

**STUDY TITLE:** Capital Investment Decision Making and Trends: Implications on Petroleum Resource Development in the U.S. Gulf of Mexico

**REPORT TITLE:** Capital Investment Decision Making and Trends in Petroleum Resource Development in the U.S. Gulf of Mexico

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**KEY WORDS:** Gulf of Mexico; exploration; production; capital expenditures; reserves; oil; natural gas

**BACKGROUND:** Many factors impact the demand for and supply of oil and natural gas, influence how and where energy companies invest their capital, and determine the manner in which countries compete to attract foreign investment. World oil supply derives from the investment decisions of individual companies, the political decisions of countries in regard to licensing and degree of foreign investment, and a multitude of variables that influence system dynamics, including price, inventory levels, geopolitics, market psychology and manipulation, OPEC policy, exchange rates, unexpected events, and resource availability.

**OBJECTIVES:** The purpose of this report is to examine the factors that impact the oil and gas exploration and capital markets, and to outline the primary elements that influence the design of fiscal regimes used in exploration and production (E&P) agreements.

**DESCRIPTION:** We begin with a general overview of the oil and gas industry and product demand and supply, provide background information on oil and gas resources, and describe the defining characteristics of exploration and capital markets. The factors that impact supply and demand, investment decisions, and country competitiveness are then reviewed. We conclude with a summary outline of the fiscal systems used in the exploration and production industry.

**SIGNIFICANT CONCLUSIONS:** Exploration and production activity cannot be explained solely on the basis of geology. Politics, economics, technology, regional and global conditions all act to preclude, foster, or inhibit E&P activity and capital investment. E&P activity varies with a country's demand for crude oil and natural gas within its border, as well as the desire to export oil and gas as a means of gaining foreign exchange. When the oil industry is in a state of "over supply-low prices," companies are more reluctant to invest capital to seek/acquire new exploration sites; when the industry is in a state of "under supply-high prices," companies more aggressively seek out exploration opportunities. Increasingly, oil and gas companies will be competing with NOCs to secure exploration acreage, and although there is yet to be significant partnering between the two parties, the survival of oil and gas companies rely on access to resources, and so movement in this direction may be inevitable.

The U.S. continues to attract a disproportionate share of investment capital in the oil and gas sector because oil is found at the market place, can be developed with low cost infrastructure, and can be brought on-line in a short period of time. The political risk in the U.S. is small, or negligible, and the potential for commercial discovery is still considered strong. As long as these conditions continue to hold, capital will continue to flow to the sector.

**STUDY RESULTS:** The oil and gas industry is far too complex and dynamic for simple cause and effect relationships to be developed to explain the nature of capital investment or the terms employed in a country's fiscal regime. The structure of fiscal regimes depend upon many interdependent non-causal factors such as the reserve base and economic strength of the country, oil supply balance, oil prices, evolution of political systems and historic relationship between the industry and the country, field maturity and development stage, regional demand, the country's desire for foreign capital, geopolitical motivations, and many other variables. Countries with low exploration risk and high prospectivity are generally expected to take a high proportion of economic rent, while countries with high exploration risk and low prospectivity must usually offer a larger share of rent to encourage investment.

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