

STUDY TITLE: Changing Patterns of Ownership and Control in the Petroleum Industry: Implications for the Market for Oil and Gas Leases in the Gulf of Mexico OCS Region, 1983-1999

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SPONSORING OCS REGION: Gulf of Mexico

APPLICABLE PLANNING AREA: Western, Central, Eastern

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KEY WORDS: Gulf of Mexico; petroleum industry; ownership; econometric analysis; outer continental shelf.

BACKGROUND: Over the past century, the structure, composition, and organization of the oil and gas industry have changed repeatedly. The purpose of this research is to examine some of the possible impacts of corporate consolidation and reorganization on petroleum resource allocation in the Gulf of Mexico OCS region. This study applies theoretical and empirical tools in anti-trust, market and industrial structure, organization, and performance to describe the changes that have taken place.

OBJECTIVES: To determine if consolidation of ownership and control in the petroleum industry has reduced the extent of competition for or lowered the value of oil and gas leases on the Gulf of Mexico OCS.

DESCRIPTION: While regulatory authorities have analyzed the possible effects of mergers and ordered divestitures, their attention has been focused on retail or

wholesale markets for petroleum products. The focus of this study is different; our interest is the possible effects of mergers and acquisitions on the U.S. Treasury as the recipient of royalties and bonuses paid by companies to explore for and produce oil and gas from reserves on the OCS.

Descriptive and econometric analyses were applied to data on lease sales in the U.S. Gulf of Mexico OCS region during the period 1983-1999. The analyses were limited to these years to correspond to the period since the area-wide leasing policy began. The study's unit of analysis is primarily the sale of each lease with the participants in, or bidders for, the lease divided into different groups. For some analyses, leases were divided into three groups depending on whether the firm or group of firms submitting the winning bid included:

- 1) Firms with merger and acquisition experience at the time of the bid,
- 2) Firms who would be involved in mergers or acquisitions in the future, or
- 3) Firms who were without such experience during the study period.

Comparisons were made to see if there were significant differences among the three groups, and this grouping was used in econometric analyses.

SIGNIFICANT CONCLUSIONS: We find that neither aggregate measures used to analyze concentrated market and industry structures, nor patterns of joint bidding among firms active in the offshore Gulf of Mexico suggest a decrease or deficiency in the competitiveness of the lease sales held by the U.S. Minerals Management Service. Further, an analysis of patterns of bidding by those firms on MMS' Restricted Bidders List does not suggest noncompetitive behavior.

STUDY RESULTS: In this study, we find that none of the measures of industrial concentration indicate that the characteristics of the offshore lease auction/market exceed criteria used to characterize concentrated or potentially uncompetitive industries. Our econometric analyses do not reveal a negative association between the size of firms and average winning bids. Indeed, the association is either statistically insignificant or positive, suggesting larger firms submit higher average bids when other contextual variables are incorporated into the analysis.

However, the variables measuring whether or not firms have participated in mergers or acquisitions before the time of the lease sale consistently show a modest negative relationship between average high bids and merger and acquisition experience or history. Such an association could be interpreted as evidence that firms who have participated in mergers or acquisitions have, in some way, either acquired a degree of oligopsonistic market power or tend to be better informed or more experienced, and, thus, more efficient bidders. We find the latter possibility a more plausible conjecture.

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