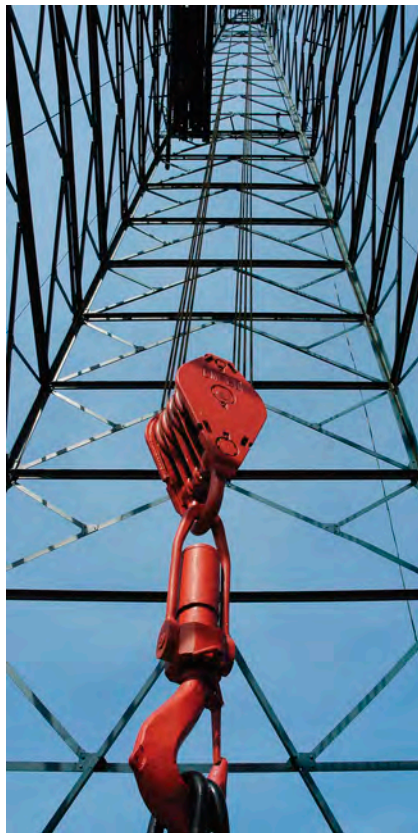


Petrobras, deep sea oil, and competition

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IN 2009 NEW REGULATIONS for oil and gas exploration in the deep sea reserves were proposed. Among several changes, two stand out: The first relates to how the exploration rights are auctioned and how the government defines its share of the resources generated. The exploration contracts changed from a system in which companies compete for the right to operate primarily through cash bids (signing bonuses) and pay taxes and royalties on their production to a system in which the winning company shares the oil produced with the government. The second major change was the identification of state-owned oil company Petrobras as sole operator of the deep sea oil fields, with participation of at least 30%. Currently there is a bill in Congress (Draft Senate Law No.131, 2015), which would remove Petrobras as the exclusive operator of deep sea production.



At the time few of the consequences of these changes were discussed. The debate was limited to how the revenues from deep sea oil exploration would be divided among the states of the federation. Although that question is relevant, aspects related to the incentives embedded in the new framework are also important and have been largely neglected in the discussion.

Appropriate incentives make all the difference. There is an extensive literature showing that, depending on how the incentives are designed, a winning ticket can turn into a curse. The fact that Petrobras must be the operator for deep sea oil has implications for the companies and consortia bidding in the auctions. When companies must deal with uncertainty, bidding is less competitive, which means the revenue the government can obtain is lower. For

instance, only one consortium participated in the auction of the Libra field, and the block was awarded for the minimum bid.

But for society there is another important dimension to the relationship between competition and the results of deep sea oil exploration: how competitive pressure from other companies affects the performance of Petrobras. Certainly one of the most important aspects of deep sea oil production is technology. Extracting oil at such depth and so far from the coast is a huge challenge that demands intensive efforts at innovation. Although there is not much empirical evidence specific to the oil and gas sector, the economic literature indicates that competition—whether from established firms or newcomers—stimulates innovation, especially where companies are close to the technological frontier, as is true for exploitation of deep sea oil. Thus, it seems plausible that concentrating operations in a single company may have negative effects on the development of technological innovations that will allow safe and economically viable deep sea oil operations.

Also, there is solid evidence that competition heightens business productivity. A less competitive environment, such as a single operator, tends to reduce the efficiency of enterprises, which is undesirable in terms of allocating economic resources. Considering the typical production-sharing contracts, reduced efficiency generates less government revenue, because every increase in cost reduces the oil production that government and enterprises share.

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through a public or a mixed capital company—it is important that it does not eliminate the competitive pressure on its companies. It is this competitive pressure that provides incentives for a state-owned company to operate efficiently, adopting technological innovations that keep costs competitive. Persuasive evidence in favor of this argument is how much the performance of Petrobras improved after it opened up its capital structure, and especially after it was exposed to competition.

Previously Petrobras maintained its lead in oil exploration in Brazil even after the Petroleum Law ended its legal monopoly. The company knows Brazilian geology like no other and is at the technological frontier for deep-sea oil production. But that is not enough. To maximize the gains that it could gain, the regulatory environment must be appropriate. Among other things, it is necessary that all companies in the sector, including Petrobras, be exposed to competition, which is a powerful incentive for greater efficiency and productivity. Keeping Petrobras as the exclusive deep sea oil operator is not a good strategy. 