[FUEL PRICE CONTROLS, A CASE STUDY OF THE FUEL PRICE STABILIZATION FUND IN COLOMBIA: ANALYSIS OF INSTITUTIONAL DESIGN, IDENTIFICATION OF STRUCTURAL FAILURES AND REFORM PROPOSAL]

[Eusebio Jose Orozco Cera, Independent Consultant Energy Economics, +57 3185863717, orozco-eusebio@javeriana.edu.co] [Nelson Armando Rocha, xxxxxxxx, xxxxxx, algún mail de una universidad para pintura]

# Overview

Fuel prices are a determining factor for the economic and social development of a country. Fossil fuels are the main source of energy for transportation, industry and electricity generation UN (2020). Furthermore, income from the exploitation and export of oil represents an important part of the State's fiscal resources. For these reasons, the government has a strategic interest in regulating the fuel market and guaranteeing its supply and accessibility.

However, the fuel market is also exposed to fluctuations in international oil prices, which depend on external factors such as global supply and demand, geopolitical conditions, expectations and speculation UNAM (2021). These fluctuations can generate negative effects for both consumers and fuel producers, affecting their well-being and profitability Leaf Group (2022).

To address this situation, many countries have implemented financial mechanisms that seek to stabilize fuel prices in the domestic market. One of these mechanisms is the Fuel Price Stabilization Fund (FEPC), created in Colombia in 2007 by Law 1151 of the National Development Plan 2006-2010.

The FEPC's function is to mitigate in the domestic market the impact of fuel price fluctuations in international markets CARF (2022). To do this, the fund intended to subsidize or charge a difference between the domestic price and the international price from fuel refiners or importers.

The CARF (2022) highlights that in “2013, the Constitutional Court declared the participation differential unenforceable as a source of financing for the FEPC through Ruling C-126. Therefore, the savings mechanism (participation differential) of the Fund was disabled and the dissaving mechanism (compensation differential) remains in operation.” Therefore, the mechanism was financed with resources from the national budget in cases of deficit and without savings generated by Ecopetrol S.A when the international price was lower than the internal one.

As CARF (2022) also highlighted, in the 2014 Tax Reform (Law 17396), the parafiscal contribution to fuels and their elements was introduced as a measure to address this problem. However, the Constitutional Court once again declared the unenforceability of this savings mechanism. Finally, through Law 1819 of 2016, the parafiscal contribution of refiners and importers to the FEPC was reestablished, which means that the fund's savings mechanism is currently in force and active.

The deficit of the Fuel Price Stabilization Fund (FEPC) is an issue that has recently been the protagonist of the analysis of the fiscal situation in Colombia. The Autonomous Committee of the Fiscal Rule (CARF) has requested that it be added to the already large fiscal deficit of the National Government. But this could have effects on the Colombian economy, the twin deficits that the country has and the resources available for the payment of financial obligations, such as the external debt.

**Methods**

The objective of the FEPC was to protect consumers and Ecopetrol S.A from the adverse effects of oil volatility. However, the FEPC has generated a series of fiscal, economic and environmental problems that question its effectiveness and sustainability, highlighting that it has not generated savings in its existence. This article analyzes the origin, operation and results of the FEPC, as well as the reform proposals that have been proposed to improve its performance and concludes with an additional option for structural reform of the FEPC.

The reduction of the FEPC deficit through the increases in fuel prices announced by the Government and the normalization of the Fund's debt with Ecopetrol S.A, although it could contribute positively to the financial situation of the company and the country, is not the only way and it appears insufficient, as will be shown in this article.

The three alternatives mentioned to modify, reform or eliminate the FEPC entail consequences for the various economic sectors and the population in general. Each of these options requires a political and social consensus for its implementation. Currently, the most promising option is the use of price band systems, direct subsidies or compensation through income tax. However, the challenge of promoting the transition to a low-carbon economy also needs to be addressed. Additional analyzes and additional options are required to improve the FEPC, including the participation of the Central Bank and based on theoretical considerations that support structural reforms that will be addressed in this document.

A. Financial and structural tensions in Ecopetrol S.A under the current structure of the FEPC

B. Evaluation of the profitability and debt of Ecopetrol S.A in comparison with international oil companies: A comparative analysis

C. Evaluation of the challenges and financial results of Ecopetrol S.A: Implications on profitability and profit distribution

D. Revenue Trends and Profitability Challenges of Ecopetrol S.A: An Analysis of Influential Factors and Their Impact on Shareholder Value

E. Limits of the current FEPC formula

F. The monopoly of Ecopetrol S.A and the structural challenges in the oil sector in Colombia

G.Main changes in the hydrocarbon sector in Colombia 2008-2022

# Results

In summary, so far it is clear that the oil sector in Colombia faces structural problems that require adequate attention and solutions. The way domestic prices are set, the lack of surplus accumulation at times of higher prices and other related challenges are impacting profitability and generating financial difficulties for state-owned company Ecopetrol S.A. and the state. It is necessary to consider multiple factors and economic aspects in the analysis of the profits and dividends of Ecopetrol S.A, and recognize that the relationship between income, costs and profit distribution may be more complex due to the particular nature of the company and the market conditions in the oil sector.

**Conclusions**

A new formula is required that allows fuel prices in Colombia to vary by at least 18% monthly, eliminating the limitation of adjusting according to the differential between the IP and the PP. It is necessary to address the structural flaws of the current pricing system, such as equating prices of equal qualities and characteristics to international ones, not combinations without much support or reality.

Automation of the pricing process and transparency in information are essential to ensure the effectiveness of the system and provide clear and accessible access to the population. This will help avoid distortions and build confidence in the pricing process. It is crucial to involve the Bank of the Republic in the calculation and advertising of prices, considering the impact of the FEPC deficit on the financial balance of Ecopetrol S.A, the Fiscal Rule and the macroeconomic stability of the country. This will allow greater coordination and balance between monetary and fiscal policies.

Strengthen hydrocarbon production in the country to increase reserves and reduce dependence on fuel imports. This can be achieved by improving the recovery efficiency factor and diversifying the energy matrix, thus promoting sustainability and energy sovereignty in the country.

Among the options for improvement or that can help reduce the FEPC deficit is that if, due to opportunity cost, Ecopetrol S.A's international prices are leveled whether it sells locally or abroad, it should be the same whether it exports any amount that Ecopetrol exports. S.A. is a net drop in the FEPC deficit, therefore encouraging regulated and legal imports in private companies would help demand, energy security and reduction of subsidies.

If gasoline is definitely going to be at an international price or higher and large consumers cannot and should not be subsidized, accepting imports would allow both reducing subsidies and allowing Ecopetrol S.A to export derivatives, which would determine a more real price for exports, helping to determine more realistic the intrinsic opportunity cost.

The increase in internal fuels is actually eliminating the internal differential against the international one under a current policy of opportunity cost in internal refining. This path is directly equivalent to increasing cash for Ecopetrol S.A., which improves its availability for investments, but ECP must already bonds to 2053 and became unable to raise production in a high price cycle, in the current structural state of Ecopetrol S.A, even if internal fuels are increased, its profits will decrease, as manifested in the first half of 2023. Support Ecopetrol S.A, its existing debt and refinancing (more cash) without improvements in its production will not be able to reduce the net deficit to the Ministry of Finance.

Another necessary and pertinent measure in a currently producing country is to subsidize fuels to critical interest groups in the country, either with reductions in fuel taxes or direct but targeted subsidies. More in-depth analysis is required on the current structural shortcomings of the hydrocarbon sector in Colombia, which highlights the lack of savings mechanisms in countercyclical environments, problems and effects of hydrocarbon transportation rates on aggregate production, effects of the reversal of contracts in the low recovery of hydrocarbons from the fields, shortcomings in competition and competitiveness, income conflicts due to complex tax regimes that are very divergent in terms of form and structure, among others.

Other structural changes include limiting the possible fuel subsidy to no more than 25% of the price in the medium term, its targeting. The need for subsidies is inevitable, since the country is a producer of hydrocarbons but has multidimensional poverty, which without accessible energy that works against the cycle, will not go down, the subsidy is transferred via transportation and others to food and improvement in the quality of life of vulnerable groups.

**Abstract summary *(Required)***

*Fuel prices are a determining factor for the economic and social development of a country. Fossil fuels are the main source of energy for transportation, industry, and electricity generation UN (2020). Furthermore, income from the exploitation and export of oil represents an important part of the State's fiscal resources. For these reasons, the government has a strategic interest in regulating the fuel market and guaranteeing its supply and accessibility.*

*The deficit of the Fuel Price Stabilization Fund (FEPC) in Colombia is an issue that has recently been the protagonist of the analysis of the fiscal situation in Colombia. The Autonomous Committee of the Fiscal Rule (CARF) has requested that it be added to the already large fiscal deficit of the National Government. However this could have effects on the Colombian economy, the twin deficits that the country has, and the resources available for the payment of financial obligations, such as the external debt.*

*The objective of the FEPC was to protect consumers and Ecopetrol S.A from the adverse effects of oil volatility. However, the FEPC has generated a series of fiscal, economic, and environmental problems that question its effectiveness and sustainability, highlighting that it has not generated savings in its existence. This article analyzes the origin, operation, and results of the FEPC, as well as the reform proposals that have been proposed to improve its performance, and concludes with an additional option for structural reform of the FEPC.*

*The reduction of the FEPC deficit through the increases in fuel prices announced by the Government and the normalization of the Fund's debt with Ecopetrol S.A, although it could contribute positively to the financial situation of the company and the country, is not the only way and it appears insufficient, as will be shown in this article.*

*The three alternatives mentioned to modify, reform, or eliminate the FEPC entail consequences for the various economic sectors and the population in general. Each of these options requires a political and social consensus for its implementation. Currently, the most promising option is the use of price band systems, direct subsidies, or compensation through income tax. However, the challenge of promoting the transition to a low-carbon economy also needs to be addressed. Additional analyses and additional options are required to improve the FEPC, including the participation of the Central Bank and based on theoretical considerations that support structural reforms that will be addressed in this document.*