OPEC bulletin

12/13

OPEC Conference meets in Vienna

Other OPEC flagship publications

Among OPEC's various objectives, one of them is to continually strive to provide oil market data and analysis to energy stakeholders and to the general public. It does this by publishing different monthly and annual publications, which consider many aspects of the global oil industry – with an emphasis on OPEC Member Countries. Two of the Organization's flagship publications are the **World Oil Outlook** and the **Annual Statistical Bulletin**. The 2013 editions can be downloaded free-of-charge from our website at: www.opec.org.

Cautious optimism in the market as the new year begins

As we enter the new year, there is a mood of cautious optimism in the international oil market.

The second half of 2013 saw increasing stability in the market, which was a reflection of the gradual recovery in the world economy.

With global economic growth in 2014 projected to increase to 3.5 per cent from 2.9 per cent in 2013, world oil demand is forecast to rise by one million barrels/day over the same period. However, this rise is expected to be more than offset by an increase in non-OPEC supply.

Against such a backdrop, the 164th Meeting of the OPEC Conference passed as most people had expected on December 4 — that is, quietly and affirmatively. The Conference maintained the current production level of 30m b/d and, at the same time, repeated Member Countries' readiness to respond swiftly to developments which could have an adverse impact on an orderly and balanced oil market.

"By maintaining current production, we have taken into consideration the welfare of both producers and consumers," Secretary General, Abdalla Salem El-Badri, told the press after the meeting.

"At this time, everybody is happy. We do not want to disturb things at the moment. Leave things as they are and let us see what transpires as we head towards June next year," added El-Badri, whose term of office was extended for an additional year by the Conference.

But there was no room for complacency, he stressed: "At the OPEC Secretariat in Vienna, we are watching the market very carefully — day in, day out. When we see any irregularity in the market fundamentals, we will talk to our Ministers."

OPEC sees the biggest challenge facing global oil markets in 2014 as global economic uncertainty — in particular the high sovereign debt in the Euro-zone, high unemployment in the developed economies, especially the Euro-zone, and slow growth, coupled with inflation risk, in the emerging economies.

And yet, however this and other challenges may turn out during the year, the important message for now is the relative calm in the oil market today and the cautiously optimistic outlook for the coming months.

This is clearly a healthy message to take into the new year.

We would like to wish all our readers a Happy New Year.

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OPEC bulletin

Cover
This month's cover shows Iran's Minister of Petroleum, Bijan Namdar Zangeneh, answering media questions before the start of OPEC's December Ministerial talks (see Conference Notes on pp4–17).

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Publishers
OPEC
Organization of the Petroleum Exporting Countries
Helferstorferstraße 17
1010 Vienna
Austria
Telephone: +43 1 211 12/0
Telefax: +43 1 216 4320
Contact: The Editor-in-Chief, OPEC Bulletin
Fax: +43 1 211 12/5081
E-mail: prid@opec.org
Website: www.opec.org

Website: www.opec.org
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OPEC Membership and aims
OPEC is a permanent, intergovernmental Organization, established in Baghdad, on September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective — to coordinate and unify petroleum policies among its Member Countries, in order to secure a steady income to the producing countries; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the petroleum industry. Today, 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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Officer-in-Charge, Finance & Human Resources Department
Kamal Al-Dihan
Officer-in-Charge, PR & Information Department
Zoreli Figueroa
Officer-in-Charge, Admin & IT Services Department
Badreddine Benzida

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Distribution
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164th Meeting of the OPEC Conference maintains ceiling

Economic picture improving, but Ministers continue cautious approach to oil output

Seated on the main table are: Mustafa Jassim Mohammad Al-Shamali (c), Deputy Prime Minister and Minister of Oil of Kuwait and President of the OPEC Conference for 2013; Abdalla Salem El-Badri (r), OPEC Secretary General; and Yasser M Mufti (l), Saudi Arabian Governor for OPEC and Chairman of the OPEC Board of Governors.

OPEC's Oil and Energy Ministers, at their customary end-of-year talks in Vienna, again exercised caution over the impending global economic recovery in deciding to retain the Organization's oil production ceiling for the first half of 2014.

"... in the interest of maintaining oil market equilibrium, the Conference decided to maintain the current (OPEC) production level of 30.0 million barrels/day," a communique issued at the end of the one-day meeting in early December said.

It stressed that, in taking the decision, the Organization's Member Countries re-confirmed their readiness to swiftly respond to developments which could have an adverse impact on the maintenance of an orderly and balanced oil market.

And given the uncertainties arising from the enduring weaknesses in the world economy, delegates agreed on the need to remain vigilant.

Abdalla Salem El-Badri, OPEC Secretary General, who has been extended for another year in office.

Close monitoring

The Conference directed the OPEC Secretariat to continue its close monitoring of developments in supply and demand, as well as non-fundamental factors, such as speculative activity, keeping Member Countries well informed of developments.

It also decided to extend the tenure of Abdalla Salem El-Badri as Secretary General for a period of one year, with effect from January 1, 2014.

"I think at this time the decision we have made is excellent. By maintaining current production, we have taken into consideration the welfare of both the producers and the consumers," El-Badri said at the press briefing following the Ministerial talks.

"At this time, everybody is happy. We do not want to disturb things at the moment. Leave things as they are and let us see what transpires as we head towards June next year," he replied in answer to a question about OPEC's decision to maintain existing production.

Asked about a possible oil oversupply in the market occurring in 2014, due to the lower call on OPEC oil and the projected higher non-OPEC supply, El-Badri said that at the present time this situation should not be over-exaggerated.

"At the OPEC Secretariat in Vienna, we are watching the market very carefully — day in, day out. When we see any irregularity in the market fundamentals, we will talk to our Ministers," he affirmed.

Prompted on his views of shale or tight oil, the OPEC Secretary General announced that the Organization had made its own study on the new resource and had assessed the situation using a bottom-up approach.

"We welcome this 'newcomer' to the market, as I like to refer to it. It is a benefit for the market, a benefit for the consumers — a benefit for everybody," he maintained.

El-Badri said that, right now, shale oil production in the United States stood at around 2.7m b/d.

"It is only in this country (the US) that we have such a large quantity. But this production level is increasing. And we see it rising until 2018, after which it will decline.

"Yes, the call on OPEC oil will be reduced a little bit as a result of this from 2017 to 2020, but it is really not that big a quantity."

Technological boost

El-Badri observed that there was the possibility that technology could improve the production operations of tight oil.

"We don't know — but we see that the decline rates are quite high and that it is expensive to produce.

"In OPEC, we do not say that we are not concerned about this development, but when one looks at the overall

Dr Youcef Yousfi, Minister of Energy & Mines, Algeria.

Eng José Maria Botelho de Vasconcelos, Minister of Petroleum, Angola.

Abdul-Kareem Luaibi Bahedh, Minister of Oil, Iraq.

market situation, we welcome this newcomer and we can accommodate it," he asserted.

Asked about the possibility of the US starting crude oil exports because of the increase in its shale oil output, El-Badri said he could not comment on this. "If and when the Americans take that action, we shall see what we can do."

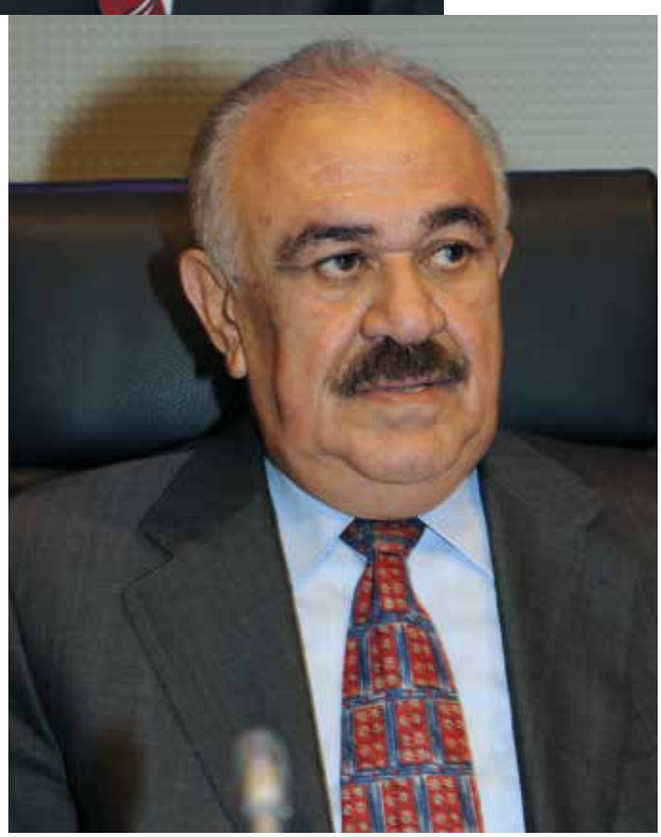
He stated that OPEC would continue to produce at 30m b/d and the Organization, with or without shale oil, saw all its demand coming from the East.

"In fact, 88–90 per cent of all energy demand is coming from this region," he added.

Responding to a question about the situation in Iran with the possible lifting of sanctions by the US and whether this could lead to a

Eng Bijan Namdar Zangeneh, Minister of Petroleum, Islamic Republic of Iran.

Eng Pedro Merizalde-Pavón, Minister of Non-Renewable Natural Resources, Ecuador.



Mustafa Jassim Mohammad Al-Shamali, Deputy Prime Minister and Minister of Oil, Kuwait and President of the OPEC Conference.

crude oversupply, El-Badri pointed out that OPEC was very happy that there was a negotiation between Iran and the US about lifting the oil embargo, which had been in place for a very long time.

"Iran is a Founder Member of OPEC. It has large petroleum reserves and possesses the manpower to increase oil production. The same situation exists with Iraq. I am really glad that there are positive signs from both of these Founder Members."

But El-Badri said at such a time that OPEC saw increased quantities of production coming on to the market from these countries, "then, of course, we would look at the situation and decide what best action to take.

"The negotiations between the US and Iran will take six months … but we are watching the situation very carefully. The overriding concern for OPEC is that we hope this embargo will be over."

Concerning his extension as Secretary General for a further 12 months, El-Badri said he wanted to thank the Organization's Oil and Energy Ministers for the trust they had placed in him in this regard.

During their deliberations, the Ministers reviewed the oil market outlook, as presented by the Secretary General, in particular supply/demand projections for 2014.

Dr Abdel Bari Ali Al-Arousi, Minister of Oil & Gas, Libya.

Diezani Alison-Madueke CON, Minister of Petroleum Resources, Nigeria.

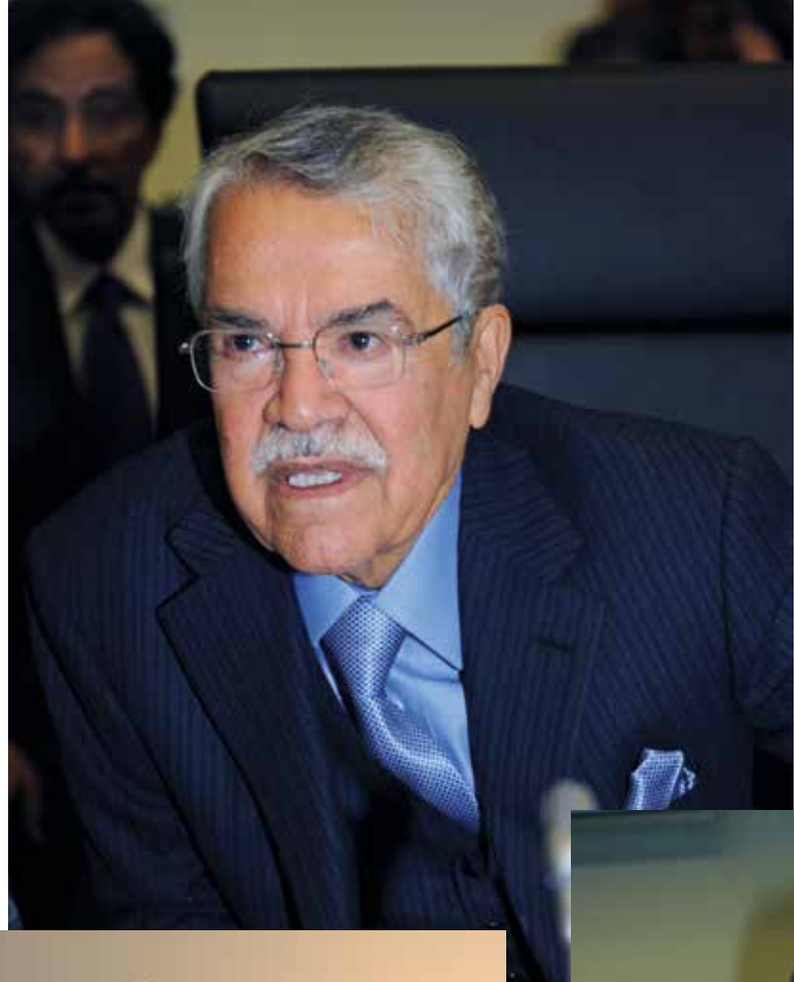
Left: Dr Mohammed Bin Saleh Al-Sada, Minister of Energy & Industry, Qatar.

Importantly, Ministers looked at the global economic outlook, again taking note of "the high sovereign debt in the Euro-zone; the high unemployment in the advanced economies, especially the Euro-zone; and the slow growth, coupled with inflation risk, in the emerging economies."

Stressed the communique: "Indeed, the biggest challenge facing global oil markets in 2014 is this global economic uncertainty, with the fragility of the Euro-zone remaining a cause for concern."

It was also noted that, although world oil demand was forecast to increase during 2014, this would be more than offset by the projected increase in non-OPEC supply.

All of OPEC's data shows that the international oil market is receiving ample supplies of crude, while petroleum stocks in the industrialized countries are at healthy levels going into



Ali I Naimi, Minister of Petroleum & Mineral Resources, Saudi Arabia

Below left: Suhail Mohamed Al Mazrouei, Minister of Energy, United Arab Emirates.

Below: Rafael Ramírez, Minister of Popular Power of Petroleum and Mining, Venezuela.

Abdalla Salem El-Badri, OPEC Secretary General, during the press conference.

Below: Members of the OPEC Management (l–r) Zoreli Figueroa, Officer-in-Charge of the Public Relations and Information Department; Kamal Al-Dihan, Officer-in-Charge, Finance and Human Resources Department; Hojatollah Ghanimi Fard, Head, Petroleum Studies Department; Badreddine Benzida, Officer-in-Charge, Administration and IT Services Department.

the northern hemisphere winter. Crude oil prices are also at comfortable levels, both for the producers and consumers, as well as for the investors.

There are also signs that oil demand, especially in the OECD region, will begin to pick up once more as debt-troubled economies continue to show positive signs of recovery, albeit tentative and slow.

In fact, such was the level of overall optimism over oil's performance that

Above (l–r): Dr Adedapo Odulaja, Head, Data Services Department; Asma Muttawa, General Legal Counsel; Oswaldo Tapia, Head, Energy Studies Department; Abdullah Al-Shameri; Omar S Abdul-Hamid, Director, Research Division.

some OPEC Ministers announced before the Conference that they thought the best course of action to take would be to retain the existing production ceiling.

Before entering the meeting, Ali I Naimi, Saudi Arabian Minister of Petroleum and Mineral Resources, told reporters that the oil market was in the best position it could be in.

"I am not pessimistic about the market. Oil demand is great, inventories are well positioned, economic growth is improving and the current oil price of around $110/b is the right price," he was quoted as saying.

Attending to administrative matters, the Conference elected Dr Abdel Bari Ali Al-Arousi, Minister of Oil and Gas of Libya, as President of the Conference for one year, with effect from January 1, 2014, and Mrs Diezani Alison-Madueke CON, Minister of Petroleum Resources of Nigeria, as Alternate President for the same period.

The Ministers also appointed Dr Ali Obaid Al Yabhouni, the United Arab Emirates' Governor for OPEC, as Chairman of the Board of Governors for 2014, and Dr Bernard Mommer, Venezuelan Governor for OPEC, as Alternate Chairman.

The Conference decided that its next Ordinary Meeting will convene on June 11, 2014.

Appointments for 2014

Far left: Dr Abdel Bari Ali Al-Arousi, Minister of Oil & Gas, Libya and President of the OPEC Conference for 2014.

Left: Diezani Alison-Madueke CON, Minister of Petroleum Resources, Nigeria and Alternate President of the OPEC Conference for 2014.

Far left: Dr Ali Obaid Al Yabhouni, United Arab Emirates Governor for OPEC and Chairman of the Board of Governors for 2014.

Left: Dr Bernard Mommer, Venezuelan Governor for OPEC and Alternate Chairman of the Board of Governors for 2014.

There are still many oil market challenges to overcome

— Conference President

Although the international oil market has started to gradually emerge from the tough economic situation of the past few years, the pace of world economic growth remains slow.

That was the message conveyed by OPEC Conference President, Mustafa Jassim Mohammad Al-Shamali, to the 164th Meeting of the OPEC Conference in Vienna in early December.

"Clearly, there are still many challenges to overcome," Al-Shamali, who is Kuwait's Deputy Prime Minister and Minister of Oil, told assembled delegates at the OPEC Secretariat.

"With this in mind, OPEC will continue to monitor the (oil market) situation closely in the interest of market stability," he said in his opening address to the Conference.

Mustafa Jassim Mohammad Al-Shamali.

Increasingly stable market

Al-Shamali, who is also Chairman of the Kuwait Petroleum Corporation (KPC), pointed out that in the six months that had passed since the OPEC Conference met in Vienna in May, "we have seen an increasingly stable oil market, which is a reflection of the gradual recovery in the world economy."

He stated: "This positive development stems mainly from a healthy performance in the United States, in addition to the Eurozone countries returning to growth."

Emerging economies, he continued, were expected to follow this trend, led by China and Brazil.

The Minister said that, as a result, global economic growth in 2014 was projected to increase to 3.5 per cent from 2.9 per cent in 2013. World oil demand growth was forecast to mirror the economic improvement, rising by one million barrels/day over 2013.

However, non-OPEC oil supply was expected to rise in 2014 by 1.2m b/d. This would be mainly due to the anticipated growth in North America and Brazil.

Turning to oil prices, Al-Shamali said the OPEC Reference Basket had remained stable over the past half-year, averaging over $105/b from June to November.

Also referring to the latest round of climate change negotiations in Warsaw, he stressed that OPEC's goal was the full, effective and sustained implementation of the United Nations Framework Convention on Climate Change.

"However, success will only come through comprehensive, transparent, inclusive and country-driven negotiations that account for the interests of all Parties involved," he maintained.

Concerning the Ministers' deliberations, Al-Shamali said the Conference would have an opportunity to look at all the important issues in depth and consider the market outlook for the next six months and beyond.

"Our meeting will highlight the importance of achieving market stability, which benefits all stakeholders and contributes to economic growth worldwide.

"Let me stress, though, that OPEC cannot get there on its own; all stakeholders must do their part.

"Only through dialogue and collaboration with consumers, non-OPEC producers, oil companies and investors can we reach our common goals."

Al-Shamali said OPEC's recent energy dialogues with Russia, the European Union and various international organizations had underlined the importance of this once again.

El-Badri extended as OPEC Secretary General for another year


Abdalla Salem El-Badri.

OPEC Secretary General, Abdalla Salem El-Badri, has had his tenure with the Vienna-based Organization extended by a further 12 months, with effect from January 1, 2014.

The decision was taken by OPEC's Oil and Energy Ministers at their 164th Meeting of the OPEC Conference, held in the Austrian capital in early December.

El-Badri, from Libya, had been due to leave the Organization at the end of December 2013, on completion of two terms as head of the OPEC Secretariat.

But with OPEC being unable to appoint a successor, the former Libyan Oil Secretary was asked by Ministers at the 162nd Meeting of the OPEC Conference to remain at the helm for 2013. That has now been extended by a further 12 months.

At the press briefing following the Conference, when asked about his further extension, El-Badri said he wished to thank the Organization's Oil and Energy Ministers for the trust they had placed in him.

"I thank them for the nice words they said about me in the Conference and I also thank my staff here at the Secretariat.

"The Ministers offered very kind words about the performance of this Organization and for that I have to pay tribute to my staff, who are working hard. So I share this achievement with them. No Secretary General or chairman can do anything by one's self," he pointed out.

El-Badri has been involved with OPEC for many years and has gained wide experience in the international petroleum industry.

Born in Ghamminis, Libya, in 1940, he obtained a Bachelor's degree in Accounting and Business Administration. He also studied advanced courses in Finance and Management, both in Libya and in the United States.

El-Badri began his career at Esso Standard (now ExxonMobil) in 1965 as an Assistant Accountant. He later became a Management Information Systems Coordinator and an Assistant Controller.

In 1977, El-Badri was appointed a Member of the Board of Directors of the Umm Al-Jawabi Oil Company.

Three years later he was appointed Chairman of the Waha Oil Company, a joint venture between the Libyan National Oil Corporation (NOC), Conoco, Amerada Hess and Marathon Oil.

In 1983, El-Badri became Chairman of Libya's NOC, before being made Secretary of the People's Committee for Petroleum (Minister of Petroleum) in 1990.

His ministerial career continued with his appointment as Secretary of the General People's Committee for Energy (Minister of Oil and Electricity) from 1993 for seven years.

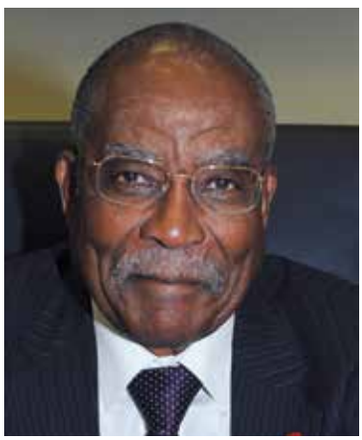
In 2000, El-Badri was appointed Deputy Secretary of the General People's Committee (Deputy Prime Minister), a position he held for two years before returning to the Chairmanship of the NOC from 2004 to 2006.

During his career, he has headed various committees related to the reorganization of the Libyan oil industry and the activities of the Libyan state; he has undertaken several studies concerning oil, gas and electricity in Libya and has been a frequent speaker at international industry events.

OPEC Ministers, Secretary General hopeful 2014 will be a good year

Eng José Maria Botelho de Vasconcelos

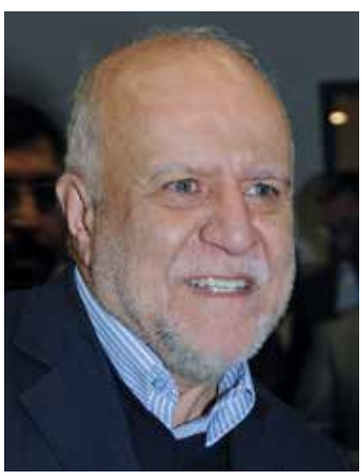
Minister of Petroleum, Angola



Questioned as to whether he thought 2013 had been a good year for the oil industry, Eng José Maria Botelho de Vasconcelos said: "Yes, I think so, because from OPEC's side, Member Countries had a good level of production at around 30 million barrels/day and the price remained above $100/b. With this price, it is possible to do some investment, while the revenues of the Organization's Members remain good."

Looking at 2014, the Minister said he thought the situation would be similar to what OPEC had experienced in 2013 regarding production, although he stressed that all Member Countries were fully aware of the uncertainties that existed in the market. "But we remain positive."

Asked about the effects of shale oil production in the United States on his country's crude exports, de Vasconcelos said Angola was now concentrating on supplying the Asian markets. "We have already found some new clients, including in some European countries," he noted.



Eng Bijan Namdar Zangeneh

Minister of Petroleum, Islamic Republic of Iran

Concerning the potential challenges OPEC would likely face in 2014, Eng Bijan Namdar Zangeneh said that, based on the Ministers' discussions, the Conference did not really find a significant challenge for next year. But there were opportunities for OPEC in its production and investment.

The Minister noted that some other producers were developing shale or tight oil, "but we do not see this as a threat against OPEC — it is just part of non-OPEC production, like before."

He added: "I think our decision today, which was based on the fundamentals of the market, was good and that the market will react positively."

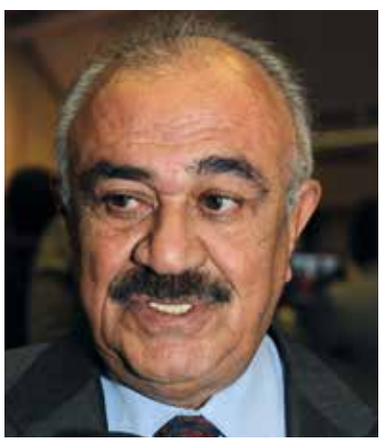
Concerning the likelihood of an increase in Iran's crude oil production, as a result of the possibility that economic sanctions on the country would be lifted, Zangeneh pointed out that, over the years, certain OPEC Members had suffered similar problems and had "gone out of the market" for some time.

"But when they returned to the market, OPEC knew how to deal with the situation — to create room to maintain the extra capacity, so that these countries can have a good return and for it not to have a bad impact on prices," he said.

The Minister added that he was sure OPEC would be able to look at the issue with his country — to support Members that wanted to return to their previous positions.

Mustafa Jassim Mohammad Al-Shamali

Deputy Prime Minister and Minister of Oil, Kuwait



Asked about the outcome of the Conference, Mustafa Jassim Mohammad Al-Shamali said the decision taken by the Ministers to retain the existing production ceiling was a good one and was in keeping with the oil market and economic studies they had heard and discussed.

"These studies showed that we have to sustain current production levels over the next six months, a level that will satisfy oil demand going into 2014," he said.

The Minister said the Meeting had noted that

The following brief interviews were conducted by the OPEC Secretariat's Webcast team with high-level OPEC officials who attended the 164th Meeting of the OPEC Conference on December 4.

demand in Europe was a little bit slower, but demand in East Asia was good.

"We think that the quantities we are producing now are sufficient to satisfy the market's needs," he affirmed

Al-Shamali conceded that there would be a lower call on OPEC oil in 2014, but the Organization would still need to help stabilize the market with regard to supply and demand.

"We will continue to play this role in the future. We are watching developments in the global economy very carefully — day-by-day — but at the present time, the forecast for the oil sector over the next six months remains very much as it is today, despite the effects of such developments as shale oil," he added.

Dr Abdel Bari Al-Arousi

Minister of Oil and Gas, Libya

Questioned about the deliberations of the Ministers and whether there was a lot of debate, Dr Abdel Bari Al-Arousi said it was a very pleasing Conference, straightforward and "we finished on time. We touched on all the topics, we agreed — there were no real debates at all."

Asked if the situation looked good for the Organization, at least in the first half of 2014, the Minister said he thought this would be the case since the economic situation was improving worldwide. "We are expecting that demand for oil will increase. That is why we decided to leave the production ceiling for the Organization the same as this year. Also, we are happy with prices, which are at a good level for the consumers and the producers."

Concerning the possibility of oversupply in the oil market in the second half of next year, Al-Arousi stated that OPEC's calculations saw the economic situation in China, India and Japan — in fact, in the developing world — improving and "we think, based on the reports we have received, that the situation will remain stable."

Regarding Libya's domestic oil problems, the Minister said he was hopeful these would soon be resolved and that the country could return to its crude production level of 1.4m b/d soon.

And commenting on Libya's OPEC Conference Presidency, which is due to commence on January 1, Al-Arousi said his country would, as always, give full support to OPEC and its policies. "We are going to make good communications and good contacts with all Member Countries. We also fully support the extension of Abdalla Salem El-Badri in his position as Secretary General for another year. Hopefully, we will see more research done by the Organization to support its Members."

Diezani Alison-Madueke CON

Minister of Petroleum Resources, Nigeria

Concerning what important issues the Ministers had discussed at the Conference, Diezani Alison-Madueke replied that they had looked at production volumes, especially the situation with shale oil and gas output in the US, "which we considered to be quite important and critical to the global crude oil market."

The Minister said that this subject was of particular concern to OPEC's African Members, since the US represented their fifth-largest export destination.

"This is an important issue that will impact OPEC's production volumes over the next five, ten, or 15 years. We have to consider this issue carefully," she asserted.

Mrs Alison-Madueke said that, all in all, the mood during the Conference was "pretty pleasing".

She observed: "Prices have remained fairly stable

and overall, in the market, we have seen a certain level of stability over the last 12 months that we hope will continue over the next six months.

"Hence, we kept the existing production ceiling stable as we have in the last year. We felt that this was the right thing to do for the market at this time. It has worked well over the last 12 months.

"And we expect that the next six months will produce the same sort of stability, although we are very watchful because the incidence of shale oil and gas, and not just from the US, but the impending emergence from other places, like China and Argentina, are also going to impact the global scene," she stated.

The Minister said she thought 2014 was going to be "a mixed bag".

She continued: "I am fairy confident that the first six months will be stable and we should have no surprises, unless we have a sudden situation in terms of oil production.

"Beyond that first six months, it is a little difficult to say, but in the latter part of 2014, we will have to keep a watchful eye over the market since it is difficult to predict at this time."

Speaking on domestic developments, Mrs Alison-Madueke said Nigeria had been really aggressive in commercializing its gas resources and tying operations to the real sector.

"We are trying to ensure that we take gas from its traditional users, for fuel, to gas for feedstock for petrochemical plants, fertilizer plants, methanol plants, central processing facilities and, of course, LPG to move our people away from dependence on kerosene and firewood.

"So there is a real push for gas, resources of which we have in abundance — some 187 trillion cubic feet of discovered potential and 600tr cu ft of undiscovered potential.

"The intent, of course, is to ensure that we tie the sector, which is highly capital intensive to the real sector, creating employment and jobs for the masses of youths that we have in this country, as well as progressing the economy as we do so."

The Minister said that in the country's downstream operations they intended privatizing the traditional refineries in the first quarter of next year, with the intention of moving away from the government trying to manage major infrastructural entities.

"This is in line with the Nigerian President's transformation programme and is aimed at ensuring that we get private-sector competitiveness, efficiency and expediency into the downstream refining sector, hopefully by 2020," she informed.

Rafael Ramirez

Minister of Popular Power of Petroleum and Mining, Venezuela

Asked for his analysis of the oil market in 2013, Rafael Ramirez said for Venezuela it had been "a terrible year" because of the death of the country's President, Hugo Chavez Frias.

"But now we are recovering and, in the sense of the oil market, everything is normal. We are working towards the same plan that President Chavez gave us during his last election.

"I mention President Chavez because he was such a strong supporter of OPEC. Our new President, Nicolas Maduro Moros, used to be President Chavez's Foreign Affairs Minister and he is offering the same support to our Organization.

"And I, as the Minister, am still able to work for the cohesion and unity of OPEC, in order to defend our natural resources and oil prices," he affirmed.

Turning to domestic oil issues, Ramirez said that his country was concentrating on developing the Orinoco Oil Belt, which had huge quantities of oil reserve.

"We have many plans to develop these resources and this will provide the country's future over the next 100 years. We are receiving a lot of investment within

our legal framework from international companies and national companies because we have a plan to boost our production capacity," he stated

Looking at the current oil market, the Minister said he thought it was quite balanced and there was a consensus among the producers to have oil prices at $100/b as a base price.

"OPEC producers are committed to producing 30m b/d and for the next year we will have to see how this works out. OPEC is always working for the stability of the market."

Ramirez said that one of the big challenges moving into 2014 was the possible full return of Iran to the market.

"The sanctions imposed on this country were also very bad for OPEC and affected the unity of the Organization. Venezuela, in particular, is against such sanctions against any country."

The Minister stressed that OPEC would continue to follow the oil market very closely. "We will protect crude oil prices," he added.

Abdalla Salem El-Badri

Secretary General, OPEC

Questioned about the outcome of the Conference, Abdalla Salem El-Badri pointed out that all 12 OPEC Member Countries had agreed to the decision to maintain existing production "without any reservation".

He stated: "We will keep the 30m b/d production ceiling in place until June 2014."

Asked about oil market developments in 2013, El-Badri said it had been a very good year for most OPEC Members. He said he was sorry about Libya, which had suffered problems over the past three months, but he hoped they would soon solve the situation.

He said that looking at 2014, global economic growth was forecast at 3.5 per cent, "which was really very good and we see next year as a positive 12 months, compared to 2013.

"Of course, there is a lot of uncertainty, but everyone is hoping for a better year in 2014. There are economic uncertainties, there are political problems … but for us in OPEC, this is the name of the game," he maintained.

"We are here to look at the problems and to try and mitigate them."

Answering a question about the possible lifting of sanctions against Iran, El-Badri said the country was an important OPEC Member — a Founding OPEC Member — and "I do not want Iran to disappear".

He continued: "To me, the most important thing is that they come back and solve their problems with the West. If and when they produce more oil, we will solve it within OPEC.

"But what we want to see is their people living in a normal situation, one in which they will no longer be under international sanctions."

The OPEC Secretary General said he was also very happy about the improving situation in Iraq. "This is important to me. They [Iran, Iraq] are Member Countries. And for me it is very important that these countries live in good conditions."

Asked about the importance of dialogue and cooperation to OPEC, El-Badri said the energy dialogues the Organization had with the International Energy Agency (IEA), the European Union (EU) and Russia, for example, were very important to the Organization.

"It is important that we are able to talk to each other. We talk on the phone. We meet each other. We trust them and they trust us. Neither side hides anything. And we in OPEC are willing to talk to all parties. We need to break down the barriers. OPEC is just a normal organization and we do not have anything to hide. We are here to satisfy the world," he affirmed.

Asked if he had a message for the consumers as 2013 drew to a close, he replied: "Yes. OPEC, as always, is ready to provide them with enough oil and gas to satisfy their needs — and at a reasonable price."

Weyburn-Midale Project the focus of world-leading CCUS research

With so many energy producers showing an interest in the latest environmentally friendly technology, especially carbon capture and storage, they would do well to learn from the experience of the Weyburn-Midale Project in south-eastern Saskatchewan, Canada, which has been successfully promoting the innovative process for over a decade. The OPEC Bulletin's ***Maureen MacNeill****, who was born in this sunny Canadian province, reports on how this scheme is making a difference.*

The largest research project in the world dedicated to carbon dioxide (CO_2) storage has much information to share with prospective carbon capture utilization and storage (CCUS) project leaders around the world after logging 12 years of groundbreaking research.

"Operators of other CCUS projects — whether planned or in actual operation — can use the information identified in the Weyburn-Midale Project (WMP) to better assure the safety and success of their own operations," says Norm Sacuta, Communications Manager for the Petroleum Technology Research Centre (PTRC) in Regina, Saskatchewan. The PTRC is a non-profit corporation founded in 1998 to foster research and development into enhanced oil recovery (EOR) and carbon storage, with the goals of improving recovery rates, while reducing the environmental footprint of the oil and gas industry.

The International Energy Agency Greenhouse Gas R&D Programme (IEAGHG) Weyburn-Midale CO_2 Monitoring and Storage Project has been a world leader since 2000, "conducting research into, and the deployment of, effective and safe measurement and monitoring technologies for the geological storage of CO_2," according to a press release by the centre.

The WMP was associated with CO_2 enhanced oil

Petroleum Technology Research Centre

The image shows a CO_2 injection well on left and a production well with a pump jack on right.

recovery (CO_2-EOR) operations — as part of the oil field operations of two companies — at the Weyburn and Midale fields in south-eastern Saskatchewan, Canada. The fields were discovered in 1953–54 and commercial CO_2-EOR operations started at Weyburn in 2000 and Midale in 2005. The research programme attracted financial and in-kind sponsorship from ten different oil companies and utilities, several different levels of government in Canada and the US, and research partners from around the world.

"The IEAGHG endorsed the research almost immediately in 2000, and helped to establish the research programme in consultation with the PTRC and its research partners. Their endorsement of the research and results helped in the dissemination and application of the information worldwide," says Neil Wildgust, CEO of the PTRC, adding that the PTRC and IEAGHG recognized the injection of CO_2 into the Weyburn field offered a unique opportunity to conduct scientific research on the characterization of the reservoir and the measurement, monitoring and verification of the injected CO_2 — for potential application of the learnings to other projects.

Although CO_2-EOR has been used to help improve oil recovery for decades, the WMP is different: "Most existing CO_2-EOR operations have utilized natural sources of CO_2, unlike the anthropogenic source for Weyburn and Midale operations," says Wildgust. "However, what has been really unique at Weyburn and Midale is the associated research project focusing on aspects of the operations relevant to CO_2 geological storage and CCS. The research project has provided a level of characterization, predictive modelling and monitoring unparalleled in other CO_2-EOR operations to date."

Unique project

OPEC Member Countries have expressed keen interest in CCS technology and its applications generally and more specifically at a recent workshop held at the OPEC Secretariat in late October. The workshop was the second joint activity OPEC has undertaken with the IEAGHG involving CCS research and technology, this time addressing its recent inclusion in the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC).

The Intergovernmental Panel on Climate Change (IPCC) believes that CCS could account for 15–55 per cent of total CO_2 emissions reductions needed to stabilize climate change this century. The Nobel-prize winning IPCC concluded that global CO_2 emissions need to be cut by 50–80 per cent by 2050 in order to avoid the most damaging effects of climate change. Research like that undertaken in the WMP goes a long way towards proving that geological storage of CO_2 is a viable option for climate change mitigation.

The first phase of the WMP, which ended in 2004, was intended to predict and verify that the Weyburn oil reservoir could securely and economically contain CO_2. The second phase expanded on these results and helped to recommend a framework for worldwide implementation of CO_2 geological storage. About 8,500 tonnes/day of CO_2 are captured from a coal gasification facility in North Dakota, compressed to a liquid, and transported via pipeline 320 km to the Weyburn and Midale oil fields for injection.

"The research project has examined the storage of nearly 25 million tonnes of CO_2 into two oil reservoirs in south-eastern Saskatchewan, including research that is essential for other CO_2 storage projects planned worldwide," says a PTRC press release.

"The breadth and depth of research and monitoring relevant to CO_2 geological storage conducted over a 12-year period, associated with the world's largest monitored subsurface injection of anthropogenic CO_2, has given the IEAGHG WMP a unique status," says Sacuta. "The International Journal of Greenhouse Gas Control published a special supplementary edition of the technical research in April of 2013 that summarized the final research results of the project, which helped to spread the technical findings to a wide audience." In addition, a Best Practices Manual, published in 2012, has received significant attention in both the CCS and CCUS (carbon capture utilization and storage) communities.

The US Department of Energy has published a number of best practices publication related to CCS, but none of these publications reference specific data from a project

Pictured above is a worker walking through the Cenovus Weyburn processing plant.

that has experienced 12 straight years of injection.

"The results have been of interest both to companies conducting or planning to conduct CO_2-EOR and companies, such as coal-fired utilities interested in injecting CO_2 into other kinds of underground formations, purely for storage purposes," says Sacuta.

The manual includes much useful information relevant to any sort of project planning to inject CO_2 underground, such as:

- Characterization of underground storage sites to illustrate whether they are safe and effective for storing CO_2;
- Geochemical and geomechanical monitoring of the injection site — including groundwater and soil gas — to assure the CO_2 has stayed underground;
- Seismic measuring of the CO_2 movements underground to assure it stays in place and does not migrate into other formations.

Best Practices Manual

The manual assists other potential operators in deciding what sorts of measurement and monitoring should take place. Both provide suggested best practices and methods for assuring effective monitoring and measurement of CO_2 once it is in an underground formation.

At the Weyburn and Midale fields, CO_2 and water injection are alternated, increasing reservoir pressure and oil fluidity, thus enabling oil to escape from rock pores and more easily move towards production wells.

"As a general rule, it takes about 8,000 cubic feet of CO_2 to get an extra barrel of oil. Each tonne of CO_2 increases oil production in Weyburn by two to three barrels," says PTRC. Some of the injected CO_2 comes back up to the surface with the oil and water, where it is separated out and reinjected. At the end of the EOR period, nearly all injected and recycled CO_2 is permanently stored. "With the main phase of research now completed at the project, PTRC has been awarded further funding by the USDOE for a two-year period, with backing from the Saskatchewan provincial government, to undertake focused research on some topics highlighted in the Best Practices Manual, such as CO_2 conformance, wellbore integrity and monitoring," says Wildgust.

The PTRC is also managing the Aquistore research and monitoring programme at Boundary Dam power station in southern Saskatchewan, where captured CO_2 will be injected into a deep saline formation for storage at a depth of 3,400 metres. The injection well will act as a buffer facility when SaskPower's captured CO_2 is not able to be transported to EOR operators.

"Aquistore is a research and monitoring project to demonstrate that storing carbon dioxide deep underground (in a brine and sandstone water formation) is a safe, workable solution to reduce greenhouse gases," states the PTRC's website. "Aquistore will demonstrate the scientific and economic feasibility of injecting CO_2 into a deep saline geological formation and provide the know-how for other jurisdictions and companies thinking of doing the same."

Touted as the PTRC's 'second flag ship project' Aquistore is a direct result of the extensive scientific and research experience which has already taken place with the WMP.

"A Science and Engineering Research Committee was formed and has been involved in each step of the project. (It) will develop a programme to address aspects of injectivity, containment and capacity, and research activities, which will be fully integrated with most field operations associated with storage and monitoring," says Wildgust.

The local newspaper, *The Leader-Post,* reported on September 17, 2013 that: "The world's first commercial-scale, postcombustion CO_2 storage project from a coal-fired power plant is complete and ready to receive carbon dioxide from SaskPower's $1.24 billion (CDN) integrated carbon capture and storage (ICCS) project at Boundary Dam power station near Estevan."

The PTRC has turned Aquistore's infrastructure over to SaskPower, and the company will use the injection well to store about one million tonnes of CO_2 from the carbon capture unit attached to Boundary's Unit 3. PTRC will continue to manage the Aquistore research. The project at Boundary Dam is scheduled to be ready for operation in April 2014.

Clean coal technology

A recent, three-day CCS symposium in Regina attracted about 100 delegates from 12 countries with an interest in CCS technology.

"People from all over the world want to see how SaskPower is using clean coal technology to reduce emissions by 90 per cent of about one million tonnes per year," says Mike Zeleny, SaskPower's manager for carbon capture transition to operations in a newspaper article. Specifically, they want to know about the project's "feasibility, business case, technical and economic viability,"

he says. "I get people (coming here) weekly, monthly."

Industrial-scale CCS operations are also on the table in several OPEC Member Countries, including Algeria, Saudi Arabia and the United Arab Emirates (UAE)

In Salah gas joint venture

The In Salah gas joint venture in Algeria started in 2004 and more than three million tonnes of CO_2, separated during natural gas production, have been securely stored in a deep saline formation at this operation. Project operators BP, Sonatrach and Statoil hope to store a total of 17m t over the next 20 years. The project has been identified by the Carbon Sequestration Leadership Forum as one of the most important industrial-scale CCS initiatives worldwide.

The In Salah operation has submitted a proposal to include CCS in the CDM. The submission demonstrates how CDM methodological issues can be systematically and comprehensively addressed by CCS projects under the CDM, as well as highlighting how technical and legal aspects of a CCS project may work within the UNFCCC. In addition to providing important guidelines on the design of future mechanisms that can enable CCS deployment, it contributes valuable input in to the ongoing debate around CCS and CDM.

According to the In Salah website: "After six years of industrial-scale operation, and more than three million tonnes of CO_2 stored, In Salah is demonstrating CCS is safe, effective and can be done now."

Saudi Arabia has also announced plans for a CCS EOR project in Ghawar, the world's largest oil field. Half a million tonnes of CO_2 are slated for injection starting in the fourth quarter of 2013 as part of a CO_2-EOR demonstration project. The country has developed a comprehensive carbon management roadmap with research and development of CCS and CO_2-EOR as major components. Other areas include technology development of CO_2 capture from fixed and mobile sources and CO_2 industrial applications. More R&D focus will be placed on caprock sealing evaluation. Meanwhile, the R&D activities are being pursued through various R&D centres and universities, including King Abdullah University of Science and Technology, and King Abdullah Petroleum Studies and Research Centre, with Saudi Aramco leading in advancing these technologies.

Indeed, Saudi Aramco was one of the ten industry sponsors of the Weyburn-Midale research.

The UAE will undertake the first large-scale CCS project and renewable energy target within the Gulf Cooperation Council (GCC). Carbon inventory work started recently, and the UAE has increased its activities in the UNFCCC, particularly in relation to inclusion of CCS in the CDM. The Global CCS Institute identified the UAE as a highly suitable place for CCS development based on its investment environment, technological capacity and commitment to clean energy.

One of the pump jacks located in the Weyburn field.

Linking CO_2 emitters

CCS is explicitly acknowledged by the government as a main ingredient in national greenhouse gas (GHG) mitigation plans. Abu Dhabi's state owned clean-energy company, Masdar, has initiated work on CCS following legislative endorsement. In addition, Masdar, along with the Abu Dhabi Executive Affairs Authority, is developing a legal and regulatory regime for CCS.

Through Masdar, the UAE is developing a CCS network linking CO_2 emitters to users for EOR. In 2012, it tendered a CCS project connecting Emirates Steel Industries factory to an oil field owned by the state-owned ADNOC group. The deal should see the CO_2 feed stream from the Emirates Steel Industries factory dehydrated and compressed, then sent 50 km through a pipeline to an onshore field. Project startup is projected to take place in 2015/16. CCS-equipped coal power plants are under consideration for the next ten years.

Germinating the seeds for an oil-backed currency

*In a two-part series of articles for the OPEC Bulletin, published in March and April this year, Technical Analyst, **Ben Turney**, considered the possibility that the ongoing global debt crisis is creating an environment which will lead to a sweeping overhaul of the world's financial system. One unexpected consequence of this sea change in international trade could well be the establishment of an oil backed currency. His follow-up article pursues this possibility.*

Could it really happen?

This idea of an oil backed currency might seem outlandish. The Fiat system of floating exchange rates is such an integral part of the global economy that it is hard to imagine any sort of return to asset-backed methods of trade, even if only partially adopted.

However, in the intervening eight months since publishing the original articles, little has been done, in any meaningful sense, to resolve the fiscal imbalances and excessive debt burdens, which plague the major OECD nations. If anything, the situation has deteriorated.

This is despite stock markets hitting record highs and claims by policymakers that their efforts are successful and that more monetary stimulus is needed. Unprecedented quantitative easing has been unleashed over 2013, in the United States and Japan.

This giant wave of liquidity has had an incredibly distortive effect on various financial asset classes, pushing certain prices higher and bond yields unsustainably lower. There is now even speculation that the European Central Bank is preparing to follow suit next year.

Precisely how all of this will be unwound in an orderly manner is anyone's guess, but the situation is particularly acute in the US. This will have profound implications for the status of the US dollar as one of the world's major reserve currencies and, therefore, clear implications for the pricing of oil.

"Deficit monetization"

It is very hard to write a piece about monetary policy today without sounding deeply pessimistic. As buying euphoria grips most markets and optimism abounds in much of the media, this leaves the question "can people really not see what is coming?"

One of the big surprises of 2013 has been the paucity of discussion concerning "deficit monetization". Since the advent of paper currency, when government coffers have run dry, the temptation has always been to try and print their way out of trouble. The historical precedents for this action are pretty appalling. Yet, this is exactly what the US Federal Reserve has been doing since it launched its latest bond purchasing programme.

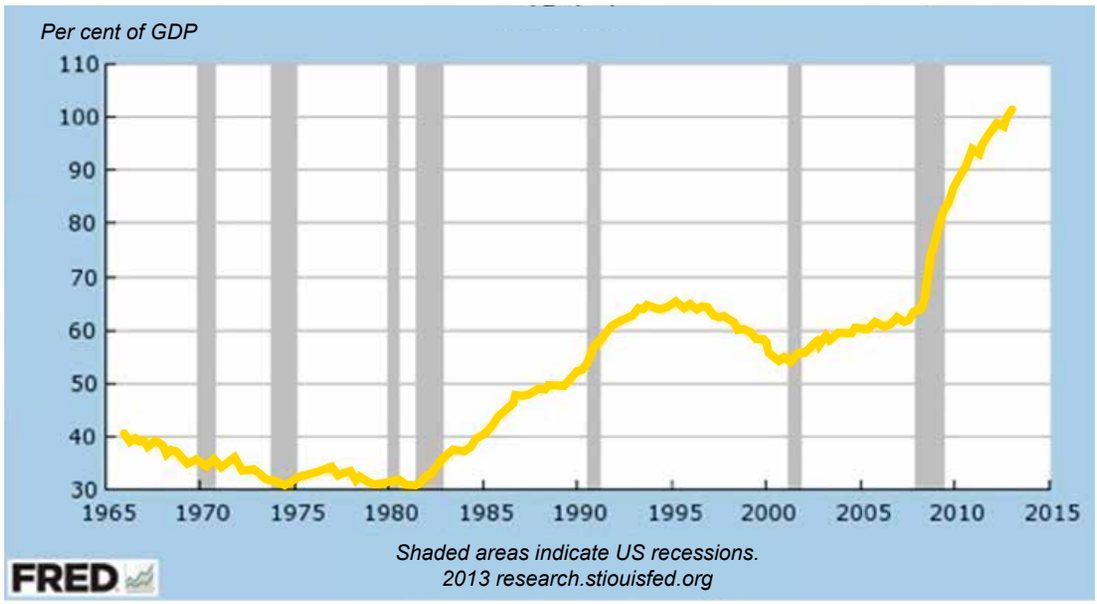
A decade of mismanagement, political inaction, overspending and unrealistic taxation finally caught up with the US when the financial crisis exploded in 2008.

In 2001, when President Bill Clinton left office, the US public debt-to-GDP ratio was 55 per cent. By the start of the financial crisis, it had risen to about 63 per cent. It now stands at 102 per cent … and is rising *(see **Graph 1**)*.

This is bad enough, but the situation becomes so

NB: The views expressed in this article are solely those of the author, Ben Turney.

Graph 1: Federal debt: total public debt as per cent of gross domestic product (GFDEGDQ188S)



Source: http://research.stlouisfed.org/fred2/series/GFDEBTN/.

much worse when you consider how this has been made possible.

The effects of the Federal Reserve's twin policies of quantitative easing and zero interest rates (ZIRP) have been covered widely. It is well known that ZIRP and the $85 billion a month of bond purchasing are designed to keep borrowing costs low.

This is meant to help grease the economic engine, in the hope it gets motoring again. Leaving to one side the fact that most measures of genuine growth and genuine wealth creation remain lacklustre at best, it is the finer detail of the bond purchasing that requires closer attention and greater recognition.

The breakdown of the $85bn a month of bond purchases is presented below:

	$ trillion
Total of US Treasuries purchased by the Federal Reserve each month	45
Total of Mortgage Backed Securities (MBS) bought by the Federal Reserve each month	40
Total monthly bond purchases by the Federal Reserve	85

Source: www.newyorkfed.org/markets/longertermtreas_faq.html.

There is no secret about these figures, but what too few people seem to have pieced together is how the top line of the table (the total of US Treasuries bought each month by the Federal Reserve) compares to how much the US Treasury borrows each month. As of October 1, 2013, the total US Federal Debt was $16.75 trillion, having risen by $314.8bn over 2013:

	Total US Federal Debt
As of January 1, 2013	$16,432,705,914,255
As of October 1, 2013	$16,747,478,675,335
Increase in the US Federal Debt	$314,772,761,080

Source: www.treasurydirect.gov/NP/debt/current

Over the same period, the Federal Reserve purchased $405bn of US Treasuries:

	$ trillion
Total amount of Treasuries purchased by the Fed each month under QE3	45
Total amount of Treasuries purchased by the Fed January 1, 2013 to October 1, 2013	405

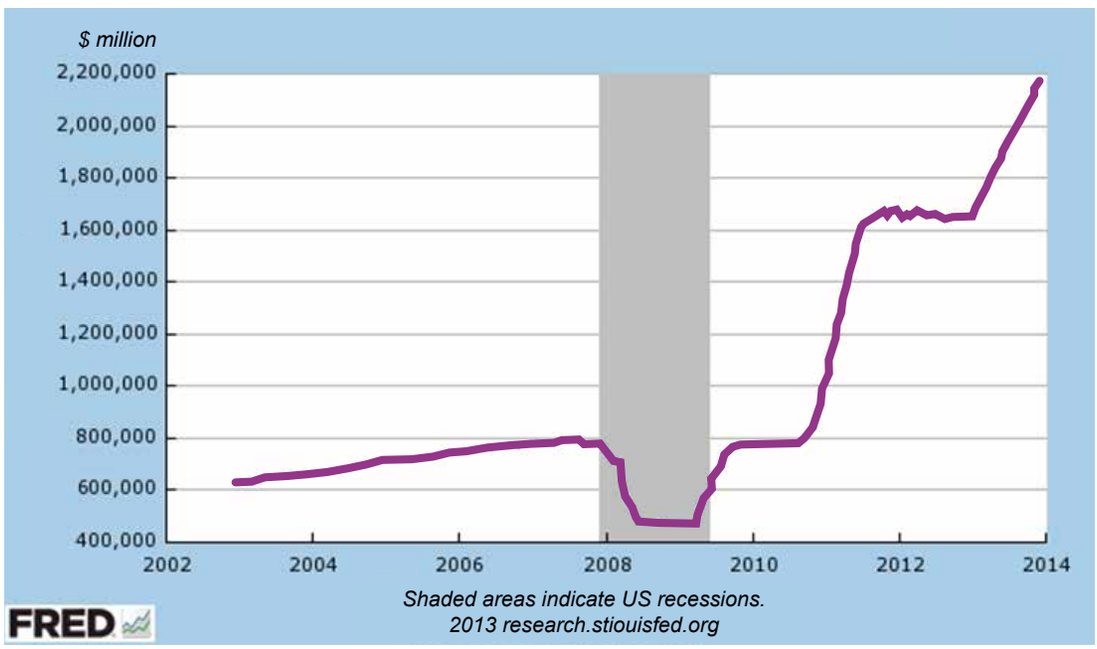
Source: www.newyorkfed.org/markets/longertermtreas_faq.html

In other words, as of October 1 this year, the Federal Reserve had purchased $90.2bn more Treasuries than the US Treasury had issued in 2013. In total, the Federal Reserve now owns one-eighth of all US public debt, valued at $2.1tr. Unsurprisingly, this has led to a spectacular increase in the central bank's balance sheet *(see Graph 2)*.

a yield of 2.87 per cent does not look like an attractive risk/reward ratio at all.

The hugely distortive effect of US monetary policy cannot be overstated. Ultimately, market forces will trump central intervention. This might still take several, or even, many years to happen, but there is a certain inevitability about it. It is hubris to believe otherwise.

Graph 2: US Treasury security held by the Federal Reserve: all maturities (TREAST)
Source: Board of Governors of the Federal Reserve System



Source: http://research.stlouisfed.org/fred2/series/TREAST

This is a huge structural imbalance and poses an extremely difficult long-term challenge; not that you would have thought so listening to Janet Yellen's prepared testimony to the Senate Banking Committee last month.

Without the purchasing power of the Federal Reserve supporting US bonds, it is very hard to see how the Federal Government could possibly hope to continue its deficit spending. It is highly doubtful there would be enough genuine domestic or international demand for US debt.

At the very least, yields would probably rise dramatically to reflect the genuine risks the fiscal commitments of the US currently pose. Buying ten-year Treasuries with

Indefinite borrowing (for now)

A reasonable question to ask, considering its $2.2tr holding of Treasuries, is why the Federal Reserve has maintained the scale of its bond purchasing programme, given the obvious risks this creates?

After all, according to the official line, the economy is meant to be recovering, confidence is improving and the worst is meant to be behind us. Unfortunately, as is ever the case in assessing the actions of policymakers, it pays not to listen to what they say, but rather watch what they do. The Federal Reserve has boxed itself into

a corner and has very few options left open to it. This is not least thanks to the political gridlock that occured in Washington.

Whether or not this has been by design is unclear, but a consequence of the last five years has been the relinquishment by US politicians of responsibility for growth and improving employment to their central bankers.

In the past, it was the remit of elected government to create sound economic policies. Today, thanks to the systemic dependence on quantitative easing, the fate of the global economy is firmly in the hands of the Federal Reserve and its policy targets of reducing unemployment to 6.5 per cent and keeping inflation expectations in check.

This may seem like a subtle change in authority, as central bankers have always played a key role in ensuring a healthy economic environment. Nevertheless, this switch is a fundamental one and has probably served to intensify the political division over the mounting fiscal predicament the US finds itself in.

A cursory glance over the state of US public finances reveals they are ailing (putting it mildly). The US Treasury does not generate enough tax revenue to cover expenditure, hence the desperate need to borrow.

If necessity is the mother of all invention, the bond buying by the Federal Reserve has removed the pressure on the political parties in the US to act to address the deficit. Free from such pressure, political infighting and squabbling has prevailed. October's repeat of the debt ceiling debacle was an unedifying episode, compounded by its so-called resolution.

What many in power seem to have forgotten is that when a social system becomes unsustainable it must be reformed, or it collapses. Perhaps this statement is guilty of applying too broad a brush to too complex a set of problems, but, as shown in April, the trend of events is clear. Rather than squabbling, the political parties should be putting all their energies into devising ways out of the looming fiscal crisis. Sadly, there is very little sign of this happening.

The taper tantrum

If the political impasse were not enough on its own to force the Federal Reserve to keep on pumping $85bn a month into the financial system, it is also under a great deal of pressure from the market.

There is no doubt that the strong rally in equities has been driven solely by the quantitative easing programme launched in 2012. Corporate profits have been boosted by ultra-low financing costs and the system is awash with liquidity. However, the higher prices have risen, the more difficult a situation the Federal Reserve finds itself in.

Earlier in the summer, when it seemed that the Federal Open Markets Committee was going to taper its bond purchasing programme, the "taper tantrum" was thrown. A broad sell-off in stocks and jump in bond yields sent ample warning just how dependent financial assets are on continued quantitative easing.

When it came to a decision at September's FOMC meeting, the committee baulked, citing political uncertainty over the debt ceiling as a reason not to start reducing its open market operation (OMO). This surprised most investors and traders and set the scene for the end of year rally, which has taken stocks to record highs.

Then came October and there was still no taper. This time it was because the economic data had been obfuscated by the disruption caused by the Federal shutdown. Next, the FOMC meets at the end of December and the expectation is that there will not be a withdrawal of bond purchasing until the second half of next year. With Ben Bernanke, the Federal Reserve Chairman, stepping down at the end of January, this seems like a reasonably safe assumption to make.

However, what most of the discussion surrounding the taper has missed completely is that a taper is just that — a reduction. It is not a cessation. The Federal Reserve could taper its buying of Treasuries by $10bn a month and it would still be buying more than the US Treasury issue, based on current borrowing trends.

Deficit monetization is here to stay.

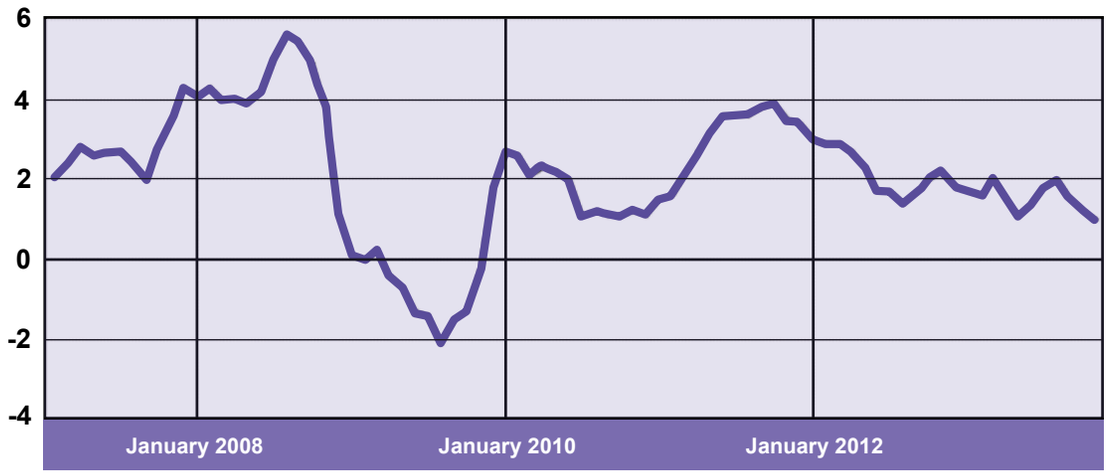
The spectre of deflation and playing with policy fire

The core justification for recent monetary policy has been the apparent threat of deflation. ***Graph 3*** shows a five-year chart of the US Consumer Price Index (CPI).

Even though there are signs of increasing inflation throughout the economy (eg higher energy prices), US CPI has been stuck at or below two per cent for the last 18 months. In the immediate aftermath of the failure of Lehman Brothers, the economy hit a period of deflation, driven by losses in the financial sector.

Under Ben Bernanke's stewardship of the Federal Reserve, officials have been most concerned at ensuring there is not a repeat of the prolonged deflationary period that took hold of the US in the 1930s.

Graph 3: US inflation rate
Annual change on consumer price index



Source: www.tradingeconomics.com — US Bureau of Labor Statistics.

To give an idea of how precarious a position American banks still find themselves in, their assets have grown by about $2tr since the end of 2008. During the same period, the Federal Reserve has injected $2.5tr into them through excess reserves. In other words, the suggestion is that American banks have delivered by about $500bn.

This points to vast losses within the industry and perhaps there are more to come. Clearly, policymakers are not stupid and have access to the latest data. There must be a firm logical basis for their decision-making, but their policies could well be creating even greater problems in the not too distant future.

Graph 4 is of a discontinued series, produced by the St Louis Fed. It is correct until May this year, but illustrates the parabolic rise in excess reserves deposited by US banks in the Federal Reserve's overnight facility.

There are no errors on this chart. The horizontal line from the late 1950s to 2008 reflects the historical norm of excess reserves. The phenomenal growth in these over the last five years has pushed the global financial system deep into unchartered water. The latest 'H3: Aggregate Reserves of Depository Institutions and the Monetary Base' report, published by the Federal Reserve, reveals that the balance of excess reserves is now $2.375tr.

Even a limited understanding of the fractional reserve banking system and how excess reserves are used to put money into circulation should ring alarm bells of the potential for rampant inflation returning.

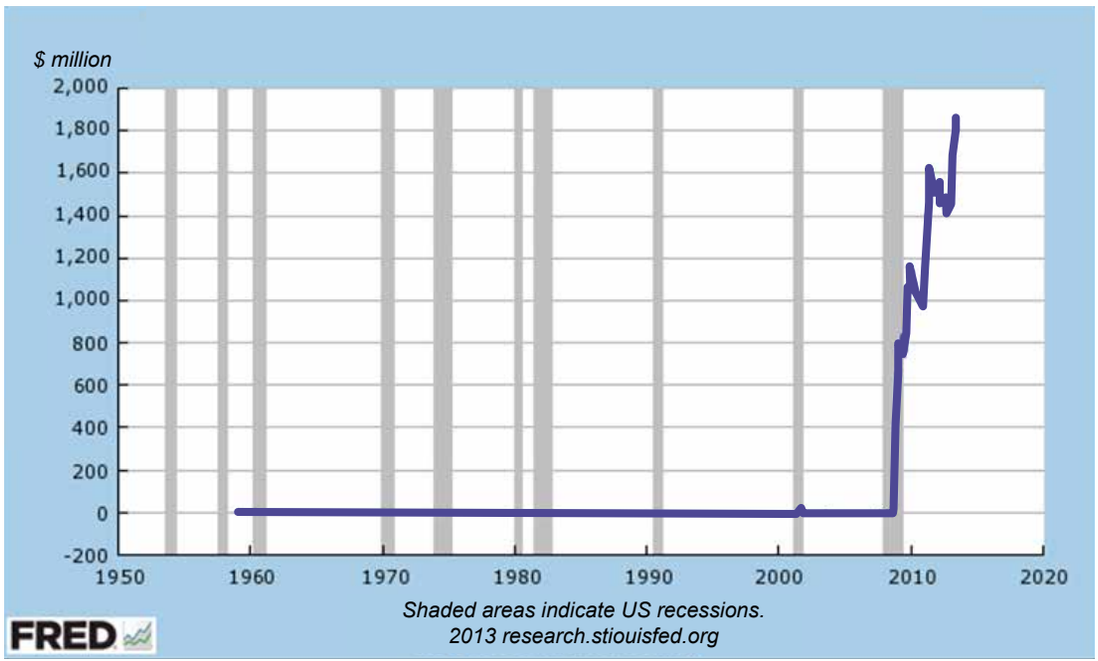
Policymakers have been quite explicit in the US and Japan that their goal is to stoke inflation and avoid a deflationary collapse. This is a radical departure from previous central banking best practice. As the 1970s proved, in a world of floating currencies, where money is a product of rules and regulations and is not anchored by anything, if inflation is left unchecked it can rapidly spiral out of control. This can have a devastating impact on wealth.

Of course, the second unspoken motivation for policymakers to pursue inflationary strategies is to inflate away a large proportion of the debt burdens their economies are toiling under. If inflation were to rise significantly, this would benefit borrowers greatly to the detriment of lenders.

This really is the equivalent of playing with policy fire. International holders of US debt are not likely to take kindly to the erosion of their wealth and subsidising of US deficit spending.

However, current economic thinking is not guided by the problems of tomorrow; it is concerned solely with the problems of today. Whether or not this turns out to be a myopic mistake remains to be seen.

Graph 4: Excess reserves of depository institutions (discontinued series) (EXCRESNS)
Source: Board of Governors of the Federal Reserve System



What this means for the oil-producing nations

At present, the greatest public concern of oil producers is the impact the US "fracking revolution" is going to have on prices. Certainly, this is a big area of concern, but it would be unwise to ignore US fiscal and monetary policies. In the long term, these could have even more serious consequences, both for the pricing of oil and any accumulated dollar denominated assets.

The basic flaw in the prevailing economic consensus is simple and clear. A debt crisis cannot be solved by more debt. Perhaps they have been influenced by their Japanese counterparts who run a public debt-to-GDP ratio more than double that in the US, but whatever the case, US policymakers show no serious desire to rein in their borrowing, nor halt their quantitative easing.

For the time being, all that is underpinning the semblance of orderly economic function is the presence of the Federal Reserve's bond purchasing programme. As long as this is maintained and the market continues to accept deficit monetization there is no pressure on the political system to engage in serious reform.

In the absence of serious structural reform, the obvious systemic imbalances can only worsen. The longer they worsen, the harder they will be to resolve. At some point, the market will no longer accept this charade and, if history is anything to go by, this will happen very suddenly.

What is unequivocal, though, is that the current situation cannot persist indefinitely. One nation cannot expect to maintain its living standards at the expense of others through money printing. This is obviously unacceptable.

The great weakness in the Fiat system of currencies is that it is dependent on sound decision-making. Clearly, this has been lacking for some time; otherwise we would not live in a world which has grown accustomed to trillions of dollars of quantitative easing every year.

However, were asset-backed currencies to be reintroduced to the Fiat system of currencies, they would bring with them a degree of assurance and consistency that is currently missing. As such, the appeal of this idea could become increasingly alluring and for the oil-producing nations, with their sizeable reserves of oil, what could be better than the introduction of an oil-backed currency?

Resource nationalism clouds gas investment in Tanzania

Excitement in Tanzania's gas potential is being tempered by increasing resource nationalism as the East African country's people call for improved national development, other than gas exports. ***Daniel Brett*** *explores this intriguing situation exclusively for the OPEC Bulletin.*

Statoil

With estimated natural gas reserves of more than 1.13 trillion cubic metres that are enticing global majors to invest, Tanzania has become a focal point in the dash for gas in East Africa.

The country's reserves could easily surpass those of Algeria if it realizes projections of up to 5.66tr cu m within the next five years. Excitement is building over the recently launched licence round, but this is being restrained by lingering uncertainties as resource nationalism has taken a firm grip of the debate over gas extraction.

An exploration success ratio of about 90 per cent in its deepwater blocks, where nine out of 11 wells have shown gas promise, has prompted a flood of interest from oil and gas producers and heightened optimism within government circles.

A total of 25 production sharing agreements (PSAs) have so far been signed with 17 energy companies. Major players like Statoil, ExxonMobil, the BG Group and Royal Dutch Shell, are seeking to exploit offshore gas discoveries, with plans for a joint liquefied natural gas (LNG) development as Tanzania looks to the premium Asian market for exports.

Tanzania is expected to shift up a gear as early as 2018 when the first gas production from deepwater gas discoveries is expected to come online.

The country is following in the wake of neighbouring Mozambique, which has sped ahead in exploiting the huge potential of the Rovuma Basin that straddles the two countries' maritime borders.

The latest bidding round officially opened on October 25 and is due to close on May 15, 2014. Seven deepwater concessions and one onshore block are available in the eagerly awaited and long-delayed auction.

The blocks are in water depths of 2,000-3,000 metres adjacent to proven prospective blocks, while the Lake Tanganyika North block is in a water depth of 1,500m along the east African rift system.

Rising resource nationalism

The fourth licensing round had been repeatedly pushed back as the government sought to complete key pieces of legislature governing the gas sector. These regulatory amendments are to help Tanzania better use its newfound hydrocarbon resources for the country's development.

Like other East African nations, Tanzania has been embroiled in heated national debate over how much of the nation's hydrocarbons output should be used locally and how much can be exported.

Opposition politicians, members of the local business community and activists have called for a delay in legislation and a 10-year suspension of the new blocks' allocation to avoid a repeat of the mistakes committed in the mining sector.

Leading the charge against further gas field development, deputy leader of the opposition, Zitto Kabwe, has stated: "A moratorium will not only allow us to manage our new resources effectively, it will also ensure the welfare of future generations. Let us avoid a repeat of the mistakes we made in mining where foreign companies are making windfall profits with the country earning peanuts."

Kabwe has touched on the raw feelings of many Tanzanians over the 1997 Mining Law, which allowed 100 per cent foreign ownership and left the government with little to show for in terms of boosting revenues and developing the impoverished nation.

Protests prompted an overhaul of the country's mining legislation in 2010 that ramped up national participation in the sector and royalty payments.

The mood within Tanzania is strongly in favour of resource nationalism, in order to sustain road-based economic growth and alleviate poverty. In spite of a building consensus, many Tanzanians still remain unhappy. Regional tensions within the country have emerged over just how the benefits of resources will be distributed.

Only about 18 per cent of the population has access to electricity, with more than 80 per cent of those with access concentrated in urban areas. Domestic gas resources are seen as key to much-needed electrification.

Protests and bouts of violent unrest have erupted over plans to transport gas from gas-rich rural areas in the south to urban areas in the north via the 532 kilometer Mtwara-Dares Salaam pipeline, as the gas would flow from the underdeveloped region in which it is produced, to benefit northern urban areas.

Meanwhile, the nascent private sector has pushed the case for guaranteed local

"We do not want to reach a point where we export gas and import urea."

— President Jakaya Kikwete

ownership of stakes in oilfields, although few Tanzanian businesses have the capital to invest in drilling and extraction.

State role

These concerns are driving the government's bid to leverage the potentially massive natural resource wealth for economic development. Seeking to harness the financial windfall of the gas boom, Tanzania has unveiled new terms for PSAs that should toughen up some of the conditions on investment in the country's gas fields.

Published in early November by the state oil and gas company, the Tanzania Petroleum Development Corporation (TPDC), the model PSA includes a minimum $2.5 million signature bonus to be paid to the government upon signing a contract, a $5m production bonus when output starts, a capital gains tax of 20 per cent and a new royalty structure that could entail higher fees for contractors.

The strengthening of the fiscal terms also includes a royalty rate of 12.5 per cent of total production for onshore or shallow water operations and 7.5 per cent for offshore production.

The new terms highlight Tanzania's determination to strengthen the oversight of the sector, increase the revenue potential of the state and compel producers to divert a portion of the gas output to the local market as a badly needed fuel source.

The country's President, Jakaya Kikwete, has made it clear that gas must be prioritised for Tanzania's development in the draft legislation governing the gas sector, saying: "We do not want to reach a point where we export gas and import urea."

The government is also seeking a greater stake in field development. Kikwete, while launching the country's fourth licensing round, said: "The production-sharing formula will either be 35 per cent to investors and 65 per cent to the government, or 25 per cent to them and 75 per cent to us."

Gas discoveries and estimated gas-in-place

Blocks	Licensees	Wells	Gas pay (m)	Gas-in-place (bcm)
Block 1, 3 & 4	BG Group (60 per cent), Ophir Energy (40 per cent)	Chaza-1	na	85
		Chewa-1		
		Pweza-1		
		Jodari-1	na	71–125
		Jodari South-1	50	
		Jodari North-1	32.4	
		Mzia-1	55	113–255
		Total		**354–465**
Block 2	Statoil (65 per cent working interest — operated on behalf of TPDC), ExxonMobil (35 per cent)	Zafarani-1	120	170
		Tangawizi-1	na	113–170
		Lavani-1	95	85
		Lavani-2	na	56*
		Total		**424–481**
Total Tanzanian estimated gas-in-place				**778–946**

* *Inferred from Statoil's total Block 2 estimates and estimates of other discoveries; na = not available/applicable.*

Source: Ophir Energy, BG Group, Statoil, Eni, Anadarko, Cove Energy, BMI.

Fiscal clarity

The exact terms of current PSAs are classified as state secrets. Statoil, which is operator of Block 2 on behalf of TPDC, reports that the state has the right to a 10 per cent working interest in the development phase. This is much lower than the stake mooted by the President for the new PSA.

The extremely high participation rate for the state in the development phase of the new PSAs reflects the country's confidence that the lure of East Africa's deep-water potential will be strong enough to compensate for the uncertainty.

Given its lack of participation in major developments in the past, TPDC's own capacity to take the leading role in such projects is also in question.

International oil companies (IOCs) have reacted with caution with Statoil calling for greater clarity. If the legislative framework is not in place by the end of the licensing round in May 2014, the participation rate in the fourth round could be lower than anticipated.

Hiking the costs of entry and increasing the state's take in a frontier state with infrastructural and political challenges could see the majors reassess their approach to Tanzania.

Bill Page, a partner at Deloitte Tanzania, told the *Financial Times* that while companies were ready for tougher fiscal terms, the government "may have gone a little bit too far" given that "this is deep water so it is a very challenging environment, very expensive."

Is the government likely to bend to corporate pressure? The added demands on foreign investors are popular among Tanzanians and are unlikely to abate as the country approaches general elections in 2015.

The government appears undeterred, convinced the new PSAs will not dissuade bids. While IOCs may hesitate over the terms, more receptive state-owned oil producers from energy-hungry Asian emerging markets will seek to snap up licences.

LNG competitors

As existing contracts are unaffected by the change in PSAs, Tanzania will still be able to monetize existing discoveries, possibly through an LNG project. BG and Statoil said in March they planned to build a $10bn LNG terminal, scheduled for completion in 2020.

However, the hardening of fiscal terms could see IOCs, which have already expressed concern about the rising costs of participation in the region's gas boom, re-think their strategy in relation to further developments.

New LNG supplies are coming online worldwide, leading to uncertainty over the long-term pricing. Tanzania will be pitting itself against new shale-based LNG production from North America, where infrastructure is well-developed. Tanzania is also lagging behind Mozambique, which is set to open East Africa's first LNG terminal in 2018 and steal a march on its northern neighbour in the Asian LNG market.

Robert Stibolt, Senior Managing Director for energy advisory firm, the Galway Group, told the World Shale Oil and Gas Summit in November: "If you see significant shale development worldwide, you could have a world of relatively low gas prices with gas-on-gas competition worldwide."

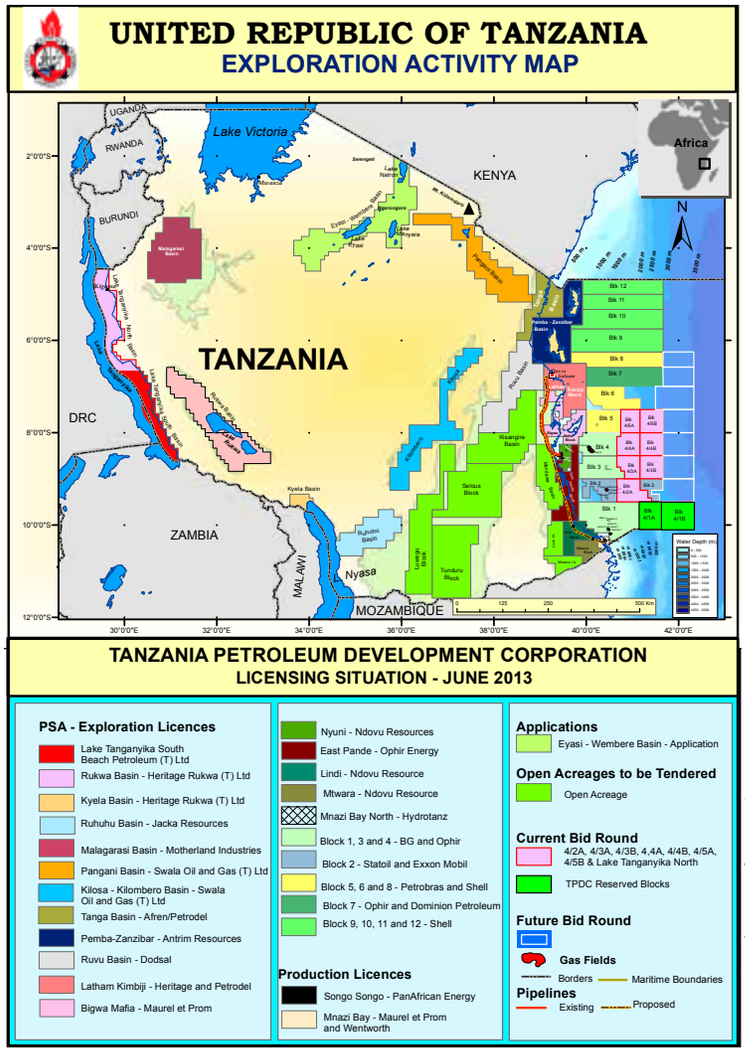
He noted that increases in flows of LNG trade worldwide will give more flexibility in the system, resulting in a more liquid trading market.

Unattractive terms and populist resource nationalism in a heavily competitive market could force Tanzania out of the LNG race. Timing is everything and if producers project an over-supply of LNG in the future, an uncertain and costly business environment in Tanzania could lead to the slowdown in development demanded by the government's critics.

Tanzania's fourth licensing round

Block	Area *(sq km)*
4/2A	3,630.5
4/3A	2,620.3
4/3B	3,045.0
4/4A	2,963.3
4/4B	3,048.9
4/5A	2,545.3
4/5B	3,052.6
Lake Tanganyika North	9,670.2

Source: TPDC.



Dubai to host 2020 World Expo

by Scott Laury

United Arab Emirates' Vice-President, Prime Minister and Ruler of Dubai, Sheikh Mohammed bin Rashid Al Maktoum, greets the crowd during a ceremony to celebrate Dubai winning the right to host the 2020 World Expo.

Fireworks are not uncommon in the sophisticated, glamorous and influential Emirate of Dubai, but this day was special.

The famous Burj Khalifa, the world's tallest building, nearly looked as if it was on fire, but it was actually celebratory fireworks spewing out on all sides as the announcement was made: Dubai had been selected to host the World Expo in 2020.

The decision was made known on November 27, 2013 by the 168-member nation International Exhibitions Bureau in Paris, where all candidate cities had representatives gathered and anxiously awaiting the big announcement.

After three rounds of voting, Dubai emerged victorious over the competing host city bids from Izmir, Turkey; Sao Paulo, Brazil; and Yekaterinburg, Russia.

First host from the Middle East

Dubai will have the distinction of being the first Middle Eastern city to organize this prestigious event in its more than 150-year history.

The Expo will take place over a six-month period, from October 20, 2020 to April 10, 2021, with the theme *'Connecting minds, creating the future.'*

In its bid brochure, the Dubai bid committee writes about the philosophy behind the theme: "It best represents the fabric and the future aspirations of its society and reflects how World Expos unite people from across the globe to share in a common project.

"In today's highly interconnected world, what is most needed is a renewed vision of progress and development, based on shared purpose and commitment. It is by coming together and strengthening connections that we can truly advance."

National celebration

After the announcement, jubilation filled the room in Paris where it was made, and streets throughout the United Arab Emirates (UAE) erupted in joyous celebration.

In a statement to the Dubai Government Media Office after the win, UAE Vice President and Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, said: "Winning the Expo 2020 bid brought joy to the populace of our beloved UAE — Emiratis and residents alike — who expressed their sincere and true feelings by raising the UAE flag on the roofs of their houses and across the tops of doors and vehicles, as well as through the tweets posted on their accounts for social media."

In a *BBC* report, Sheikh Al Maktoum also shared this comment: "We renew our promise to astonish the world in 2020. The Dubai Expo 2020 will breathe new life into the ancient role of the Middle East as a melting pot for cultures and creativity."

The announcement came just days before the December 2 UAE National Day, themed *'Spirit of the Union'*, which is celebrated annually across the seven Emirates to commemorate the nation's 42 years of independence from the British Protectorate.

Ramping up for the big event

In the next seven years, Dubai will undertake a number of infrastructure projects to prepare for the Expo, including the construction of a major exhibition centre where the event will be hosted, in addition to new hotels and an extension of the Dubai underground train line.

The event is expected to cost an estimated $8.4 billion and hopes are that it will bring in around $23bn.

World Expos have a long, rich tradition of bringing the world together to display the latest trends and innovations in architecture, industry, technology, trade and culture, as well as to exchange ideas.

In 1851, London hosted the first-ever Expo, entitled the *'Great Exhibition of the Works of Industry of All Nations'*. Prince Albert originated the idea of holding the event, which was held at the Crystal Palace in Hyde Park.

After the success of the London Expo, other famous cities went on to host the event, including: Paris (six times: 1855, 1867, 1878, 1889, 1900 and 1937), Vienna (1873), Barcelona (1888), Brussels (1897) and Saint Louis (1904).

More recently, Yeosu, South Korea hosted the World Expo in 2012 and future hosts leading up to the Dubai Expo will be Milan, Italy, in 2015 and Astana, Kazakhstan in 2017.

Top: Congratulatory billboards in Dubai celebrate the Emirates' success.

Above: A grand fireworks display around Dubai's famous Burj Khalifa tower mark the announcement of Expo 2020.

All images courtesy Reuters.

From pearl-diving to crude oil: Kuwait's maritime past "net of wonder"

Before the advent of oil, Kuwait relied primarily on the sea for its livelihood. In fact, nearly the whole of Kuwaiti life revolved around its waters. The OPEC Bulletin's ***Maureen MacNeill****, who was recently in the OPEC Member Country for the inaugural Kuwait Oil and Gas Show and Conference, took time out to visit the country's fascinating Maritime Museum, which documents in detail that part of the Emirate's history.*

Kuwait Maritime Museum.

The Kuwaitis of four centuries ago were a small community of fishermen and pearl divers. For those living near the water over generations — a majority of Kuwaitis — life revolved around the sea.

Famous Dutch artist, Vincent Van Gogh, once said: "The fishermen know that the sea is dangerous and the storm terrible, but they have never found these dangers sufficient reason for remaining ashore."

And so it was for the people of Kuwait, who depended on the sea for food, water and income.

The Kuwait Maritime Museum, funded by the Kuwaiti government and opened in 2010 in Kuwait City (in the works since 2006), offers a home to the rich and colorful history of Kuwait's maritime connection. This changed radically in the 1950s after the breeding of pearls in Japan and the discovery of oil.

The unique building — architecturally configured to resemble a ship — also contains a large ship inside, which holds part of the museum's display.

Fishing — a way of life

The early settlers of Kuwait fished to live and traded with their neighbours for other sources of food. Luckily, the waters around Kuwait were teaming with all kinds of fish, some which had migrated from the Arabian Sea to the Gulf to lay their eggs near Kuwait. There was never a shortage. In fact, the fishermen of the Island of Failaka used to salt, dry, and export surplus fish to nearby ports, or sell them to trading dhows bound for south Arabia or India, according to museum displays.

Men from other villages along the east coast of Kuwait also practiced fishing, some using primitive fishing boats called Warjiah, built from date palm fronds. Yet, others built fishing traps called Hadrah, which caught fish at low tide near the shore.

Fishing is still practiced in Kuwait. "They still catch, but not like before," says Sara Alarbash, an employee of the museum.

"Kuwaitis eat fish every day," adds Museum Director, Ali Alshammari. "A lot of people fish for pleasure, as a hobby, and eat 90 per cent of what they catch."

Some fishermen built fishing traps called Hadrah, which caught the fish at low tide near the shore.

Pearls were sorted by size, weight and shape.

Primitive fishing boat called a Warjiah.

Modern-day Kuwaiti fishing fleet.

In addition, pearl diving "was a very important job in Kuwait before oil … it was the main source of income," says Alshammari. "Every house had two or three divers and several had men who died [while diving]," he says, the main reason being shark attacks.

He adds that divers tried to collect pearls, but also brought mussels home for food. "The divers would eat three or four dates in the morning then get in the water, work all day and eat at 2–3 pm."

"No profession affected the lives and livelihoods of the Kuwaiti people as much as diving for pearls in the waters of the Gulf," according to museum documents. Several different types of pearling dhows were used, the largest of which was the Pearling Boom. Others included the Sanbuk, the Jalboot, the Shu'i and the Bateel, which was the first to become extinct.

Pearls for royalty

In the past, pearls were only collected through divers and only royalty and Europeans could afford them, says Alshammari. "It was a tradition."

Pearl diving was seasonal; about 200–300 ships, each with 30–40 men would head out in June, July and August to try to find pearls. The divers wore various protection gear: suits to prevent jellyfish stings, leather pieces on their fingers for the sharp stones, as well as nose clips. They carried a basket for oysters around their neck and filled it quickly with both hands. To get down to the mussels fast, the men would attach a metal weight to one leg and dive up to five meters deep, without the benefit of breathing apparatus. Time was of the essence; when they pulled on their rope, a friend would bring them up.

The divers were paid using an honour system. Sometimes workers got more or less money than they had earned, depending on pearl sales, and the difference would be made up the next year, says Alshammari. "The government had a book, which was stamped when the owner gave money to a diver."

The divers got an advance payment before the diving season, he says. If the pearls fetched more, the money was shared equally. "If you died, your son should pay it back.

"Diving was based on luck, and honour," adds Alshamari, because it would be possible to switch to another diving boat, while still owing the previous owner money. "But the other owner would know you work for another. It's a small city; shipowners supported each other."

The Sanbuk was a pearling dhow par excellence, which was not used for any other function, and bigger than a Shu'i, Alshammari says. "The pearling boom was a double-ended dhow built only by Kuwaiti shipwrights from the beginning of the 20th century."

Kuwait's trade was weakened by the rise of the Japanese pearl industry. "When the Japanese started to farm oysters, the value dropped," says Alshammari. Today all that remains of the pearl business is a tradition kept up by the Kuwaiti government: about 100 boys go

out pearl diving four or five days each year, he says. "We don't want Kuwaiti citizens to forget their heritage."

Marine life was essential to Kuwaitis in another, very vital way — water collection. Obtaining enough water to drink and cook with was a major concern before a desalination plant was installed near Kuwait City in 1953.

The country had no sources of fresh water, apart from a few wells outside the town's walls; not nearly enough to support the expanding population of that time. Kuwaitis thus often travelled to the Shatt al-Arab river near Basra, in order to collect fresh water.

Water brought by ship

Water transportation improved with the construction of the Water Boom, or Boom-Ma'y — a medium-sized ship with wooden storage tanks, which were filled with the waters of the Shatt in Iraq.

Upon returning, men and women waited in patient lines by the waterfront, while the captain and crew handed out water, according to museum documents. These booms had an important position in Kuwait's pre-oil economy, even though collection and transportation of water was sometimes complicated by poor weather conditions.

"Water was brought by ships built only for [that purpose]," says Alarbash. "An Al-kandiry carried water and delivered it to houses." A Jerbah, or leather bag for water transport, helped to keep it cold and was also used for milk inland, she says.

"The Yemenis had the job to take water to the houses," continues Alshammari, adding that plumbing first arrived in the region around 1960. "It was likely the main trade between the two countries [Kuwait and Iraq] at that time," he says.

The desalination plant first produced one million gallons of fresh water per day, with capacity expanding in the following years, ending Kuwait's water scarcity.

A great deal of Kuwaitis' income was historically also gained through trade. "Coastal trading is a profession that is as old as Kuwait itself," according to one display. Cargo was mainly transported between Gulf ports using a Boom Gatta'a, which is similar to a Boom Saffar (used for deep trading), but smaller in size.

Before Kuwaiti ships were able to reach Indian Ocean ports, Kuwait relied heavily on coastal trade for daily provisions, such as rice, wheat, dates and vegetables.

Kuwait also became an emporium for goods heading inland to northeast Arabia and desert caravans continued to visit it for supplies up until the 1920s. Kuwaiti merchants had a reputation for being fair and treating their desert customers well, according to documents.

A fisherman boarding his Warjiah.

Starting in around 1780, the term 'deep-sea trade' constituted the annual sailing voyage from Kuwait to south Arabian and Indian ports undertaken by Kuwaiti sailing ships of the Bugia and Boom types.

Later, trips extended to East African ports, such as Mombasa and Zanzibar. Every September, more than 100 large dhows left Kuwait loaded with a cargo of Iraqi dates to sell in these various ports; they returned home with cargoes of food, or with scores of mangrove poles and other building materials.

The East African voyage took nine months to complete, while the Indian voyage needed six months.

Men working on a trading ship.

Kuwait's shipbuilders had the reputation for being the best in the Gulf.

There were around 166 deep sea dhows from Kuwait engaged in these voyages after World War II. The total revenue of this trade constituted about one-third of Kuwait's income before the 1950s.

Songs kept workers happy

Sea songs were important for sailors on both pearl diving and deep sea ships and were common among seafaring cultures of that time. Fishermen also developed their own songs, which they sang while rowing boats from one fishing ground to another.

Specific tools were required to produce the famous Kuwaiti ships.

"They [pearl divers] woke up at 5 am and were diving until 6 pm," says Alshammari. "The music was to keep the pearl divers happy, singing, playing."

A good sea chanter, or Naham, was in great demand on board Kuwaiti deep sea and pearling ships. Such a chanter kept the sailors working in unison and helped them continue with their back-breaking jobs, such as hauling in the anchor, or hoisting the sails, according to museum documents.

A sea chanter had great respect from a ship's captain and the sailors and was given half an extra share at the end of deep sea voyages. He had to memorize a type of poetry called Mawwal to entertain his fellow sailors. There were several famous chanters in Kuwait, while others came from Bahrain and settled in Kuwait; none of them is alive today.

There were three typical types of songs: Yamal was sung while rowing a long-boat; work songs were associated with hoisting sails and weighing anchor; other songs were for entertainment during idle times.

Sea songs were important on pearling and trading boats to keep the mens' spirits up.

The country's shipbuilders had a reputation for being the best in the Gulf. When Kuwait was a small fishing village four centuries ago, small fishing boats were built, as well as larger ones, to enable trade with neighbours. Later on, Kuwaitis started building other types of sailing ships for their annual trips to the pearling grounds near their shores.

When demand for coral rocks increased as a construction material, Kuwait's shipwrights designed the Teshalah, a vessel resembling a Boom with no deck, allowing for more storage capacity and facilitating the loading and unloading of cargo. They were also used for lighterage, to bring goods from deep-sea booms to shore. These ships were heavily used in the 1930s.

All images in this feature courtesy Maureen MacNeill.

After trade started to take place directly with India, Kuwait's shipbuilders produced large, deep-sea ships, such as the Bughla and the Boom, which were capable of sailing in the Arabian Sea and the Indian Ocean. These ships were large, seaworthy and beautiful, and made their creators famous.

"The Kuwaiti Boom Saffar was famous in the Gulf ... it is like the Kuwaiti Mercedes," states Alshammari. In fact, the Boom was so outstanding that it still appears today on all Kuwaiti bills, on government buildings, etc. he adds.

In 1765, there were over 800 different kinds of working ships in Kuwait, and shipbuilding continued in the country until the end of the 20th century.

"Every man had something to do," says Alarbash. "The Al-sharaah was only cutting wood, the Al-hadad was only making nails, the Al-galaf was only putting in nails."

The maritime trade of Kuwait City would not continue after oil exports from its desert began in 1946. By 1955, most maritime activities stopped and oil began to dominate the country's economy. Only fishing and shipbuilding continued into the latter half of the 20th century.

Although Kuwait's maritime link is largely in the past, the drama and magic of life at sea remain an integral part of the country's heritage.

"The sea, once it casts its spell, holds one in its net of wonder forever," wrote the great seafarer, Jacques Yves Cousteau. Kuwait proves no exception.

A harbour in today's Kuwait.

Ali Alshammari, Director of the Kuwait Maritime Museum, showing off a water dhow.

The crew of a boat hard at work.

The luck of the draw for the football World Cup 2014

The FIFA final draw on December 6 has shown the four participating OPEC Member Countries what their paths to victory in the 2014 Football World Cup will entail. **Eric Arn** reports.

Football fans around the world are eagerly awaiting the 2014 FIFA Football World Championship, international football's biggest and highest-profile tournament, which will take place in 12 locations around Brazil from June 12, 2014 to July 13, 2014, next summer. Four OPEC Member Countries are among the 32 nations that have qualified for this historic competition, a record-setting number for the Organization. As announced by FIFA, the sport's global governing body, on November 20, Algeria, Ecuador, IR Iran and Nigeria will all be fielding teams in next year's tournament.

Football fans around the world watched anxiously on December 6 as FIFA held the group draw for next year's tournament, and their dreams got a bit more clarity as the qualifying nations learned exactly who they will need to beat to make it through the first round. The final drawing process placed all the qualifying teams into eight groups of four squads that will play each other just once, with the best two sides from each group then advancing to the knockout stage.

20 years of World Cup action

The 2014 tournament will be the 20th FIFA World Cup. It will be the second time that Brazil has hosted the competition and the first time the cup has been held in South America since the 1978 competition in Argentina. Spain is the current defending champion, having defeated the Netherlands in the 2010 Cup final in South Africa. Croatia will have the honour of kicking off the tournament on June 12 against hosts Brazil at the Arena Corinthians stadium in São Paulo. The final will come a month later at the "cathedral" of Brazilian football, the iconic Maracana stadium in Rio de Janeiro. Between those two dates, we can expect an epic month of world-class football.

Avoiding the "group of death"

How did the draw affect the tournament hopes of the OPEC Member Countries taking part? As is customary, following the group drawing every four years, talk around the world

Ecuador

quickly turned to determining the "group of death", or the toughest group of the eight. Though this year, it is hard to single out any one particular group, very few teams would want to switch places with Uruguay, Costa Rica, England or Italy in Group D. Perhaps even fewer would like to replace Germany, Portugal, Ghana or the United States in Group G. The OPEC Member Countries can breathe a sigh of relief that they were not included in either of these groups, but they will have their own challenges to face, in order to make it to the final.

Ecuador with a good chance in Group E

Ecuador finds itself in Group E, along with Switzerland, France and Honduras. Ecuador qualified for its third World Cup competition in the last 12 years after finishing ahead of Uruguay in the South American confederation, based on goal difference. It must be noted that they did not lose any qualifying games on their high-altitude home turf in Quito. Although they have not always been considered among the strongest teams in South America, Ecuador can look back to beating both Poland and Costa Rica to make the second round in Germany in 2006. They have clearly become a recognized force and have now

IR Iran

Nigeria

cemented that reputation by earning their third World Cup slot. Ecuador, therefore, appears to be the favourite from this group to advance to round two.

The Ecuadorean team will carry somewhat heavy hearts into the tournament, due to the sudden passing of their beloved charismatic striker Christian "Chucho" Benitez in July of this year from cardiac arrest. He had scored in three of their World Cup qualifying matches. On the other hand, Ecuador will be propelled by the performances of other outstanding players, such as Felipe Caicedo, their powerful striker and leading scorer in the qualifying rounds during which he scored seven goals in nine games. Their captain, left-sided midfielder Walter Ayovi, was the only player to take part in every minute of the long qualifying campaign. His experience in both of Ecuador's previous World Cups will be very valuable in Brazil. Winger, Antonio Valencia, is also capable of dazzling game-changing performances under pressure and should also prove a valuable asset. Ecuador's coach, Reinaldo Rueda, is very much a veteran tactician, having led Honduras to South Africa in 2010, their first World Cup in 28 years. Ecuador's passion for the game has even caused President Rafael Correa to praise his team's "unity, solidarity and delivery" on the long road to Brazil.

IR Iran and Nigeria set to meet face to face

The first round competition in Group F will certainly be the most interesting for those following OPEC Member State teams with IR Iran and Nigeria set to face each other in their opening match, before playing Argentina and Bosnia-Herzegovina. Argentina is looking strong after the South American playoffs, coming out on top of that group and losing only twice. Bosnia will make their World Cup finals debut, also looking strong, as they qualified rather easily, netting 30 goals in ten games.

While this year's Iranian team has not received as much publicity as some of the others they will be facing, they ended up the top squad from Asia, despite featuring many players with little international experience. Finishing in the standings ahead of the much admired South Korean team, allowing just two goals in eight matches, and losing only two games during the qualifying process, means the Iranian team has plenty of forward momentum as they head to the Cup for the fourth time in their history. There are many reasons to believe that this World Cup appearance will be their most rewarding yet. Many Iranian fans are confident of springing a first round surprise, especially as Iran will play Nigeria in Curitiba, which, like Tehran, stands a kilometer above sea level.

As the Iranians prepare to compete in football's biggest event, they should be encouraged by the fact that they are led by manager, Carlos Quieroz, who is extremely experienced in international team management. With the Persian Stars, he has lost just four games of the 32 he has coached so far, but the World Cup, of course, represents a much tougher challenge.

Nigeria's first trip to the World Cup came in the United States in 1994, and they have qualified three times since. They may well have the best chance of all the African teams in the 2014 World Cup, having won the Africa Cup of Nations earlier this year. It has not always been easy for the Nigerian national team at the World Cup, as the last time they advanced to the knockout round was 1998. However, this pride-filled group is undergoing a remarkable transformation under the direction of head

coach, Stephen Keshi, who became one of only two people to win the Africa Cup of Nations as both a player and a coach when he led the Super Eagles to the 2013 title in February.

Algeria hoping to advance this time around

Algeria's team was drawn for Group H, along with Belgium, Russia and South Korea. They are hoping for a change in fortune this time around, as they did not reach the knockout phase in their last two World Cups, and even struggled a bit in the African Cup this year. Their biggest challenge will likely be Belgium, who didn't lose a game in the European qualifying round after not making it to a World Cup since 2002. Russia, led by veteran coach, Fabio Capello, was also impressive in European qualifying and will not hand an easy victory to their opponents.

As they enter next year's tournament, Algeria's players will no doubt be thinking back to Spain 1982, their first World Cup, and one of the biggest upsets in the tournament's history when they shocked West Germany 2–1. Algeria was ready to become the first African team to reach the second round, when the West German and Austrian teams conspired to progress at Algeria's expense. Once the Germans scored a single goal, both teams made a tactical decision to run out the remaining 80 minutes of the game, ensuring that both would advance and Algeria was eliminated. In the end, the outcry over this ploy caused FIFA to rule that from then on the last pair of games in every group would be played simultaneously.

The current Algerian squad is led by experienced manager, Vahid Halilhodzic. The Desert Foxes have welcomed a new generation of footballing talent, while managing a second straight qualification from the always-fiercely competitive Confederation of African Football. Halilhodzic has coached from Morocco to Paris, and in places such as Turkey, Saudi Arabia and Ivory Coast. Since the 2014 groups were announced, he has been actively tempering public speculation that Algeria will have an easy path to the second round.


Reuters

Algeria

Brazil — the spiritual home of football

A World Cup tournament played in Brazil inevitably carries an extra element compared to recent championships. Brazil is, in many ways, the spiritual home of the game and remains the most successful nation in World Cup history. Brazil's geography also adds a few variables not seen in recent World Cups. In the middle of June, the searing hot weather in the country's northeastern coastal cities and humidity in the heart of the Amazon jungle will be worlds away from what teams will experience when playing at venues in the more wintry south of the country. The European teams, in particular, may struggle under the unforgiving Recife sun, and this may give an advantage to countries with warmer climates at home. So what does all this tell us about the chances of an OPEC Member Country national team playing in or even winning the World Cup final game in Brazil next July 13th? No one can say at this point what will happen on the pitches next summer, but with a record four OPEC nations qualifying, each with a talented squad and bright prospects (and all having avoided the dreaded "group of death"), their chances have never been higher.

In the course of his official duties, OPEC Secretary General, Abdalla Salem El-Badri, visits, receives and holds talks with numerous dignitaries.

This page is dedicated to capturing those visits in pictures.

Left: Professor Dieter Helm, Professor of Energy Policy, University of Oxford, United Kingdom, visited Abdalla Salem El-Badri, OPEC Secretary General, on October 24, 2013.

Mohammed Abdulrahman Al Salloum, Saudi Arabia's Ambassador to Austria, visited Abdalla Salem El-Badri, OPEC Secretary General, on November 7, 2013.

Danladi Kifasi, oon, mni, Nigerian Governor for OPEC, visited Abdalla Salem El-Badri, OPEC Secretary General, on October 24, 2013.

Abel Adelakun Ayoko, Nigerian Ambassador to Austria and Permanent Representative, visited Abdalla Salem El-Badri, OPEC Secretary General, on December 3, 2013.

Eng Ali Zobi (l), Member of the General Libyan Congress, visited the OPEC Secretariat on December 3, 2013, shown here meeting with Abdalla Salem El-Badri, OPEC Secretary General.

New Governor for Saudi Arabia

Dr Mohammed S Al-Madi, Managing Director of Aramco Asia Korea (AAK), Saudi Aramco's new office in Seoul, South Korea, has been appointed Saudi Arabia's new Governor for OPEC. He succeeds Yasser M Mufti.

Al-Madi took up his new position on December 5, 2013.

Attaining his PhD in Petroleum Engineering from the China University of Petroleum in Beijing, Al-Madi also has a Master's Degree in Business Administration from the King Fahd University of Petroleum and Minerals (KFUPM) and a BSc in Industrial Management from the same establishment.

He began his working career in 1983 as a Credit Officer at the Saudi French Bank in Dammam, Saudi Arabia.

In 1988, he took up a position as Capital Budget Coordinator at the Saudi Electrical Company, a position he held for three years.

Al-Madi then moved to Saudi Aramco in 1991, again as Capital Budget Coordinator, in the Long Range Planning services operation of Corporate Planning.

In 1996, he moved to Aramco's Business Analysis Department as a Senior Energy Analyst and five years later joined the company's Crude Oil Supply and Marketing Department as Marketing Manager.

In 2007, Al-Madi joined Saudi Petroleum China as Regional Vice President, a position he held for four years, before then moving to Seoul in 2012.

New National Representatives

Ing Andres Miño, PhD, has been appointed Ecuador's new OPEC National Representative, succeeding Eng Diego Armijos-Hidalgo.

Dr Saeid Serajmir is Iran's new OPEC National Representative, succeeding Safar Ali Keramati.

Salem Hareb Al Mehairi is the new United Arab Emirates National Representative to OPEC. He succeeds Hamdan Mubarak Al Akbari.

Reuters

Priority road project cements OFID cooperation with Kosovo

The Government of Kosovo has formalized its partnership with OFID with the signature of a $20 million loan agreement for a project to upgrade one of the country's main transport corridors. The new road will bring with it a host of social and economic opportunities and help smooth the country's path to an enhanced level of development.

OFID Information Officer, Arya Gunawan Usis, reports.

More than a decade after the end of a devastating war, the tiny Balkan republic of Kosovo is still struggling across all sectors to provide a better life for its 1.8 million people. An investment priority is the infrastructure sector, including roads, which are needed to oil the country's economic wheels.

As a landlocked country, Kosovo needs a well-functioning road network in order to facilitate trade and regional integration. However, even when it was still part of the Republic of Yugoslavia, roads were poorly maintained and the country has since struggled to improve the condition of this vital infrastructure.

Although the reconstruction process accelerated after Kosovo declared its independence on February 17, 2008,

Reuters

it has been impossible for the young country to shoulder all its financing needs. Support from many quarters, especially foreign donors, remains essential.

The OFID-sponsored project concerns the 26.7 km two-lane, single-carriageway highway connecting Kosovo's two most important cities, Mitrovica and Vushtrri, to Pristina, the country's capital. In total, the three major cities are inhabited by some 400,000 people.

The road is a key component of Kosovo's core 647 km network. With up to 20,000 vehicles traveling on it every day, it contains some of the most heavily used stretches of road in the country and has long been operating at maximum capacity.

In 2009, the Kosovan government decided to widen and upgrade the road to a dual-carriageway with a central reservation. With a total budget of $112m, financing resources have been provided by the government, together with external partners OFID, the Islamic Development Bank and the Saudi Fund for Development.

Historic moment

OFID's support was formalized by the completion of a loan agreement at its headquarters in Vienna, Austria, in September. The agreement was signed by OFID Director-General, Suleiman J Al-Herbish, and Kosovan Minister of Finance, Besim Beqaj.

"This is a historic moment," said the Director-General during the signature ceremony. "It marks a milestone in the relationship between OFID and Kosovo."

Beqaj expressed Kosovo's gratitude for OFID's confidence in his country's stability. He said he considered this trust to be evidence that Kosovo deserved the opportunity to pursue its development.

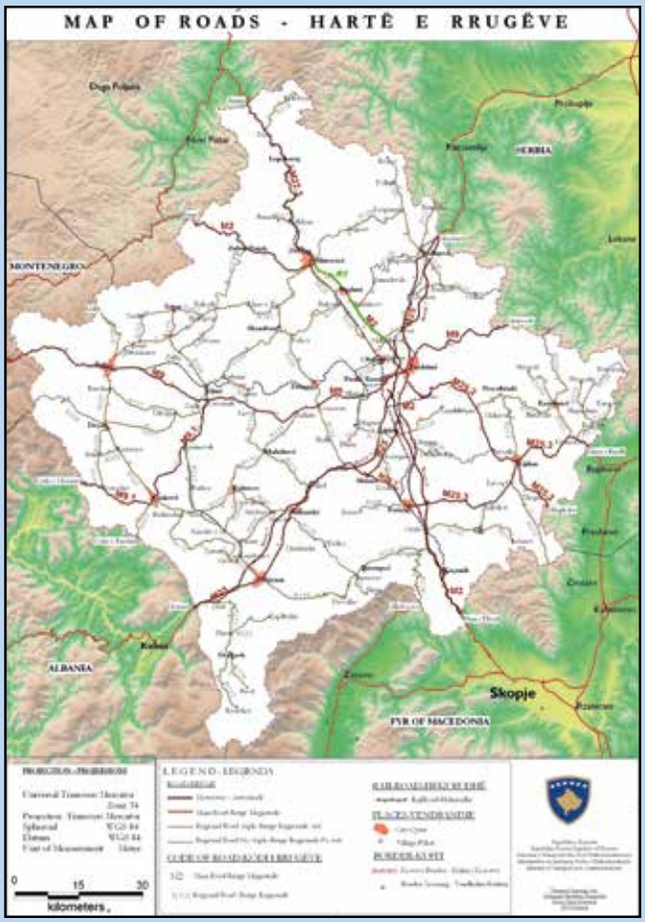
"Kosovo is struggling to develop infrastructure for its people in the wake of a devastating war. Improved physical infrastructure, such as the road funded by OFID, will bring about greater good for the economic and human development of our homeland," he affirmed.

The minister added that the road would significantly cut travel time and enable access to health, education and many other social facilities. It would also reduce transportation costs and boost opportunities for trade. In other words, the road would play a large role in alleviating poverty.

Kosovo continues to pursue development and the alleviation of poverty. Although it ranks 87th out of a total of 187 countries in the United Nations Development Programme (UNDP) 2011 Human Development Index, it is one of the poorest nations in Europe.

In 2010, Kosovo's GDP was $5,981m, equal to a per capita national income of $3,520. Nearly 35 per cent of the total population was living below the poverty line, with an income of less than $2/day. About 12 percent of the population was subsisting on less than $1.25/day. Of those living below the poverty line, 60 per cent were young people.

"One of other major challenges we are facing is a high unemployment rate," revealed the Kosovan Minister of Finance in an interview after the loan signature ceremony.



Remarkably, Kosovo was able to survive the recent crippling economic crisis that hit Europe, posting a higher-than-average economic growth compared to its neighboring countries.

This immunity was largely due to the lack of economic ties between Kosovo and the crisis-hit European countries. Throughout the period 2007-12, Kosovo's real GDP growth reached 4.5 per cent.

"That is why we are confident and optimistic that we can carry on the development process for the prosperity of our people," Beqaj said.

He reiterated that his country was in need of support from development institutions, including OFID. The government would welcome further cooperation with OFID, including in the development of the private sector, energy provision and many other areas.

"The agreement concluded today is an important initial step for our future cooperation," he stated, referring to the construction of the Milloshevë–Mitrovica road, which will play a role in opening up opportunities for Kosovo to attain a better future.

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 presentations on the Organization and the oil industry. Here we feature some snapshots of such visits.

Visits

Students from the Hanns-Seidel-Foundation, Munich, Germany, visited OPEC on September 12, 2013.

Students from the Vienna University of Economics and Business Administration, visited OPEC on September 17, 2013.

Students from the Eberle-Butschkau Foundation, Regensburg, Germany, visited OPEC on September 20, 2013.

Students from the Vienna University of Economics and Business Administration, visited OPEC on September 23, 2013.

Students from the German Development Agency, visited OPEC on September 27, 2013.

Students from the Webster University Vienna, visited OPEC on September 27, 2013.

Students from the Vienna University of Economics and Business Administration, visited OPEC on October 1, 2013.

Officers from the Jugendoffiziere der Bundeswehr, Bremen, Germany, visited OPEC on October 2, 2013.

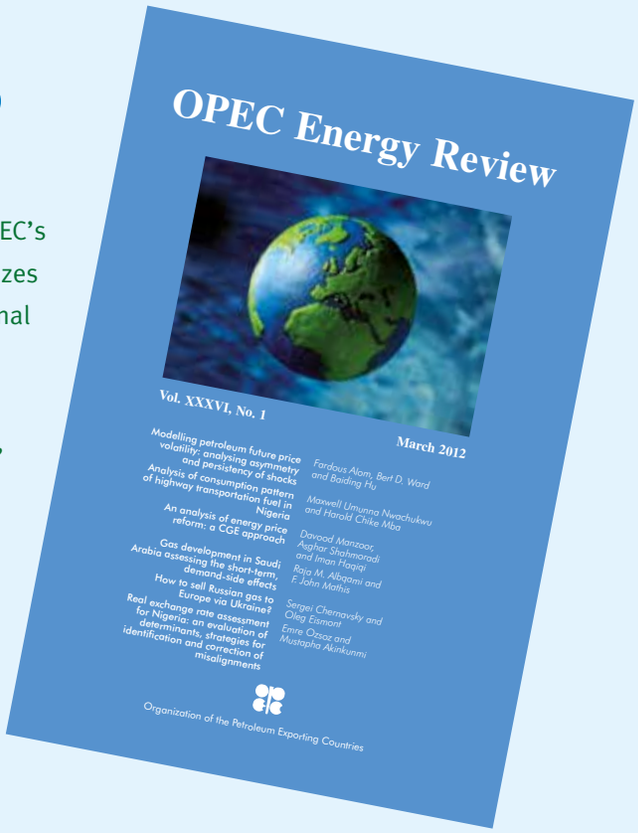
Students from the Ukrainian Association of International Economics, Kiev, Ukraine, visited OPEC on October 8, 2013.

A group of officials from Bavarian Ministries, Munich, visited OPEC on November 8, 2013.

Students from the University of Dresden, Germany, visited OPEC on November 12, 2013.

Students from the American University of Rome, Italy, visited OPEC on November 15, 2013.

Call for papers



We invite you to submit a well researched scholarly paper for publication in OPEC's relaunched quarterly academic journal, the OPEC Energy Review, which specializes in the fields of energy economics, law, policy, the environment and international relations.

The OPEC Energy Review, which is prepared by the OPEC Secretariat in Vienna, is distributed to universities, research institutes and other centres of learning across the world.

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).

Forthcoming events

Petrotech, January 12–15, 2014, Greater Noida, India. 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.

12th annual gas storage outlook, January 13–14, 2014, 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 360o forum Latin America and Caribbean, January 14–16, 2014, Houston, TX, USA. Details: dmg :: events, 6th floor, Northcliffe House, 2 Derry Street, London W85TT, UK. Tel: +442036152873; fax: +442036150679; e-mail: conferencemarketing@dmgevents.com; website: www.dmgenergyevents.co.uk/events/lng-360%C2%B0-latin-america-and-caribbean-forum.

International conference on power and energy engineering, January 17–18, 2014, Chennai, India. Details: South Asia Institute of Science and Engineering (SAISE), 1201 Orange Street, Suite 600, 1 Commerce Centre, Wilmington, USA. Tel: +861 806 200 0004; e-mail: info@saise.org; website: www.saise.org/icpee2014.

Egyptian power and electricity summit, January 19–20, 2014, Cairo, Egypt. 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.

International petroleum technology conference, January 19–22, 2014, Doha, Qatar. Details: Society of Petroleum Engineers, Dubai Knowledge Village, Block 17, Offices S07-S09, PO Box 502217, Dubai, UAE. Tel: +971 4 390 3540; fax: +971 4 366 4648; e-mail: spedub@spe.org; website: www.spe.org.

14th annual Caribbean energy, January 20–21, 2014, Miami, FL, 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.

12th utility supply chain management conference, January 20–22, 2014, 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.

Powering oil and gas fields seminar, January 21–22, 2014, London, UK. Details: IBC Global Conferences, The Bookings Department, Informa UK Ltd, PO Box 406, West Byfleet KT14 6WL, UK. Tel: +44 207 017 55 18; fax: +44 207 017 47 15; e-mail: energycustserv@informa.com; website: www.ibcenergy.com.

Offshore security in oil and gas, January 23–24, 2014, Lagos, Nigeria. Details: Nispana Innovative Platforms Pvt Ltd, Sivanik, #270, 2nd Floor, 14th Cross, Indiranagar 2nd Stage, Bangalore, India. Tel: +91 80 4933 1000; fax: +91 80 4933 1003; e-mail: info@nispana.com; website: www.nispana.com/offshoresecurity.

International conference on petroleum and petrochemical engineering, January 24–25, 2014, Macau, PR of China. Details: Asia-Pacific Chemical, Biological & Environmental Engineering Society, Unit B, 15th Floor, Eu Yan Sang Tower, Nos 11/15, Chatham Road South, Kowloon, Hong Kong, PR of China. Tel: +86 28 86 52 84 65; e-mail: icppe@cbees.net; website: www.icppe.org.

Middle East and North Africa energy 2014, January 27–28, 2014, 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.

Operational excellence Middle East, January 27–28, 2014, Abu Dhabi, UAE. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

Smart fields summit 2014, January 27–28, 2014, Houston, TX, USA. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

LNG bunkering summit, January 27–29, 2014, Amsterdam, The Netherlands. 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.

Oil and gas IP summit, January 27–29, 2014, London, UK. 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.

Oil and gas transportation and logistics, January 27–29, 2014, Calgary, AB, Canada. 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.

Flare management and gas utilization, January 28–29, 2014, Houston, TX, USA. 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 oil storage, January 28–29, 2014, Amsterdam, The Netherlands. 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.

European unconventional gas summit 2014, January 28–30, 2014, Vienna, Austria. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk/event/european-unconventional-gas-summit-2014.

4th annual middle distillates, January 30–31, 2014, Antwerp, Belgium. 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.

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www.opec.org

Vacancy announcement

Head, Finance and Human Resources Department

Within the Support Services Division, the Finance and Human Resources Department is to provide services related to managing the human and financial resources of the Organization. The Department is responsible for budgets, accounting and internal control as well as human resources planning and management. The Department comprises two organizational sections: the Finance and Human Resources Sections.

Objective of position:
The Head plans, organizes, coordinates, manages and evaluates the work of the Finance and Human Resources Department in accordance with the work programme and budget of the Department so as to optimize its support to the Secretariat in achieving its overall objectives. The work covers responsibilities of policies, development and management of human resources and of setting up and managing the Secretariat's annual budget.

Main responsibilities:

- Plans, organizes, coordinates, manages and evaluates the work in the Finance and Human Resources Department covering:
  1) Human resources planning/forecasting, recruitment/selection, training and development, Performance Management System, policies development, compensation and benefits as well as administration of termination;
  2) The annual budget of the Division, Departments and Offices, the control of the expenditures and the preparation of the financial reports;
  3) The coordination of the preparation of the Secretariat's annual budget;
  4) The enhancement of inter-departmental collaboration and cooperation;
  5) Taking appropriate measures to ensure an optimal culture and working climate in the Organization by regularly comparing compensations and benefits in the other Vienna based international and private organizations to keep the Secretariat a competitive employer;
  6) The development of staff by arranging/coordinating adequate training programmes.
- Participates in all interview panels as the leading member.
- Ensures full responses to requests by the Conference, the Board of Governors and standing committees for studies and special reports relevant to the work programme of the Department.
- Arranges presentations at relevant OPEC meetings and international forums representing the Secretariat as required.
- Develops and maintains networks with external experts and institutions in fields relating to the work of the Department.
- Keeps the Director of the Support Services Division fully informed on all aspects of the work of the Department, and draws his/her attention to important analyses performed by it.
- Evaluates the performance of the staff of the Department, and recommends to the Director of the Support Services Division, staff development, salary increase, promotion and separations as appropriate.
- Ensures that the staff of the Department receive the supervision and guidance necessary to broaden and deepen their skills and continuously improve their performance.
- Prepares the annual budget for the Department.

Required competencies and qualifications:

- Advanced University degree (PhD preferred) in Business Administration or equivalent subject.
- A minimum of 12 years (ten years in case of a PhD degree) with a minimum of four years in a managerial position, preferably at large national, regional, or international institutions.
- Training/specialization: Human Resources Management, Financial Management (cost and benefit analysis), Office Administration, Professional Management and Leadership.
- Competencies: Managerial and leadership skills, communication skills, decision making skills, strategic orientation, analytical skills, presentation skills, interpersonal skills, customer service orientation, negotiation skills, 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 B reporting to the Director of the Support Services Division. 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 20, 2013**, quoting the job code: 9.1.01 *(see www.opec.org — Employment)*.

World oil demand set to grow in 2014 as economies show improvement

December 2013

World oil demand is expected to grow by 100,000 b/d in 2014 over this year, supported by improved performances by the emerging economies and as the global economy continues to recover in general.

OPEC's *Monthly Oil Market Report (MOMR)* for December forecasts that world oil demand is projected to grow at the higher rate of 1.0 million barrels/day in 2014, compared with 900,000 b/d this year.

"Oil demand growth continues to come mainly from non-OECD countries, while OECD oil demand is expected to show a further contraction, albeit at a slower rate," it observed.

However, the *MOMR's* feature article pointed out that the latest forecast is associated with uncertainties related to the pace of economic growth in the OECD region, China and India, as well as to policy reforms in oil product retail prices in some emerging economies.

The improving picture is backed by a strengthening of the global economy in 2014, which is slated to expand by 3.5 per cent, mainly as a result of momentum in the OECD economies. This compared with estimated global GDP growth of 2.9 per cent in 2013.

"However, many challenges remain, ranging from the outcome of postponed fiscal negotiations in the United States, the future monetary policy of major central banks, the resilience of the Euro-zone recovery, and continued reforms in the emerging economies to improve structural issues," commented the report.

It stressed that, having said that, the signs of a recovery are already visible in rising global industrial production.

The *MOMR* said that, on the oil supply side, non-OPEC supply growth in 2014 is expected at almost the same level as this year – at 1.2m b/d – with some risks in both directions, given possible early start-ups or delays, as well as political, technical and meteorological factors.

Output of OPEC NGLs is expected to rise by 100,000 b/d in 2014, following an increase of 200,000 b/d this year.

The report noted that non-OPEC supply growth in 2013 has performed better than initially expected, supported mainly by the US and Canada, which added around 1.0m b/d.

Other contributions to 2013 growth have come from the Sudans, Russia and China, while output disruptions in Syria, along with the decline in North Sea production, partially offset the growth.

"While the above forecasts indicate that incremental non-OPEC oil supply and OPEC NGL growth will outpace projected world oil demand growth, the 164th OPEC Ministerial Conference (held in Vienna on December 4) decided to maintain current production of 30.0m b/d in the interest of maintaining market equilibrium.

"In taking this decision, the Organization's Member Countries re-confirmed their readiness to promptly respond to unforeseen developments that could have an adverse impact on an orderly and balanced oil market."

Looking at 2013, the *MOMR* said the price of the OPEC Reference Basket experienced significant quarterly swings. After reaching close to $115/b in the first quarter, the Basket price came down steeply to around $96/b in the second quarter, before regaining strength to rebound sharply in the third quarter.

"Over this period, the increase in crude oil prices was driven by numerous outages, supply disruptions and improved macroeconomic indicators, while lower refinery appetite, production increases, high inventories and economic run cuts pressured prices," it observed.

"Geopolitical factors impacted prices in both directions. At the same time, speculative activities continued to magnify the upside and downside movements in crude oil prices," it added.

The publication said that the spread between ICE Brent and Nymex WTI changed notably over the course of the year. After reaching as much as $23/b, the Brent-WTI spread narrowed steadily to trade at close to parity around mid-July.

"This was primarily due to the availability of new pipeline capacity, which relieved the supply glut in the US pricing hub of Cushing, Oklahoma," the report informed.

However, it stated that from early in the third quarter onwards, the spread widened rapidly as refinery maintenance cut demand, resulting in a build-up of inventories at Cushing and the US Gulf Coast, weighing on WTI prices at a time when Brent values were being pushed higher by supply disruptions.

"However, the spread is likely to be less pronounced into the coming year, as additional pipeline capacity to the US Gulf Coast becomes available."

The *MOMR* said that after a relatively weak start in the first three months of 2013, the global economy has gained traction again.

"The Euro-zone has gradually moved out of recession, the US managed to expand at a healthy level despite fiscal adjustments, and Japan has benefitted from its substantial stimulus efforts.

"Although growth in the emerging economies has slowed, China's economy has accelerated in the second half of this year and India's outlook looks likely to improve after the poor performance seen for most of this year. "

The report said that improved macroeconomic indicators have provided some optimism for OECD regions, especially OECD Europe. In contrast, weakening consumption and the slowing economic pace in some non-OECD countries have necessitated a number of downward revisions, largely offsetting gains.

MOMR oil market highlights ... December 2013

The **OPEC Reference Basket** in November fell below $105/b for the first time since July. A key factor behind the decline in crude oil prices was reduced refinery crude intake, due to scheduled turnarounds, as well as dismal margins. All Basket component values saw losses in November, but at varying levels. Crude futures prices also declined in November for the second month in a row. High crude inventories and rising supply in the United States weighed heavily on Nymex WTI. The positive outcome at the Iran-P5+1 talks in Geneva also impacted the market. The Basket began to improve at the end of the month and into December to stand at $107.72/b on December 9.

World economic growth for 2013 and 2014 remains unchanged at 2.9 per cent and 3.5 per cent, respectively. The forecast for the major OECD economies assumes a continued recovery, leading to higher growth in 2014 at 1.9 per cent, compared to 1.2 per cent in the current year, both unchanged from the previous report. China's recent stimulus efforts and rising exports confirm this year's forecast of 7.8 per cent; growth is expected to continue at this level in 2014. While recent indicators point at some improvement, the forecast for India remains at 4.7 per cent for 2013 and at 5.6 per cent in 2014. Most recent advances in the OECD and China confirm the ongoing recovery in the global economy.

World oil demand growth in 2013 has been left broadly unchanged at 900,000 b/d, while the forecast for 2014 remains at 1.0 million b/d. The bulk of next year's growth is expected to come from the non-OECD region, which is seen increasing by 1.2m b/d, while OECD demand is projected to contract by 200,000 b/d, which represents an improvement from the current year. China's demand growth in 2014 is expected at 300,000 b/d, in line with growth in 2013. Demand growth in OECD Americas is expected at 100,000 b/d, while OECD Asia Pacific consumption is projected to contract by 100,000 b/d.

Non-OPEC oil supply is expected to increase by 1.2m b/d in 2013, up slightly from the last report. In 2014, non-OPEC oil supply is forecast to grow by 1.2m b/d. Output growth is expected to come mainly from the US, Canada, the Sudans, Kazakhstan, Russia and Colombia, while oil supply from Norway, Syria, the United Kingdom and Mexico is seen declining. In 2014, output of OPEC NGLs and non-conventional oils is forecast to grow by 150,000 b/d over the current year to average 5.95m b/d. OPEC crude oil production averaged 29.63m b/d in November, a decrease of 193,000 b/d from the previous month, according to secondary sources.

Oil product markets remained relatively weak worldwide in November. The top of the barrel continued to show a poor performance, despite some positive signs of increasing seasonal demand for naphtha. However, tightening market sentiment fuelled by some refinery outages and run cuts helped to limit potential declines in margins in Asia and Europe. Meanwhile, falling US middle distillate inventories, amid increasing seasonal requirements and lower US crude prices, allowed US margins to show a healthy recovery.

In the **tanker market**, spot freight rates for dirty vessels saw gains across various classes with VLCC rates encountering the strongest growth. VLCC, Suezmax and Aframax spot freight rates increased by 40 per cent, 18 per cent and five per cent, respectively, over the previous month. The improvements were driven by winter demand, higher Asian requirements and increased delays in the Turkish straits. Clean tanker freight rates were mixed in November, with West of Suez freight rates increasing by ten per cent, while East of Suez freight rates remained weak, dropping by nine per cent from a month earlier.

Preliminary data showed that total **OECD commercial oil stocks** declined by 2.5m b in October, indicating a deficit of around 10.1m b compared to the five-year average. Crude inventories reached 26.4m b above the seasonal norm, while products fell to 36.5m b below the five-year average. In terms of days of forward cover, OECD commercial stocks stood at 58.5 days, 0.7 day more than the five-year average. Preliminary data for November shows that US total commercial oil stocks fell by 26.4m b, but still indicated a surplus of 9.2m b above the five-year average. Crude inventories indicated a surplus of 40.8m b, while products showed a deficit of 31.6m b.

Demand for OPEC crude in 2013 is estimated to average 29.9m b/d, unchanged from the previous report and 600,000 b/d lower than the 2012 level. Demand for OPEC crude in 2014 is also unchanged from the previous report – at 29.6m b/d, representing a decline of 300,000 b/d compared to 2013.

The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for December 2013. Published by the Secretariat's Petroleum Studies Department, the publication may be downloaded in PDF format from our Website (www.opec.org), provided OPEC is credited as the source for any usage. The additional graphs and tables on the following pages reflect the latest data on OPEC Reference Basket and crude and oil product prices in general.

Table 1: OPEC Reference Basket crude oil prices $/b

Crude/Member Country	2012 Nov	Dec	2013 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Weeks 44-48/13 (week ending) Nov 1	Nov 8	Nov 15	Nov 22	Nov 29
Arab Light – Saudi Arabia	108.47	108.35	110.64	113.95	107.61	101.97	101.06	101.30	105.03	108.09	109.48	107.14	104.84	106.48	103.56	103.95	105.04	106.60
Basrah Light – Iraq	105.45	105.04	107.51	110.48	104.17	98.22	98.23	98.94	103.24	106.07	106.61	103.69	101.63	102.70	100.22	100.75	102.02	103.42
Bonny Light – Nigeria	110.91	111.19	115.41	118.69	110.57	105.17	105.83	106.12	110.21	113.62	114.30	112.44	111.47	110.93	108.13	110.55	112.81	114.83
Es Sider – Libya	109.01	109.29	113.01	116.29	108.37	102.22	102.63	103.07	107.91	111.07	111.60	108.74	107.57	107.19	104.23	106.65	108.91	110.93
Girassol – Angola	108.91	108.92	112.24	116.22	109.48	103.84	103.69	104.23	107.55	110.80	112.13	110.20	108.83	109.22	106.04	108.01	109.88	111.67
Iran Heavy – IR Iran	106.80	106.56	108.52	112.24	105.47	99.71	99.72	100.61	103.65	107.06	109.15	107.69	106.87	107.84	105.04	105.83	107.10	109.31
Kuwait Export – Kuwait	106.82	106.19	108.31	111.79	105.17	100.07	99.82	100.22	103.22	106.47	108.02	106.13	104.73	105.94	103.25	103.74	104.90	106.77
Marine – Qatar	107.12	106.25	107.87	110.94	105.36	101.55	100.22	100.20	103.34	106.67	108.15	106.61	105.83	106.85	104.06	104.77	106.02	108.24
Merey* – Venezuela	93.28	91.68	96.99	101.94	98.55	93.84	94.02	95.37	95.68	98.06	97.85	96.80	94.83	96.98	94.55	94.52	94.81	95.07
Murban – UAE	109.69	108.90	110.39	113.92	108.45	104.46	102.83	102.61	105.58	109.18	111.14	110.13	109.36	110.50	107.66	108.24	109.53	111.74
Oriente – Ecuador	97.15	98.68	101.39	103.41	100.86	95.56	96.40	96.01	99.54	98.24	100.43	95.16	89.72	91.59	89.43	89.38	90.24	89.91
Saharan Blend – Algeria	109.36	109.89	114.21	116.99	108.87	102.97	102.83	102.07	107.56	111.87	112.95	111.04	109.27	109.37	105.93	108.35	110.61	112.63
OPEC Reference Basket	**106.86**	**106.55**	**109.28**	**112.75**	**106.44**	**101.05**	**100.65**	**101.03**	**104.45**	**107.52**	**108.73**	**106.69**	**104.97**	**106.14**	**103.33**	**104.08**	**105.35**	**107.00**

Table 2: Selected OPEC and non-OPEC spot crude oil prices $/b

Crude/Member Country	2012 Nov	Dec	2013 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Weeks 44-48/13 (week ending) Nov 1	Nov 8	Nov 15	Nov 22	Nov 29
Minas – Indonesia[1]	108.26	108.96	116.92	119.62	109.47	101.25	99.11	103.19	103.38	105.55	114.38	106.98	104.28	105.80	102.21	103.23	104.58	106.78
Arab Heavy – Saudi Arabia	106.13	104.79	106.54	110.15	103.16	98.50	98.98	99.64	101.78	105.33	106.72	105.04	104.90	105.40	103.14	103.83	105.08	107.29
Brega – Libya	108.61	108.99	113.01	116.49	108.62	102.67	103.03	103.27	108.11	111.52	112.15	109.29	108.17	107.75	104.83	107.25	109.51	111.53
Brent – North Sea	109.11	109.29	113.01	116.29	108.37	102.17	102.53	102.92	107.96	111.27	111.90	109.04	107.97	107.51	104.63	107.05	109.31	111.33
Dubai – UAE	107.22	106.34	107.94	111.25	105.55	101.68	100.30	100.32	103.52	106.81	108.28	106.70	105.95	106.94	104.19	104.88	106.13	108.34
Ekofisk – North Sea	110.46	110.66	113.67	117.68	110.43	103.53	103.60	103.79	108.77	112.54	113.69	110.28	108.88	108.73	105.52	107.92	110.27	112.18
Iran Light – IR Iran	107.77	107.61	110.38	114.68	108.52	101.27	100.98	101.73	105.54	109.17	110.47	108.19	106.52	107.00	104.14	105.66	107.37	109.09
Isthmus – Mexico	99.37	99.03	106.48	113.44	109.86	105.48	105.48	104.08	109.18	109.09	106.80	99.84	93.83	96.32	93.75	93.54	94.14	93.83
Oman – Oman	107.23	106.34	107.94	111.25	105.56	101.72	100.46	100.35	103.53	106.94	108.56	106.78	105.95	106.98	104.19	104.88	106.13	108.34
Suez Mix – Egypt	105.38	105.35	108.73	111.68	104.23	99.12	99.89	100.13	105.41	108.08	108.36	105.72	105.15	104.60	102.39	104.47	106.11	107.96
Urals – Russia	108.23	108.21	111.62	114.51	107.01	102.06	102.52	102.74	108.06	110.75	110.92	108.28	107.73	107.19	104.95	107.05	108.72	110.52
WTI – North America	86.59	88.23	94.77	95.31	92.87	91.97	94.60	95.74	104.51	106.55	106.26	100.41	93.76	96.85	94.30	93.85	93.92	92.82

Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the ORB has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).

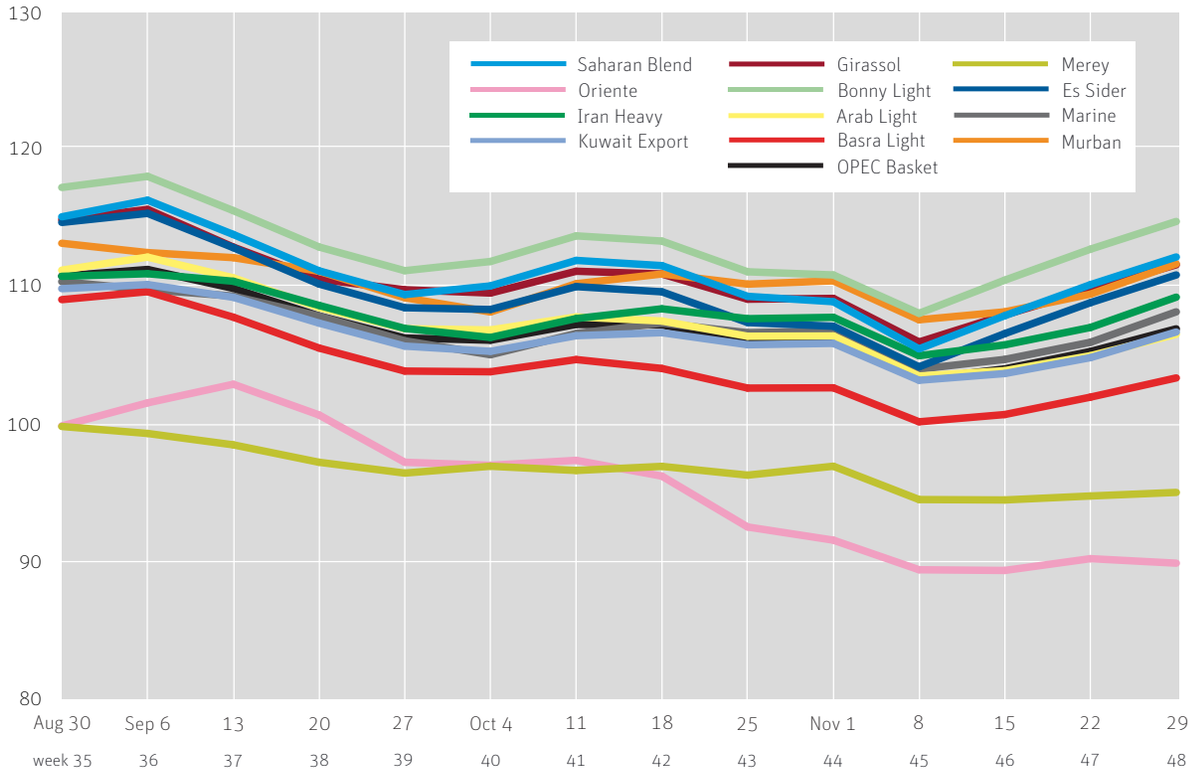
* *Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.*

1. *Indonesia suspended its OPEC Membership on December 31, 2008.*

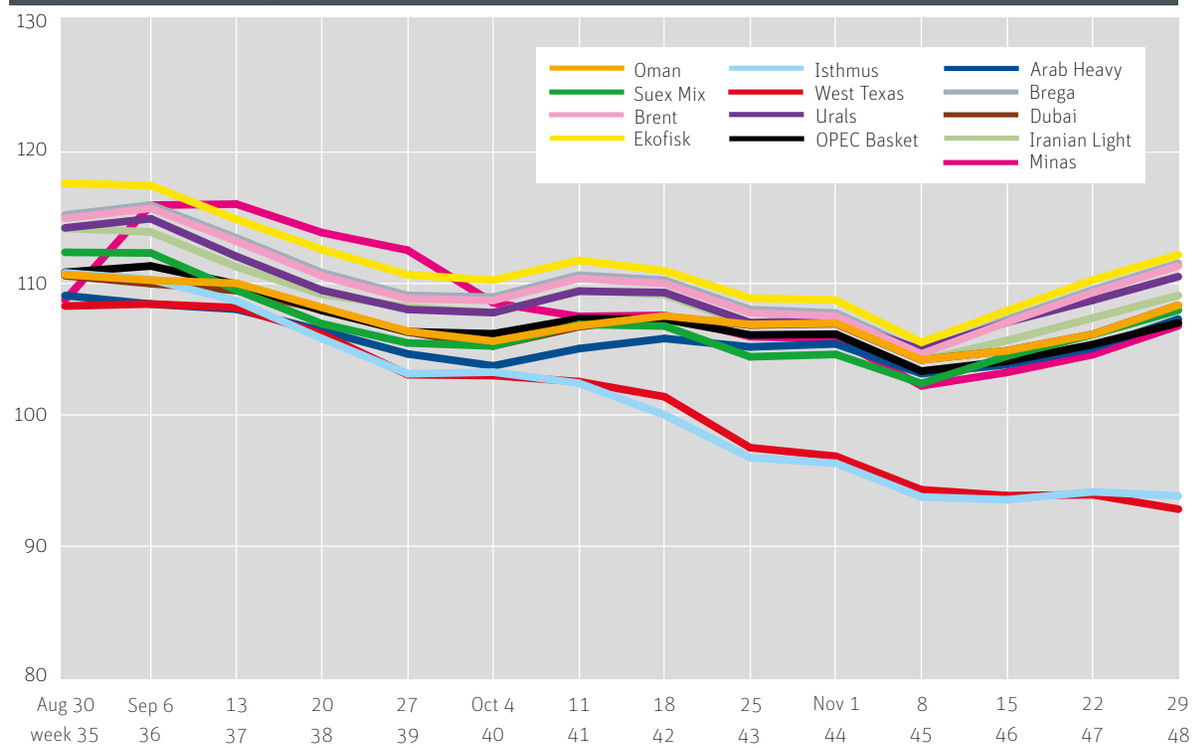
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt's; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket crudes, 2013 $/b



Graph 2: Evolution of spot prices for selected non-OPEC crudes, 2013 $/b

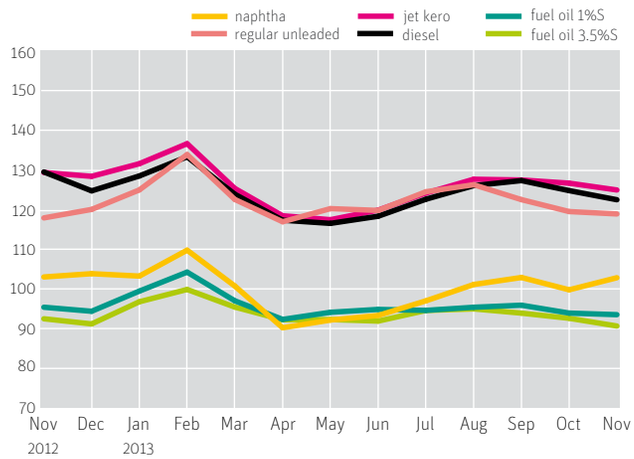


Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136th (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).
Upon the request of Venezuela, and as per the approval of the 111th ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.

Table and Graph 3: North European market — spot barges, fob Rotterdam

$/b

		naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2012	November	103.00	117.89	129.48	129.34	95.37	92.46
	December	103.83	120.03	124.71	128.37	94.35	91.16
2013	January	103.22	124.95	128.47	131.56	99.44	96.75
	February	109.76	133.87	133.30	136.61	104.22	99.85
	March	100.70	122.54	123.85	125.31	96.98	95.4
	April	90.19	116.92	117.31	118.43	92.3	92.19
	May	92.13	120.23	116.51	117.44	94.09	92.26
	June	93.29	119.78	118.31	119.85	94.82	91.87
	July	96.98	124.48	122.60	124.14	94.57	94.55
	August	101.10	126.26	126.03	127.64	95.36	94.95
	September	102.87	122.5	127.30	127.45	95.88	93.88
	October	99.76	119.49	124.77	126.65	93.89	92.58
	November	102.81	118.89	122.47	124.93	93.49	90.63



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

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

$/b

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2012	November	100.19	117.05	126.05	95.09	90.88
	December	100.63	115.73	124.54	93.29	89.86
2013	January	100.01	121.16	129.18	100.85	95.97
	February	106.55	130.68	133.96	104.5	98.87
	March	97.68	120.98	122.98	96.03	94.69
	April	87.46	116.61	116.12	91.59	90.74
	May	89.61	116.33	115.82	94.14	90.75
	June	91.01	116.40	117.70	95.54	91.9
	July	94.51	121.89	122.76	94.27	93.85
	August	98.53	124.28	125.75	95.63	94.35
	September	100.74	119.30	126.39	96.39	94.09
	October	97.78	114.49	125.15	93.94	92.18
	November	100.56	112.43	123.29	93.94	91.29

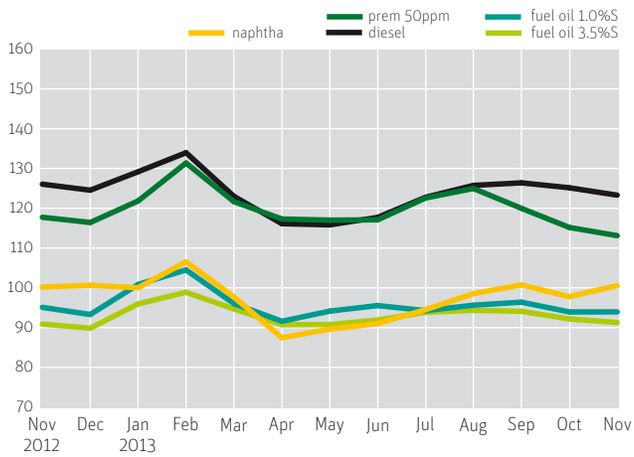
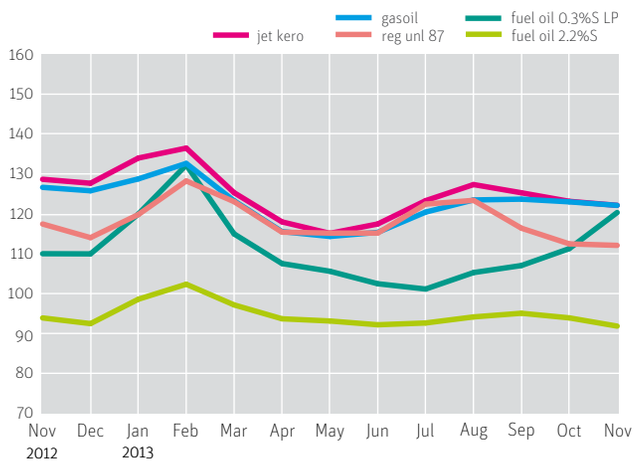


Table and Graph 5: US East Coast market — spot cargoes, New York

$/b, duties and fees included

		regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3 per cent S	fuel oil 2.2 per cent S
2012	November	117.44	126.63	128.65	109.99	93.89
	December	114.02	125.77	127.66	109.95	92.46
2013	January	119.81	128.75	133.98	119.94	98.58
	February	128.24	132.63	136.47	132.23	102.34
	March	123.04	123.26	125.29	114.95	97.15
	April	115.39	115.54	117.97	107.52	93.67
	May	115.16	114.32	115.10	105.59	93.12
	June	115.17	115.34	117.45	102.46	92.17
	July	122.43	120.42	123.30	101.13	92.62
	August	123.37	123.47	127.33	105.26	94.14
	September	116.39	123.67	125.27	107.03	95.06
	October	112.46	123	123.13	111.27	93.9
	November	112.08	122.11	122.12	120.32	91.83



Source: Platts. Prices are average of available days.

Table and Graph 6: Caribbean market — spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 2 per cent S	fuel oil 2.8 per cent S
2012	November	108.52	125.15	125.88	90.89	89.02
	December	110.27	124.86	125.49	89.46	87.80
2013	January	113.55	128.12	131.81	95.58	92.82
	February	127.69	133.53	136.72	99.34	96.50
	March	119.80	123.60	125.96	94.15	91.25
	April	97.11	116.33	119.14	90.67	87.48
	May	93.77	115.81	116.04	90.12	86.64
	June	88.24	117.61	117.88	89.26	84.81
	July	105.97	121.79	123.23	90.10	85.10
	August	107.39	125.58	127.83	91.94	86.94
	September	106.06	124.68	124.38	94.10	89.10
	October	104.98	123.37	122.88	91.43	86.43
	November	103.69	120.25	119.92	89.69	84.69

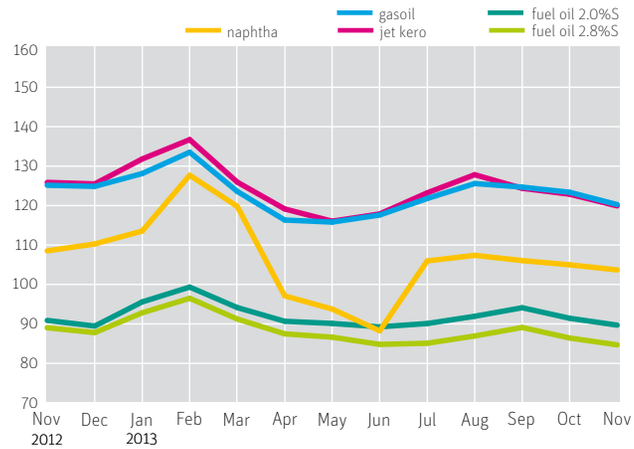


Table and Graph 7: Singapore market — spot cargoes, fob

$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	gasoil	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2012	November	102.64	119.61	116.47	125.69	125.21	97.48	94.59
	December	103.21	118.85	115.89	125.07	124.75	96.74	94.20
2013	January	105.55	122.77	120.07	127.01	128.09	99.53	98.48
	February	111.89	132.98	129.78	132.75	133.77	102.05	101.44
	March	102.09	124.00	120.78	123.64	123.50	99.53	98.49
	April	93.43	113.95	110.77	116.77	116.20	96.42	95.45
	May	93.56	114.40	111.08	116.72	115.37	95.87	94.19
	June	94.16	117.85	114.75	119.28	116.75	96.81	93.38
	July	97.70	121.73	118.79	123.14	121.18	95.23	93.15
	August	101.01	117.11	114.67	124.14	124.73	97.82	94.46
	September	102.76	117.31	114.28	123.57	123.87	96.30	94.48
	October	100.20	114.36	111.60	123.89	123.08	96.88	95.69
	November	103.69	114.89	111.94	123.34	122.63	96.32	93.88

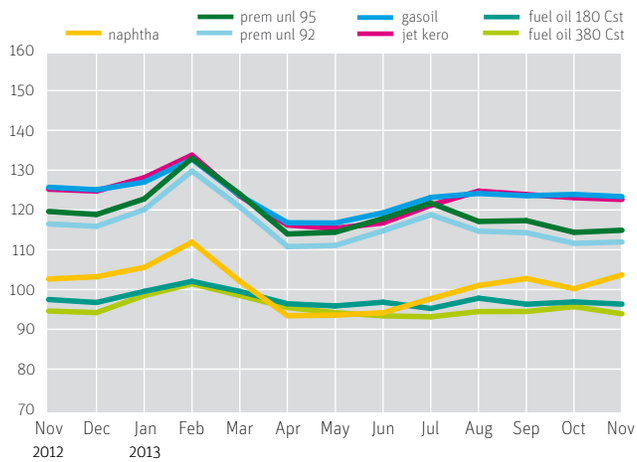
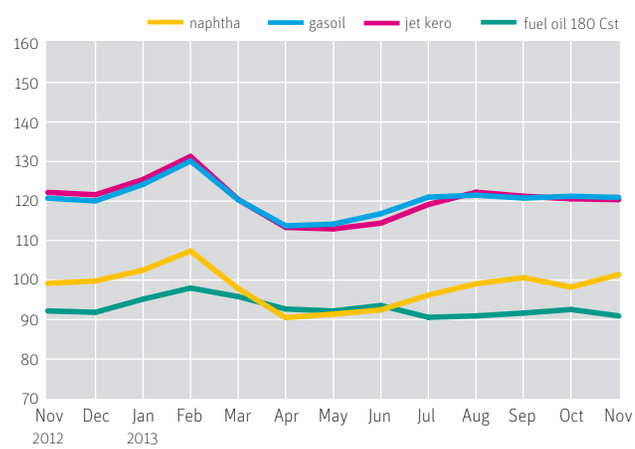


Table and Graph 8: Middle East Gulf market — spot cargoes, fob

$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2012	November	99.17	120.71	122.19	92.19
	December	99.77	120.02	121.59	91.84
2013	January	102.51	124.21	125.44	95.16
	February	107.36	130.14	131.3	97.98
	March	97.85	120.35	120.4	95.82
	April	90.49	113.72	113.32	92.67
	May	91.39	114.16	112.95	92.18
	June	92.45	116.79	114.4	93.56
	July	96.21	120.98	119.14	90.56
	August	99.05	121.49	122.23	90.93
	September	100.62	120.76	121.22	91.64
	October	98.21	121.21	120.56	92.55
	November	101.39	120.92	120.35	90.92



Source: Platts. Prices are average of available days.

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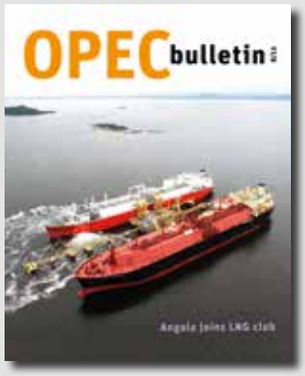

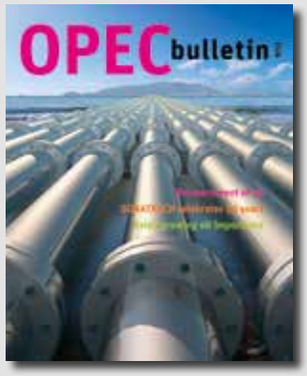

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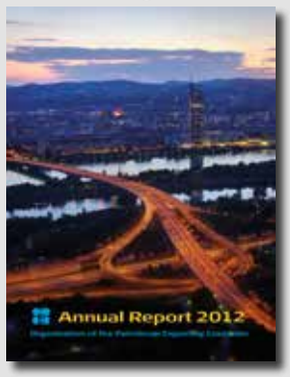

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