

# An Update on the Attractiveness of Brazilian Deep-Water Hydrocarbon E&P

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**Abstract** – Brazilian Oil and Gas Industry is going through a period of uncertainty, after the optimism that came with the Pre-Salt discoveries of the mid 2000's. The recent fall of oil prices, the high costs of production and the competition with other opening markets from Latin America could represent an important setback on the attractiveness of the Brazilian upstream. Using a discounted cash flow model to simulate the life-cycle of E&P projects in the Brazilian deep waters, this paper aimed to quantify the impacts of different variables of interest on the profitability of the activity. Results show a 91% reduction of NPV when incorporating the new price scenario perspective. Other regulatory issues such as REPETRO also display significant impact on the profitability of Brazilian E&P projects. Given this, it is recommended that the definition of public policies for the sector has to evaluate new strategies to increase its attractiveness to investment, while trying to pursue the delicate balance between building a healthy business environment for enterprises and at the same time being able to employ the oil wealth for the benefit of society.

**Keywords**— Discounted Cash-Flow Modeling, E&P Attractiveness, O&G Fiscal Regime, REPETRO, Local Content Policy.

## 1. OVERVIEW

The official announcement, in 2007, of the discovery of the high volumes of hydrocarbon accumulations in Brazil's ultra-deep waters of the "Pre-Salt" was received with great optimism both by the industry, and

by the national government who viewed this opportunity as a "winning lottery ticket" that could generate enough wealth to transform Brazil's economy, social indicators, and enhance its international power.

The estimated resources of about 70 to 100 billion barrels of oil equivalent (boe), represented a huge increase in Brazil's proved reserves at the time (of about 14 billions boe) and could place Brazil in the top 10 largest reserves accumulations of the world (ANP, 2010).

The anticipation of future increased revenues lead to a series of debates regarding changes on the regulatory framework for the O&G sector. One of the more polemic issues involved the change in the distribution of royalties between producing and non-producing states (BNDES, 2013).

This context lead to a 5 year hiatus in the national governments program of bidding rounds of areas devoted to the exploration of hydrocarbons.

In 2010, the change in Brazil's oil and gas regulatory framework was approved and putted into effect a mixed system considering two different types of contracts between the Union and the companies interested in exploring the areas – The Concession Contract which was the former instrument used, and