

The Regulatory Framework and the Economic Feasibility of Deepwater E&P Projects in Brazil

Helder Consoli, Msc Economics (GEE-UFRJ), hsconsoli@gmail.com
Edmar Luiz Fagundes de Almeida, PhD (GEE-UFRJ), edmar@ie.ufrj.br

Abstract — Brazil is expected to become one of the greatest oil producers in the world and such perspective brings some regulatory and economic challenges. In order to gather a greater amount of resources and, therefore, be prepared to face those challenges, the Brazilian government has chosen to adopt a new regulatory framework applied only for the pre-salt layer. The Profit Sharing contract introduces new progressive tax collection mechanisms, which allows a reduction in the government profit share in scenarios of low oil prices and/or low productivity, whilst in higher price and productivity scenarios, allows a tax increasing. Thereby, such system is flexible in a way that it tries to deaden the impact of price and productivity fluctuations (that cannot be controlled by state level decision making) and preserves the economic feasibility of upstream oil and gas projects in the pre-salt layer. Therefore, this paper aims to: (i) identify variables that cannot be controlled either by the government or by the oil companies and that are crucial for the feasibility of E&P projects in the pre-salt layer; and, verify the values that, if reached, may derail the E&P project (considering the fiscal and regulatory frameworks).

Keywords — Profit Sharing System, economic feasibility, government take, Oil Companies' Profit

Resumen - La perspectiva de que Brasil se convertirá en uno de los mayores productores de petróleo en el mundo ha creado algunos desafíos de carácter regulatorio y económico para el país. Así, con el fin de obtener una mayor cantidad de recursos y prepararse para esos desafíos, el gobierno brasileño ha decidido aplicar un marco regulatorio diferente para el Presal, el esquema de contratos de utilidad compartida. Estos contratos, introducen nuevos mecanismos de recaudación tributaria que permiten tanto la reducción del porcentaje de ganancias del gobierno en escenarios de precios bajos del petróleo y/o de baja productividad y viceversa. La flexibilidad de ese sistema disminuye el impacto de las fluctuaciones de los precios y la productividad, que no pueden ser controlados por la toma de decisiones a nivel estatal, ayudando a mantener la viabilidad económica de los proyectos de petróleo y gas en la capa presal. Por lo tanto, este análisis se propone: (i) identificar las variables que no pueden ser controladas por el gobierno o las compañías

petroleras y que son de vital importancia para la preservación de la viabilidad económica de los proyectos de exploración y producción en el Presal; y, (ii) verificar los valores, a partir de los cuales, dichas variables pueden perjudicar un proyecto de explotación y producción, teniendo en cuenta el marco fiscal y regulatorio.

Palabras clave – Contratos de utilidad compartida, viabilidad económica, government take, ganancias de las compañías petroleras

1. INTRODUCTION

The recent hydrocarbons discoveries in the Southeastern coast of Brazil reveals its potential to become one of the world's greatest oil exporters. Such perspective creates not only new growth opportunities for the Brazilian economy, but also new challenges that are used to being faced by the oil exporting countries. Considering these challenges and opportunities, the Brazilian government has decided to adopt a new regulatory framework for the upstream activities. Thereby, the profit sharing regulatory system was established in order to regulate the areas responsible for the increasing oil production in Brazil (i.e. the pre-salt layer). Such regulatory framework was defined in a way that it could increase the tax revenues from E&P activities and, therefore, allow the Brazilian government to deal with the challenges brought by its exporter position in the world energy scenario. However, the regulatory framework, by itself is not the only factor that defines the tax revenues from E&P projects. There are economic and technical variables that are not controlled either by the government or by the oil companies but are crucial to determine the economic feasibility of the oil and gas projects as well as the level of tax revenues obtained through such activities. Therefore, this paper exposes an economic analysis of an E&P project, considering economic and technical variables (such as oil prices, productivity per well, capex and opex) that affects both the project feasibility and the government tax revenues. Besides, this paper