

# Determinants of fuel price control in Brazil and price policy options

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**Resumo**— A abertura do mercado brasileiro levou a liberalização dos preços de derivados de petróleo no início dos anos 2000. No entanto, na prática, o governo tem influenciado indiretamente os preços da gasolina, diesel e GLP através do controle que exerce sobre a Petrobras.

Os resultados do modelo proposto para comparação dos preços domésticos com os preços de referência internacionais, mostram um desalinhamento dos preços internos dos derivados entre 2011 e 2014. Os preços externos situaram-se em patamares superiores durante quase todo o período. As perdas da Petrobras com esta política de preços foram estimadas levando-se em conta as perdas diretas com importação de derivados e a renúncia de receitas de vendas desses derivados aos preços domésticos. Esse desalinhamento dos preços pode explicar parte da deterioração financeira da Petrobras desde 2011. A política de preços também teve um impacto negativo nas condições de investimento no refino.

Assim, este artigo conclui que é necessário desenvolver uma política alternativa para os preços dos derivados no Brasil. Considerando-se que a total liberalização dos preços é politicamente inviável no contexto atual, outros mecanismos, como fundos de estabilização, são propostos para garantir uma forma de precificação mais transparente.

**Palavras Chave**—preços dos derivados, indústria de petróleo, Petrobras, política de preços.

**Abstract**—The Brazilian economic liberalization in the 1990s led to oil products price deregulation in the beginning of the 2000s. Nevertheless, in practice, the government has been indirectly controlling gasoline, diesel and LPG prices through Petrobras, a state owned company.

The comparison of Brazilian oil products prices with international reference price between 2011 to 2014 has shown that domestic prices were set at a lower level during most of the period. Petrobras experienced financial losses by importing products at a higher price than it was able to sell in Brazil. In addition, the company lost revenues by selling the domestic production at lower than international prices. The revenue losses relating to the price controls can explain most of its financial deterioration since 2011. Price policy also had a negative impact on downstream investment conditions.

It is essential to design a new fuel pricing policy for Brazil. Since a market-based approach is politically unfeasible, other price smoothing mechanism such as a fuel price stabilization fund was analyzed and proposed to transparent pricing for gasoline, diesel and LPG.

**Keywords**—fuel prices, oil industry, Petrobras, price policy.

## 1. OVERVIEW

Fuel prices are deregulated since 2002 in Brazil. However, the government has been using indirect price controls to prevent energy prices to rise and, therefore, avoid inflationary pressure. Since the government is Petrobras' controlling shareholder, it can influence oil products prices and cushion the impact of international fuel prices volatility on domestic prices. Ex-refinery prices have been recently adjusted upwards at the refinery gate. Nonetheless, domestic prices remained lower than the international prices between 2011 and 2014.

This pricing policy has inflicted financial losses upon Petrobras and on the downstream structure of the oil industry. Besides compromising Petrobras' investment capacity, it constrains private downstream investment. This context highlights the need to develop a new fuel price policy to Brazil. This paper aims to analyze how recent price policy control for gasoline, diesel and LPG affects Petrobras and downstream investment decisions. In this sense, alternative price policies for these fuels are discussed.

In addition to this introduction, that will present gasoline, diesel and LPG price composition and the evolution of their market in Brazil, this paper is divided in four other sessions. The second session presents the methodology of the paper. The third session describes the results. The fourth session proposes price policy options and the last session concludes this paper.

### 1.1 FUEL PRICES IN BRAZIL

Brazilian market liberalization occurred in the nineties and included Petrobras opening its capital and gradual subsidy removal from fuel prices. This led to oil products price liberalization, effectively concluded in 2002 (COLOMER e TAVARES,