



## **11<sup>th</sup> INTERNATIONAL ENERGY FORUM**

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### **Ensuring Energy Investment Ministerial Session**

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**Mr. Chairman, Honorable Ministers, distinguished participants ladies and gentlemen,**

- On behalf of the World Bank Group, I would like to thank the Government of Italy and Government of India and Mexico as co-hosts for the invitation. We appreciate the opportunity to address this important forum. Our remarks in this session are about some of the key issues that we believe should be considered while promoting steps in upstream oil and gas investments that will, in the long run, both maximize production and revenue, and enhance efficiency.
- But at the outset I would like to indicate that from the standpoint of the World Bank, as a development institution, there are at least four distinct but also inter-related concerns:
  - If oil prices rise for lack of investment, that will harm the economic growth of oil-importing developing countries.
  - For oil-exporting countries, the concern is to ensure that they obtain the maximum value from their resource endowment in a way that does not compromise their economic and social development.
  - As President Zoellick stressed last week while many are worried about filling their gas tanks, many around the world are struggling to fill their stomachs and it is getting more and more difficult every day. The poor spend as much as 75% of their income on food. In just two months, the rice prices have skyrocketed to near historical levels, rising by 75% globally. The price of wheat has risen 120% over the past year. And recent increases in energy and food prices are connected – higher energy prices have increased fertilizer and transport costs, and also

stimulated bio-fuel production. Together, higher energy prices, drought, and rising demand have led to overall food prices of over 80% in the last three years.

- Climate Change is changing the whole picture and brings new complex intersectoral connections. Global greenhouse emissions come from multiple sources. Climate change is much more than an immense environmental or energy challenge it is a major development and an economic challenge – and it is a major threat to all our economic and political systems. But Climate Change brings also serious equity and moral issues. Today’s greenhouse gas problems are mostly generated by developed countries with energy use per capita on average five times that of developing countries. Yet over the next two decades, developing countries are likely to emit 70% of the increase in greenhouse gas emissions. Levels of greenhouse gas emissions that have generated wealth in industrialized countries cannot be sustained, but other countries have urgent development needs. In rural areas, particularly in South Asia and Sub-Saharan Africa, four out of five people currently live without electricity and energy services.

***Within this context firstly, I would like to summarize some of the key factors affecting current oil and gas investment***

- World oil prices have escalated since the beginning of 2004 and more recently, the OPEC basket price has risen 95 percent since the beginning of 2007.
- Various explanations have been offered for this price surge including higher-than-expected demand growth in emerging economies—caused in part by rapid motorization and a growing consumer base. This in turn is raising questions about whether enough investments are being made in upstream oil and gas to match this demand growth.
- Supply response may be limited by a number of factors, such as pricing policy by OPEC, limitations on access in those countries lacking their own financing or technical capability, unattractive fiscal and contractual terms, and political instability.
- Of concern to some producers is uncertainty about future demand for oil and gas, because of the fear that the economic growth of emerging markets may falter, and because of a growing concerted effort worldwide to switch to alternative fuels and to tackle climate change.
- In this context, ensuring ***adequate investment*** and ***appropriate oil and gas demand security*** are both critical for the future of hydrocarbon supplies.

***Let me now discuss the investment challenges being faced by oil companies, national and international, and the implications for future supply.***

- Globally, despite advances in technology, low-cost oil and gas are being gradually depleted, leaving increasing challenges from extracting from higher-cost fields.
- According to the Financial Times, the newly consolidated “four sisters”—ExxonMobil, Chevron, BP and Royal Dutch Shell—produce 10 percent of the world’s oil and gas and hold 3 percent of the reserves. The so-called “new seven sisters,” including Saudi Aramco, Gazprom, China National Petroleum Corporation, National Iranian Oil Company, Petróleos de Venezuela, Petrobras and Petronas, control almost one-third of the world’s oil and gas production and own more than one third of the reserves.
- These latter companies are all fully or partially state-owned and some have exclusive rights in their home countries. Governments of some of these countries have restricted access to reserves by, amongst others, international oil companies who are therefore pursuing increasingly high-cost, and sometimes environmentally high-risk, investments to maintain their level of production.
- One example of a “nonconventional” resource is oil sands which, according to some experts, create up to five times more GHG emissions during production than conventional petroleum.
- In some cases, although not all, policies that restrict access by foreign oil companies—NOCs and IOCs—could present a tradeoff between sovereign control and efficient production that could have resulted from broader participation.
- The challenge therefore is to create an environment where national oil companies in nations that restrict access still face the right set of incentives in order to encourage continuous improvement in efficiency—and there are several NOCs that have performed quite well because of their incentive framework. Where an NOC has competitive technical skills and adequate financial resources, one important factor that can contribute to good performance is stability and long term predictability of the NOC’s fiscal and legal relations with government.
- A growing concern is that, in some countries, oil companies are perceived to be not adequately investing to maintain current production or expand supply which could result in any one of the following scenarios:

***Let me discuss these scenarios in turn:***

- First: Oil prices will be higher than otherwise and there will be increased risk of large price spikes. For large oil exporting countries, this could mean that not investing in higher oil production provides a better return than investing, at least in the short to medium term, and as long as oil demand and the world economy remain robust.
- Second: The initial rise in prices leads to a global recession, lowering demand and eventually lowering oil prices. This is the risk that oil exporting countries take by not investing to meet rising demand.
- Lastly, higher energy prices could lead to more harmonized efforts aimed at making alternative sources of energy economical, eventually reducing demand for oil and gas. This has led to concern, particularly by some OPEC members, about securing the long term demand for oil against competition from alternatives.

***Let me now discuss the investment climate in which more investments are likely to be undertaken for those countries that have an open investment system.***

- Flexible fiscal and contractual frameworks respond to project profitability and help the development of projects which are likely to withstand large price fluctuations and are likely to maximize production and revenue in the long term.
- I want to emphasize the importance of legal transparency for enhancing investment. The roles and responsibilities of different parties of the petroleum sector should be spelt out in the law. More specifically, there should generally be a clear separation between government administrative responsibilities and the commercial operation of petroleum companies.
- Another way in which open markets can promote efficient investment is through competitive licensing, which increases the chances of attracting the most qualified investors. Careful examination of technical and financial qualifications of bidding investors is key to ensuring the necessary level of competency and efficiency optimization for a project.
- On the other hands, Good governance of the oil sector is important for efficient working of the economy, and this can be fostered through transparent legal, fiscal and contractual frameworks.

***With that, I would like to move on to highlighting what in our views the effects of future energy demand on oil and gas investment.***

- Future growth in demand for oil will come largely from the transport sector of developing countries.
- However, prospects of continuing high prices have driven many governments to explore alternatives to oil and gas and particularly targeting oil dependence in the transport sector, where fuel diversification is especially difficult.
- The two options available for alternative transportation fuels—remaining with liquid fuels by switching to bio-based or synthetic fuels; and shifting to non-liquid fuel options such as gas and electricity— but they still need cost reductions and technological advances to become commercially viable on a large scale.
- Natural gas and renewables will play an increasingly important role in electricity generation and meeting rural energy demand.
- Government interest in alternatives has lead to uncertainties about future oil demand and affects investment in upstream oil and gas as well as in refining. Rising construction costs and uncertain economic prospects in the near to medium term—together with mandates on biofuels and other alternative energy sources and energy efficiency improvement programs in many countries—are all perceived as formidable risks by investors.

***We can see that government policies will be paramount in defining what the demand for oil will be in the future.***

- Governments are increasingly responding to concerns about energy security and higher energy prices by designing measures to restrain demand and reduce energy intensity.
- Policies to improve energy security can also achieve climate change objectives by switching to domestically available lower-carbon fuels (for example from imported oil to domestic gas) and by defining a greater share of alternative and renewable energies in the total primary energy supply of a nation.
- Government support for alternatives to oil in the form of differentiated fuel taxation, voluntary targets or mandates most often lead to market distortions and do not reflect externalities (such as pollution and GHG emissions) that are otherwise not

accounted for in market prices. Some products actually benefit from distortions that may even exacerbate externalities. Many countries provide petroleum fuel price subsidies, leading to growing budgetary burden and cases of commercial malpractice.

- Market distortions make it difficult to judge the net impact on the demand for oil in the future. They lead to inefficient allocation of resources, inefficient use of subsidized energy, out-smuggling and parallel markets.
- Tackling and eventually eliminating these distortions and properly accounting for externalities remains a critical challenge in the coming decades.
- Increased bio-fuel production has contributed to the rise. The double impact of higher food and energy prices has affected all consumers, particularly the poor, and governments have been inclined to intervene in the face of these higher costs with mixed results, meriting consideration about how to best develop coping strategies in the long-run.

***Let me now move on to discussing the role of technological and institutional development in optimizing oil and gas production.***

- Strengthening research and development is crucial for optimizing production and increasing ultimate petroleum recovery. Worldwide, oil recovery stands at 30–35 percent of oil in place, while industry experts are hopeful that this can be increased significantly through technical advancements.
- Maximum reservoir contact wells, intelligent well completions and miscible hydrocarbon gas flooding are some present techniques to improve production and recovery efficiency.
- On the institutional side, capacity building of engineers and government officials in charge of the petroleum sector will tackle the shortage of skills needed to establish, monitor and enforce legal, fiscal, contractual and environmental frameworks.
- Public acceptance of petroleum revenue use can be enhanced by transparency and consultation, helping to avoid the “resource curse.”
- To that end, more than twenty countries are members of the Extractive Industries Transparency Initiative (EITI), a coalition of governments, companies, civil society groups, investors and international organizations. The EITI aims to strengthen

governance in resource rich countries through the verification and full publication of company payments and government revenues from oil, gas and mining.

- Building on the EITI, The World Bank and the African Union Summit in January 2008 announced a more comprehensive initiative to improve the management of extractive industries, expanding the EITI to include the entire chain from awarding of contracts and monitoring production to final revenue expenditure.
- This new initiative will help equip governments to assess how best to share risk and reward and manage licensing rounds. It will also work with governments to manage volatile and unpredictable petroleum revenue, promote economic diversification to reduce over-reliance on the hydrocarbons sector, and ensure social and environmental sustainability of natural resource development.

***Finally let me conclude by summarizing our recommendations for securing the supply of oil and gas to the world market.***

- Governments should take necessary steps to create an enabling environment for additional investment, public and private. In some cases, this may need to focus on macroeconomic and fiscal stability as well as improving transparency in the hydrocarbons sector.
- Minimize policy-induced uncertainties and market distortions that affect demand;
- Encourage advances in technology research and development to increase supply as well as manage demand;
- Promote capacity building in the sector for emerging producers and ministries to address concerns about obtaining the human resources needed for the effective management of upstream oil and gas; and
- Enable public scrutiny and acceptance of petroleum wealth management to help build support for efficient operation and to benefit producers in the long run.

**Thank you.**