

World oil market developments: challenges and opportunities

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Islam Republic of Iran as OEC Member

Since OPEC is essentially an oil Organization. However, in doing this, many OPEC Member Countries and especially the Islamic Republic of Iran have a strong base in the gas industry, as well as that of oil, and collectively account for around half the world's proven natural gas reserves. This compares with nearly four-fifths of global proven crude oil reserves.

It is always very special to be in Iran, because this is a very interesting Member of OPEC in a number of ways.

It is, indeed, very important to have the total commitment of all our Members to handling the challenges and opportunities that face us in the international oil market, as we seek to ensure that it functions in a stable and orderly manner at all times, in the interests of producers and consumers alike. It is a constantly shifting landscape, requiring continuous monitoring and the readiness and capability to take timely remedial actions, as and when necessary.

If we look at the present situation, for example, we see that the past three months have witnessed a significant reversal of the trend of protracted upward pressure on prices that has been a dominant feature since spring 2004, and this is indicative of an over-supplied market. Indeed, the scale and speed of the decline in crude oil prices has caught the market by surprise. The OPEC Reference Basket has fallen by around \$18—19 a barrel from a peak of \$72.7/b on 8 August, the sharpest drop since 1991, as a result of changing fundamentals and easing geopolitical tensions.

Oil Prices Movement

Additionally, very much as a result of OPEC's production increases in recent years, commercial crude oil inventories in the OECD have risen to comfortable levels, well above the five-year average. Also, with the approach of the winter season, seasonally-important

middle distillate stocks in the USA, including heating oil, are also at high levels and once again well above the five-year average as reported by recent weekly stocks data. (Figure 1)



US stocks, deviation from five-year average (percent)

The demand picture for the remainder of 2006 and for 2007 appears far from robust. The strong demand growth seen in 2004 declined sharply in 2005, and this deceleration has continued into 2006. This has happened, despite the strong momentum in the global economy. Demand growth in 2006 is now expected to remain moderate, at around 1.0 million barrels a day, and to reach 1.3mb/d in 2007, although this requires a rebound from current trends.

On the supply side, the outlook for non-OPEC has changed dramatically, after non-OPEC supply growth had fallen behind world demand growth over the past few years which had led to OPEC unexpectedly meeting the bulk of rising demand, to the tune of around 4.5mb/d since 2002, while also accelerating plans to expand production capacity. Non-OPEC supply has already picked up by 0.9mb/d in 2006 and is expected to grow

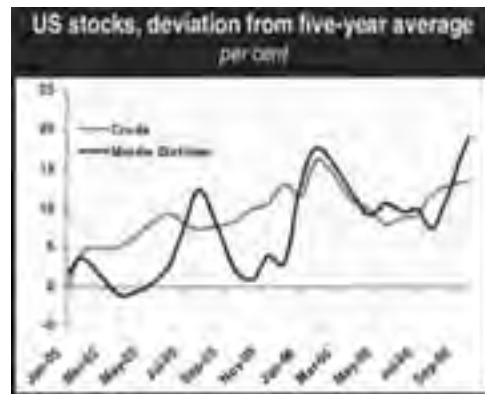
next year at 1.8mb/d, the highest rate since 1984, pointing to a clear imbalance between supply and demand. Growth in non-OPEC supply is expected to exceed growth in world demand by around 0.7 mb/d in 2007, indicating the need for measures to rebalance a market already flush with stocks. As a result, the demand for OPEC oil will be 28.1mb/d, around 1.6mb/d lower than total OPEC production in September.

Overall, the recent developments have triggered a strong bearish sentiment in the market, leading to concern that the downward momentum might persist and take prices lower than might otherwise be expected. Past experience has shown that it is in the long-term interest of both producers and consumers to maintain prices at levels that both support healthy economic growth, as well as encourage investment in capacity to meet current and future demand, particularly in an industry with long lead-times and high financial risks and in an environment of rising costs. In fact, this matter was discussed at length at the Informal Meeting of High-Level Experts from OPEC and Non-OPEC Producing Countries in Mexico a fortnight ago.

It also constituted the sentiment that prevailed at a special Consultative Meeting of the Conference OPEC held in Doha, Qatar, on 20 October. After reflecting on the outlook for the rest of this year and all of 2007, the Conference decided to realign its production by 1.2mb/d to 26.3mb/d, with effect from the beginning of this month, so as to help stabilise the market. A further review of the situation will take place at the next Extraordinary Meeting of the Conference in Nigeria on 14 December.

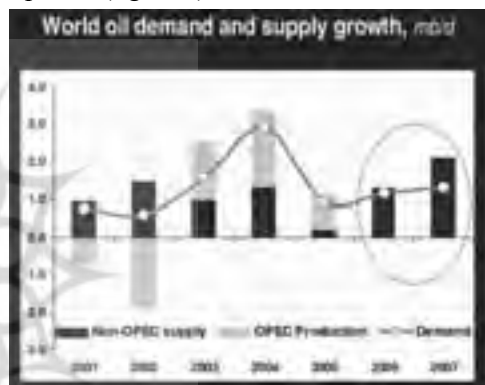
The Doha Conference effectively marked a turning-point for OPEC, in line with the changing market outlook. After a two-year period in which it had focused its efforts on increasing production levels and accelerating capacity-expansion plans, in order to counter the exceptional, volatile upward pressure on prices at that time, the Organization responded to the evolving new need to resist, at its early stages, a possible heavy downward price spiral, which was as potentially damaging to the market at large as the upward trend. Such flexibility in its actions is typical of OPEC, as it seeks to achieve lasting order and stability in the market, at prices acceptable to producers and consumers alike.

This policy extends across all time-horizons, as was made clear at the Third OPEC International Seminar in Vienna two months ago, which attracted participants from the highest levels of government, industry and academia in both richer and poorer nations. An overriding message to emerge from that event was that fossil fuels will continue to dominate the global energy mix for decades to come and will remain vital for supporting the forecast expansion in global economic growth. This ties in very much with our own forecasts. (Figure 2)



World oil demand and supply growth, mb/d

OPEC's reference case scenario puts average annual oil demand growth at 1.6 per cent for the period up to 2025; this is a sizeable 36 per cent taken across the entire 20-year period.(figure 3)



Long-term oil demand outlook, mb/d

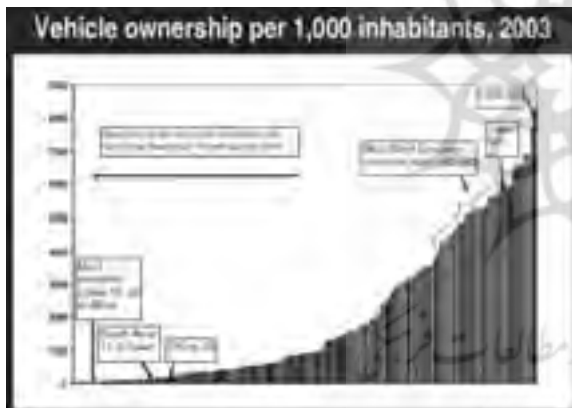
The transportation sector will be the main source of future oil demand growth, due to its heavy reliance on liquid fuels and the absence of viable alternatives on a large commercial scale. Developing countries, especially from Asia, are set to account for four-fifths of the rise, with consumption almost doubling to 53mb/d. However, in 2025, OECD countries will remain the dominant oil consumer and will continue to use, on average, five times more oil per person than developing countries. Similar conclusions appear in the International Energy Agency's (IEA's) recently-released World Energy Outlook 2006, although there are variations in the actual figures.(Figure 4)



Vehicle ownership per 1,000 inhabitants, 2003

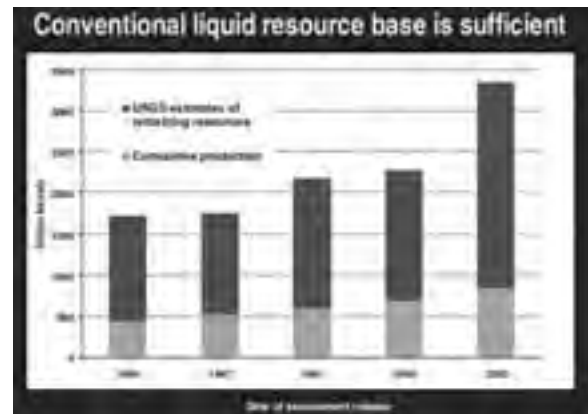
The global resource base is sufficient to deal with the forecast increases in world oil demand well into the future. Estimates of global ultimately recoverable resources for conventional oil have been increasing, due to such factors as technology, successful exploration and enhanced recovery from existing fields. Technological progress should also allow the development of large amounts of unconventional oil at lower cost, such as gas-to-liquids, coal-to-liquids, tar sands and heavy oil. With specific regard to biofuels, these are still expensive to produce and generally require government support to make them competitive.

Indeed, when you think about it, it is rather ironic that many influential interests in the developed world are all too ready to criticise the governments of oil-producing developing countries for subsidising domestic fuel supplies, and, yet, at the same time, these same interests condone the use of subsidies for the development of their own biofuels and other renewable forms of energy! And they are very often the same people who keep reminding us of the virtues of the free market!(Figure 5)



Conventional liquid resource base is sufficient

Non-OPEC supply has the potential to rise substantially in the medium term, but this is forecast to reach a plateau after 2015, at 58—59mb/d. Thus, in the longer term, it is expected that OPEC, with nearly four-fifths of the world's proven crude oil reserves, will be relied upon to supply most of the incremental barrel of demand, to ensure that the market remains well-supplied with crude, at reasonable prices that are compatible with robust growth in the world economy. We are also seeking to produce oil in a cleaner and more efficient way than ever before, so as to meet the increasingly stringent demands of the modern consumer in rich and poor countries alike. Our projections show that OPEC production levels, including natural gas liquids, will rise to 54mb/d by 2025, which will be slightly below that of non-OPEC. (Figure 6)



Long-term oil supply outlook, mb/d

Moreover, if we look at the major interregional flows of crude oil from the perspective of exporters, as expected by 2015, we can see the major role of the Persian Gulf as a whole and, notably, the heavy concentration of its exports to Asia. With 18 per cent of the region's proven crude oil reserves as well as more than double this proportion of its natural gas, at 38 per cent clearly Iran will remain a major player in this hydrocarbon-rich area. (Figure7)

	2005	2010	2015	2020	2025
OPEC	29.5	29.8	29.7	29.5	29.9
DCs, excl. OPEC	18.1	18.8	19.2	20.0	19.8
Transition economies	11.7	14.4	15.5	16.1	16.9
Total non-OPEC	50.1	58.8	58.3	59.4	56.6
OPEC (incl. NGLs)	31.1	34.9	36.7	40.2	54.8
World	83.2	92.7	98.0	108.8	113.1

Expected major crude oil exports, by destination

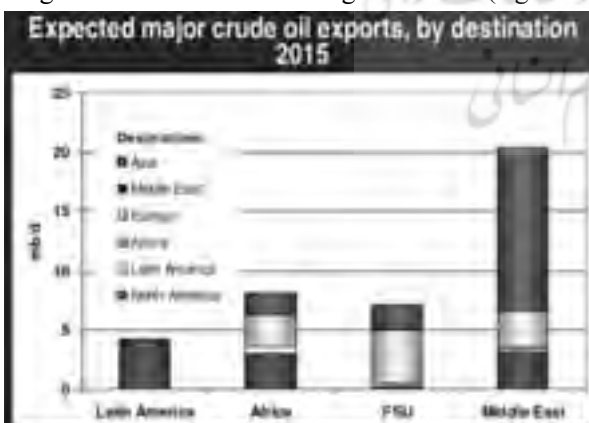
The figures are equally impressive in global terms, with Iran possessing 12 per cent of the world's proven crude oil reserves and 15 per cent of its natural gas. Indeed, if we return to the reserve strength and production level discrepancy, to which I referred at the start of this address, we see that Iran accounts for just 5.7 per cent of world crude oil production in other words, in percentage-point terms, less than half the figure for reserves. The discrepancy is even greater for natural gas, where marketed production is just 3.3 per cent of the world figure in percentage-point terms, just over a fifth of its global reserve share.

The underlying message of all this is the huge potential the Islamic Republic has to expand its presence within the global hydrocarbons sector for decades to come, and the Iranian Government's recognition of this and plans to invest heavily in further developing this vital industry right along the supply chain and increasing its global outreach are crucial to the future of the country. On top of this is the fact that the relatively low costs of production make upstream investment highly conducive to its profitability.

The challenges and opportunities facing the Islamic Republic are recognised by OPEC at large and are mirrored across the Organization, in accordance with individual resource endowments, domestic policies and other national attributes. Significantly, they demonstrate the willingness and ability of OPEC and its Member Countries to supply the incremental barrel and the seriousness they attach to the future of the oil industry.

But it is not all plain sailing and, when the wind picks up, many practical difficulties can manifest themselves. Among them are the problems for effective investment strategies created by uncertainties over such key factors as world economic growth levels, advances in technology and policy measures in consuming countries. OPEC scenarios have illustrated how, even over the medium term to 2010, there is an estimated range of uncertainty of \$50 billion for required investment, and this increases to as much as \$240bn by 2020. Thus there is a heavy burden of risk for producer countries, with the huge amounts of capital that must be committed up front and the long lead times. Similarly, the IEA's World Energy Outlook expresses concern about the impact of uncertainties.

This is why OPEC repeatedly calls for more transparency in the evolution and implementation of policies among consuming countries, so that better assessments can be made to undertake the appropriate capacity expansions and prevent waste of precious financial resources. Perhaps the international oil companies with substantive investment portfolios in oil-producing developing countries should do everything they can to impress this fact up on their host governments in consuming countries. (figure 8)



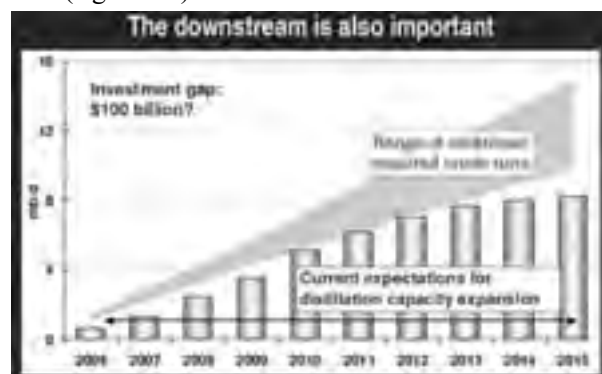
Another aspect is the cost of infrastructure, such as rigs and tankers, as well as the cost and availability of human resources. For example, drilling costs have increased by 50 per cent since 2003, with steel prices rising by 40 per cent since 2004. In 2005 alone, wages in the industry increased by about 15 per

cent. We believe that better cooperation between the international and national oil companies could lead to significant cost reductions in such areas. Furthermore, the number of students enrolling in petroleum-related courses has also shown a significant decline since the mid-1980s, and we need to make the industry attractive to prospective graduates and employees the world over. (Figure 9)



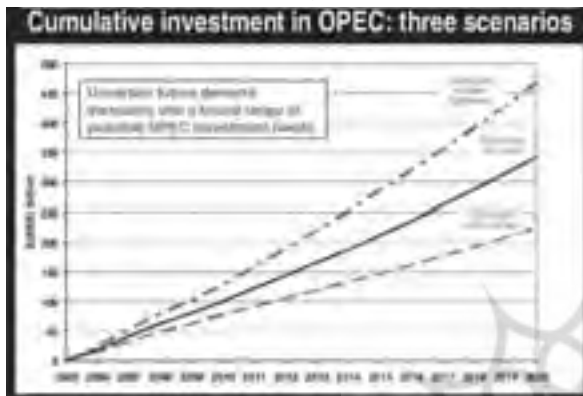
Notably, enhancing cohesion among Member Countries is of crucial importance here. As the OPEC Long-Term Strategy puts it: "The Organization should expand intra-OPEC interactions, networking and dialogue at the level of Ministers of Petroleum/Energy and national oil companies. Cooperation should also be pursued in the technological and scientific areas of higher education in Member Countries."

In addition, downstream tightness, in the form of inadequate refining capacity in some leading industrialised countries, has been putting a lot of pressure on oil price levels and differentials over the past couple of years. Despite the number of major refining projects worldwide, the long construction lead times, combined with typical delays and project terminations, will most likely mean that the existing refining tightness will not ease until at least 2009 or 2010. (figure 10)



It is estimated that \$160bn in downstream capacity investment will be required by 2015, with another

\$150bn needed for maintenance and replacement of lost capacity. However, present commitments leave a shortfall of around \$100bn. Our Member Countries are very concerned about this pail of the international supply chain and have a growing amount of investment downstream, including joint ventures in refining and petrochemicals in key markets. However, there is only so much OPEC can do downstream, since this is essentially and traditionally the domain of consuming countries, which have the primary responsibility for investment in this sector. (Figure 11)



The downstream is also important

Refinery investment requirements, 2005—15

Total investment needs to 2015: \$310 billion (2005 prices) (Figure 12)



OPEC's commitment to the environment

OPEC is also very committed to efforts to protect the environment, as one of the three pillars of sustainable development, as defined at the world summit on this crucial human issue in Johannesburg in 2002. Both collectively and at individual Member Country level, with mutual encouragement and collaboration all round, the Organization has participated actively and with resolution in all the major meetings of the United Nations Framework Convention on Climate Change (UNFCCC), as well as the Kyoto Protocol. Indeed, we were well represented at the 12th Conference of the Parties to the Convention which has just been held in

Nairobi, Kenya.

This topic is, of course, a familiar one to our friends in the Islamic Republic of Iran, which ratified the convention in 1996 and the protocol in 2005.

However, we are quite clear in OPEC about the nature of our commitment, since it must be centred around the principles of 'common, but differentiated responsibilities' and 'respective capabilities'. Developing countries, including Members of our cherished Organization, have not been responsible for the historic emissions that are having such an impact on the world environment today. Their root causes can be found in the industrialised societies that emerged in Europe in the 18th century and subsequently proliferated among what are now considered to be the richer nations of the world. Furthermore, developing countries are neither technologically or financially capable of adapting to the negative impacts on the environment. Indeed, policy measures adopted by major industrialised countries to combat climate change can easily have a negative impact on the economic wellbeing of our Member Countries. Therefore, we fervently believe that any 'post-Kyoto' agreement must adequately and comprehensively address these concerns, so as to ensure a fair and balanced global approach to handling these very serious issues.

The other two pillars of sustainable development are social and economic development, and OPEC is deeply aware of the needs of other developing countries, as they seek access to modern energy services to transform their domestic infrastructures, sometimes from a state of extreme poverty. Without outside assistance, many appear to have no means of escape from the poverty trap. As developing countries ourselves, we are constantly mindful of the fact that poverty eradication is the first UN Millennium Development Goal.

Challenges for oil-producing developing countries

In a nutshell, these are to provide regular supplies of crude to consumers at reasonable prices both now and in the future and to use the resulting revenue for several distinct purposes beyond the normal commercial ones: first, to help develop our domestic economies and provide better life-styles for our citizens; secondly, to plough back into the industry to ensure that future consumer needs are well-catered for the world over; and thirdly, to provide assistance to other impoverished nations in the true spirit of sustainable development, as encapsulated at the World Summit in Johannesburg four years ago.

To use petroleum revenue to:

- help develop our domestic economies and provide better life-styles for our citizens;



- plough back into the industry to ensure that future consumer needs are met;
- provide assistance to other impoverished nations in the true spirit of sustainable development.

Dialogue

To address such challenges, there is widespread agreement on the need for a constructive, sustained process of dialogue at a global level, involving all the interested parties and prepared to tackle all the major topical issues affecting the industry. In today's globalised environment, interconnected through trade, no individual country or group of countries can comprehensively carry out this formidable task alone.

Such an awareness led to OPEC's pioneering collaborative efforts to initiate producer-consumer dialogue 15 years ago and this has since been transformed into the International Energy Forum, which has its headquarters in another OPEC Member Country, Saudi Arabia. The Islamic Republic of Iran has been an active participant in the forum since its inception, and, indeed, an official from this country has served with distinction on the forum's Executive Board. This, in fact, is just one example of many forms of dialogue and cooperation our Organization and its Member Countries have been involved in over the years. Another form worthy of mention here relates to the formal energy dialogues OPEC set up with the European Union, China and Russia last year, and these have enormous potential for an enhancement of the already good relations between the respective groups. The EU-OPEC energy

dialogue has led to a series of concrete proposals to jointly examine in depth topical matters of mutual interest, as well as embracing a proposal to establish an EU-OPEC technology centre.

Meaningful dialogue is always preferable to other more direct and less constructive means of handling issues, and to what was said at the start of this address—that every country has a sovereign right to decide how it powers its national domestic, commercial and industrial infrastructures, in peaceful coexistence with other nations. The choice of an optimal energy mix is the inalienable right of every country.

One of the difficulties facing oil producers from this part of the world especially is that their rich endowment of heavily demanded natural resources means that the international spotlight will always be focused on them, and as we know too well very often in a negative manner. In today's world, this is unavoidable and something we must live, unfortunately.

Concluding statement

A central task of oil producers is to meet the growing energy needs of the global community and, most especially, those of the world's poorest nations in their long-overdue quest for sustainable development.

It is up to all of us to rise to these challenges, and OPEC maintains its longstanding resolve to do this, to the benefit of producers and consumers alike and in support of sound, sustained growth across the global economy.