

**Speech for Mr. Mohammed Barkindo, Acting for the Secretary General  
3rd OPEC International Seminar, Vienna, Austria, 12-13 September 2006**

**[Slide 1]** Excellencies, ladies and gentlemen,

It is with great pleasure that I address such a distinguished gathering at OPEC's 3<sup>rd</sup> International Seminar. The event continues to go from strength-to-strength and it heartens me to see both familiar and new faces in the audience.

The topic I would like to elaborate on today is, 'Energy Outlook: Challenges & Opportunities for OPEC', which offers me a broad remit of topical issues. This is especially true given that anxiety and concern about local, regional and global energy security, top the political agendas of most countries, regarding not just oil, but the entire energy value chain. Amid such volatility and risk, uncertainty and challenges abound, but so too does opportunity.

**[Slide 2]** Let me begin by tackling the question that has recently captured many news headlines worldwide: why are oil prices at their current level? On the occasion of the last two Seminars, in September 2001 and September 2004, the OPEC Reference Basket stood at just above \$20 and just below \$40 a barrel, respectively. This summer it has risen to over \$70 a barrel, before receding over the past few weeks by more than \$10. Though it should be noted that in real terms these levels are still below those experienced in the early 1980s, when the Basket would have reached \$85 at today's prices, and it has also occurred at the same time as significant, sometimes even greater, rises in other energy and non-energy commodities. For example, nickel and copper prices have been multiplied by a factor of four since 2001.

**[Slide 3]** There is no straightforward answer to the question. What should be noted, however, is that although price rises make for easy news headlines, it is the volatility that should most concern the industry. For many observers, the recent price trend is in fact part of what some have labeled 'a new energy era' of shifting market dynamics. On the price issue, for instance, prior to 2004, there was a simple industry yardstick. If commercial stocks in consuming countries were high, then prices would generally fall. If these stocks were low, then the opposite was generally true. This yardstick had been one of the endemic 'oil market fundamentals'. Yet today, while the level of OECD commercial stocks is high, in fact at its highest level since 1997, with OECD stocks currently providing 54 days of forward demand cover, oil prices as we all know have remained on the high-side.

The price rise has been influenced by a convergence of factors, including: strong economic growth, and, in turn, oil demand growth, which has risen to unexpectedly high levels since 2004; consequently, and despite there continually being sufficient supply, this has led to dwindling levels of spare capacity; tightness in the downstream refining sector; and, speculative behaviour – indeed, open interests for crude oil on the NYMEX passed the one million contract mark for the first time in April. As it stands, this is approximately 1.2 billion barrels and over 14 times higher than the current daily oil output. A number of these factors will be addressed in more depth in this presentation.

Moreover, there has also been pressure on prices from both real and perceived uncertainties. For example, natural disasters, such as last year's hurricanes in the Gulf of Mexico, geopolitical concerns, for instance, the recent ones in the Middle East, and other unexpected events like the recent partial closure of BP's key Prudhoe oilfield in North America.

**[Slide 4]** There has obviously been a tendency to compare today's situation with that of the 1970s, which has led to such questions as: have we entered a new price era? Whether

or not we have entered a new price era remains to be seen, but what is interesting to note is that today – with a far more global marketplace, advances in IT and the increasing role of futures and options – price speculation is playing a much more prominent role.

At times over the past few years, day-to-day speculation has been an additional factor exacerbating price movement and often at a disconnect with market fundamentals. For example, the price of WTI crude rose on one single day this year by more than \$4 and fell by more than \$2 on a number of others. And over a period of a month from June 20 this year, oil climbed on most exchanges by more than \$8 as tensions in the Middle East flared.

It is important that the issue of speculation – in what is termed the market for ‘paper-oil’ – is addressed in an effective manner, and soon, because speculation can lead to much price volatility and disruption within the market.

OPEC has been doing as much as it can to restore price stability at reasonable price levels, and other responsible parties have also responded to varying degrees and in accordance with circumstance and capabilities. All things considered, the Organization is not at ease with extreme price levels, whether too high or too low, as these are damaging to both producers and consumers. OPEC works towards increasing stability and enhancing predictability.

**[Slide 5]** What I would like to also pinpoint is that the recent price rises have fundamentally been demand-driven, a divergence from the supply-driven rises of the 1970s. With this in mind, it begs the question: just what are the changing dynamics of demand? Demand has been propelled in large parts by robust global economic growth, and in turn oil demand growth, with a particular focus on developing countries, such as China and India, alongside the continued and significant growth in the US. Indeed, world oil demand growth over the last four years has been almost 7 mb/d, higher than for any other four-year period in the past quarter of a century.

Furthermore, the volatility facing the oil industry has had analysts contemplating the possible price impact on the global economy as a whole, due to oil’s leading role in the world energy mix. Yet what has emerged in the last few years is that economic growth has remained fairly resilient. One key reason is that the world is now far more efficient in its use of oil. On top of this, rising wealth levels among the populations of industrialised countries, and the fact that any switch away from oil, where viable, has already taken place, further augments the reduced dependence between economic growth and price.

Nevertheless, I would like to take this opportunity to highlight the issue of developing countries in this regard. World economic growth and strong commodity prices can be expected to support growth in most developing economies. Moreover, the growing interdependence through international trade is important for both regional and global economies, and in this regard, trade talks are central to ongoing growth prospects. However, much more can be done towards helping developing countries achieve growth and sustainable development. Here, I specifically refer to the critical Doha Round of WTO negotiations that have recently been suspended. A positive outcome to this trade-specific issue is essential for developing countries to progress in the global marketplace, particularly in agriculture. A failure of the Doha Development Round would undermine the multilateral trading system and could potentially lead to more protectionism.

**[Slide 6]** Allow me now to turn to supply and ask the same question: what are the changing dynamics of supply? Well, these include: the resource base debate; new technological developments that increase exploration success rates, enhance oil recovery and reduce costs; the relative future role of OPEC and non-OPEC supply; the changing, and in many instances, expanding role of National Oil Companies; increasing awareness of the need

to protect the environment; the role of biofuels and other alternatives; tightness in the downstream sector; and, the rising project costs involving such issues as infrastructure and skilled labour. Let me explore a few of these dynamics in more detail.

**[Slide 7]** Firstly, with regard to the resource base, the question we often hear is: are the resources available to meet future demand? OPEC's unequivocal response to this question is: yes. Estimates from the US Geological Survey of ultimately recoverable reserves have practically doubled since the early 1980s, from just 1,700 billion barrels to over 3,300 billion barrels. Energy supply will continue to rely primarily on fossil fuels in the coming decades and oil will remain the leading commercial energy source.

There is no physical shortage of the necessary conventional and non-conventional resources to meet demand. It is important that we as an industry persistently drive home this point. What should be underlined is that the issue is not about availability, it is about deliverability.

**[Slide 8]** In satisfying increases in demand, OPEC acknowledges the importance of taking advantage of technology and all forms of supply. In this regard, we acknowledge that alternative energy sources have a role to play in the global energy mix. We also consider that it is likely to be decades before any of these alternatives acquire a significant share of the global energy mix. For example, biofuels, which are currently receiving much attention, have to date, provided only one per cent of the world's liquid transport fuels.

In many cases, however, governments have set ambitious targets for these alternative fuels, supported by expensive and unsustainable fiscal incentives, as well as often short-sighted policy initiatives. Moreover, the energy balance of biofuel production is debatable. In respect to biofuels, it is also important to appreciate that when large scale production of biofuels for export replaces local food production, especially in developing countries, the impact could mean significant increases in food prices, and possibly hunger and malnourishment. Is this compatible with the very first UN Millennium Development Goal that stresses the critical importance of reducing, by half, both the proportion of people living on less than a dollar a day and the proportion of people who suffer from hunger?.

**[Slide 9]** Where does this leave us? Well, with the need to acknowledge that in the meantime all other available energy sources must be accessed, enhanced and utilised to meet demand in both the developed and developing world. Oil, as the leading fuel in the global energy mix for the foreseeable future, is very much integral to this, and with this in mind, we recognise the importance of making sure fossil fuel use is consistent with environmental concerns. In fact, the oil industry has a long history of successfully improving the environmental credentials of oil, addressing concerns of local pollution and improving air quality.

Going forward there is a need to meet the challenges imposed by possible environmental concerns, whereby technological options that allow the continued use of fossil fuels in a carbon-constrained world must be considered. One promising option is carbon capture and storage (CCS), applied to large stationary sources of CO<sub>2</sub> emissions, such as power stations and industrial sites, which together account for over half the energy-related CO<sub>2</sub> emissions. CCS can also be used in conjunction with CO<sub>2</sub>-enhanced oil recovery, which offers a win-win opportunity by not only storing CO<sub>2</sub>, but also increasing oil reserves in mature fields.

Industrialised countries, having the financial and technological capabilities, should take the lead in this area, by promoting large-scale demonstration projects and the application of this technology, including through the use of the Kyoto Protocol's Clean Development Mechanism (CDM), in accordance with the principle of common, but

differentiated responsibilities and respective capabilities. For its part, OPEC is demonstrating its commitment to the environment through its active participation in the IEA Greenhouse Gas R&D Programme, and only next week, OPEC Member Country, Saudi Arabia, is hosting an EU-OPEC roundtable on CCS, as well as the First International Conference on the CDM.

**[Slide 10]** From the supply perspective, the downstream is also critical. Today, as I touched on earlier, current downstream tightness in the form of inadequate refining capacity is putting much pressure on oil prices generally. In addition to this, going forward there will be rising volumes of crude oil that need to be refined, as well as the expectation of a continued move towards demand for lighter and cleaner products. On top of this increasing need for further distillation and conversion capacity, it is estimated that additional desulphurisation capacity of more than 20 mb/d will also be required over the next 10 years.

It is estimated that \$160 billion in downstream capacity investment will be required by 2015, with another \$150 billion needed for maintenance and replacement of lost capacity. Yet such amounts are not forthcoming: there is an investment gap of something like \$100 billion. What is required is a more concerted effort to ensure that sufficient capacities are in place. Most importantly, however, it needs to be recognised that even though OPEC Member Countries have taken the initiative to invest in downstream projects, the primary responsibility for investment in this sector lies with consuming countries.

**[Slide 11]** Returning to the entire energy value chain, another challenge, and one that is sometimes overlooked, is that of the cost of infrastructure, such as rigs and tankers, as well as the cost and availability of human resources. For example, upstream costs have increased by 50 per cent since 2003. This can be viewed in the fact that rig rates and the costs of steel and other raw materials are shifting significantly upwards.

In the area of human resources, the industry is experiencing a shortage of skilled labour for engineering, procurement, construction and operations and as a result wages have increased. During 2005 alone, wages in the industry increased by about 15 per cent. The number of students enrolling in petroleum engineering courses has also shown a significant decline since the mid-1980s. To alleviate the skilled manpower shortage, efforts should be made to help facilitate education and training in energy disciplines. We need to make the industry attractive to prospective graduates – this includes making it easier for students to enrol in universities across national borders – and employees the world over.

**[Slide 12]** Let me look to bring these threads of supply and demand together, by outlining how the OPEC Secretariat views the market going forward. For oil demand, our reference scenario anticipates a rise of 30 mb/d over the next 20 years, reaching 113 mb/d by 2025. This is under the assumption that no particular departure in trends for energy policies and technologies take place. From a supply perspective, in the medium term, total non-OPEC output has the potential to grow substantially; in the period 2005–10, our projections show 6 mb/d growth. In the longer term, however, it is expected that OPEC will be relied upon to supply most of the incremental barrel. By 2025, OPEC production levels, including natural gas liquids, are anticipated to rise to 54 mb/d, but even then, non-OPEC countries will account for the larger part of world oil production.

**[Slide 13]** It all points to the need for vast amounts of investment, yet as we all know, investments do not materialise merely by a click of the fingers. Let me stress that from OPEC's perspective the necessary investments are being made today. OPEC crude capacity expansion plans already in place are expected to result in almost 38 mb/d of crude capacity by the end of 2010, an increase of nearly 5 mb/d. The capacity growth is underpinned by more than 100 projects totaling \$100 billion and these projects are in

addition to energy infrastructure investments. All this is expected to further increase OPEC spare capacity over the next five years and is a further demonstration of OPEC's continued commitment to oil market stability, and the seriousness it attaches to security of supply.

**[Slide 14]** Yet it is not just about investment today, it is investment tomorrow and every day thereafter. Doubts over future oil demand translate into large uncertainties over the amount that OPEC Member Countries will eventually need to supply, signifying a heavy burden of risk. It thus needs to be taken into account that the issue of security of demand must go hand-in-hand with security of supply. Both are of equal importance.

The importance of security of demand can be expressed very succinctly in figures. Over the next 15 years, for example, scenarios developed at the OPEC Secretariat suggest that the amount of oil required from OPEC could genuinely range by close to 10 mb/d. When talk turns to interpreting this in terms of investment, the figure takes on a very worrying look. The expected range is somewhere between \$230 billion and \$470 billion, a huge amount for OPEC Member Countries, all with competing needs in such areas as health, education and infrastructure. It should also be remembered that in the oil industry, investment requirements are very large and subject to long lead-times and pay-back periods.

Excellencies, ladies and gentlemen,

**[Slide 15]** Do the changing dynamics of price, supply and demand underline that we are entering a 'new energy era'? At the moment it is difficult to say, but what is clear is that there are many new realities at play. From an OPEC perspective, we believe that the Organization is becoming better understood in its dedication to supporting market order and stability to meet the challenges of global energy security in the years ahead. Yet we also recognise that neither the public, or the private sector, or any one country, region nor organization can act alone.

OPEC very much believes that enhanced dialogue and cooperation gives us the best platform from which to collectively address current and future market challenges and opportunities. To this end OPEC continues to devote much effort in this direction, with dialogue now being widened and deepened in an open and constructive spirit. The most recent result of this was the establishment, last year, of energy dialogues between OPEC and the EU, with the 3<sup>rd</sup> OPEC-EU Ministerial Meeting being held earlier this year, as well as with China, and Russia, and many other stakeholders.

In light of all this, OPEC is optimistic about the prospects for oil market stability in the coming years. The focus must be on understanding the needs of each stakeholder and viewing the entire energy market holistically. I believe we are striving to do this today and if we can meet the challenges and opportunities before us, it will be to the benefit of us all.

However, we should not forget that many people in this world continue to suffer from extreme poverty, with no access to modern energy services. As the global community seeks to change these bleak conditions it must be recognised that sustainable development must be based upon the three mutually supportive pillars of economic growth, social progress and environmental protection. The 15<sup>th</sup> Session of the UN Commission on Sustainable Development, chaired by His Excellency Abdullah Bin Hamad Al-Attiya, Second Deputy Prime Minister and Minister of Energy & Industry of the State of Qatar, is therefore an extremely important opportunity to address these fundamental concerns.

**[Slide 16]** Thank you for your attention.