delegation from the Sultan Qaboos University of Oman, with Abdalla Salem El-Badri, OPEC Secretary General, on November 9, 2012.
Students and professional groups wanting to know more about OPEC visit the Secretariat regularly, in order to receive briefings from the Public Relations and Information Department (PRID). In some cases, PRID visits schools to give them briefings on the Organization and the oil industry. Here we present some snapshots of such visits.

**Visits**

A group of students from the Gymnasium Baden visited the OPEC Secretariat on November 14, 2012.

A group of visitors from IIMC-ONGC, India, visited the OPEC Secretariat on November 16, 2012.

A group of students from the Gymnasium Baden visited the OPEC Secretariat on November 14, 2012.
A group of students from the University of Economics and Business, Vienna, visited the OPEC Secretariat on October 24, 2012.

A group of students from the Diplomatic Academy Vienna visited the OPEC Secretariat on October 17, 2012.

A group of students from the University of South Carolina visited the OPEC Secretariat on October 16, 2012.

A group of students from the Webster University, Vienna, visited the OPEC Secretariat on October 5, 2012.
OFID and CAF join forces to bring energy to the poor

The OPEC Fund for International Development’s Energy Poverty Grant Programme is set to receive a boost from the launch of a joint Energy for the Poor Projects Preparation Facility, which, in turn, will consolidate the partnership agreement between OFID and the Andean Development Corporation (CAF). The following article by OFID’s Ahmed Altabaib appears in the latest OFID Quarterly publication.

OFID’s Governing Board in September gave the green light for the establishment of a grant-financed Energy for the Poor Projects Preparation Facility in the Latin America region.

Conceived as a joint venture with the Andean Development Corporation (CAF), the Facility represents on-the-ground implementation of the Memorandum of Understanding signed by the two institutions in June 2010.

With an initial allocation of $1.6 million — an amount shared equally between the two partners — the Facility will seek to identify and prepare projects that will improve energy access among the region’s poor.

OFID’s $800,000 contribution is the latest in a series of grants approved under its Energy Poverty Grant Programme.
Programme (EPGP), which was established in June 2011 with the aim of finding innovative solutions to energy poverty in rural and off-grid areas.

The programme forms part of OFID’s wider Energy for the Poor Initiative, which is currently the institution’s primary strategic focus.

As its name suggests, proceeds from the EPGP are given exclusively in grant format, as the type of projects it supports are generally not suitable for other types of financing.

The new Projects Preparation Facility, however, is expected to play an important role in identifying energy projects that could benefit from financing through other mechanisms, or combination of mechanisms.

Since its launch, the EPGP has extended eight grants amounting to around $4.6m. These have supported a variety of projects that address different aspects of the obstacles involved in delivering energy to poor populations.

Two of the grants — for a multi-regional initiative spanning Ethiopia, Honduras, Kenya, Malawi, Tanzania, Uganda and Zambia — successfully tackled the bottleneck presented by the limited financial capacities of rural distributors through the establishment of a revolving fund.

With access to financing, distributors have been able to bulk purchase items like solar lanterns and clean cooking stoves to sell to the rural population.

Another two grants have supported the energy requirements of the agricultural sector in Benin and Ghana through the provision of solar energy for drip irrigation and a scheme that utilizes cassava waste to produce bio-energy.

Two further grants have helped finance the establishment of hydropower plants in Malawi and Rwanda — one of them leveraging more than $6m in additional funding from the private sector — while another grant has supported a global call for proposals that produced 50 quality projects, of which three — in Cambodia, Tanzania and Ethiopia — were selected for financing.

All activities under the EPGP are implemented through institutions well-practised in the field. These include the Shell Foundation, the Renewable Energy and Energy Efficiency Partnership, the International Fund for Agricultural Development (IFAD), the Solar Electrification Fund, Practical Action and the Global Village for Energy Partnership.

OFID’s joint venture with CAF solidifies efforts in recent years to establish formal partnerships with like-minded institutions, with a special focus on energy poverty.

OFID has now signed Memoranda of Understanding with the World Bank, the Asian Development Bank (ADB), the Arab Bank for Economic Development in Africa (BADEA), IFAD and CAF, and has been working to transform these agreements into action on the ground.

With this in mind, discussions are currently underway with BADEA to establish a similar facility to the one with CAF in sub-Saharan Africa.

Likewise, negotiations are planned with the ADB to set up a third facility in the Asian region.

If they all come to fruition, the plans would give coverage in all three developing regions and support the widespread identification and initiation of innovative energy projects.

While the OFID/CAF Facility will have as its main purpose targeted feasibility studies for projects that provide energy to the poorest segments of the population, its scope is much wider.

Based on the approval of both institutions, other activities could include energy sector analysis, improvement of government regulations and training in specific areas, capacity-building in general, sub-regional programmes and seminars.

Access to the Facility will be open to both public and private entities, from government agencies (at a national, regional, or local level) and international organizations, to non-governmental organizations (NGOs), community associations and private sector businesses, or agencies.

With regard to implementation and monitoring, a first strategic meeting will take place one year after the official launch of the Facility to take stock of progress made and to consider expansion to other areas of strategic interest.

OFID and CAF will then meet every two years to assess the development of the programme and, if required, revise priorities in terms of countries and areas of focus to be supported.

The new OFID/CAF Facility will seek to identify and prepare innovative projects that will improve energy access among the poor in Latin America.
The changing world of energy economics

Former OPEC researcher highlights some of today’s new challenges

Promising young researchers often face a dilemma — whether to devote their careers to a lifetime of study in the hallowed sanctums of academia, or whether to branch out into the more down-to-earth world of industry, commerce or similar such area.

Back in the 1980s, Franz Wirl (pictured) was in precisely this situation. He had already acquired his doctorate at the Technical University of Vienna and was at the same time working as an Econometrician in the OPEC Secretariat, which he had joined in 1977. Fittingly, his doctorate, which he had been awarded in 1982, was in ‘optimal resource depletion: application to the world oil market’.

He could clearly see the benefits of staying at OPEC, where his challenges included world energy modelling and saw him spending a total of five months examining this subject in depth at the University of Southern California on behalf of the Organization.

However, at the same time, his heart was in the pursuit of a career in pure research, and, after much soul-searching, he decided to take up the post of Assistant Professor in the Institute of Energy Economics at the Technical University in 1983.

Since then, in a career which has seen him teaching and carrying out research in many different parts of the world, he has received his Full Professorship and is now Chair of Industry, Energy and Environment in the Faculty of Business, Economics and Statistics, at the University of Vienna.
In addition to energy and environment economics, his main areas of research and teaching are in industrial management, dynamic games, principal-agent-relationships and real options. He has written three books and contributed to more than 200 publications, mostly in international refereed journals.

His roots with the OPEC Secretariat have always remained strong, however, and, since his leaving, have seen him carry out consultancy work for the Organization, as well as discussing topical issues with staff members on a more informal basis.

He has also contributed papers to both the OPEC Review (now the OPEC Energy Review) and the OPEC Bulletin.

The OPEC Bulletin’s Keith Aylward-Marchant met up with Professor Wirl at the Fifth OPEC International Seminar in Vienna in June and invited him to reflect upon his career and some of the changes that have occurred in the oil industry during the past three decades.

Professor Wirl, can you please describe some of your work at the Secretariat in 1977–83, including your visits to Southern California on behalf of the Organization?

I started in the Statistics Section of the Data Services Department, where I had to answer ad hoc requests, developed a petroleum product prices data base and began working on oil demand forecasts and finally on OPEC strategies. A major change was my transfer to the Energy Studies Department as an Econometrician, when I became more involved in energy modelling.

A characteristic of the second half of the 1970s among academics then was the confidence in large-scale model-building (probably inspired by ‘The Club of Rome’ reports at that time). In line with this, OPEC embarked on large-scale, long-term world energy modelling.

One of the projects was contracted to the University of Southern California (USC) in the United States, where a number of OPEC officials spent some time, and I had the opportunity to stay there too, in total, for almost five months.

This was a teaching lesson and, as a young researcher, I was surprised by the approach taken there — the people at the USC were, as we say in Austria, only ‘cooking with water’ (of course). What I mean by this is that those famous professors could not perform miracles (to the surprise of a young researcher); to use another expression, each of them could only ‘put his pants on one leg at a time’.

With hindsight, one can say that the promise of the large modelling efforts was not fulfilled. However, this experience somehow helped shape my own preferences, since I always preferred small models for the sake of the insights one can achieve by simple model simulations.

You left OPEC in 1983 to pursue a full-time academic career. Can you briefly describe your achievements during this period and what have been the highlights for you?

I have been quite successful in getting my papers published. For example, in a publication-based ranking of economists in the German-speaking area in the 1990s, I was ranked in the top ten, and, indeed, number one among the management professors in 2009 and again in 2012.
However, given the narrow box — energy economics — into which I was apparently put, I found it quite hard to find a full professorship, given the few positions in energy economics. In 1995, I accepted an offer from the University of Magdeburg in Germany, and my experience there was a very good one in professional terms. Personally, however, it was a strenuous one, since I had to travel each week between Vienna and Magdeburg to be with my family. In spite of a professionally more attractive offer in 2000, I decided for family reasons to accept an offer from the University of Vienna in its Business Department, and I have no regrets about this on any count.

You have carried out some consultancy work for OPEC since 1983. What did this involve?

My involvement as a consultant was rather light and concerned three major tasks. The first one was to transfer ‘my’ global energy and oil demand medium-term forecasting model from the mainframe to the PC (personal computer).

The other two involved contributions to the OPEC World Energy Model. One was to assess the asymmetry — more precisely, the history-dependent price-sensitivity — of energy demand after the price collapse of 1986. In my opinion, this aspect is still not fully understood in practice and in the academic literature; most papers link asymmetry with price peaks, without accounting for the duration of such peaks or high prices.

The other one was to design a module to forecast the energy demand of the former centrally planned economies, since the energy data generated by the past socialist planning was unreliable in making inferences about future developments.

Aside from that, I have stayed in contact most of the time and discussed some issues with OPEC Secretariat staff.

How do you think the Organization has changed over the past three decades?
I think the Organization has done very well, given the uncertain environment and some formidable challenges at times. In particular, OPEC has achieved an astonishing degree of reliability of supply.

You have worked on important energy-related modelling projects over the past 35 years. How do you think the modelling environment has changed during this time, bearing in mind the massive increase in computing power?

The confidence in global large-scale modelling has vanished (although its practice has not been abandoned entirely). This seems ironic, if one relates this to the gigantic increase in computing power, which, looking back, remains unbelievable, actually a miracle, for us early practitioners of computer-modelling (during my time in the Secretariat, one company that no longer exists offered a mainframe with 256 kilobyte RAM).

In terms of analytical techniques, what has happened is that the shift from large-scale to small-scale oil market models was — and is — accompanied by accommodating issues like uncertainty, strategic aspects (ie game theory approaches) and empirical matters, eg there is now a huge econometric literature, most of it, unfortunately, rather sterile and mechanical.

This disappointment extends to the state of the academic literature on energy economics (including, of course, my own work) and is somewhat surprising, given the many energy market-related problems.

One issue of much interest at the moment is how the recent price behaviour is affecting supply and demand. Indeed, in 1988, you published a paper in the OPEC Review on the ‘asymmetrical energy demand pattern’. How active is this effect today, over both the shorter and the longer terms?

This asymmetry is still not properly modelled, presumably because it is hard to address empirically. The story is, however, simple. Individual energy conservation (and thus demand) as a reaction to price consists of at least two components: (i) individual reductions by lowering service demand; and (ii) investment into more efficient appliances.

The appliances are, however, provided by industry. Therefore, appliance efficiencies depend on past R&D investments by firms. These investments do not depend on price peaks (as most in the literature assume), but on the duration and, even more, on the expectation of high future energy prices.

Since the output from R&D is mostly irreversible (say, once we know how to produce PV-panels with 20 per cent efficiency, a more efficient engine, etc), this will also affect future demand, even if prices turn out again to be low.

This explains why it took some 20 years and low prices (and, on top of this, the fast increases in demand in emerging economies) for energy and oil demand to recover their past momentum. And it also explains why high prices are necessary to trigger further efficiency increases.

Over the past decade, there has been a big human resource challenge in the oil industry, trying to attract more high-calibre young people to replace a highly skilled older generation that is gradually disappearing. What do you think the industry should do to attract more young people after they graduate?

For a start, energy companies and, in particular, oil companies should continue to pay good, above-average, salaries. Of course, they cannot compete with the finance industry, at least in the past. However, as an outsider, I remain optimistic that the industry can attract sufficient talent.

For young people wishing to pursue a career in energy economics, how should they go about this and what educational institutions, in your opinion, stand out in meeting their needs?

Energy economic issues involve topics from economics (resources, environment, international, regulatory), management (in particular, contracts and finance) and politics (I favour ‘public choice theory’ as a rational approach to politics, but some may prefer more traditional political science) and require tools (mathematics in general, but, in particular, game theory, engineering, statistics and econometrics).

I personally would recommend to anyone with a sufficiently strong feel for formal tools and an interest in energy markets to go for it.

Looking back, I must say that I had great luck to get, actually to stumble, into this field and, in particular, to do my apprenticeship at the OPEC Secretariat. Besides that, I had a great time there, including playing football with the ‘OPEC Oilers’! (the name of the Secretariat’s soccer team at the time).
Chinese Taipei is more than living up to its reputation as one of the renowned ‘Asian Tigers’ — four countries also comprising Hong Kong, Singapore and South Korea, that have earned their economic stripes through rapid industrialization and development.

Saadallah Al Fathi, a former Head of Energy Studies at the OPEC Secretariat, recently made his first trip to the island state and was more than impressed with what he saw. As an oil man, he was particularly interested to learn just how the country, as an increasing oil importer to fuel its burgeoning economy, is forming strong ties with OPEC Member Countries.
Growing role for hydrocarbons as Taipei’s economy shows solid growth

For those who have marvelled at the economic development of Asian countries, or questioned their potential for continued progress, a simple visit to one of these amazing lands would bring immediate recognition — and appreciation — of the real progress being made, all of which is based on one common denominator — the sheer hard work and dedication of the people.

I was fortunate enough to be invited to visit Chinese Taipei for the first time recently by the country’s Research Institute and to say that I was impressed with what the country had achieved in a relatively short period of time, as global economies go, is an understatement.

Whoever termed the story of this addictive island nation as the Taipei ‘miracle’ must have been fully tuned in to what was happening there, since, as the ensuing years of impressive economic advancement have proven, the title was 100 per cent correct.

The story of the ‘Asian Tigers’ is one of rising economic growth and industrialization by relatively small countries with limited populations, areas and natural resources, as well as, sometimes, adversity.

These conditions all fit with Chinese Taipei, a country born out of the civil war in China in the late 1940s. Today, over half a century on, things are certainly different, with Chinese Taipei now benefitting greatly from its expansive and powerful neighbour, the People’s Republic of China (PRC) and vice versa.

The Chinese Taipei of the 21st century has a dynamic, capitalist, export-driven economy with ever-decreasing state involvement in investment and foreign trade. Real economic growth has averaged around eight per cent during the past three decades and diverse exports are providing the impetus for ongoing industrialization.

As a world leader in the manufacture of information technology, the country regularly records a substantial trade surplus and its foreign reserves are measured as the fifth-largest worldwide. That is progress indeed for a country that is still in its infancy.

Even the global financial crisis and world recession did not leave much of a mark. In fact, while other countries in the West were stumbling along, mostly backwards, economic growth in Chinese Taipei reached almost 11 per cent in 2010, the highest rate in almost 30 years. This was backed by an incredible 40 per cent leap in international trade, worth $526.04 billion.

All this led to the International Monetary Fund (IMF) announcing that the country’s gross domestic product (GDP) purchasing power parity (PPP) per capita had reached over $34,700 in 2010, surpassing the figures of Finland, France and even Japan.

Obviously, with such rapid progress, Chinese Taipei’s energy demand has risen in tandem with its economic expansion. That situation continues today with around 70 per cent of its total oil imports of 1.1 million barrels/day in 2011 coming from OPEC Member Countries. Saudi Arabia topped the list of importers last year, at around 34 per cent, followed by Kuwait, Angola, the United Arab Emirates (UAE) and Iraq.

Its natural gas imports, coming in the form of liquefied natural gas (LNG), amounted to
The success of this approach meant that between 1952 and 1982, economic growth averaged 8.7 per cent, while between 1983 and 1986 it stood at an average of 6.9 per cent.

What is striking at this time is that the people of Chinese Taipei never shied away from entering into even the simplest of industries to help boost their standing, such as making umbrellas and bicycles, in addition to manufacturing textiles. This enabled the locals to gain valuable experience in trading activities and to prepare for the day when they would move into the more advanced, sophisticated and lucrative industries, such as machinery, electronics, computers and petrochemicals.

However, as with many manufacturing economies in Asia that rely on the import of raw materials and the export of finished products, high expansion rates are not

280,000 b/d of oil equivalent in 2011, of which over 32 per cent came from OPEC Member Qatar.

And the good news for OPEC is that Chinese Taipei’s oil demand is forecast to continue rising to a level of 1.3m b/d by the end of 2012, compared with 994,000 b/d in 2011. That undoubtedly spells more potential business for the Organization’s Member Countries.

It has been a storybook journey for the island so far, especially with regard to its economic development. Even during its formative years, from the 1950s onwards, Chinese Taipei managed to prosecute its rapid industrialization and attain high economic growth rates.

Over the years, resources brought from mainland China and aid from other countries, coupled with a stable and accommodating government, enabled the sheer hard work of the people to bring positive results for the economy and country as a whole.

This was preceded by land reforms to increase agricultural output sufficiently and to allow the government to concentrate on the provision of infrastructure and expanding education.

The Taipai 101 tower, which up until 2010 was the world’s tallest building.
always fully sustainable, especially when they so often depend on conditions in the main importing countries.

Chinese Taipei learned this lesson in 2011 when it saw its GDP expansion slump to just four per cent, which was in stark contrast to the double-digit record growth seen the previous year.

This was due to the continued economic and financial problems in the United States and Europe, coupled with a slowdown in mainland China, all main export destinations of Chinese Taipei.

The growth forecast for Chinese Taipei for 2012 is now estimated at two-to-three per cent, but the situation is expected to improve, particularly if the debt and recessionary problems in Europe are resolved and the economies pick up in other regions of the world.

But this apart, it is clear that the better relations with the PRC since the early 1990s, has brought undoubted additional opportunities to Chinese Taipei.

*A futuristic bridge winding across the capital Taipei. Inset is a typical rice field.*
Companies on the island have been quick to invest in mainland China and, in 2011 alone, more than $12bn was invested in the PRC, accounting for more than 86 per cent of Chinese Taipei’s total outward investment in that year. Some 40 per cent of its exports went to its neighbour.

The issue over sovereignty, for long a subject of contention between the two sides, has been set aside in favour of the obvious economic and trade advantages to be gained from a harmonious existence. There is also the hope further down the line that improved relations may bring a future formula towards unification.

The relaxation of travel between the two countries has also spurred growth in tourism and boosted the service industry. Official figures show that Chinese Taipei received 1.78 million tourists from mainland China in 2011, a number that is expected to rise further with Chinese Taipei considering investment of $15.4bn in a new terminal and other facilities at its main airport.

A decline in exports to traditional destinations in the United States, Europe and Japan has encouraged Chinese Taipei to expand its trade relations with the six member countries of the Association of Southeast Asian Nations (ASEAN), comprising Thailand, Singapore, Malaysia, Indonesia, Vietnam and the Philippines.

**Number of achievements**

Chinese Taipei’s exports to the ASEAN group have already shown growth of 6.2 per cent this year and its external investment in these countries has increased sharply by 174 per cent in the first half of 2012. This compares with an investment decline of 72 per cent in the US and 22 per cent in mainland China.

Chinese Taipei prides itself in the number of achievements it has made on the ground. Of special significance is its mass transit system in the capital, Taipei. The construction of the metro was started in 1988 and the first 10.5 km line went into operation in 1996.

Today, the super-efficient system comprises ten lines with a total length of 110 km, encompassing 101 stations. A further expansion is well underway, including a link to...
the Taipei international airport. Passengers using the network in 2011 were close to 1.6m a day and the overall number of users passed the 5bn mark in February this year.

Building on this success, another mass transit system started operations in the city of Kaohsiung in 2008 and similar systems are planned in other cities.

The country’s motorways have also been highly developed, as has the rail network. Chinese Taipei has completed its 345 km high-speed rail system to connect its major cities and improve the transportation infrastructure.

This network started operations in January 2007 with 30 trains and already there are more on order. Investment in this network so far is now close to $15bn.

The ultra-modern trains cruise at a speed of about 300 km per hour and are a joy to ride in. My experience saw all seats occupied, which indicates just how popular this mode of transport is.

Then we have the Taipei 101 tower, which was the tallest building in the world from 2004 until 2010, when it was surpassed by the Burj Khalifa in Dubai. But the tower stands as a showpiece of Chinese Taipei engineering and construction and is a famous tourist attraction for gaining the perfect panoramic view over the whole of the capital.

But one only has to look at some of the economic indicators to see the extent of the progress Chinese Taipei has made over the years.

For instance, in 1962, Chinese Taipei had a per capita gross national product (GNP) of $170, which grew rapidly, such that by 2010 it became $35,227, adjusted for PPP. By comparison, this is similar to the GNP of Germany (at $36,033) in the same year.

In 2007, Chinese Taipei had $270bn in reserves, which was about 73 per cent of its GDP, a figure that is much higher than what the IMF suggests is optimal at 45 per cent.

Again, the rapid development and economic growth seen in Chinese Taipei is reflected in its domestic energy consumption.

Figures show that total primary energy consumption, which stood at just 6.2 million tons of oil equivalent in
1965, grew in leaps and bounds to reach 113.9m toe by 2007 and settle at 109.9m toe in 2011, a reduction reflecting the reduced level of exports to Chinese Taipei destinations that have proved unstable.

According to Chinese Taipei’s Bureau of Energy, the country relied on imports in 2011 for 99.3 per cent of its energy requirements, interestingly reflecting the fact that countries with limited or no energy resources do not necessarily lose their chance to make progress. Quite the contrary, it would appear.

Chinese Taipei imports all of its coal and nuclear fuel and only produces one-to-two per cent of its oil and gas requirements. Managing this situation is probably a ‘sub-miracle’ within Chinese Taipei’s ‘miracle’.

*BP’s Statistical Review* shows that Chinese Taipei’s oil consumption grew from 2.2m toe in 1965 to 42.8m toe in 2011, although the maximum consumption recorded so far was in 2007, at 50.4m toe.

Like many other countries needing to manage their supplies of oil and gas, Chinese Taipei established its national oil company — the Chinese Petroleum Corporation — in 1946, which became known simply as the CPC Corporation in 2007.

This company continued to monopolize the oil and gas business in Chinese Taipei until the early 1990s when the market was deregulated, allowing the emergence of the Formosa Petrochemical Company (FPC), which now shares a large portion of the market on the island.

As mentioned earlier, OPEC Member Countries figured strongly in Chinese Taipei’s oil and gas imports in 2011, with almost 71 per cent of the oil total coming from the Middle East and some 20 per cent of the deliveries arriving from Africa.

Along with Qatar’s 40 per cent share of gas deliveries, Africa accounted for ten per cent of Chinese Taipei’s LNG imports, while the bulk of 44 per cent came from the Asia Pacific region.

Of Chinese Taipei’s other energy resource imports, over 90 per cent of its coal imports came from Asia Pacific countries.

As can be seen from these numbers, Chinese Taipei, like many other highly-dependent importing countries, is trying hard — and successfully — to diversify its energy sources and suppliers, as enshrined in the country’s energy security policy of 2008.

Other objectives of that policy, such as improving...
energy efficiency by two per cent a year and reducing energy intensity by 50 per cent by 2025, may be more difficult to achieve, as is the desire to have low-carbon energy resources at 55 per cent by the same year.

This sort of low-carbon energy now comprises just over nine per cent of Chinese Taipei’s total energy supply, of which only a small fraction is in renewable form, while the rest is nuclear. It is difficult to see renewable energy hitting the eight per cent mark in 2025, as the policy stipulates.

And increasing the country’s supply of nuclear energy is also not going to be easy. Chinese Taipei has three nuclear power plants, including six reactors with a total capacity of 5,140 megawatts. One more plant is currently under construction.

But concern over nuclear energy safety has understandably increased sharply after the Fukushima disaster in Japan. In fact, nuclear became a political issue in the January 2012 presidential elections.

In November last year, Chinese Taipei President, Ma Ying-jeou, announced that no extension of the operational licences for existing nuclear reactors will be given and the decommissioning of the reactors will follow the expiration of their respective licences.

While the plant under construction will go ahead, Chinese Taipei will seek a substantial expansion of renewable energy supplies and increase the use of natural gas, as expected.

Even coal power plants are being promoted, as long as they are coupled with carbon capture and storage systems, which will add substantially to their cost.

In the petroleum downstream sector, the CPC Corporation has three refineries with a total capacity of 770,000 b/d, while Formosa Petrochemicals has one 450,000 b/d plant, which was recently revamped to enable it to process 540,000 b/d.

All the refineries are complex and integrated with various petrochemical plants. Very little fuel oil is produced, thereby allowing the plants to achieve better margins. The total production of Chinese Taipei’s petrochemical industry in 2010 was valued at $132bn, or 29.3 per cent of the country’s total manufacturing industries’ output.

Chinese Taipei’s refining capacity is now more than sufficient for its domestic consumption of oil products, with the surplus exported to mainland China and other countries.

This means there may not be any new refinery in Chinese Taipei for some time to come, especially since an increasing reliance on natural gas is forthcoming.

Chinese Taipei has two LNG regasification terminals — at Yung An and Taichung — and the country’s gas-fired power generation capacity is forecast to increase by 67 per cent by 2030, according to the Minister of Economic Affairs, Shih Yen-shiang, in a statement in October last year.

Meanwhile, Business Monitor International forecasts that Chinese Taipei’s demand should be around 19.5bn cubic metres by 2016 and 21.4bn cu m in 2021 with LNG imports increasing to these levels from 16.0bn cu m in 2011.

Therefore, CPC, which is the sole importer of the country’s LNG, has decided on a third LNG regasification terminal close to Taipei. Obviously the expected rise in LNG consumption is related to the gradual decommissioning of Chinese Taipei’s existing nuclear plants, starting from 2019.

With the current level of hydrocarbons demand, and in line with the expansion expected in the years ahead, the CPC Corporation is trying hard to enhance its modest resources in Chinese Taipei by venturing into many countries, including OPEC Members Ecuador, Libya and Venezuela, in addition to non-OPEC countries, like Indonesia.

It is also cooperating in exploration with mainland China’s CNOOC in the country’s offshore waters and elsewhere.

Overseas, CPC is reported to be taking a five per cent stake in Royal Dutch Shell’s Prelude LNG project in Australia and will buy 2.7bn cu m of gas from Shell for 20 years, starting in 2016.

Other LNG supply agreements include a 21-year accord with Qatar for an annual 2.1bn cu m of supplies, starting from 2013, and another agreement with Papua New Guinea, reflecting the expected sharp increase in gas consumption for power generation.

CPC has not yet met with substantial success in the exploration and production of hydrocarbons, but the level of domestic demand expected will continue to propel Chinese Taipei to increase its own output, both locally and internationally.

With all this going on — and with relations with the PRC seemingly on a stable footing — Chinese Taipei will surely continue to go from strength to strength, a mirror of its giant neighbour.

But having experienced the Taipei ‘miracle’ first-hand, I feel it should be placed up there on a pedestal — as a model for other countries that have much bigger resources, yet are lacking in the same level of progress.

Surely food for thought, as miracles go.
Forthcoming events

**World GTL congress 2013**, January 13–15, 2013, Doha, Qatar. 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: www.iqpc.co.uk.

**Process safety management Asia**, January 14–15, 2013, Kuala Lumpur, Malaysia. 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: www.iqpc.co.uk.

**11th gas storage outlook**, January 16–18, 2013, 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.

**World future energy summit**, January 15–17, 2013, Abu Dhabi, UAE. Details: Reed Exhibitions Middle East, PO Box 77899, Abu Dhabi, UAE. Tel: +971 2 491 76 15; fax: +971 2 491 76 12; e-mail: ria.andaya@reedexpo.ae; website: www.worldfutureenergysummit.com.

**3rd annual district energy Asia**, January 16–17, 2013, Beijing, PR of China. 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: www.iqpc.co.uk.

**Powering oil and gas fields seminar**, January 19–30, 2013, London, UK. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Blythe KT1 6WL, UK. Tel: +44 207 017 55 18; fax: +44 207 017 47 15; e-mail: energycustserv@informa.com; website: www.ibcenergy.com.

**MENA LNG regasification summit**, January 20–23, 2013, Manama, Bahrain. 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: www.iqpc.co.uk.

**Arctic frontiers**, January 20–25, 2013, Troms. Norway. Details: Arctic Frontiers, c/o Akvaplan-niva, Fram Centre, N 9296 Tromsø, Norway. Tel: +47 77 75 03 00; fax: +47 77 75 03 01; e-mail: secretariat@arcticfrontiers.com; website: www.arcticfrontiers.com.


**11th utility supply chain management conference**, January 21–23, 2013, Coronado, CA, 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.

**Offshore Middle East**, January 21–23, 2013, Doha, Qatar. Details: PennWell, 1421 S Sheridan Road, Tulsa, Oklahoma 74112. Tel: +1 918 835 3161; fax: +1 918 831 9497; e-mail: sneighbors@pennwell.com; www.pennwell.com.


**Anadarko basin oil and gas**, January 24–25, 2013, 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.

**LNG supplies for Asian markets**, January 24–25, 2013, Singapore. 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.

**Middle East and North Africa Energy 2013**, January 28–29, 2013, 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.

**6th gas transport and storage summit**, January 28–29, 2013, Berlin, Germany. Details: World Trade Group, 9D Union Street, London SE1 0NW, UK. Tel: +44 207 202 7500; fax: +44 207 202 7600; e-mail: info@wtgevents.com; website: www.wtgeinternational.com.

**Asset integrity management**, January 28–30, 2013, Stavanger, Norway. 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: www.iqpc.co.uk.

**LNG bunkering summit**, January 28–30, 2013, Amsterdam, The Netherlands. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Blythe KT1 6WL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: enquire@iqpc.co.uk; website: www.iqpc.co.uk.

**LNG construction summit**, January 28–30, 2013, venue to be confirmed. 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: www.iqpc.co.uk.


**7th annual BC power symposium**, January 29–30, 2013, Vancouver, BC, Canada. Details: CI Energy Group, 1329 Bay Street, Toronto, ON M5R 2C4, Canada. Tel: +1 416 927 7936; fax: +1 416 927 1563; e-mail: CustomerService@CanadianInstitute.com; website: www.canadianinstitute.com.


**7th annual Central and Eastern European power conference**, January 31–February 1, 2013, Prague, Czech Republic. 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.
Word Search

There are some terminologies that are peculiar to the modern-day petroleum industry. You might have heard some of them in the course of your conversations. In the word search below, you should try to look for some of the petroleum-related technologies, identify them and mark them on the grid. There are 40 keys in all and you can pinpoint them diagonally, vertically and so on. But you should make sure of the spelling before you make your mark.

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Marc Saturnin Nan Nguéma
former OPEC Secretary General

Dr Marc Saturnin Nan Nguéma, the 13th Secretary General of OPEC, passed away in November.

Born in Gabon, in 1934, Nan Nguéma was OPEC Secretary General for two years — from July 1981 until June 1983.

He was a graduate of the Paris Institute of Political Studies and of the University of Paris, where he obtained a PhD in Economics. He also received diplomas in business, public administration and political science.

In his early career, Nan Nguéma served as a civil servant in Paris for a brief period before returning to Gabon as a Director of the Economic Affairs Department in the capital, Libreville.

Subsequently, he worked at the United Nations, as an Economic Affairs Officer in the Department of Economic and Social Affairs in 1964, and at the UN Conference on Trade and Development in 1965. In 1968, he was appointed as Gabon’s Permanent Representative to the UN Office in Geneva.

Nan Nguéma worked as an adviser to the Executive Director of the International Monetary Fund (IMF) from 1972 to 1975 and was Gabon’s Representative to the OPEC Economic Commission Board (ECB) from 1975 to 1976.

He also worked for the French oil company, Elf Aquitaine, and was Deputy General Manager of Elf Gabon until 1981.

After his tenure at OPEC, Nan Nguéma served as an adviser to Gabonese President, Omar Bongo, until 1990.

Throughout his career, Nan Nguéma proved to be a person of high integrity, a professional in his field and well-known for his devotion to work.

By Assel Serikbayeva
Vacancy announcements

Alternative Sources of Energy Analyst

Job dimensions:
Within the Research Division, the Energy Studies Department is responsible for monitoring, analyzing and forecasting world energy developments in the medium and long term and reporting thereon, in particular providing in-depth studies and reports on energy issues. It monitors developments and undertakes specific studies on energy demand and production-related technology, assessing implications for OPEC. It identifies and follows up key areas of energy-related emerging technologies and research and development (R&D), facilitates and supports planning and implementation of collaborative energy-related R&D programs of Member Countries, as well as identifies prospects for OPEC participation in major international R&D activities. It carries out studies and reports on developments in the petroleum industry, providing effective tools for carrying out model-based studies of analyses and projections of energy supply/demand and downstream simulation. It elaborates OPEC Long Term Strategy and monitors, analyzes and reports on relevant national or regional policies (fiscal, energy, trade and environmental), assessing their impacts on energy markets.

Objective of position:
The Alternative Sources of Energy Analyst studies, analyses and evaluates developments of global coal and non-hydrocarbon primary energy sources with particular attention to their technical and economic potential, technology, economics and drivers, such as policies, taxation, market structuring, strategies of key players, etc. to conduct studies on relevant issues on coal and non-hydrocarbon sources of energy, including production, use by sector and region as well as potential for fuel substitution. In addition, he/she assesses their impact on world energy mix and on the demand for oil and contributes to the World Oil Outlook.

Main responsibilities:
1. Conducts studies on the development of coal and non-hydrocarbon sources of energy and prepares reports thereon.
2. Collects, integrates and analyses data on technological, economic, environmental and policy aspects of coal and non-hydrocarbon energy.
3. Studies and analyses developments of primary energy demand by fuel and sectoral energy use within a country/group of countries, taking into consideration various aspects of energy policy development, including environment, energy substitution and conservation and security of supply, and assesses the impact on the energy supply mix.
4. Monitors the technological evolution of coal and non-hydrocarbon sources of energy, and assesses potential for major breakthroughs and their impact on interfuel competition in various sectors.
5. Assesses investment requirements and the costs of finding, developing, producing and delivering energy from coal and non-hydrocarbon sources.
6. Contributes to and delivers speeches, articles and presentations to internal meetings and various international forums.

Required competencies and qualifications:
— University degree (advanced degree preferred) in Energy Management, Economics or in a relevant Engineering discipline
— A minimum of eight years (six years in case of an advanced degree) in the field of energy studies
— Training/specialization in renewable and/or nuclear energy, full cycle cost evaluation, interfuel competition; knowledge of related environmental issues an asset
— Competencies: Communication skills, analytical skills, presentation skills, interpersonal skills, customer service orientation, initiative and integrity
— Language: English

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

The post is at grade E reporting to the Head of Petroleum Studies Department. The compensation package, including expatriate benefits, is commensurate with the level of the post.

Applications:
Applicants must be nationals of Member Countries of OPEC and should not be older than 58 years. Applicants are requested to fill out the application form which can be received from their Country’s Governor for OPEC. In order for applications to be considered, they must reach the OPEC Secretariat through the relevant Governor not later than January 28, 2013 — job code: 5.2.02 (see www.opec.org — Employment).
Petroleum Industry Analyst

Job dimensions:
Within the Research Division, the Energy Studies Department is responsible for monitoring, analyzing and forecasting world energy developments in the medium and long term and reporting thereon, in particular providing in-depth studies and reports on energy issues. It monitors developments and undertakes specific studies on energy demand and production-related technology, assessing implications for OPEC. It identifies and follows up key areas of energy-related emerging technologies and research and development (R&D), facilitates and supports planning and implementation of collaborative energy-related R&D programmes of Member Countries, as well as identifies prospects for OPEC participation in major international R&D activities. It carries out studies and reports on developments in the petroleum industry, providing effective tools for carrying out model-based studies of analyses and projections of energy supply/demand and downstream simulation. It elaborates OPEC Long Term Strategy and monitors, analyzes and reports on relevant national or regional policies (fiscal, energy, trade and environmental), assessing their impacts on energy markets.

Objective of position:
The Petroleum Industry Analyst studies and analyzes medium to long-term strategies, plans, operations and performance of petroleum-related companies and assesses the impact on OPEC and on the medium to long-term oil outlook. In addition, he/she monitors and analyzes developments in the petroleum industry structure and assesses their impact on OPEC.

Main responsibilities:
1. Collects/treats data, and analyses and reports on major oil companies’ strategies, plans, operations, performance and investment.
2. Studies and analyses developments in petroleum industry structure.
3. Contributes to the preparation of technical reports on medium- to long-term developments.
4. In collaboration with the Environment Matters Unit studies and assesses developments in multilateral negotiations, in particular within the WTO framework, with relevance to the petroleum industry.
5. Contributes to speeches, articles and presentations to internal meetings and various international forums.

Required competencies and qualifications:
— University degree (advanced degree preferred) in Economics, Finance or Engineering
— A minimum of eight years (six years in case of an advanced degree) in the petroleum industry or in oil-related companies or institutions
— Training/specialization in economic analysis, analysis of the financial performance of companies, analysis of company strategies, corporate planning and knowledge of oil companies’ operations along the value chain an asset
— Competencies: Communication skills, analytical skills, presentation skills, interpersonal skills, customer service orientation, initiative and integrity
— Language: English

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

The post is at grade E reporting to the Head of Petroleum Studies Department. The compensation package, including expatriate benefits, is commensurate with the level of the post.

Applications:
Applicants must be nationals of Member Countries of OPEC and should not be older than 58 years. Applicants are requested to fill out the application form which can be received from their Country’s Governor for OPEC. In order for applications to be considered, they must reach the OPEC Secretariat through the relevant Governor not later than January 28, 2013 — job code: 5.3.03 (see www.opec.org — Employment).
This section includes highlights from the OPEC Monthly Oil Market Reports (MOMR) for October and November 2012, 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.

**October**

**Crude oil price movements**

The OPEC Reference Basket was marginally higher in September, settling above the key $110/barrel level for the first time in four months. Moreover, the Basket ended the third quarter virtually unchanged from the second quarter, in which it declined by ten per cent.

The Basket was basically flat in September with prices initially rising slightly along with the bullish global crude oil market in anticipation of the bond-buying programme of the European Central Bank (ECB) and the US Federal Reserve, which announced a third, unlimited round of quantitative easing.

However, prices then fell back on increasing concerns about the global economy and oil demand growth. Ample supply and a possible release from strategic oil reserves also helped to keep a lid on prices.

The OPEC Basket rose to $110.67/b in September, gaining $1.15/b, or one per cent. Year-to-date, the Basket averaged $110.18/b, compared to last year’s average of $107.31/b for the same period, a y-o-y increase of $2.87/b, or 2.67 per cent.

The performance of individual Basket components was mixed in September as Asia-destined crudes improved, while African grades (with the exception of Angolan Girassol) retreated. Saharan Blend, Es Sider, Bonny Light and Girassol, the Brent-related crudes, fell by 17¢ to an average of $112.86/b, down by 0.2 per cent from the previous month.

The multi-destination Basket components, namely Arab Light, Basrah Light, Kuwait Export and Iran Heavy, gained 1.1 per cent in September to end at $110.43/b, $1.21 higher than in the previous month. The Iranian heavy component was largely priced on the Asian formula as little to none was exported to Europe and the US.

Latin American Basket components, Ecuador’s Oriente and Venezuelan Merey, improved by $1.28, or 1.3 per cent. The Middle Eastern crudes, Murban and Qatar Marine, improved the most over the month, increasing by $2.65, or 2.4 per cent, to an average of $112.37/b.

On October 9, the OPEC Basket improved to $109.46/b. Following their substantial seven-to-ten per cent m-o-m rally in August, crude oil futures prices barely moved in September.

Both the ICE Brent and Nymex WTI front-month contracts inched up by around half a percentage point in September. ICE Brent prices improved by 36¢, or around 0.3 per cent, to settle at $113.03/b, the highest monthly average since April. WTI also rose marginally by 0.42 per cent, or 40¢, to average $94.56/b, the highest settlement since May.

For the third quarter, front-month Brent increased by 58¢ to average $109.48/b in the third quarter, whereas WTI slipped by $1.27 to $92.22/b.

Moreover, compared to the same period last year, the Brent front-month average was 0.6 per cent higher at $112.20/b, compared to last year’s level of $111.54/b. The WTI front-month year-to-date average value was higher than that of last year by 72¢ at $96.16/b, indicating a 0.7 per cent improvement from the same period last year, after two months of lower year-to-date averages.

On October 9, Nymex WTI settled up at $92.39/b and ICE Brent moved up to $114.50/b.

**Commodity markets**

In September, energy and non-energy prices rose by 0.8 per cent and 1.5 per cent, respectively. Food prices eased by 1.2 per cent, but
base metals boomed by nine per cent, as did gold by seven per cent.

Macroeconomic uncertainty, especially concern over the Euro-zone’s sovereign debt crisis, slowing economic growth in China and the emerging economies, as well as the weaker US economy, all continued to weigh on the commodity markets.

Commodity prices continued receiving the negative impact of deteriorating business confidence, faltering growth and export demand, especially the slowing growth in China and falling output manufacturing readings in the September flash PMI for the US, China and the Euro-zone.

There was also weaker Chinese import demand, with the latest commodity trade data indicating that, following the broad-based strength exhibited by Chinese commodity import demand for several months this year, a different panorama was emerging with signs of weakness, especially in some sectors, such as crude oil and base metals, like copper and steel, where inventories are high. Exceptions to this downward trend for Chinese import demand in August were platinum and lead.

The worsening of the Japanese economy was an additional bearish factor for commodity markets.

A determining factor for commodity prices is the recovery of the global economy. This is related to the extent that the recent central bank announcements by the Fed and the ECB are able to revive business confidence, which remains low, due to the slowdown of the Chinese economy and the severe problems in the Euro-zone.

The Henry Hub natural gas price recovered only slightly (0.1 per cent), compared to a 3.6 per cent m-o-m fall in August, due to temporal factors like hot weather; but fundamentals remain weak.

The agricultural price index remained stable m-o-m in September, but food prices posted a one per cent m-o-m drop, compared with no growth in August, due to a restraint in grain prices.

The World Bank’s base metal price index increased by nine per cent m-o-m in September, compared to a one per cent m-o-m decline in the previous month. The base metals complex saw a mixed performance. The base metals price index was the best performer in September which was essentially due to short covering and the positive impact of Fed and ECB announcement.

Gold prices gained nine per cent in September m-o-m, compared to 2.8 per cent in the previous month. Gold has gained $150/oz over the past two months.

**World oil demand**

Demand for OPEC crude in 2012 is projected to average 30.1m b/d, representing an upward revision of 200,000 b/d over the previous month, driven by the upward adjustment in demand, combined with the downward revision in non-OPEC supply.

Within the quarters, the first quarter saw an upward revision of 100,000 b/d, while both the second and third quarters were revised up by 300,000 b/d. The fourth quarter was revised up by 200,000 b/d.

Demand for OPEC crude in 2012 represents a decrease of 100,000 b/d from the previous year. The first and fourth quarters were estimated to have declined by 600,000 b/d and 100,000 b/d, respectively, versus the same quarters last year. The second quarter was estimated to have increased by 200,000 b/d, while the third quarter is projected to remain unchanged.

Demand for OPEC crude for 2013 has been revised up by 200,000 b/d, reflecting the downward revision to non-OPEC supply as global demand remained unchanged.

Within the quarters, the first and second quarters have seen an upward adjustment of 300,000 b/d, while the third and fourth quarters experienced an upward revision of 200,000 b/d each.

Demand for OPEC crude next year is forecast to average 29.8m b/d, representing a decline of 300,000 b/d from the previous year. The first quarter is estimated to increase by 300,000 b/d versus the same quarter in 2012. All other quarters are expected to see negative growth, with the bulk of the decrease coming from the third quarter, contracting by 600,000 b/d, while the second and fourth quarters are forecast to decline by 500,000 b/d.

Meanwhile, the state of the world economy still places a great amount of uncertainty upon future world energy consumption. Economic uncertainty in the US, the EU and China is determining the fate of global energy use, not only for the rest of this year, but also throughout 2013.

Slower industrial production worldwide is pushing down the use of oil by a large percentage, with middle distillate consumption plunging in the past month. Furthermore, the transportation sector contributed to the slowdown in oil use this summer, due to both slower economic activity and higher retail prices.

A few variables will play a major role in world oil demand this winter, such as the weather and the health of the world economy. Should the current situation persist until year-end, then world oil demand growth would be estimated at 800,000 b/d, a downward adjustment of 80,000 b/d compared to last month’s estimate.

For the above reasons, fourth-quarter oil demand is forecast to grow by 900,000 b/d y-o-y.

Although non-OECD oil consumption led to a strengthening of summer oil consumption seasonality in the third quarter, the weakness in China’s oil demand determined the total estimate. The non-OECD region consumed 44.8 million barrels/day of oil in July, denoting an increase of 11m b/d y-o-y.

For the second month in a row, Indian diesel demand soared, resulting from the electricity shortage and agricultural seasonal activity. Furthermore, the shutdown of most of Japan’s
nuclear power plants led to excess use of crude and fuel oil burning during the summer, but by not as much as was seen at the beginning of the summer.

Lower gas and coal prices, along with the heavy burden of subsidies, have forced both the US and Europe to reduce financial support for renewables. This move reduced mergers within the industry by half in the fourth quarter of 2011.

Furthermore, due to a high level of competition, the industry is focusing on expanding in other clean technologies, rather than just wind and solar. Given the financial turbulence in the region, some governments are cutting the expensive subsidies on renewables.

The latest monthly US oil consumption data for July confirmed the downward trend, by showing once more a decrease of 0.9 per cent y-o-y. All main product categories, with the exception of propane/propane and residual fuel oil, recorded declines, and the bulk of the overall decrease was seen in gasoline consumption, as a result of lower mileage.

The weak economy and high retail fuel prices have curbed gasoline demand by 0.3 per cent so far this year. Taking into account weekly data for August and September, the first nine months of 2012 looked quite disappointing for US consumption.

They showed contractions in all product categories and mainly in distillates and residual fuel oil. The main factors influencing consumption during the first three quarters of 2012 were weak industrial production, the struggling economy, high fuel prices and fuel-switching, especially towards natural gas.

Together with the low mileage driven, a recent decline in industrial production has affected oil use within the country on a massive scale. Apart from in May, US oil demand growth has been negative since November last year. The decline in the first three quarters is almost double that of 2011.

Oil demand in North America is totally dependent upon US economic development and the level of gasoline prices. The outlook for US oil consumption for the rest of the year and for 2013 remains rather pessimistic, especially when considering the development of the economy and fuel-switching.

The latest reported figure for Mexican oil consumption in August showed an increase of around 1.5 per cent, compared with the same month last year. All product categories were positive, except gasoline, with increases in industrial fuels dominating the pool of oil demand.

Canadian oil demand decreased by 1.4 per cent in July, compared with last year; oil usage in transportation, as well as in industrial products, caused this decrease.

In 2012, oil demand in North America is projected to decrease by 250,000 b/d, while, in 2013, it will remain at the same level as this year.

The troubled European economy is taking its toll on the continent’s oil demand. Not only has the decline in industrial production negatively affected oil use, but also the low mileage has reduced the use of transport fuel across the region.

European consumption contracted in August for the 12th month in a row, mainly in industrial and transport fuel. August oil consumption in Germany, France, Italy and the United Kingdom fell, with the bulk of decreases seen in transportation and industrial fuels.

Undoubtedly, the short-term and medium-term development of European oil consumption does not appear to be positive, as the debt problems in several European economies are seen to be deteriorating further.

Oil demand in Europe’s ‘Big Four’ decreased by 240,000 b/d in August, compared with the same month in 2011. German oil use declined by 30,000 b/d in the first three quarters of the year, despite the increase in diesel use.

For 2012, European oil consumption is expected to shrink by 400,000 b/d, as a result of the turbulence in several regions’ economies, while oil consumption in 2013 is projected to decrease again by 240,000 b/d, thus showing hardly any improvement.

In Japan, the latest August monthly data was once more dominated by strong increases in crude and residual fuel oil direct use. The summer’s seasonally higher requirements led to an extra increase in fuel usage. Direct crude and residual fuel burning for electricity production is expected to further continue throughout 2012 and 2013, but with less volume.

Although the Japanese government earlier last month announced its decision to phase out nuclear power by 2040, intense opposition from business groups and communities, whose economies depend upon nuclear plants, forced the government to delay its decision. This could weaken the government’s initial phase-out plan.

It might be some time before the government comes to a final decision, since it remains to be seen in which direction future Japanese energy policy will be heading in the medium and long terms.

Nevertheless, the current usage of fossil fuel for electricity generation seems to be the

“In 2012, oil demand in North America is projected to decrease by 250,000 b/d, while, in 2013, it will remain at the same level as this year.”
As the country tried to cope with the summer heat, excessive demand of electricity, along with the agricultural seasonality, led to more diesel demand countrywide.

The use of independent diesel-operated power generation contributed to high diesel consumption in August. As a result, diesel usage increased by a massive 17 per cent in August, adding another 200,000 b/d to the country’s total diesel use. Diesel use in India is attributed not only to electricity usage but also to the transportation, industrial and agricultural sectors.

Gasoline demand increased by six per cent in August, due to the summer driving season. Despite the decrease of 16 per cent in fuel oil demand, India’s total oil demand rose by six per cent, or 200,000 b/d, in August y-o-y.

The country’s agricultural industry is greatly affected by weather changes during the summer. Consequently, the use of energy in this sector is highly dependent upon the weather’s variations from the norm.

Efficiency, along with economic slowdown, has led to a decline in oil demand in Taiwan in 2012 year-to-date. The country’s oil demand plunged by 2.3 per cent in July y-o-y. Most of the decline was attributed to the industrial sector. This trend can be seen in some other economies across the globe.

And in the first seven months of the year, Taiwan’s oil demand slid by five per cent y-o-y. Most of that decline was related to lower use of fuel oil and this reduced the country’s total oil usage to an average of 940,000 b/d.

Given the strong oil demand in India, Other Asia’s oil demand growth is estimated at 250,000 b/d y-o-y in 2012.

Oil consumption within the Middle East has been growing by around 200,000 b/d, or 2.8 per cent, annually. Most of the growth is attributed to the transport and industrial sectors.

Despite a reduction in Iran’s total energy use, the country’s total oil demand for the year is forecast to be flat. The partial removal of gasoline subsidies in domestic consumption has led to an easing in the country’s use of gasoline.

The excessive summer heat led to massive fuel demand by power generation in Saudi Arabia in August. The country’s fuel and diesel oil demand rose by 56 per cent and 16 per cent, respectively. Both the power sector and summer transport fuel demand drove up the country’s total oil demand by 14 per cent y-o-y, or by 300,000 b/d during the month.

The Middle East will consume 7.8m b/d of crude by the end of 2012, denoting growth of 200,000 b/d y-o-y.

Venezuela’s booming economy of 3.4 per cent growth this year has led to a 23 per cent rise in the country’s oil use in the first seven months of the year. Most of the growth is attributed to jet kerosene and gasoline demand. More than a third of Venezuela’s oil demand is in the form of gasoline. Demand is expected to increase by 40,000 b/d in 2012 y-o-y.

Developing countries’ oil demand growth is forecast at 400,000 b/d y-o-y, averaging 28.4m b/d in 2012.

Chinese oil demand weakened this summer to almost a standstill. This was caused mainly by the slowdown in the industrial sector, which fell heavily as a result of slower exports. Diesel, fuel oil and other industrial product usage slid down by a substantial amount.

Fuel oil imports in August sank by 37 per cent y-o-y, as a result of weak orders from several refineries and slower bunker demand. Diesel consumption grew between July and August, mainly on updated production data. All revisions were introduced to the forecast in 2012, with more weight on the second half. The largest revision took place in Latin America, mainly on updated production data. All 2012 quarters were revised down, as the various upward revisions seen in some countries’ supply forecasts were insufficient to offset the downward adjustments.

North America is expected to have a 34.6 per cent share in global supply. The estimate is based on preliminary data for non-OPEC supply.

Preliminary figures show that global oil supply averaged 89.88m b/d in September, a gain of 440,000 b/d from the previous month, supported by increased production.

OPEC crude is estimated to have a 34.6 per cent share in global supply. The estimate is based on preliminary data for non-OPEC supply.

While non-OPEC oil supply is forecast to grow by 560,000 b/d to 2012 to average 450,000 b/d, this represents a downward revision of 150,000 b/d from the previous assessment.

Many revisions were introduced to the forecast in 2012, with more weight on the second half. The largest revision took place in Latin America, mainly on updated production data. All 2012 quarters were revised down, as the various upward revisions seen in some countries’ supply forecasts were insufficient to offset the downward adjustments.

North America is expected to have the highest growth among all non-OPEC regions in 2012, followed by the former Soviet Union (FSU), China, and Latin America, while Africa,
OECD Western Europe and the Middle East are projected to be the regions with the highest supply declines.

OECD supply is forecast to rise in 2012, as growth in North America is seen to more than offset the declines in Western Europe and the OECD Pacific. The US, Canada, Russia, China and Colombia are expected to be the main drivers of supply growth in 2012, while Sudan and South Sudan, Syria, the UK, Norway and Indonesia are seen as having the largest declines.

On a quarterly basis, non-OPEC supply this year is seen to average 53.23m b/d, 52.64m b/d, 52.67m b/d and 53.46m b/d, respectively.

According to preliminary and estimated data, non-OPEC oil supply averaged 52.84m b/d during the first three quarters of 2012, indicating growth of 560,000 b/d, over the same period of 2011.

Total OECD oil supply is expected to increase by 740,000 b/d to average 20.88m b/d in 2012, a minor upward revision of 15,000 b/d from the previous month.

There were various upward and downward revisions to regional and national oil supply outlooks in 2012 that mostly offset each other. An upward revision in North America offset the downward revisions to OECD Western Europe and OECD Pacific supply. Canada, Mexico and Other Western Europe supply forecasts had upward revisions that mostly offset the downward adjustments in the UK and Australia.

In the fourth quarter, OECD supply is expected to increase from the third quarter, as output is seen to improve in North America and OECD Western Europe.

On a quarterly basis, OECD oil supply this year is expected to average 21.06m b/d, 20.83m b/d, 20.68m b/d and 20.96m b/d, respectively.

North America’s oil supply is forecast to increase by 960,000 b/d in 2012 to average 16.46m b/d, an upward revision of 35,000 b/d from the previous month. Second-quarter oil supply was revised down, while supply in the third and fourth quarters was revised up, due mainly to updated production data that was carried over to the rest of the year.

The upward revision confirms North America as the region with the highest growth among all the non-OPEC regions in 2012. Strong supply growth is now expected from the US and Canada, while Mexico’s supply is seen to be stable in 2012, compared with the previous year.

On a quarterly basis, North America’s oil supply this year is slated to average 16.48m b/d, 16.38m b/d, 16.46m b/d and 16.53m b/d, respectively.

US oil supply is expected to grow by 730,000 b/d in 2012, the highest growth among all non-OPEC countries, to average 9.74m b/d, unchanged from the previous report.

On a quarterly basis, US oil supply this year is estimated to average 9.76m b/d, 9.75m b/d, 9.67m b/d and 9.78m b/d, respectively.

According to preliminary data, supply averaged 9.72m b/d during the first three quarters of 2012, indicating an increase of 890,000 b/d over the same period of 2011.

Canada’s oil supply is forecast to increase by 250,000 b/d in 2012 to average 3.81m b/d, an upward revision of 25,000 b/d from the previous assessment.

On a quarterly basis, the country’s oil supply this year is seen to average 3.81m b/d, 3.70m b/d, 3.86m b/d and 3.85m b/d, respectively.

During the first half of 2012, Canada’s oil supply increased by 320,000 b/d, compared with the same period in 2011.

Mexico’s oil supply is forecast to decline by 20,000 b/d in 2012 to average 1.96m b/d, a decline of 80,000 b/d from the previous year.

On a quarterly basis, Mexico’s oil supply this year is seen to average 1.97m b/d, 1.98m b/d, 1.93m b/d and 1.95m b/d, respectively.

During the first three quarters of 2012, Norway’s oil supply is seen to have averaged 1.96m b/d, a decline of 80,000 b/d from the same period a year earlier.

The UK’s oil supply is forecast to decline by 110,000 b/d in 2012 to average 1.01m b/d, representing a downward revision of 15,000 b/d from the previous month. This is the lowest annual average level since 1977.

According to preliminary data, UK oil supply averaged 1.08m b/d during the first three quarters of 2012, a decline of 130,000 b/d from the same period of 2011. On a quarterly basis, the country’s oil supply is seen to average 1.08m b/d, 1.01m b/d, 0.92m b/d and 1.04m b/d, respectively.

Total OECD Pacific oil supply is forecast to decline by 30,000 b/d and average 540,000 b/d in 2012, representing a minor downward revision of less than 10,000 b/d compared with the previous month.

On a quarterly basis, total OECD Pacific oil supply this year is seen to average 510,000 b/d, 530,000 b/d, 560,000 b/d and 540,000 b/d, respectively.

Australia’s oil supply is expected to average 450,000 b/d in 2012, a decline of 30,000 b/d, indicating a minor downward revision of less than 10,000 b/d from the previous report.

On a quarterly basis, the country’s oil supply...
supply this year is seen to average 430,000 b/d, 450,000 b/d, 470,000 b/d and 450,000 b/d, respectively.

During the first half of 2012, Australia’s oil supply averaged 440,000 b/d, a decline of 40,000 b/d from the same period a year earlier.

Total developing countries’ oil supply is estimated to decline by 360,000 b/d in 2012 to average 12.31m b/d, indicating a downward revision of 90,000 b/d from the previous month.

Latin America and Other Asia experienced downward revisions, while the Middle East was revised up and Africa remained flat, compared with the previous month. Latin America is the only region expected to achieve supply growth, while Africa, the Middle East and Other Asia are seen to decline in 2012.

“Total developing countries’ oil supply is estimated to decline by 360,000 b/d in 2012 to average 12.31m b/d ...”

Colombia, Oman and Vietnam are expected to achieve the highest growth among all countries in the group, while Sudan and South Sudan, Syria, Indonesia and Yemen are expecting the largest declines.

On a quarterly basis, developing countries’ oil supply this year is seen to stand at 12.34 m b/d, 12.10 m b/d, 12.29 m b/d and 12.52 m b/d, respectively.

According to preliminary data, the group’s first-half supply averaged 12.22 m b/d, a decline of 480,000 b/d from the same period a year earlier.

Oil supply from Other Asia is expected to average 3.62 m b/d in 2012, a minor decline of 10,000 b/d from the previous year. Updated production data indicated lower-than-expected output from Brunei, India, Indonesia, Malaysia and ‘Asia Others’.

Oil supply from India is expected to remain steady in 2012 and average 890,000 b/d, being revised down by 10,000 b/d from the previous report.

Thailand’s oil supply is estimated to increase by 20,000 b/d in 2012 to average 350,000 b/d, an upward revision of 10,000 b/d from the previous month.

On a quarterly basis, Other Asia’s oil supply this year is seen to stand at 3.65 m b/d, 3.56 m b/d, 3.62 m b/d and 3.65 m b/d, respectively.

Indonesia’s oil supply is forecast to decline by 50,000 b/d in 2012 to average 980,000 b/d, flat from the previous month.

Vietnam’s oil supply is expected to increase by 30,000 b/d in 2012 to average 380,000 b/d, unchanged from the previous month. Vietnam’s expected growth is the highest among the region’s countries.

Latin American oil supply is anticipated to increase by 40,000 b/d in 2012 to average 4.84 m b/d, indicating a significant downward revision of 75,000 b/d from the previous report. Argentina’s oil supply forecast was revised up, but this was more than offset by downward revisions to Brazil’s and Colombia’s supply outlooks.

Argentina’s oil supply is expected to increase by 740,000 b/d in 2012, steady from the previous year and an upward revision of 10,000 b/d from the previous month.

Colombia’s oil supply is projected to increase by 40,000 b/d in 2012, the largest growth in the region, to average 970,000 b/d, indicating a downward revision of 15,000 b/d from the previous report.

On a quarterly basis, Latin America’s oil supply this year is seen to stand at 4.85 m b/d, 4.71 m b/d, 4.75 m b/d and 4.87 m b/d, respectively.

During the first half of 2012, the region’s oil supply averaged 4.78 m b/d, an increase of 70,000 b/d from the same period a year earlier.

Brazil’s oil supply’s is projected to increase by 10,000 b/d in 2012 to average 2.65 m b/d, indicating a significant downward revision of 70,000 b/d from the previous month.

On a quarterly basis, the country’s oil supply is seen to average 2.72 m b/d, 2.58 m b/d, 2.60 m b/d and 2.70 m b/d, respectively.

According to preliminary and estimated data, Brazil’s oil supply averaged 2.63 m b/d in the first three quarters of 2012, a minor increase of 20,000 b/d from the same period a year earlier.

Middle East oil supply is estimated to decline by 160,000 b/d in 2012 to average 1.54 m b/d, an upward revision of 10,000 b/d from the previous month. Bahrain’s oil supply experienced a minor downward revision, while Oman’s and Yemen’s forecasts were revised up.

On a quarterly basis, the Middle East’s oil supply is seen to stand at 1.43 m b/d, 1.53 m b/d, 1.59 m b/d and 1.59 m b/d, respectively.

Africa’s oil supply is forecast to decline by 230,000 b/d in 2012 to average 2.36 m b/d, unchanged from the previous report.

Egypt’s and South Africa’s supply forecasts were revised up slightly on updated production data, while those of Equatorial Guinea and Ghana had minor downward revisions. South Sudan’s and Sudan’s oil supply forecasts were revised up, on the agreement reached between the two countries and on reports from operators of the restart of some shutdown volumes before the end of the year.

On a quarterly basis, Africa’s oil supply this year is estimated to average 2.41 m b/d, 2.31 m b/d, 2.33 m b/d and 2.41 m b/d, respectively.

Total FSU oil supply is projected to increase by 70,000 b/d in 2012 and average 13.30 m b/d, a downward revision of 50,000 b/d from the previous month.

The FSU’s supply growth is supported mainly by Russia, while Azerbaijan’s and Kazakhstan’s supply is expected to decline in 2012.

According to preliminary data, FSU oil supply increased by 30,000 b/d during the first three quarters of 2012, compared with the same period a year earlier.

On a quarterly basis, total FSU oil supply this year is estimated to average 13.36 m b/d, 13.25 m b/d, 13.22 m b/d and 13.39 m b/d, respectively.

Other Europe’s oil supply is seen to remain flat from 2011 and average 140,000 b/d in 2012.

Russia’s oil supply is expected to increase by 80,000 b/d in 2012 to average 10.35 m b/d, unchanged from the previous month. Russian supply, according to preliminary data, reached a record high in September with a minor increase over the previous month.

During the first three quarters of 2012,
Russian oil supply averaged 10.34m b/d, indicating growth of 100,000 b/d from the same period in 2011. Third-quarter supply increased by 80,000 b/d, compared with the same period of 2011.

On a quarterly basis, Russian oil supply this year is estimated to average 10.34m b/d, 10.32m b/d, 10.36m b/d and 10.38m b/d, respectively. Supply averaged 10.39m b/d in September, up by 30,000 b/d from a month earlier.

Kazakh oil supply is forecast to decline by 20,000 b/d in 2012 to average 1.58m b/d, indicating a downward revision of 30,000 b/d from the previous month.

During the first eight months of 2012, Kazakh oil supply declined by 30,000 b/d from the same period a year earlier.

On a quarterly basis, the country’s oil supply this year is seen to stand at 1.62m b/d, 1.57m b/d, 1.52m b/d and 1.62m b/d, respectively.

Azerbaijan’s oil supply is forecast to drop by 20,000 b/d in 2012 to average 940,000 b/d, a downward revision of 20,000 b/d from the previous report.

On a quarterly basis, Azerbaijan’s oil supply this year is seen to stand at 960,000 b/d, 920,000 b/d, 910,000 b/d and 960,000 b/d, respectively.

China’s oil supply is expected to increase by 60,000 b/d in 2012 to average 4.19m b/d, a downward revision of 20,000 b/d from the previous month.

On a quarterly basis, China’s oil supply this year is expected to average 4.16m b/d, 4.16m b/d, 4.17m b/d and 4.27m b/d, respectively.

According to preliminary and estimated data, China’s supply averaged 4.16m b/d during the first three quarters of this year, unchanged from the same period a year earlier.

Meanwhile, in 2013, non-OPEC oil supply is forecast to increase by 890,000 b/d to average 53.89m b/d, representing a downward revision of 200,000 b/d from the previous month.

Despite this adjustment, the growth in non-OPEC supply was revised down by 60,000 b/d from the previous report. Changes to the 2012 supply forecast were carried over to 2013, hence, affecting the total non-OPEC supply figure.

North America remains the area with the highest expected growth among all non-OPEC regions, supported by forecast growth in the US and Canada. The FSU is next in terms of growth, due to projected supply increases from Russia and Kazakhstan.

OECD Western Europe’s oil supply is expected to experience the biggest decline in 2013 compared to other non-OPEC regions.

On a quarterly basis, non-OPEC supply next year is expected to average 53.52m b/d, 53.53m b/d, 53.87m b/d and 54.61m b/d, respectively.

The main changes to the non-OPEC supply forecast in 2013 were experienced by the US, India and Other Africa.

US oil supply in 2013 is expected to average 10.10m b/d, an increase of 360,000 b/d from 2012, indicating an upward revision of 15,000 b/d from the previous report.

The outlooks for supply from India and Other Africa in 2013 were revised down on the back of updated data in 2012, which provided insights into expectations for 2013.

The US remains the country with the highest expected growth in 2013, followed by Canada and South Sudan and Sudan, while Norway, Mexico and the UK are seen to experience the largest declines among all non-OPEC countries.

OPEC oil production

Total OPEC crude oil production averaged 31.08m b/d in September, according to secondary sources, down by around 265,000 b/d from the previous month.

OPEC crude oil production, not including Iraq, averaged 27.95m b/d in September, a decline of 276,000 b/d from the previous month.

The crude output of Angola, Nigeria and Venezuela experienced declines in September, compared to the previous month, while crude production from Saudi Arabia and Libya showed increases.

Output of OPEC NGLs and non-conventional oils are forecast to increase by 350,000 b/d in 2012 to average 5.67m b/d.

In 2013, the production of OPEC NGLs and non-conventional oils is expected to grow by 240,000 b/d to average 5.91m b/d.

Downstream operations

Refinery margins continued to strengthen in the Atlantic Basin amid tighter product sentiment.

Product markets continued to show a positive movement across the barrel in September. This was on the back of tightening product sentiment, fuelled by the upcoming European maintenance season and by gasoline continuing to take advantage of the tightness in the Atlantic, which allowed refinery margins to continue increasing in Europe and the US.

However, in Asia, the market eased, with increasing supplies causing cracks to retreat.

US Gulf Coast refining margins continued...
market situation and as increasing supplies caused the cracks to retreat, despite healthy demand. Gasoline and fuel oil weakened, while naphtha and gasoil remained relatively stable. These developments, along with more expensive crude, caused refinery margins in Singapore to lose $1.3 and average $4.8/b in September.

US refinery utilization continued to fall in September, after several refineries were temporarily shut down as a preventive measure when Hurricane Isaac threatened the region.

US refinery runs declined from the record level of 92.5 per cent of utilization in July to an average of 90.7 per cent in August and 87.3 per cent in September.

This situation, along with the high export levels from the US to markets in Latin America and Europe, continued keeping distillate and gasoline inventories below the five-year average.

In order to recover the inventory levels, some US refiners raised gasoline yields during the month, presumably to make up for the production lost due to the hurricane’s impact.

Since June, a relative tightening of the Atlantic Basin balance has allowed margins to become healthier in Europe, hitting the highest level during September and encouraging refiners to cash in those higher margins. Despite some closures in the region, throughputs have also been on the rise.

During the last two months, refinery utilization increased by around three per cent to average over 81 per cent, the highest level seen so far this year.

The refinery maintenance season in Asia was seen coming to an end and, despite some unplanned shutdowns of units in the region, increasing supplies have eased the tight environment, affecting product cracks.

China and India were running their refineries at around 86 per cent and 91 per cent, respectively.

Japanese throughputs dropped 3.7 per cent to average around 73.6 per cent of capacity in September, after some maintenance and shutdowns.

US gasoline demand stood at around 8.7m b/d in September, after peaking in August at 9.1m b/d, and was down by around 30,000 b/d from the same month a year earlier.

It picked up in August with the summer driving season, recovering to over 9m b/d. However, by the end of the driving season, domestic demand returned to a lower level on a y-o-y basis.

Middle distillate demand stood at around 3.7m b/d in September, 370,000 b/d down from the same month a year ago.

Export opportunities to Europe and Latin America remained supportive of the US distillates market. In fact, according to the US Energy Information Administration (EIA), US gasoil/diesel net exports in June broke the one million barrel/day mark for the first time.

Product market sentiment showed a rise in Europe across the barrel, at a time of tightening sentiment fuelled by the upcoming European maintenance season and gasoline continuing to take advantage of the tightness in the Atlantic.

## Oil trade

According to preliminary data, US crude oil imports averaged 8.5m b/d in September, down by 86,300 b/d, or one per cent, from August and 385,000 b/d, or 4.3 per cent, from the same month last year.

Year-to-date, US crude imports averaged 8.7m b/d, reflecting a decline of 3.3 per cent from the same period last year. US product exports fell by 50,000 b/d, or 2.3 per cent, from the previous month to 2.1m b/d, and were 247,000 b/d, or ten per cent, down from last year.

In contrast, US product exports increased by 27,000 b/d, or one per cent m-o-m to average 2.7m b/d, yet registered a y-o-y decline of 278,000 b/d, or nine per cent.

Consequently, US net oil imports averaged 7.7m b/d in September, reflecting monthly and annual declines of two per cent and four per cent, respectively.

As per the latest monthly government data release, crude oil imports fell in July by 495,000 b/d, or 5.4 per cent, m-o-m, the lowest level since April 2012, and by 670,000 b/d, or 7.2 per cent, y-o-y to average 8.6m b/d. Y-o-y, this represents the largest drop since April 2011.

Japan saw a 182,000 b/d, or 5.3 per cent, m-o-m increase in its crude oil imports to average 3.6m b/d in August, the highest figure since April. In an annual comparison, crude imports gained 101,000 b/d, or 2.9 per cent.

Japan’s product imports fell in August by 30,000 b/d, or 4.5 per cent, m-o-m to 629,000 b/d, the lowest level for four months. Y-o-y, they dropped by 97,000 b/d, or 13.4 per cent, although year-to-date they were 26,000 b/d, or 4.2 per cent, higher.

The country’s product exports gained 57,000 b/d in August to average 535,000 b/d, up by 11.8 per cent m-o-m, but down 10.2 per cent y-o-y.

As a result, Japan’s net trade imports increased by 95,000 b/d in August to average 37m b/d, 2.6 per cent higher than in July, and...
the highest figure for four months. In addition, this reflected an increase of 1.8 per cent on an annual basis.

China's crude oil imports dropped for the third consecutive month in August — by 812,000 b/d, or 15.7 per cent — to average 4.4 m b/d, the lowest level for 22 months. The decline came as a result of lower demand amid the economic downturn in general.

China's imports were 626,000 b/d, or 12.6 per cent, lower than in the same month a year earlier. Year-to-date, however, the figures show an increase of 388,000 b/d, or 7.7 per cent.

China's product imports fell from the previous month to average 549,000 b/d, down by 210,000 b/d, or 27.6 per cent. Y-o-y, they were down by a considerable 477,000 b/d, or 46.5 per cent.

China's crude exports declined in August by 5,000 b/d, or ten per cent, from the previous month, while showing a y-o-y gain of 16,000 b/d, or 53.4 per cent.

In contrast, product exports saw a monthly gain of 84,000 b/d, or 19.3 per cent, while decreasing by 15,000 b/d, or 29 per cent, from the previous year.

Accordingly, China's net oil trade saw a drop of 1.1 m b/d, or 20.3 per cent, on both a monthly and an annual basis.

India's crude oil imports increased in August by 108,000 b/d, or three per cent, m-o-m and by four per cent y-o-y, to average 3.4 m b/d. The increase came as a result of an expansion in the country's refining capacity.

India's product imports dropped in August by 7,000 b/d, or 2.1 per cent, to average 339,000 b/d, which was, however, a gain of 10.5 per cent y-o-y.

This drop came on the back of lower imports of diesel and fuel oil, which declined in August by 46.2 per cent and 11.1 per cent, respectively.

With regard to India's product exports, there were declines on both a monthly and an annual basis. They dropped by 4.2 per cent from the previous month to average 12.2 m b/d, and were 5.5 per cent down from a year earlier.

The monthly drop was due to lower exported volumes of petrol and fuel oil. Diesel was the only product which saw an increase in exports, at 5.1 per cent, while exports of naphtha and fuel ended the month flat.

In August, total crude oil exports from the FSU increased by 74,000 b/d, or 1.2 per cent, to average 6.3 m b/d.

Total FSU product exports increased in August by 460,000 b/d, or 16.6 per cent, to average 32.4 m b/d. All product exports rose by between eight per cent and 39 per cent from the previous month, with the only exception being jet fuel, which fell by 77 per cent.

### Stock movements

Preliminary data for August shows that total OECD commercial oil stocks dropped by 29.0 m b over the previous month.

Crude oil led the fall, declining by almost 20.0 m b, while products saw a stockdraw of 9.3 m b. At 2,674 m b, OECD commercial stocks were 46 m b below the five-year average.

But the picture among the components had two sides to it. Crude commercial stocks showed a surplus of 26.3 m b, while product stocks saw a deficit of 72 m b. At the end of August, OECD commercial stocks slipped to 28.0 m b below the level of the same period a year ago.

On a regional basis, the bulk of the drop in OECD commercial inventories came from stocks in North America falling by 21.6 m b, reflecting lower imports into the US, combined with falling US production, due to Hurricane Isaac.

OECD Europe's inventories saw a decline of 5.6 m b, following a weak performance in North Sea production, as well as the backwardation structure of Brent, which failed to encourage stockpiling.

The OECD Pacific's commercial stocks declined by a marginal 1.8 m b, reversing the build of the previous month.

When compared with the five-year average, the picture within the OECD regions was mixed. Europe and the Pacific saw deficits of 65.4 m b and 8.4 m b, respectively, while commercial stocks in North America stood 27.7 m b above the five-year average.

It should be noted that the deficit observed in OECD commercial stocks could diminish in the coming months, as global supply is expected to be running ahead of demand and the market will continue to be well supplied, especially with crude.

In terms of days of forward cover, OECD commercial stocks stood at around 58.4 days at the end of August, 0.4 day higher than the last five-year average. This level looks comfortable and is not expected to fall, since demand in the OECD is considered likely to continue to decline in 2013. Indeed, OECD demand for next year is expected to fall by 170,000 b/d vis-à-vis this year.

The latest available data for August shows that European stocks reversed the build of the last month and fell by 5.6 m b to stand at 1,058.7 m b.

"China's net oil trade saw a drop of 1.1 m b/d, or 20.3 per cent, on both a monthly and an annual basis."

At this level, they ended the month 22.5 m b, or 2.1 per cent, lower than a year ago and 65 m b, or 5.8 per cent, below the five-year average. Both crude and products contributed to this draw, declining by 39 m b and 1.6 m b, respectively.

European crude inventories edged lower in August for the second consecutive month to stand at 453.0 m b, which was 5.5 m b, or 1.2 per cent, higher than a year ago. However, they still remained 15 m b, or 3.2 per cent, below the seasonal norm.

At 605.7 m b, oil product stocks in Europe were 28.0 m b, or 4.4 per cent, below the same period last year and 50 m b, or 7.6 per cent, lower than the five-year average.

Within products, the picture was mixed. Gasoline and residual fuel saw draws, while distillate and naphtha stocks witnessed builds.
Gasoline stocks fell by 1.3 m b to end August at 105.7 m b, almost in line with a year ago, but they remained 9.0 m b, or 8.2 per cent, below the seasonal average. Distillate stocks ended August slightly higher than the previous month, following the 3.4 m b build seen in July. At 375.8 m b, they dropped by 12.0 m b, or 3.1 per cent, from a year earlier and remained 25 m b, or 6.1 per cent, lower than the five-year average.

Fuel oil stocks declined by 1.2 m b to end August at 89.5 m b, which was 14 m b below the same period last year and 18.5 m b lower than the five-year average.

US total commercial oil stocks rose in September after a substantial draw in August, increasing by 9.7 m b to stand at 1,101.4 m b/d. With this build, they switched the deficit with a year ago last month to a surplus of 16.5 m b, or 1.5 per cent. However, the difference with the five-year average remained at a comfortable level, indicating a surplus of 28.6 m b, or 2.7 per cent. The build in US total commercial oil stocks was attributed to both crude and products, as they increased by 7.6 m b and 2.1 m b, respectively.

In September, US commercial crude stocks reversed the downward trend of the last two months and increased by 7.6 m b to stand at 364.7 m b. With this build, they widened the surplus with a year ago to 32.9 m b from only 7.8 m b the previous month. The surplus with the five-year average also remained at a healthy level, at 36.3 m b, or 11.1 per cent.

In September, US refineries operated at 87.3 per cent of capacity, which was 2.7 per cent lower than in the previous month, and 0.4 per cent below the same month last year. US oil product inventories increased by 2.1 m b in September, reversing the draw of 8.9 m b observed the previous month. At 736.7 m b, they remained 16.5 m b, or 2.2 per cent, below last year’s level and 7.7 m b, or 1.0 per cent, lower than the five-year average.

Within products, the picture was mixed; gasoline and distillates saw declines, while all other products experienced builds.

Gasoline stocks fell for the second consecutive month, declining by 3.0 m b to finish the month at 195.9 m b. At this level, inventories were 20.2 m b, or 9.3 per cent, below those of a year ago and 12.0 m b, or 5.8 per cent, below the historical average.

US distillate stocks reversed the builds of the last two months and declined by 3.0 m b to end September at 124.1 m b. With this draw, they were 29.6 m b, or 19.3 per cent, below the year-ago level and 26.9 m b, or 17.8 per cent, lower than the seasonal norm.

Jet fuel stocks rose for the third month running — by 1.3 m b — from a month earlier. At 44.4 m b, they stood at the highest level since October 2011 and were 1.6 m b, or 3.6 per cent, lower than a year ago, but they switched the deficit with the seasonal norm during the previous month to a surplus of 400,000 b, or 1.0 per cent.

Residual oil stocks rose by 2.0 m b in September, after two months of draws. At 35.1 m b, they were 600,000 b, or 1.6 per cent, lower than the same month a year ago and 2.0 m b, or 5.4 per cent, below the five-year average.

In Japan, in August, commercial oil stocks reversed the builds incurred over the last five months, declining by 1.9 m b to 176.4 m b. Despite this draw, they remained 300,000 b, or 0.2 per cent, above a year ago, but still showed a deficit of 6.7 m b, or 37 per cent, with the five-year average.

The total stock-draw came from crude, which declined by 3.0 m b, while product stocks abated this decline, increasing by 1.3 m b. Japanese commercial crude oil stocks fell by 3.0 m b for the third consecutive month to end August at 101.4 m b. At this level, they were 3.9 m b, or 4.0 per cent, above the same time a year ago and around 1.0 m b above the five-year average.

In August, Japan’s refineries were running at 76.9 per cent, which was 2.6 per cent higher than in the previous month and 0.2 per cent more than in the same month last year. Japan’s total oil product inventories continued their upward trend, rising by 1.3 m b for the fifth consecutive month to end August at 75.1 m b, the highest level since November 2011.

Despite this build, they showed a deficit of 3.6 m b, or 4.6 per cent, with a year ago and were 7.4 m b, or 9.0 per cent, below the seasonal average.

Within products, distillates saw a build, while naphtha, gasoline and residual fuel oil experienced falls.

Distillate stocks rose for the fifth consecutive month, up by 3.2 m b to end August at 34.5 m b, the highest level since November 2011. Despite the build, they still showed a deficit of 3.1 m b, or 8.2 per cent, compared with a year ago and were 4.5 m b, or 11.6 per cent, below the five-year average.

All distillate components saw builds, with the bulk of the overall increase coming from kerosene stocks as they rose by nearly 19 per cent.

Jet fuel inventories rose by 5.4 per cent, gasoil stocks increased by 1.6 per cent, while gasoline stocks fell slightly by 200,000 b, reversing the build of the previous month. At 13.9 m b, gasoline stocks were 700,000 b, or 5.1 per cent, higher than a year ago, representing a surplus of 700,000 b, or 5.6 per cent, with the seasonal average.

Residual fuel oil stocks declined by a slight 100,000 b in August to 17.2 m b. At this level, they were 200,000 b, or 1.4 per cent, above the same period a year ago and 1.0 m b, or 5.7 per cent, below the five-year average.

Naphtha inventories saw a fall of 1.6 m b, ending August at 9.5 m b. At this level, they remained 1.5 m b, or 13.4 per cent, below a year ago and 2.6 m b, or 21.3 per cent, lower than the five-year average.

Preliminary weekly data from the Petroleum Association of Japan showed Japanese total
commercial oil stocks rose in September by 6.8m b to end the month at 183.2m b. The build was driven by both crude and products as they increased by 5.7m b and 1.1m b, respectively.

Within products, the picture was mixed as gasoline, distillate and naphtha saw builds, while residual fuel oil stocks experienced a draw. The bulk of the build in product stocks came from distillates, which increased by 1.1m b, followed by naphtha with a build of 800,000 b, while gasoline saw a minor build of 300,000 b. In contrast, residual fuel oil declined in September by 1.1m b.

In Singapore at the end of August, product stocks declined for the second consecutive month, falling by 3.3m b to end at 35.7m b. With this drop, they remained below the level of the same time a year ago, showing a deficit of 7.9m b or 18.1 per cent.

Within products, middle distillate saw a build, while light distillate and fuel oil stocks experienced drops.

Light distillates ended August 1.7m b lower than in the previous month to stand at 8.6m b, the lowest level for almost three years. They were also 200,000 b, or 1.8 per cent, below the year-ago level.

Fuel oil stocks dropped by 2.2m b to stand at 17.6m b at the end of August. At this level, they were 3.9m b below the same period a year ago.

Middle distillate stocks rose by a slight 500,000 b to 9.4m b, the highest level since March. At this level, they were 3.8m b, or 29.0 per cent, below the same time last year.

Product stocks in the ARA region at the end of August rose by just 300,000 b to 32.0m b, the highest level for five months. This meant that they were 1.2m b, or 3.7 per cent, below last year’s level over the same period.

Within products, the picture was mixed, as gasoline, gasoil and jet fuel saw builds, while fuel oil and naphtha witnessed declines.

Gasoline stocks rose by 200,000 b to 5.3m b, leaving inventories 400,000 b, or 8.2 per cent, above the same time a year ago, while jet fuel inventories rose for the third consecutive month – by 400,000 b – ending August at 3.1m b. This represented a decline of 1.2m b, or 28.0 per cent, from the same period last year.

ARA fuel oil stocks fell for the second consecutive month – by 300,000 b – to stand at 4.7m b, representing a deficit of 1.7m b, or almost 27 per cent, with a year ago.

Naphtha inventories reversed the build of the previous month and declined by 400,000 b to end August at 1.1m b, nearly double the level of a year ago.

**November**

**Oil price movements**

In October, the OPEC Reference Basket price fell for the first time since the record 13 per cent plunge in June. Nevertheless, its monthly average remained well above the key $105/b mark and its price in October last year.

Concern regarding the health of the global economy and higher crude supply growth has put oil prices, including the Basket, on a steady decline since around mid-September.

Sentiment in crude oil markets weakened internationally in October, as the global economic slowdown triggered a pessimistic demand outlook, coupled with substantial US crude oil stock-builds, outweighed supply concerns, due to geopolitical factors.

The Basket price fell to $108.36/b in October, down $2.31/b, or 2.10 per cent. Year-to-date, it has averaged $110.05/b, compared with last year’s average of $107.19/b for the same period, a y-o-y increase of $2.86/b, or 2.67 per cent.

Although all the Basket’s component prices dropped in October, the WTI-related ones deteriorated heavily, compared with the marginal slip in the light African crude oil prices.

Latin American components lost around four per cent of their value, while North African and Bonny light crudes dropped by less than one per cent.

Algerian Saharan Blend and Libyan Es Sider were supported earlier in the month by strong demand for North African light sweet; but weak demand for gasoline-rich crudes, when the peak of the northern hemisphere summer demand period ended, weighed on the grades.

Distillate-rich Nigerian crude, Bonny light, found support from strong Asian and higher-than-usual European demand. Supply disruptions, because of pipeline sabotage and flooding in the Niger delta, also helped the grade.

Ecuador’s Oriente and Venezuelan Merey were affected by ample supply in the West Texas Intermediate (WTI) market, particularly with the restart of the Keystone pipeline that ships crude from Alberta to Cushing, Oklahoma and the major refinery turnaround in the Midcontinent region, putting pressure on WTI.

Moreover, the reduced performance of the Latin American crudes also happened as a result of the US West Coast crude oil market weakening.

Meanwhile, poor fuel oil demand in Asia had a negative effect on the performance of Middle Eastern heavy sour crudes. The resumption of exports of Sudanese Nile Blend and Dar Blend crudes, after a halt in production earlier this year, added to the supply of heavy crude in the region. This also put downward pressure on the somewhat heavy sweet Angolan grades.

African grades Saharan Blend, Es Sider, Bonny Light and Girassol – Brent-related crudes – fell by $1.07 to average $111.78/b, down by almost one per cent from the previous month.

The multi-destination Basket components, namely Arab Light, Basrah Light, Kuwait Export and Iran Heavy, lost more than two per cent in October to end at $107.86/b, which was $2.58/b lower than in the previous month.

The Middle Eastern crudes, Murban and Marine, also fell, by a little over two per cent, or $2.38, to average $110/b.

Latin American Basket components, Oriente and Merey, lost a substantial $4.21, or four per cent, of their levels to settle at a monthly average of $98.12/b, which was the first time below the key $100/b mark since July.

On November 8, the Basket price deteriorated to $104.58/b, $3.78 below October’s average.

For the first time since June’s unprecedented m-o-m drop, crude oil futures prices slumped in October, despite late support from fears that
Market Review

The declining commodity prices were essentially due to strong concern about fluctuations in the global economic GDP growth rate and outlook. Commodity markets are closely leveraged to economic global activity in the short term, especially the slowing of Chinese GDP growth and its negative impact on the rest of Asia, the debt problem in the Euro-zone and the still-fragile situation in the US and OECD.

Commodity prices have also been driven by macroeconomic factors, such as asset prices. The mood among investors remains bearish and cautious, in expectation of a better macro-economic outlook and a boost in confidence. Despite the decline in commodity prices there was some positive news for the month, with a renewed optimistic view on China and US GDP growth, and the wait for better performances in the fourth quarter of 2012 and in 2013.

Other streams of encouraging data were on the global manufacturing Purchasing Managers Index (PMI) and a rise in the indices of orders and output amid a collapse in the index of finished goods inventories, suggesting a positive signal that industrial activity was poised to rebound. Demand momentum in the US and a stabilization of China’s growth would be a positive development for emerging market Asian exporters.

Nevertheless, important regional divergences in the global performance reinforced the message that the recovery that was taking hold was constrained. Uncertainty, especially with regard to the Euro-zone’s sovereign debt crisis and setbacks for the Japanese economy, continued to weigh on commodity markets.

Sudden improvements in sentiment encouraged only short-term gains in commodities like base metals, owing to a lack of fundamental support and the global recession. Indeed, liquidity-driven rallies in commodities faded without fundamental support and on macroeconomic pessimism.

The Henry Hub natural gas price jumped by 16.7 per cent m-o-m, due to a positive turn in market sentiment that was related to the release of anxiety about storage in November, which represented a resetting of the natural gas market, when a return to normal weather could provide significant support to natural gas demand.

However, the rally in prices was not backed by underlying fundamentals, as gas power demand remained price-elastic. The net non-commercial position for natural gas is now at its highest level since October 2007, while total futures’ open interest has increased by 11 per cent since the end of September.

The agricultural price index declined by 2.95 per cent in October (as against −0.12 per cent in September), with food prices posting a four per cent drop during the month (compared with −1 per cent in September).

Agricultural markets were affected by the pessimistic global economic outlook and some selling pressure. The World Bank’s base metal price index decreased by one per cent in October, following the fading of the short-covering and the positive impact of the Federal Reserve Board’s and European Central Bank’s announcements in September.

The complex was affected essentially by great uncertainty about the growth trajectory of China’s economy and its impact on metal demand. Following a nine per cent m-o-m rise in September, gold prices remained the same at $1,746.6/troy oz in October, amid concern about Chinese economic growth and a stronger US dollar. A discouraging factor was also lower demand in India, Iran and China.

World oil demand

Estimated demand for OPEC crude in 2012 remains broadly unchanged from the previous report, as demand and non-OPEC supply saw only minor adjustments.

Within the quarters, the first, second and fourth quarters experienced downward revisions of 100,000 b/d, while the third quarter was revised up by 100,000 b/d from the previous assessment. Demand for OPEC crude this year stands at

Commodity markets

In October, energy and non-energy prices fell by 2.4 per cent and 1.6 per cent m-o-m, respectively. Food prices dropped by four per cent, base metals by 1.3 per cent and gold prices remained stable at $1,746.6/troy ounce.

The declining commodity prices were

Hurricane Sandy could disrupt US East Coast gasoline and heating oil supplies.

Since around mid-September, higher crude supply growth and concern regarding the health of the global economy have put oil prices on a steady decline, overriding supply fears.

In October, the downward pressure was sustained as mounting concern about a global economic slowdown, a pessimistic future demand outlook and significant US crude stock-builds outweighed enduring geopolitical supply concerns. During that month, soft economic data from the Euro-zone helped bring the ICE Brent front-month contract down by 1.34 per cent to its lowest monthly level for more than three months. This, coupled with a surprise build in US crude stocks, also sent the New York Mercantile Exchange (NYMEX) front-month WTI down by more than five per cent to levels not seen since the 13 per cent plunge in June.

ICE Brent slipped by roughly $1.50/b, or around 1.3 per cent, to settle at $111.52/b, although notably it has remained above the $110 mark since August.

Meanwhile, NYMEX WTI dropped by a significant 5.3 per cent or around $5/b to average $89.57/b, which was below the $90/b mark for the first time in three months.

In comparison with the same period last year, ICE Brent’s front-month year-to-date average was 1.2 per cent higher at $112.27/b (compared with $111.89/b). WTI’s front-month year-to-date average was one per cent higher than that of last year, at $95.55/b, versus $94.57/b.

Crude oil futures prices continued to slide in the first week of November. On November 8, WTI settled up at $85.09/b and Brent moved up to $107.25/b.
The fate of world oil demand in the near future will be dependent upon not only the weather and price level but also the rates of industrial and petrochemical activity.

This will mostly affect middle distillate consumption, which plunged in the past month as a result of slower industrial production in the US and China.

Furthermore, the transportation sector contributed to the slowdown in oil use in its peak summer season, as a result of both slower economic activity and higher retail prices.

World oil demand growth in 2012 is estimated at 800,000 b/d, averaging 88.8m b/d.

For the third month in a row, Indian diesel demand soared, resulting from the use of independent electricity generators and from agricultural seasonal activity.

Furthermore, the shutdown of most of Japan’s nuclear power plants has led to excess use of crude and fuel oil burning during the first three quarters of the year; however, this trend is now fading.

A proposal has been submitted to the European Commission demanding not only eliminating subsidies, but also limiting the use of biofuels made from food by the year 2020.

According to the Commission, the proposal aims to promote biofuels that substantially cut emissions, do not compete with food and can be sustained over time. This new proposal would reduce the blending mandate from ten per cent to five per cent.

There has been much concern across the world about the magnitude of the negative effects of biofuels on food availability and the environment. Furthermore, some companies in the biofuels business have scrapped ventures to produce cellulosic biofuels, due to their being economically unfeasible.

Instead, the biofuels industry is facing a challenge to commercially produce cellulosic biofuels that are economically feasible.

Unlike the 2010 fiscal and monetary stimulus plan in the US, the more recent monetary actions are having only a slight effect on the country’s oil demand in the fourth quarter.

This has been seen in the consumption of industrial products and gasoline. The aftermath of Hurricane Sandy could see a call for extra energy, mainly in November. Also, the weather conditions in the final two months of the year could affect oil use in the fourth quarter.

A cold winter would trigger higher natural gas prices, hence leading to less fuel-switching. Furthermore, recent economic developments caused a minor increase to the country’s oil demand in October.

The latest monthly US oil consumption data for August confirms the recent downward trend, showing once again decreases of 0.9 per cent y-o-y. All main product categories, with the exception of propane/proylene, gasoline and residual fuel oil, showed declines, and the bulk of these were seen in distillate consumption as a result of decreasing industrial activity.

Industrial fuel use has been on the decline, due to a weak economy and high fuel prices.
the rise, while gasoline and liquefied petroleum gas faced shrinkages.

And the latest available data for Canada in August saw oil demand decreasing by 0.7 per cent, vis-à-vis last year; oil usage in transportation and industrial products dominated this decrease.

All in all, North American oil demand is projected to decrease by 250,000 b/d in 2012.

European oil consumption contracted again in September, for the 13th month in a row, reflecting the region’s tumbling economy.

Consumption in Germany, France, Italy and the United Kingdom fell, with the bulk of decreases seen in transportation and industrial fuels, as a result of the weak economies.

“For 2012, European oil consumption is expected to shrink by 420,000 b/d, as a result of the economic turbulence in several of the region’s economies.”

Undoubtedly, the short- and medium-term development of European oil consumption does not appear to be positive, as debt problems continue in several of the continent’s economies. European ‘Big Four’ oil demand decreased by 350,000 b/d in September, compared with September 2011.

For 2012, European oil consumption is expected to shrink by 420,000 b/d, as a result of the economic turbulence in several of the region’s economies.

In Japan, record rainfall in July delivered floods and landslides into southern Japan, affecting transportation fuel consumption slightly. Japan’s disappointing economic activities have reduced the country’s oil use this summer. Crude and fuel oil direct burning by power plants has peaked and is expected to slide down in the last four months of the year.

In Japan, the latest September monthly data shows strong increases in crude consumption and residual fuel oil direct use, as the summer period came to an end.

The consumption of most other product categories remained flat (LPG, gasoline and gas/diesel oil); jet fuel was the only category with notable increases.

The direct crude and residual fuel burning for electricity production is expected to continue throughout 2012 and 2013, but at a much slower pace, as the current usage of fossil fuel for electricity generation seems to be the only option for covering the country’s needs in the short term.

Kerosene is used for heating in Japan and the preparation for the winter is expected to increase the use of this product during the final two months of the year.

In South Korea, August came up strong, increasing by 1.4 per cent y-o-y; increases in industrial products, notably naphtha, more than offset declining consumption for transportation and industrial fuels.

OECD Pacific oil consumption is expected to grow in 2012 by 330,000 b/d, while the bulk of the increase will result from direct crude/fuel oil burning for electricity generation and the substitution of nuclear plants.

The effect of India’s total massive power shutdown has been seen in the country’s diesel demand for the third straight month in the row.

This has led to the use of independent diesel-operated power-generation.

The summer is the peak season for oil use in India, for various reasons. High oil demand in the summer is attributed to the transport, agricultural and industrial sectors.

Diesel demand grew by more than 200,000 b/d in the past three months. Oil demand has exceeded expectations this year for the above reasons, as well as improved economic activity during the year.

The early forecast was set at 3.4 per cent oil demand growth for the year; however, the current estimate is at 4.4 per cent.

As for September, the two most consumed petroleum products were diesel and LPG, with average consumption growth of 200,000 b/d and 50,000 b/d, respectively.

Diesel alone grew by 11.8 per cent in the first three quarters of the year, followed by gasoline with growth of 6.3 per cent. This led to total oil demand growth for the same period of 6.4 per cent or 220,000 b/d y-o-y, averaging 3.6m b/d.

Taiwan’s oil demand has been on the decline for the past seven quarters. This weakness is attributed mostly to economic activity related to the industrial sector. In the first nine months of the year, demand slid by 2.8 per cent y-o-y, or 30,000 b/d. Most of the decline was related to the lower use of fuel oil.

Indonesian oil demand grew by two per cent in the first three quarters of this year, in comparison with the same period last year, adding another 26,000 b/d to the country’s total demand. This came about despite declines in both diesel and fuel oil use.

Gasoline demand improved by six per cent in September, leading to a total use of half a million barrels. As for the first three quarters of the year, Indonesia consumed 1.3m b/d, denoting growth of 3.3 per cent, or 44,000 b/d. This growth is attributed to a growing economy and minor subsidies for some oil product consumption.

Given the strong oil demand by India, Other Asia’s oil demand growth is estimated at 290,000 b/d y-o-y in 2012.

Oil consumption in the Middle East has been growing strongly, reaching around 29 per cent annually. Most of the growth is attributed to both the transport and industrial sectors. Gasoline, diesel and fuel oil are the most consumed products within the region.

The top consuming countries are Saudi Arabia (2.8m b/d) and Iran (1.8m b/d). Led by massive growth for diesel (87,000 b/d) and gasoline (31,000 b/d), Saudi oil demand increased by 150,000 b/d in September y-o-y to average 2.5m b/d. Diesel demand grew the most, due mainly to industrial use, since some power plants within the Kingdom operate on diesel. For the first three quarters of the year, Saudi oil demand is estimated at 2.8m b/d, denoting growth of four per cent.

It is forecast that the Middle East will consume 7.8m b/d by the end of 2012, indicating growth of 200,000 b/d for 2012 y-o-y.

In Latin America, Brazil’s oil demand in August grew by a remarkable 5.4 per cent y-o-y.
This came about despite a massive decline in energy/alcohol use of 19.4 per cent in the same period.

Bad weather forced the government in the middle of the year to reduce the alcohol/ethanol-based blending mandate from 25 per cent to 19 per cent, and this caused the negative y-o-y demand.

Gasoline and diesel demand grew by 14 per cent and 7.35 per cent, respectively, y-o-y. The first three quarters saw oil demand grow by 2.7 per cent, or 700,000 b/d y-o-y.

Venezuelan oil demand rose by 13 per cent, or 700,000 b/d y-o-y.

First three quarters saw oil demand grow by 2.7 per cent and 7.35 per cent, respectively, y-o-y. The outlook for US oil consumption in 2013 will remain weak, although it should be in better shape than this year.

In OECD Europe, the continent's oil consumption is projected to decrease again, by 240,000 b/d, thus showing hardly any improvement; this is as a result of the weak European financial outlook. As for the OECD Pacific, con-

Furthermore, oil demand in the US and China, which are expected to be the main players in next year's world demand growth profile, can change the overall rhythm of the demand pattern.

World oil demand is forecast to continue its growth during 2013 to reach 800,000 b/d y-o-y and average 89.6 m b/d.

Developing countries' oil demand growth is forecast at 700,000 b/d y-o-y, averaging 28.5 m b/d in 2012 and indicating an upward revision of 60,000 b/d from the last OPEC report.

Oil demand has been faltering during the summer, reducing heavily expected growth projections.

Electrification demand from power plants, which operate partly on fuel oil, increased by 2.9 per cent in September y-o-y, the lowest monthly growth since January. This was an indicator of a slowing economy.

This, of course, affected all types of energy use, not only oil. September's oil demand rose by 200,000 b/d y-o-y, leading to third-quarter growth of 170,000 b/d.

This slowdown resulted from both slowing economic activity, mainly industrial, and the country's use of a different pricing mechanism.

China has embarked on two initiatives affecting oil demand. One is the adoption of new laws to curb sales of vehicles within large cities, while the second is passing on most of the increase in international oil prices to the end-user. Hence domestic demand has shrunk slightly.

Chinese gasoline demand reflected transport expansion, growing by ten per cent in the first three quarters. Diesel, on the other hand, did not follow its normal trend, as a result of slowing industrial activity. The country consumed only 29,000 b/d of extra diesel in the same period.

Lower-than-expected diesel demand is not expected to be the trend in the near future. A recovery in industrial manufacturing will push diesel demand up in the next few months. Should the country's economy revive in the coming months, then the use of oil will be as forecast earlier.

The downside risk to the current forecast for oil demand growth is estimated at 50,000 b/d for the year. October's oil demand is expected to be slightly better than September's, despite the week-long holidays in October.

China's oil demand growth is forecast at three per cent, or 300,000 b/d, in the first three quarters of the year.

Meanwhile, expected challenges in the global economy next year are creating much uncertainty about world oil demand. Hence the forecast for oil demand growth has a notable downside risk, especially in the first half of the year.

Much of this risk is attributed to not only the OECD, but also China and India. A spill-over from the troubled European economy will affect other regions of the world.

Some factors affecting next year's oil demand forecast are the current ambiguity in the world GDP assessment, retail petroleum prices and abnormal weather conditions, and these could lead to a reassessment of world oil demand later in the year.

Such variables could reduce the world oil demand growth forecast by 20 per cent next year. The outlook for US oil consumption in 2013 remains rather pessimistic, especially when taking into consideration economic developments and fuel-switching.

**“Preliminary figures indicate that global oil supply increased by 1.01 m b/d in October to average 90.22 m b/d.”**

World oil supply

Preliminary figures indicate that global oil supply increased by 1.01 m b/d in October to average 90.22 m b/d.

Non-OPEC supply experienced growth of 1.08 m b/d, while OPEC crude production experienced a decline.

The share of OPEC crude oil in global production declined slightly to 34.3 per cent in October. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC natural gas liquids (NGLs) and OPEC crude production from secondary sources.

Meanwhile, non-OPEC oil supply is expected to increase by 490,000 b/d in 2012 to average...
OECD supply witnessed an average increase of 860,000 b/d, compared with the same period a year earlier.

North America remains the region with the highest expected growth among all non-OPEC regions in 2012, followed by China and the former Soviet Union (FSU). Conversely, OECD Western Europe, Africa and the Middle East are seen as the regions expected to have the highest declines among non-OPEC producers.

According to preliminary and estimated data, total non-OPEC supply in the third quarter of 2012 increased by 430,000 b/d over the same period a year earlier.

During the first three quarters of the year, non-OPEC supply increased by 470,000 b/d, compared with the same period the previous year.

On a quarterly basis, non-OPEC supply this year is expected to average 53.21 m b/d, 52.61 m b/d, 52.49 m b/d and 53.47 m b/d, respectively.

OECD total oil supply is expected to increase by 700,000 b/d in 2012 to average 20.87 m b/d, following a downward revision of 15,000 b/d from the previous month. This downward revision was introduced to OECD Western Europe and North America, while the forecast for OECD Pacific supply saw an upward revision that offset part of the downward one.

The OECD supply profile remains steady, with strong growth in North America leading the overall growth, a relatively sharp decline in OECD Western Europe and steady supply from OECD Pacific.

According to preliminary actual and estimated data, OECD supply averaged 20.60 m b/d in the third quarter of this year, a decrease of 190,000 b/d from the previous quarter and an increase of 740,000 b/d, compared with the same quarter last year.

During the first three quarters of 2012, OECD supply witnessed an average increase of 860,000 b/d, compared with the same period a year earlier.

On a quarterly basis, OECD oil supply in 2012 is seen to average 21.05 m b/d, 20.79 m b/d, 20.60 m b/d and 21.05 m b/d, respectively.

North America’s oil production is forecast to increase by 920,000 b/d in 2012, the highest rise among all non-OPEC regions, to average 16.45 m b/d, denoting a minor downward revision of 15,000 b/d from the previous month.

The expected healthy supply growth from the US and Canada and the relatively low anticipated decline from Mexico all supported the North American supply forecast.

On average, North American supply increased by 1.11 m b/d during the first three quarters of 2012, compared with the same period of 2011, according to preliminary data.

On a quarterly basis, North American oil supply this year is expected to stand at 16.47 m b/d, 16.35 m b/d, 16.43 m b/d and 16.55 m b/d, respectively.

US oil supply is forecast to increase by 710,000 b/d in 2012 to average 9.74 m b/d, which is unchanged from the previous report.

The strong growth that has been achieved so far and that is expected to continue through 2012 is supported by the shale developments in Texas, North Dakota and other locations. Furthermore, new NGL capacity further supported the expected growth in US supply in 2012.

North Dakota’s supply reached a new record average of 701,000 b/d in August, depicting an increase of 25,000 b/d from the previous month and growth of 255,000 b/d over the same period a year earlier.

This strong growth was driven by shale developments in the Bakken formation, where 7,701 wells were producing in July, an increase of 234 wells from the previous month.

Texas oil production averaged 2 m b/d in August, the highest monthly average since June 1988. The continued strong growth was supported by shale oil developments in the Eagle Ford and other formations.

This meant an increase for Texas of 75,000 b/d from the previous month and growth of 515,000 b/d compared with the same month a year earlier.

Moreover, US NGL production continued to show healthy growth signs. The restart of closed units and the opening of new petrochemical plants was seen supporting NGL prices and production.

According to preliminary data, US oil supply decreased by 50,000 b/d in the third quarter from the previous quarter and increased by 790,000 b/d over the same period a year ago.

On a quarterly basis, US oil supply this year is estimated to average 9.74 m b/d, 9.74 m b/d, 9.69 m b/d and 9.80 m b/d, respectively.

Canadian oil supply is forecast to increase by 230,000 b/d in 2012 to average 3.79 m b/d, indicating a minor downward revision of 15,000 b/d from the previous report.

Canada’s supply this year is expected to achieve the highest annual growth since 1979 and this would be the second-largest among all non-OPEC countries.

This growth is supported by oil sands, shale oil and NGL production increases. Canadian NGL supply is expected to continue increasing.

According to preliminary data, Canada’s oil supply averaged 3.82 m b/d in the third quarter of 2012, an increase of 140,000 b/d from the second quarter and growth of 200,000 b/d over the third quarter of 2011.
On a quarterly basis, Canada’s oil supply in 2012 is expected to average 3.81m b/d, 3.68m b/d, 3.82m b/d and 3.85m b/d, respectively. Mexico’s oil production is expected to decline by 30,000 b/d in 2012 to average 2.88m b/d, unchanged from the previous month.

Preliminary data for October indicated a minor decrease from September, while during the first three quarters of the year, Mexico’s supply remained relatively steady, compared with the same period in the previous year, with a minor decline of 25,000 b/d on average.

On a quarterly basis, Mexico’s oil supply in 2012 supply is seen to average 2.92m b/d, 2.92m b/d and 2.89m b/d, respectively.

Total OECD Western Europe oil supply is expected to decline by 230,000 b/d in 2012 to average 3.83m b/d, denoting a downward revision of 50,000 b/d from the previous report.

OECD Western Europe is the region with the biggest decline among all non-OPEC regions in 2012. According to preliminary data, its production averaged 3.50m b/d in the third quarter, the lowest quarterly output since 1983, indicating a decline of 410,000 b/d from the second quarter and a drop of 360,000 b/d from the same quarter of 2011.

On a quarterly basis, OECD Western Europe’s oil supply this year is seen standing at 4.07m b/d, 3.91m b/d, 3.50m b/d and 3.86m b/d, respectively.

Norway’s oil production is forecast to decline by 100,000 b/d in 2012 and average 1.94m b/d, representing a downward revision of 20,000 b/d from the previous report.

According to preliminary data, Norway’s oil supply declined by around 95,000 b/d during the first three quarters of this year, compared with the same period in 2011.

On a quarterly basis, Norway’s oil supply in 2012 is expected to average 2.08m b/d, 1.98m b/d, 1.76m b/d and 1.95m b/d, respectively.

The UK’s oil production is expected to decline by 140,000 b/d in 2012 to average 980,000 b/d, which represents a downward revision of 30,000 b/d from the previous month. This would be the first time it has fallen below the 1.0m b/d mark since 1977.

On a quarterly basis, the UK’s oil supply averaged 830,000 b/d, the lowest level since the third quarter of 1977. Output is expected to increase in the fourth quarter as production from some fields is seen to return to normal levels.

During the first three quarters of 2012, UK oil production declined by an average of 150,000 b/d, compared with the same period last year.

On a quarterly basis, the UK’s oil supply in 2012 is expected to average 1.08m b/d, 1.01m b/d, 830,000 b/d and 1.01m b/d, respectively.

The OECD Pacific’s total oil production is predicted to remain steady in 2012, with a minor increase of 20,000 b/d to average 590,000 b/d, indicating an upward revision of 50,000 b/d from the previous month.

This revision came from Australia, while New Zealand’s supply estimate remained unchanged.

On a quarterly basis, total OECD Pacific oil supply this year is seen averaging 510,000 b/d, 530,000 b/d, 660,000 b/d and 640,000 b/d, respectively.

Australia’s oil supply is projected to remain relatively steady in 2012, with a minor increase of 20,000 b/d from the previous year to average 500,000 b/d, constituting an upward revision of around 50,000 b/d from the previous report.

During the first three quarters of 2012, Australia’s oil supply remained steady, compared with the same period of 2011.

On a quarterly basis, Australia’s oil supply in 2012 is seen to stand at 430,000 b/d, 450,000 b/d, 570,000 b/d and 550,000 b/d, respectively.

Developing countries’ total oil supply is forecast to decline by 410,000 b/d in 2012 to average 12.26m b/d, a downward revision of 55,000 b/d from the previous month.

Steady supplies are expected from Latin America and Other Asia, while supply from Africa and the Middle East is forecast to decline.

During the first three quarters of 2012, developing countries’ oil supply is estimated to have declined by 490,000 b/d, compared with the same period of 2011.

On a quarterly basis, the group’s oil supply this year is expected to average 12.33m b/d, 12.10m b/d, 12.16m b/d and 12.45m b/d, respectively.

Other Asia’s oil production is estimated to decrease by 20,000 b/d in 2012 to average 3.61m b/d, representing a minor downward revision of less than 10,000 b/d from the previous report.

India’s supply is seen to remain steady this year at an average of 880,000 b/d, unchanged from the previous month, while Vietnam’s supply is expected to average 390,000 b/d, an increase of 40,000 b/d from 2011 and steady from the previous report.

On a quarterly basis, Other Asia’s oil supply is seen to stand at 3.65m b/d, 3.56m b/d, 3.59m b/d and 3.66m b/d, respectively.

Oil supply from Indonesia, the region’s largest producer, is expected to decline by 60,000 b/d in 2012 to average 970,000 b/d. This drop was anticipated, since natural declines have affected output, together with limited volumes from new developments in 2012, as well as unplanned shutdowns and land-clearing issues that delayed permits.

Malaysia’s oil supply is forecast to average 650,000 b/d in 2012, steady from the previous year and the last report.

Latin America’s oil production is projected to remain relatively steady in 2012, averaging 4.76m b/d, constituting a downward revision of 40,000 b/d from the previous report.

Argentina’s oil supply is expected to average 740,000 b/d in 2012, flat from the previous year, while Colombia’s oil production is expected to increase by 30,000 b/d in 2012 to average 950,000 b/d, denoting a minor downward revision of 20,000 b/d from the previous month’s assessment.

“India’s supply is seen to remain steady this year at an average of 880,000 b/d, unchanged from the previous month.”
On a quarterly basis, Latin America’s oil supply in 2012 is seen to average 4.85m b/d, 4.71m b/d, 4.67m b/d and 4.79m b/d, respectively. Brazil’s oil supply is expected to decrease by 10,000 b/d in 2012 to average 2.63m b/d, indicating a downward revision of 20,000 b/d from the previous month.

On a quarterly basis, Brazil’s oil supply this year is expected to average 2.72m b/d, 2.58m b/d, 2.55m b/d and 2.66m b/d, respectively.

Middle East oil supply is forecast to decline by 160,000 b/d in 2012 to average 1.53m b/d, unchanged from the previous month. Oman’s production is expected to rise by 160,000 b/d in 2012 to average 1.53m b/d, 2.55m b/d and 2.66m b/d, respectively.

On a quarterly basis, Middle East oil supply this year is expected to average 2.72m b/d, 2.58m b/d, 2.55m b/d and 2.66m b/d, respectively.

On a quarterly basis, Russia’s oil supply this year is expected to average 10.44m b/d, 10.36m b/d and 10.38m b/d, respectively. Production averaged 10.44m b/d in October, according to preliminary data. Oil supply from Egypt, Equatorial Guinea and South Africa is seen to experience minor increases, while production from South Sudan and Sudan is seen declining.

According to preliminary and estimated data, during the first three quarters of 2012, Africa’s oil supply is estimated to have declined by 260,000 b/d, compared with the same period of 2011.

On a quarterly basis, Africa’s oil supply this year is seen to average 2.41m b/d, 2.31m b/d, 2.32m b/d and 2.41m b/d, respectively.

The FSU’s total oil supply is forecast to increase by 70,000 b/d in 2012 to average 13.31m b/d, flat from the previous month.

The expected growth is supported by Russia and Other FSU, while output from Kazakhstan and Azerbaijan is seen declining.

Russia remains the country with the highest oil production levels among all non-OPEC countries, a position the country has maintained since 2003.

The expected growth from the FSU in 2012 of 70,000 b/d is significantly lower than the average annual growth of the last five years of 250,000 b/d.

According to preliminary data, China’s oil production is expected to increase by 30,000 b/d from the second quarter and a rise of 40,000 b/d, compared with the same quarter a year earlier.

China’s oil production is expected to increase by 80,000 b/d in 2012 to average 4.20m b/d, an upward revision of 10,000 b/d from the previous month.

According to preliminary data, China’s oil production during the third quarter saw an increase of 40,000 b/d from the second quarter and a rise of 160,000 b/d, compared with the same quarter a year earlier, mainly from offshore production.

According to preliminary data, China’s oil production during the first three quarters of 2012, China’s oil supply increased by 30,000 b/d, compared with the same period the previous year.

On a quarterly basis, China’s oil supply is estimated to average 1.62m b/d, 1.57m b/d, 1.52m b/d and 1.62m b/d, respectively.

Azerbaijan’s oil supply is expected to decline by 20,000 b/d in 2012 to average 940,000 b/d, unchanged from the previous month.

Azerbaijan’s oil supply is expected to decline by 20,000 b/d in 2012 to average 940,000 b/d, unchanged from the previous month.

Other European oil supply is estimated to remain flat from 2011 and average 140,000 b/d in 2012.

Kazakhstan’s oil supply is seen falling by 20,000 b/d in 2012 to average 1.58m b/d, flat from the previous report. The fall is expected on limited new developments, declines in mature producing areas and the impact of maintenance.

During the third quarter, Kazakhstan’s oil supply averaged 1.52m b/d, a decline of 20,000 b/d, compared with the same quarter in 2011.

During the first three quarters of 2012, the country’s production decreased by 30,000 b/d on average, compared with the same period of 2011.

On a quarterly basis, the country’s oil supply this year is estimated to average 1.62m b/d, 1.57m b/d, 1.53m b/d and 1.62m b/d, respectively.

Africa’s oil production is predicted to decrease by 230,000 b/d in 2012 to average 2.36m b/d, unchanged from the previous report.

Oil supply from Egypt, Equatorial Guinea and South Africa is seen to experience minor increases, while production from South Sudan and Sudan is seen declining.

According to preliminary and estimated data, during the first three quarters of 2012, Africa’s oil supply is estimated to have declined by 260,000 b/d, compared with the same period of 2011.

On a quarterly basis, Africa’s oil supply this year is seen to average 2.41m b/d, 2.31m b/d, 2.32m b/d and 2.41m b/d, respectively.

The FSU’s total oil supply is forecast to increase by 70,000 b/d in 2012 to average 13.31m b/d, flat from the previous month.

The expected growth is supported by Russia and Other FSU, while output from Kazakhstan and Azerbaijan is seen declining.

Russia remains the country with the highest oil production levels among all non-OPEC countries, a position the country has maintained since 2003.

The expected growth from the FSU in 2012 of 70,000 b/d is significantly lower than the average annual growth of the last five years of 250,000 b/d.

During the first three quarters of 2012, FSU output increased by 30,000 b/d on average, compared with the same period of 2011.

On a quarterly basis, total FSU oil supply this year is estimated to average 13.36m b/d, 13.25m b/d, 13.23m b/d and 13.40m b/d, respectively.

Russia’s oil production is forecast to grow by 80,000 b/d in 2012 to average 10.35m b/d, unchanged from the previous month.

According to preliminary data, Russia’s oil production hit a new high in October, exceeding the previous month’s record by 50,000 b/d.

During the first three quarters of 2012, Russian oil production increased by 100,000 b/d on average, compared with the same period in 2011.

On a quarterly basis, Russia’s oil supply this year is seen to average 10.34m b/d, 10.32m b/d, 10.36m b/d and 10.38m b/d, respectively. Production averaged 10.44m b/d in October, according to preliminary data.
in 2013 sees little change, with strong growth expected in North America, driven mainly by the US and Canada. OECD Western Europe is expected to see the largest decline in the year.

The FSU is projected to have the second-largest regional growth after North America, followed by Africa and Latin America. Africa’s supply is forecast to increase strongly on the return of the halted South Sudan production in 2013.

The US, Canada, South Sudan and Sudan, Brazil, Australia, Kazakhstan, Russia and Colombia are expected to drive growth in 2013, while Mexico, Norway, the UK and Indonesia are seen recording declines.

On a quarterly basis, non-OPEC supply in 2013 is projected to average 53.48m b/d, 53.49 m/b/d, 53.83 m/b/d and 54.58 m/b/d, respectively.

US oil supply in 2013 is now expected to increase by 340,000 b/d to average 10.08 m/b/d, while Australia’s oil supply is forecast to increase by 70,000 b/d to average 570,000 b/d.

**OPEC oil production**

Total OPEC crude oil output averaged 30.95m b/d in October, according to secondary sources, a decline of 67,000 b/d from the previous month.

Crude oil production experienced a considerable increase from Angola, while production fell from Nigeria, Saudi Arabia and Iran.

OPEC crude production, not including Iraq, stood at 27.76 m/b/d in October, a decrease of 63,000 b/d over the previous month.

Production of OPEC NGLs and non-conventional oils is forecast to grow by 370,000 b/d in 2012 to average 5.76 m/b/d, following a historical upward revision to 2011 production.

In 2013, output of OPEC NGLs and non-conventional oils is expected to increase by 240,000 b/d to average 6.00 m/b/d.

**Downstream activity**

Oil product markets showed a mix performance during the past month. Middle distillates continued stronger worldwide on the back of tight sentiment for the products ahead of the winter season, while gasoline exhibited a sharp decline in the Atlantic Basin after the end of the driving season.

This, along with the losses at the bottom of the barrel, caused refinery margins to fall worldwide.

US Gulf Coast refining margins reversed the upward trend seen since June and lost ground over the previous month, as gasoline came under pressure from the end of the driving season and increasing supplies, and its sharp loss weighed on regional refining margins, despite the healthy cracks exhibited by middle distillates.

The margins for WTI remained mostly unchanged from the previous month at around $36/b, as the WTI price fell. The margins for Light Louisiana Sweet and Arabian Heavy crudes on the US Gulf Coast suffered sharp drops of more than $4, to stand at around $17/b and $16/b, respectively, in October.

European product cracks showed a mixed performance over the month. The middle of the barrel remained strong and healthy in a tight environment caused by the refinery maintenance season in Europe, and falling inventories continued to offer support, while gasoline and fuel oil weakened.

Bearish signals from the US also affected the European market during the month after the end of the driving season.

Naphtha maintained its ground, with demand from the petrochemical sector increasing, and lent support. However, refining margins weakened over the month, with a plunge in the gasoline crack outweighing the positive performance of its fellow products, and the refining margins for Brent in Northwest Europe saw a sharp drop of $3.4 in October to stand at $8/b on average.

Refinery margins in Asia remained steady over the month, despite a bearish performance at the bottom of the barrel, with the fuel oil crack losing ground due to the worldwide slump in bunker demand.

With the exception of fuel oil, marginal increases were recorded across all parts of the barrel, as the market remained relatively well-balanced with rising supplies being offset by strong regional demand.

These developments, along with less expensive crude, allowed refinery margins in Singapore to cap losses and average $4.6/b in October, a slight drop of 20¢.

US refinery utilization did not recover the level lost in September, when several refineries were shut down temporarily as a preventive measure when Hurricane Isaac hit the region. This was because, at the end of October, Hurricane Sandy’s impact on the East Coast refineries also triggered some preventive shutdowns.

US refinery runs declined from the level of 91 per cent in August to an average of 87.3 per cent in September and remained at the same level during October.

Since mid-year, a relative tightening of the Atlantic Basin balance has allowed margins to become healthier in Europe, and the heavy maintenance season in Europe has kept middle distillates tight.

In recent months, refinery utilization has increased to average above 80 per cent, the highest level seen so far this year.

The refinery maintenance season in Asia is coming to an end and, despite some unplanned shutdowns in the region, increasing supplies have eased the tight environment, affecting product cracks, although this loss has been capped by support from strong regional demand, mainly for distillates.

China and India ran their refineries at

“Total OPEC crude oil output averaged 30.95 m/b/d in October, according to secondary sources, a decline of 67,000 b/d from the previous month.”

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refinery maintenance, the main supporting factors have disappeared and with them the bullish market expectations. This has caused the gasoline cracks to post a sharp decline, falling to the lowest level seen in the last six months.

With Hurricane Sandy having passed along the US East Coast, there are expectations of an impact on the gasoline market in the coming weeks, as the storm has led to disruptions and will also have some impact on the consumption side.

Middle distillate demand stood at around 3.7m b/d in October, 50,000 b/d above the previous month, but 200,000 b/d down from the same month a year ago.

Export opportunities to Europe and Latin America remained supportive of the US distillate market. In fact, according to the latest EIA report, distillate exports remained steady at a strong level of around 1m b/d.

Latin American demand for diesel has been the main factor contributing to the tightness in the US market, with Ecuador, Chile and Brazil among the major buyers.

This factor has kept US distillate stocks below the five-year average to drop beneath 120m b, the lowest level seen in years. At the same time, US heating oil stocks are being drawn down, in line with higher demand ahead of the winter season.

Product market sentiment turned bearish in Europe, as gasoline was hit by the end of the Atlantic Basin driving season while fuel oil demand remained lacklustre. The only exception was the middle of the barrel, as tight sentiment continued to give support.

Rising inventory levels also added pressure, with gasoline stocks in the Amsterdam-Rotterdam-Antwerp (ARA) region’s trading hub increasing to a level higher than the five-year average.

In addition, exports to West Africa dropped, as the ongoing Nigerian subsidies saga continued to limit demand from the country.

In the coming weeks, reduced buying activity, due to Hurricane Sandy-related disruptions, may also temporarily reduce demand for products, including gasoline, and exert further pressure on the market.

Diesel market sentiment in Europe improved over the month, with firm demand from Germany, France and the UK adding support to the market, while low inventories and the ongoing refinery maintenance season helped maintain the bullish sentiment.

At the bottom of the barrel, both high- and low-sulphur fuel oil took hits, on the back of sluggish regional demand and a lack of export opportunities to the important Asian market, as stocks in Singapore increased.

In addition, Russian fuel oil exports are expected to be higher, in line with increased winter production.

Asian markets remained relatively well-balanced as increasing supplies eased the tight situation. Fuel oil weakened further, due to a lack of demand and increasing inflows to the region.

Gasoline recovered a little of the ground lost last month, while naphtha remained flat, supported by the petrochemical sector.

Oil trade

Preliminary data shows that US crude oil imports declined in October for the second consecutive month – by 225,000 b/d, or 2.7 per cent, from the previous month to average 8.3m b/d.

On an annual basis, this reflected a loss of 604,000 b/d, or 6.8 per cent, from a year earlier. US crude imports reached their lowest level since February 2011.

US product imports dropped by 82,000 b/d, or 3.9 per cent, to average 2.03m b/d m-o-m, while y-o-y, they fell by 119,000 b/d, or 5.5 per cent.

On a year-to-date comparison, crude and product imports declined by four per cent and 18 per cent, respectively.

US oil product exports decreased in October by 100,000 b/d, or 3.5 per cent, from the previous month to average 2.8m b/d. Y-o-y, the figures reflected a greater drop of 297,000 b/d, or ten per cent.

As a result, total US net imports declined slightly to average 7.52m b/d, which was 2.7 per cent lower than in the previous month and five per cent less than last year’s level.

Japan’s crude oil imports experienced a 19,000 b/d, or 0.5 per cent, monthly decline in September to average 3.6m b/d. Y-o-y, they decreased by 15,000 b/d, or 0.4 per cent.

On the other hand, the country’s oil product imports increased by 65,000 b/d in September to average 694,000 b/d, denoting a gain of 10.3 per cent m-o-m and 0.2 per cent y-o-y. The monthly product imports were considered to be the highest since February.

Japan’s oil product exports declined by 38,000 b/d, or seven per cent, in September to average 500,000 b/d. Y-o-y, the decline was equal to 94,000 b/d, or 15.8 per cent. Accordingly, Japan’s net imports rose by 83,000 b/d in September to average 3.78m b/d, reflecting a monthly and annual gain of 2.2 per cent.

China’s crude oil imports increased by

“Preliminary data shows that US crude oil imports declined in October for the second consecutive month — by 225,000 b/d, or 2.7 per cent.”
556,000 b/d, or 12.8 per cent, in September from the previous month to average 4.9 m b/d. This increase came after China’s crude imports had reached a 22-month low the previous month.

Y-o-y, China’s crude imports increased by 90,000 b/d, which was 1.8 per cent higher. Year-to-date, the figures reflected an increase of 336,000 b/d, or 6.7 per cent.

China’s crude oil exports increased in September by 5,000 b/d to average 50,000 b/d. This meant a recovery to the same level as in July, following the decline in August.

The increase was equivalent to 11.5 per cent m-o-m, while y-o-y, it denoted a decrease of 60 per cent.

On the other hand, China’s oil product exports saw a minor increase of 6,000 b/d, or 1.2 per cent, m-o-m and a decrease of 164,000 b/d, or 23.9 per cent, y-o-y. As a result, China’s net oil imports increased by 865,000 b/d, or 19.9 per cent, from the previous month and by 36,000 b/d, or 0.7 per cent, from a year earlier.

India’s crude oil imports in September rose for the second consecutive month — by 149,000 b/d, or 4.4 per cent, from the previous month to average 3.5 m b/d. This was considered to be the highest level since May 2012 and constituted an annual increase of 349,000 b/d, or 11 per cent.

India’s oil product imports saw a small decrease of 14,000 b/d, or four per cent, m-o-m in September to average 326,000 b/d. Y-o-y, it meant an increase of 34,000 b/d, or 11.6 per cent.

The country’s oil product exports rose by 99,000 b/d, or 8.1 per cent, in September to average 13 m b/d. Y-o-y, they declined by a slight 8,000 b/d, or 0.6 per cent.

Consequently, India’s net oil imports increased by 36,000 b/d to average 2.5 m b/d, which meant a gain of 1.5 per cent m-o-m and 18.3 per cent y-o-y.

Total crude oil exports from the former Soviet Union increased by 191,000 b/d, or three per cent, in September to average 6.5 m b/d. Y-o-y, they increased by 36,000 b/d, or 0.7 per cent, from August to average 3 m b/d. This fall came on the back of lower exported quantities of naphtha, jet, gasoil and fuel oil, which decreased from the previous month’s level by 16 per cent, 33 per cent, seven per cent and nine per cent, respectively.

### Stock movements

Preliminary data for September showed that total OECD commercial oil stocks remained virtually unchanged, following a 11.2 m b drop in August.

Crude oil showed a build of 1.1 m b, while products abated this build as they declined by 1.7 m b. At 2,704 m b, OECD commercial stocks stood 34 m b above the level of last year during the same period and indicated a surplus of 6 m b compared with the last five-year average, making it the first gain since May.

Within the components of OECD commercial inventories, crude stood at a comfortable level, representing a surplus of 44 m b with a year earlier and 32 m b above the five-year average, while product stocks indicated a deficit of 10 m b with last year and 26 m b with the seasonal norm.

The upward trend in total OECD commercial stocks observed since the beginning of this year reflects the strong performance of non-OPEC supply and the increase in OPEC crude production amid relatively weaker demand.

Indeed, during the first three quarters of this year, global supply increased by 2.6 m b/d, while world oil demand rose by only 700,000 b/d.

On a regional basis, North America’s stocks declined by 3.5 m b, with crude rising by 2.2 m b and products abating this build, declining by 5.7 m b.

The build in US crude commercial stocks came from lower refinery runs, reflecting the period of refinery maintenance normal for this time of year.

In September, US refineries operated at 87.3 per cent, which was 2.7 per cent lower than in the previous month and 0.4 per cent below the same month last year.

At 661 m b, North America’s commercial crude oil stocks stood at comfortable levels, indicating a surplus with the last five-year average of 36 m b, which was 28 m b more than a year ago at the same time.

However, product stocks in North America still remained 13 m b below the historical average in September and 19 m b down y-o-y.

OECD Europe’s inventories saw a decline of 2.0 m b, driven mainly by the fall of 3.9 m b in crude, while products rose by 1.9 m b.

With this total drop, OECD Europe commercial stocks remained 23.2 m b below the five-year average, divided between crude and products, as they showed a deficit of 13.0 m b and 10.1 m b, respectively.

However, y-o-y, OECD Europe commercial stocks indicated a gain of 15 m b for the first time since October 2010. Both crude and products contributed to this gain as they showed a surplus of 5.7 m b and 6.8 m b, respectively.

OECD Pacific commercial stocks rose in September by 4.9 m b, driven by an increase of 2.8 m b in crude inventories and 2.1 m b in products.

OECD Pacific commercial stocks stood 6.4 m b above the last five-year average and 13.1 m b above the same time a year ago.

However, within the components, the picture was mixed. OECD Pacific commercial crude stood 9.2 m b above the historical norm, while products indicated a deficit of 2.8 m b. Compared with a year ago at the same period, crude showed a surplus of 10.7 m b, and products witnessed a gain of 2.3 m b.

In terms of days of forward cover, OECD commercial stocks in September stood at 58.9 days and indicated a gain of nearly two days.
compared with the last five-year average and one day, compared with the previous year in the same period.

This comfortable level of OECD days of forward cover is not expected to fall, since demand in OECD countries is projected to decline further in the coming year amid a continued good performance of non-OPEC supply.

Indeed, OECD demand for 2013 is expected to fall by 200,000 b/d vis-à-vis this year, while non-OPEC supply is forecast to rise by around 900,000 b/d.”

The latest available data for September shows that European stocks reversed the build of the last two months and fell by 2.0m b to stand at 1,063m b.

“OECD demand for 2013 is expected to fall by 200,000 b/d ... while non-OPEC supply is forecast to rise by around 900,000 b/d.”

At this level, they ended the month 11.1m b, or 1.0 per cent, lower than a year ago and 47m b, or 4.3 per cent, below the five-year average. The draw in total inventories came from crude, which fell by 3.9m b, while product stocks rose by 1.9m b.

European crude inventories fell by 3.9m b in September, reversing the build of the previous month, and finished the month at 456.8m b. Despite this decline, they remained 14.7m b, or 3.3 per cent, above a year earlier, but persisted 4.8m b, or 1.0 per cent, below the last five-year average.

European crude throughputs were above 11.0m b in September, around 480,000 b/d more than in the previous year in the same period. The third quarter averaged 11.17m b/d, the highest in two years, and corresponded to almost 85 per cent of capacity.

European product stocks reversed the draw of previous month and increased by 1.9m b to end September at 606.0m b. At this level, they were 26.0m b, or 4.1 per cent, below the same period last year and 43.0m b, or 6.6 per cent, lower than the five-year average.

Within products, distillates and naphtha saw drops, while gasoline and residual fuel oil witnessed builds. Gasoline saw the bulk of this build, increasing by 1.9m b to stand at 106.9m b, albeit showing a slight deficit of 1.9m b compared with a year ago and remained 8.0m b, or seven per cent, below the seasonal average.

Distillate stocks ended September slightly lower than the previous month, following the 1.5m b build seen in August. At 373.1m b, they dropped by 16.1m b, or 4.1 per cent, from a year earlier and stand 20m b, or 5.1 per cent, lower than the five-year average.

Fuel oil stocks rose by 1.3m b to end September at 917.7m b, 7.3m b below the same period last year and 18.0m b lower than the five-year average.

Preliminary weekly data showed that US total commercial oil stocks fell in October for the third consecutive month by 3.2m b to stand at 1,098.3m b/d.

Despite this draw, they stood 24.4m b, or 2.3 per cent, above a year ago during the same period and 35.1m b, or 3.3 per cent, higher than the last five-year average.

The fall in US total commercial oil stocks was attributed to products as they decreased by 11.6m b, while crude oil stocks abated the decline, increasing by 8.4m b.

In October, US commercial crude stocks rose by 8.4m b for the second consecutive month to stand at 373.1m b. With this build, they indicated a surplus with a year ago of 34.5m b, or 10.2 per cent, lower than the seasonal norm.

Jet fuel stocks rose for the fourth month running, by 100,000 b from a month earlier. At 44.5m b, they stood at the highest level for one year. But despite this upward trend, they were still 11.1m b, or 2.4 per cent, lower than a year ago, but indicated a surplus of 1.8m b, or 4.2 per cent, with the seasonal norm.

Residual oil stocks rose by 1.0m b in October to finish the month at 36.1m b. At this level, they were 700,000 b, or 1.8 per cent, lower than the same month a year ago and 2.1m b, or 5.5 per cent, below the five-year average.

In Japan, in September, commercial oil stocks reversed the draw incurred over the previous month, increasing by 4.9m b to end the month at 813.1m b, the highest level since February 2009.

With this build, the surplus with a year ago increased to 1.4 per cent from only 0.1 per cent a month earlier. The build also helped to switch the deficits with the five-year average that occurred in the last two months to a surplus of 2.1 per cent in September. The total stock-build came from crude and products as they increased by 2.7m b and 2.1m b, respectively.

Japanese commercial crude oil stocks reversed the draws of the last three consecutive
months and ended September at 104.1m b. At this level, they were 4.3m b above the same time a year ago and around 8.4m b above the latest five-year average.

The build was due mainly to lower crude throughput, which declined by around 187,000 b/d, or 5.4 per cent, over the previous month to average 3.3m b/d, and stood 2.8 per cent below the year-ago level.

In September, Japan’s refineries were running at 72.7 per cent, which was 4.2 per cent lower than in the previous month, but 0.1 per cent higher than in the same period last year.

Lower crude imports in September limited the build in Japanese crude oil stocks. Indeed, crude oil imports fell by 0.5 per cent from the previous month, averaging 3.6m b/d, and were 0.4 per cent lower than the same period last year.

Japan’s total product inventories continued their upward trend, rising by 2.1m b for the sixth consecutive month to end September at 77.2m b, the highest level since November 2011.

Despite this build, stocks showed a deficit of 1.7m b, or 2.2 per cent, with a year ago and were 4.7m b, or 5.7 per cent, below the seasonal average. The stock build for total products came mainly from lower total oil product sales, which decreased by nearly 200,000 b/d, or 5.8 per cent, from the previous month, but they still remained 1.6 per cent higher when compared with the same period last year.

At 3.2m b/d, oil product sales in Japan were higher for the 10th month in a row y-o-y when demand was low after the triple disaster devastated Japan in March. Lower refinery throughput limited the build in product stocks.

All products saw builds with the bulk coming from distillates as they increased by 1.4m b, finishing September at 35.9m b, the highest level since November 2011.

Despite the build, they still showed a deficit of 1.9m b, or 5.0 per cent, compared with a year ago, and were 3.2m b, or 8.3 per cent, below the five-year average.

Within distillate components, jet fuel and gasoil saw draws, while kerosene witnessed a build. Kerosene stocks rose by 11.6 per cent reflecting lower domestic sales, due to unusually hot weather in September.

Jet fuel inventories fell by 12.2 per cent, driven by an increase of 12.4 per cent in domestic consumption, combined with an 11.3 per cent increase in exports.

Gasoil stocks also fell by 6.9 per cent, supported by a huge decline of almost 40 per cent in imports. Lower output, which decreased by 13 per cent, contributed to the fall in gasoil stocks.

Gasoline stocks rose slightly by 200,000 b, reversing the drop of the previous month. At 14.1m b, gasoline stocks were 1.2m b, or 8.9 per cent, higher than a year ago, representing a surplus of 1.4m b, or 11.5 per cent, with the seasonal average.

The build in gasoline stocks could be attributed mainly to lower domestic sales, which decreased by 12.6 per cent.

Residual fuel oil stocks rose slightly in September, ending the month at 17.3m b. At this level, they were 200,000 b, or 1.1 per cent, less than the same period a year ago and 1.1m b, or 6.0 per cent, below the five-year average.

Naphtha inventories saw an increase of 500,000 b, ending September at 10.0m b. At this level, they were 800,000 b, or 7.6 per cent, below a year ago and 1.8m b, or 15.0 per cent, lower than the five-year average.

In Singapore, at the end of September, oil product stocks reversed the falls of the previous two months and increased by 1.9m b to end the month at 37.5m b. Despite this build, they remained below the level of the same time a year ago, showing a deficit of 4.9m b, or 11.5 per cent.

Within products, middle distillate stocks saw a drop, while light distillates and fuel oil stocks experienced builds.

Middle distillate stocks fell slightly by 200,000 b, reversing the builds of the last two months, and ended September at 9.2m b. At this level, they were 4.5m b, or 33 per cent, below the same time last year.

Light distillate stocks ended September 1.5m b higher than in the previous month, following two consecutive months of draws. At 10.2m b, they stood 500,000 b, or 4.7 per cent, higher than a year ago in the same period.

Fuel oil stocks saw an increase of 500,000 b after two consecutive months of a draw and ended September at 18.2m b. Despite this build, they were still 800,000 b, or 4.3 per cent, below the same period a year ago.

Product stocks in the ARA region fell by 2.3m b in September after three consecutive months of builds and ended the month at 29.4m b, the lowest level since December and 800,000 b, or 2.7 per cent, below a year earlier at the same time.

Within products, with the expectation of gasoline, all other products witnessed a draw, with the bulk of the fall coming from gasoil. Indeed, gasoil stocks fell by 1.8m b to finish September at 16.0m b, the lowest level since the end of last year.

At this level, they were 500,000 b, or 31 per cent, lower than a year ago in the same period.

Fuel oil stocks fell for the third consecutive month by 700,000 b to stand at 4.0m b, representing a deficit of 1.1m b, or 21 per cent, with a year ago.

Jet fuel inventories reversed the builds incurred during the previous three months and dropped by 100,000 b to end September at 3.0m b, representing a decline of 100,000 b, or 4.2 per cent, from the same period last year.

Naphtha inventories saw a decline of 300,000 b to stand at 900,000 b, up by 100,000 b, or 11.8 per cent, y-o-y.

Gasoline was the only product to show a build of 200,000 b in September. At 5.5m b, stocks stood 800,000 b, or 18.2 per cent, above the same time a year ago.

However, gasoline inventories in ARA were expected to fall in the following weeks, reflecting seasonal refinery maintenance, which would lead to a decline in gasoline production.
### Market Review

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

2. Stock change and miscellaneous.

Table A 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 113, while Graphs 1 and 2 on page 114 show the evolution on a weekly basis. Tables 3 to 8 and the corresponding graphs on pages 115–116 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>
<thead>
<tr>
<th>Table A: World crude oil demand/supply balance</th>
<th>m b/d</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World demand</strong></td>
<td></td>
</tr>
<tr>
<td>2007</td>
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</tr>
<tr>
<td>2008</td>
<td>86.1</td>
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<td>2009</td>
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<td>2010</td>
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<td>2011</td>
<td>88.0</td>
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<td>2012</td>
<td>87.9</td>
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<td>2013</td>
<td>89.4</td>
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<tr>
<td>2014</td>
<td>90.0</td>
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<tr>
<td>2015</td>
<td>88.8</td>
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<tr>
<td>2016</td>
<td>88.8</td>
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<td>90.8</td>
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<tr>
<td>2021</td>
<td>89.6</td>
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<tr>
<td><strong>Non-OPEC supply</strong></td>
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<td>OECD</td>
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<td>North America</td>
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<td>Western Europe</td>
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<td>Developing countries</td>
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<tr>
<td>FSU</td>
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<td>Other Europe</td>
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<td>China</td>
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<td>Processing gains</td>
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<td>Total non-OPEC supply</td>
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<td>OPEC NGLS and non-conventionals</td>
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<tr>
<td><strong>Total non-OPEC supply and OPEC NGLS</strong></td>
<td>54.4</td>
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<tr>
<td><strong>OPEC crude supply and balance</strong></td>
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</tr>
<tr>
<td>OPEC crude oil production</td>
<td>30.2</td>
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<tr>
<td>Total supply</td>
<td>84.6</td>
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<tr>
<td>Balance</td>
<td>-2.0</td>
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<tr>
<td><strong>Stocks</strong></td>
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<td>OECD closing stock level</td>
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<td>Commercial</td>
<td>2,565</td>
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<td>SPR</td>
<td>1,524</td>
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<td>Total</td>
<td>4,089</td>
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<tr>
<td>Oil-on-water</td>
<td>948</td>
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<tr>
<td>Days of forward consumption in OECD</td>
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<tr>
<td>Commercial onland stocks</td>
<td>54</td>
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<tr>
<td>SPR</td>
<td>32</td>
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<tr>
<td>Total</td>
<td>86</td>
</tr>
<tr>
<td><strong>Memo items</strong></td>
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<tr>
<td>FSU net exports</td>
<td>8.5</td>
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<td>[(a) – (b)]</td>
<td>32.2</td>
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</tbody>
</table>

1. Secondary sources.  
2. Stock change and miscellaneous.

Note: Totals may not add up due to independent rounding.
Indonesia suspended its OPEC Membership on December 31, 2008.

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.

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 of 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 January 2009, the ORB excludes Minas (Indonesia).

<table>
<thead>
<tr>
<th>Crude/Member Country</th>
<th>2011</th>
<th>2012</th>
<th>Weeks 40-44/12 (week ending)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arab Light — Saudi Arabia</td>
<td>106.40 110.59</td>
<td>107.96 112.82</td>
<td>108.48 108.48 94.51 99.90 109.94 111.32 109.09</td>
</tr>
<tr>
<td>Basrah Light — Iraq</td>
<td>105.00 108.47</td>
<td>106.06 110.21</td>
<td>116.21 121.96 116.26 105.94 92.02 98.16 108.68 109.39 106.66</td>
</tr>
<tr>
<td>Bonny Light — Nigeria</td>
<td>113.09 114.21</td>
<td>110.71 113.08</td>
<td>122.36 127.98 122.36 112.87 97.19 104.24 114.63 114.06 113.31</td>
</tr>
<tr>
<td>Es Sider — SP Libyan AJ</td>
<td>110.24 111.46</td>
<td>106.86 111.28</td>
<td>120.26 120.03 120.71 117.27 96.04 102.89 112.18 112.16 111.41</td>
</tr>
<tr>
<td>Girassol — Angola</td>
<td>110.26 111.73</td>
<td>109.07 113.01</td>
<td>120.51 126.30 121.32 112.20 96.44 103.01 113.08 113.14 111.00</td>
</tr>
<tr>
<td>Iran Heavy — IR Iran</td>
<td>104.83 109.20</td>
<td>106.83 111.77</td>
<td>116.51 122.46 117.78 107.06 93.09 98.81 109.36 110.99 108.11</td>
</tr>
<tr>
<td>Kuwait Export — Kuwait</td>
<td>104.09 109.46</td>
<td>107.06 112.00</td>
<td>116.79 122.32 117.53 107.55 93.32 98.75 108.91 110.02 107.56</td>
</tr>
<tr>
<td>Merey* — Venezuela</td>
<td>99.24 105.05 101.44</td>
<td>107.77 109.26 112.07 108.62 99.97 87.52 91.86 99.89 101.84 97.50</td>
<td></td>
</tr>
<tr>
<td>Murban — UAE</td>
<td>107.51 111.92 109.49</td>
<td>113.03 119.31 125.61 120.64 110.58 96.76 101.48 110.88 113.57 111.36</td>
<td></td>
</tr>
<tr>
<td>Oriente — Ecuador</td>
<td>103.69 105.75 100.99</td>
<td>104.11 112.64 118.26 113.86 102.25 89.22 94.13 102.21 102.81 98.74</td>
<td></td>
</tr>
<tr>
<td>Saharan Blend — Algeria</td>
<td>112.74 112.41</td>
<td>108.56 111.43</td>
<td>120.36 126.13 120.81 110.27 94.69 99.64 112.23 112.06 111.41</td>
</tr>
<tr>
<td>OPEC Reference Basket</td>
<td>106.29 110.08</td>
<td>107.34 111.76</td>
<td>117.48 122.97 118.18 108.07 93.98 99.55 109.52 110.67 108.36</td>
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</tbody>
</table>

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 13th (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 of Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM, Prat’s, Secretariat’s assessments.
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

<table>
<thead>
<tr>
<th></th>
<th>naphtha</th>
<th>regular gasoline</th>
<th>premium gasoline</th>
<th>diesel</th>
<th>ultra light</th>
<th>jet kero</th>
<th>fuel oil 1 per cent S</th>
<th>fuel oil 3.5 per cent S</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>97.59</td>
<td>113.98</td>
<td>117.08</td>
<td>129.10</td>
<td>127.57</td>
<td>100.41</td>
<td>99.30</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>95.62</td>
<td>109.67</td>
<td>112.81</td>
<td>131.75</td>
<td>131.30</td>
<td>103.47</td>
<td>100.69</td>
<td></td>
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<tr>
<td>December</td>
<td>96.97</td>
<td>108.63</td>
<td>112.46</td>
<td>124.00</td>
<td>124.89</td>
<td>102.11</td>
<td>97.12</td>
<td></td>
</tr>
</tbody>
</table>

|          |         |                  |                  |        |              |         |                       |                        |
| 2012     |         |                  |                  |        |              |         |                       |                        |
| January  | 105.18  | 115.91           | 119.56           | 128.15 | 129.31      | 106.12  | 105.87                |                        |
| February | 113.65  | 125.30           | 129.29           | 134.21 | 134.66      | 112.44  | 109.08                |                        |
| March    | 118.32  | 137.82           | 141.01           | 137.72 | 139.12      | 118.27  | 111.72                |                        |
| April    | 113.95  | 137.02           | 140.55           | 134.89 | 136.61      | 115.89  | 108.87                |                        |
| May      | 97.01   | 122.85           | 126.22           | 124.84 | 128.15      | 105.70  | 100.23                |                        |
| June     | 80.61   | 110.72           | 114.57           | 130.21 | 133.19      | 108.06  | 100.94                |                        |
| July     | 91.27   | 117.81           | 121.02           | 121.32 | 121.58      | 99.09   | 93.14                 |                        |
| August   | 101.46  | 130.10           | 133.11           | 131.21 | 133.19      | 108.06  | 100.94                |                        |
| September| 106.90  | 133.41           | 137.67           | 133.63 | 136.77      | 109.44  | 102.07                |                        |
| October  | 105.76  | 132.35           | 127.57           | 126.30 | 135.81      | 101.52  | 97.21                 |                        |

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

<table>
<thead>
<tr>
<th></th>
<th>naphtha</th>
<th>premium gasoline</th>
<th>diesel</th>
<th>ultra light</th>
<th>jet kero</th>
<th>fuel oil 1 per cent S</th>
<th>fuel oil 3.5 per cent S</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October</td>
<td>117.22</td>
<td>130.98</td>
<td>131.17</td>
<td>87.48</td>
<td>85.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>114.81</td>
<td>125.17</td>
<td>134.91</td>
<td>90.07</td>
<td>85.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>115.48</td>
<td>123.33</td>
<td>128.20</td>
<td>89.11</td>
<td>81.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|          |         |                  |        |             |         |                       |                        |
| 2012     |         |                  |        |             |         |                       |                        |
| January  | 125.33  | 133.01           | 131.03 | 93.56       | 88.33   |                       |                        |
| February | 136.45  | 144.29           | 138.12 | 99.48       | 92.48   |                       |                        |
| March    | 142.20  | 139.28           | 146.53 | 103.98      | 95.08   |                       |                        |
| April    | 137.10  | 136.52           | 144.02 | 101.75      | 92.59   |                       |                        |
| May      | 116.23  | 136.38           | 128.81 | 92.07       | 85.95   |                       |                        |
| June     | 96.04   | 121.63           | 115.97 | 81.52       | 76.79   |                       |                        |
| July     | 109.36  | 132.04           | 124.64 | 86.95       | 79.52   |                       |                        |
| August   | 101.31  | 148.26           | 134.94 | 93.51       | 86.34   |                       |                        |
| September| 104.63  | 151.54           | 137.15 | 95.15       | 88.09   |                       |                        |
| October  | 102.73  | 149.73           | 135.95 | 94.28       | 87.18   |                       |                        |

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

<table>
<thead>
<tr>
<th></th>
<th>naphtha</th>
<th>regular gasoline</th>
<th>gasoil</th>
<th>jet kero</th>
<th>fuel oil 0.3 per cent S</th>
<th>fuel oil 2.2 per cent S</th>
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<td>125.81</td>
<td>125.48</td>
<td>48.53</td>
<td>41.71</td>
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<tr>
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<td>105.11</td>
<td>111.57</td>
<td>129.79</td>
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<td>107.57</td>
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</table>

|          |         |                  |        |         |                         |                        |
| 2012     |         |                  |        |         |                         |                        |
| January  | 115.69  | 118.60           | 128.78 | 131.82  | 49.19                   | 43.33                  |
| February | 123.01  | 127.29           | 135.00 | 136.61  | 51.74                   | 46.16                  |
| March    | 127.14  | 133.40           | 138.44 | 138.34  | 54.65                   | 47.90                  |
| April    | 120.76  | 134.72           | 137.81 | 136.77  | 52.55                   | 46.35                  |
| May      | 111.69  | 121.08           | 125.31 | 127.00  | 47.54                   | 42.40                  |
| June     | 99.86   | 108.91           | 113.70 | 113.95  | 42.35                   | 36.78                  |
| July     | 102.69  | 115.26           | 122.36 | 123.81  | 44.79                   | 39.35                  |
| August   | 120.32  | 126.88           | 133.35 | 133.64  | 48.18                   | 42.32                  |
| September| 124.84  | 130.65           | 136.32 | 135.87  | 49.84                   | 45.78                  |
| October  | 116.95  | 124.33           | 131.48 | 132.32  | 47.23                   | 40.54                  |

Source: Platts. Prices are average of available days.
### Table and Graph 6: Caribbean market — spot cargoes, fob

<table>
<thead>
<tr>
<th>Date</th>
<th>Naphtha</th>
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<th>Jet Kero</th>
<th>Fuel Oil 2 per cent S</th>
<th>Fuel Oil 2.8 per cent S</th>
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Source: Platts. Prices are average of available days.

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

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<th>Date</th>
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<th>Premium Gasoline un 95</th>
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<th>Diesel Ultra Light</th>
<th>Jet Kero</th>
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<th>Fuel Oil 380 Cst</th>
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### Table and Graph 8: Middle East Gulf market — spot cargoes, fob

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<th>Online</th>
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