

Global Hydrocarbon Exploration Scene & Contracts

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Oil Demand Picture

- ▶ In a world full of uncertainty one thing is certain, that the world's energy needs will continue to rise sharply over the next 25 years,
- ▶ 40% of the world's population is still without access to the basic energy supply,
- ▶ Growing economies outside the developed world will account for 90% of energy demand growth in the next 25 years,
- ▶ In order to meet the world's rising demand, **vast investments are needed** in new fossil fuel production (*IEA claims, that world must invest in upstream oil and gas about \$20 trillion over the next 25 years*).

Exploration Investments

- ▶ There has been **considerable lack of upstream investments** since 2008,
- ▶ All the Majors are now reloading their exploration portfolios which become the most important part of their growth strategy in near term.
- ▶ The big IOCs are making up for the lost time of recent years in up and coming areas (*such as West Africa's transform margin and Brazil's pre-salt offshore plays*),
- ▶ Now a lot of projects are heavily front-loaded in terms of investment (*a case in point is Australia LNG projects*),
- ▶ National Oil Companies are also spending big – several NOCs facing declining reserves at home will also invest overseas.

Hot Areas of Exploration (1 / 2)

Between the most attractive and promising areas for new discoveries are:

- ▶ Offshore Brasil (pre-salt regions) The pre-salt concessions refer to the abundant petroleum reserves recently discovered in deep water location, 200km of the coast of Brazil
- ▶ West Africa
- ▶ North America
- ▶ Northern Europe
- ▶ New Zealand

Hot Areas of Exploration (2/2)

- ▶ Australian offshore,
- ▶ Feroe Island,
- ▶ Mavritania,
- ▶ Egypt, deep water (*Nile Delta is one of the main gas potential in Africa 62 TCF proven reserves*).
- ▶ S.E. Mediteranean: The confirmation of significant quantities of hydrocarbons in Cyprus and Israel, (*the Levantine Basin, the Nile Delta Cone, the Eratosthenes Continental Block and the Herodotus Basin*) may prove to be a tremendous opportunity not only for the two countries but also for the EU as a whole.

Technology Developments

- ▶ Major upstream technology developments (such as **improved seismic survey techniques** and drilling in **very high water depths**) allow upstream activities in locations that were unthinkable only a few years ago.
- ▶ As an example, Shell Oil along with partners, have built the **deepest** offshore operating drilling rig and production platform in the world in the Gulf of Mexico (The Perdido Spar).

The Perdido foldbelt is a rich discovery of crude oil and natural gas that lies in waters over 2.400 m (about 8.000 feet) and the wells drilled will be in excess of 10.000 feet.

This is the **most complex drilling project** of the history of the industry. The deepest offshore rig of the world will also be one of the most distant from land (*the trip by boat can take several days*).

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Alternative Fiscal Regime Approaches

- ▶ **Royalties / Concession Contracts**

The complete risk lies with the oil company. The State is not involved at all in the E&P activities and any profits will come from the increased oil production. These types of contracts are more appropriate (*from the State's point of view*) in cases that there is considerable geological risk.

- ▶ **Production Sharing Agreements**

The cost recovery and production is shared among the state and the oil company. Both investors and asset owners share fair risk and take profit from actual benefit incurred. This type of contract provides to the oil company more protection against legislation changes.

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Country's Objectives & Strategy

- ▶ The State must have clearly identified objectives. Examples of such objectives may be:
 - acquire knowledge of its hydrocarbons potential,
 - increase security of supply,
 - transfer know how,
 - eliminate or minimise risks,
 - increase or maximise profits etc.
- ▶ Depending on the host country's particular conditions a reasonable balance of the above should be sought.
- ▶ According to the prioritization of the objectives that will be decided, the state must prepare its strategy to pursue them.

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Government Model Contracts

- ▶ A State is best served by having its **own purpose-crafted contractual format** from which to commence the negotiation of petroleum agreements.
- ▶ This approach will 'focus' more effectively the efforts needed and ultimately shorten considerably the time to reach an agreement.
- ▶ The challenge is to create a climate for petroleum investment which will represent a fair balance between the State and the international oil companies.

Conclusions

- ▶ Vast investments are needed to meet the world's rising demand,
- ▶ Recent technical developments allow upstream activities in deep & ultra-deepwater locations that were unthinkable only a few years ago,
- ▶ The host country must have:
 - clearly identified objectives and strategy,
 - thorough understanding of the international business practices,
 - its own purpose-crafted contract from which to commence the negotiation of petroleum agreements.