

BOEM ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

BOEM OCS Region: [Gulf of Mexico](#)

Title: Factors Affecting Global Petroleum Exploration and Development and Impacts on the Attractiveness and Prospectivity of the U.S. Gulf of Mexico Deepwater (GM-92-42-122)

Planning Area: Gulfwide

Total Cost: \$264,332

Period of Performance: FY 2005 - 2009

Conducting Organization: [Coastal Marine Institute](#), Louisiana State University

BOEM Contact: [Dr. Harry Luton](#)

Description:

Background: The attractiveness of a region for exploration and production (E&P) investment depends upon the perception of its prospectivity, which broadly speaking, refers to the technical attributes as well as legal and fiscal arrangements for the commercial exploitation of the petroleum reserves. This study will examine factors underlying the prospectivity of the world's offshore petroleum producing basins from a technical, fiscal, legal, and geopolitical perspective, and develop an empirical/theoretical framework to analyze these factors and issues. The study will complement and expand the project "Capital Investment Decision Making" (1435-01-01-30951) in a broader framework and consider the factors that influence exploration investment decisions in offshore basins around the world. The study will address the question of whether or not technology, fiscal incentives, regulatory programs and structural and institutional changes in the industry have affected the attractiveness or the E&P investment climate in the Gulf of Mexico OCS Region.

Objectives: This study is designed to provide an analysis of the factors and issues underlying the attractiveness of the OCS deep shelf and deepwater in relation to other offshore petroleum provinces. The study will attempt to answer some of the following questions:

- Can economic and fiscal incentives increase the level of attractiveness or competitiveness of the GOM deepwater over the long run, *ceteris paribus*?
- Would uncertainty in technology progress and financial indicators significantly affect OCS deepwater prospectivity or productivity?
- To what extent are crude oil and natural gas price uncertainty a major determinant of deepwater exploration and development efficiency, *ceteris paribus*?

- How would the attractiveness or prospectivity of GOM deepwater be influenced by the changing industry structure and competitiveness? and
- To what extent has the attractiveness or prospectivity of OCS deepwater depended on hydrocarbon type, the stock of unexplored acreage, and resource depletion in the willow waters?

Methods: The methods will include a detailed literature review and synthesis of existing information, including: government reports, trade journal articles, government data series, filings before various regulatory agencies, and trade association reports. Three tasks will be addressed in this study:

1. a qualitative description of the factors that impact the competitiveness of petroleum producing regions to attract E&P capital investment will be identified;
2. a cross-country study of the factors that influence the prospectivity will be developed, including some assessment of the economic and system measures of the major offshore regions of the world; and
3. an econometric model of petroleum prospectivity or productivity in the Gulf of Mexico OCS deepwater region will be developed.

Products: A final report publication and annotated references.

Importance to BOEM: This study will address the question of whether or not technology, fiscal incentives, regulatory programs and structural and institutional changes in the industry have affected the attractiveness or the E&P investment climate in the Gulf of Mexico OCS region, significantly and differentially. Included in this study is the quantification of the responsiveness of petroleum development indicators to various regulatory and fiscal incentive programs, providing a source of current information on the economic and policy implications of such programs. Therefore, this study will provide a general economic and decision-making guide that will be useful to both state and federal policymakers.

Current Status: The draft final report has been received, is undergoing in-house editing and will be closed soon..

Final Report Due: June 2009

Publications: None

Affiliated WWW Sites: [Coastal Marine Institute](#), Louisiana State University

Revised date: January 2012

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