Impact of Brazilian Fuel Tax Changes on Ethanol Prices

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Summary

With fuel prices contributing significantly to persistent double-digit inflation, and with an election looming in October, Brazil's government and its allies recently tabled a series of proposals aimed at reducing fuel taxes and thus bringing down the pump prices of gasoline and diesel. If the legislation proposed to date is implemented, it could bring the sugar-equivalent price of ex-mill ethanol down by around 12%, or a little over USc 2.0/lb, all other things being equal.

Whether prices would actually fall by this amount and how long such a price change would last will also depend on other variables (e.g. further changes in ex-refinery prices, the seasonality of ethanol prices, the extent to which tax cuts are fully passed through the supply chain to the pump). In addition, part of the proposed tax cut package is projected to expire at the end of 2022.

Tax Proposals Could Fuel Ethanol Price Declines

In the week June 13-17, a series of proposals to reduce fuel taxes at both the federal and state level were debated in Brazil's Chamber of Deputies and Federal Senate.

Any significant change in gasoline prices has knock-on consequences for ethanol prices and hence impacts the sugar/ethanol arbitrage for cane millers, which in turn could affect the volume of sugar that the world's largest exporter makes available to the market over the course of the rest of the year and into 2023. For a primer on the structure and economics of Brazil's fuel market, see the May 2022 report *Flashpoint: Could Oil and Gasoline Price Trends Further Boost Ethanol and Sugar Prices in 2022?*

The proposals take aim at both federal and state taxes. Of specific relevance to gasoline and ethanol pricing are the following proposals:

- PLP 18/2022 aims at imposing a ceiling of 17% to 18% on the ICMS tax (a sort of value-added tax applied by state governments) on fuel. At present, the ICMS tax on gasoline varies from state to state, ranging from 25% in São Paulo and a handful of other states to 34% in the case of Rio de Janeiro. Meanwhile, the current ICMS tax on hydrous ethanol ranges from 13.3% in São Paulo to 32% in Rio de Janeiro.
- PLP 18/2022 also incorporates a proposal to eliminate federal taxes on gasoline and ethanol until December 31, 2022.
- PEC 15/2022 aims to ensure that any beneficial taxation differential for biofuels is preserved in the wake of PLP 18/2022. Thus, if the ICMS on gasoline in São Paulo state is reduced from 25% to 18%, the ICMS tax on ethanol would have to be reduced by the same proportion, and would thus decline from 13.3% to 10.5%.[1]

At the time of writing, none of the above have been implemented.

Market Forces Frustrate Policymakers

While lawmakers were focused on changing fuel taxes, Petrobras (the dominant refiner and hence supplier of gasoline and diesel to the market) announced increases in its ex-refinery prices of both gasoline (by 5%) and diesel (by 14%) on June 17. As explained in our prior publication *Flashpoint*, Petrobras operates a pricing system based on import parity prices, which are driven by international price movements and the BRL/USD exchange rate.

The rationale for referencing prices to import parity is that Brazil is a net importer of both diesel and gasoline – so if the local price remains significantly below the import parity price for any length of time, there is a risk that imports will not occur, which could ultimately lead to supply problems.

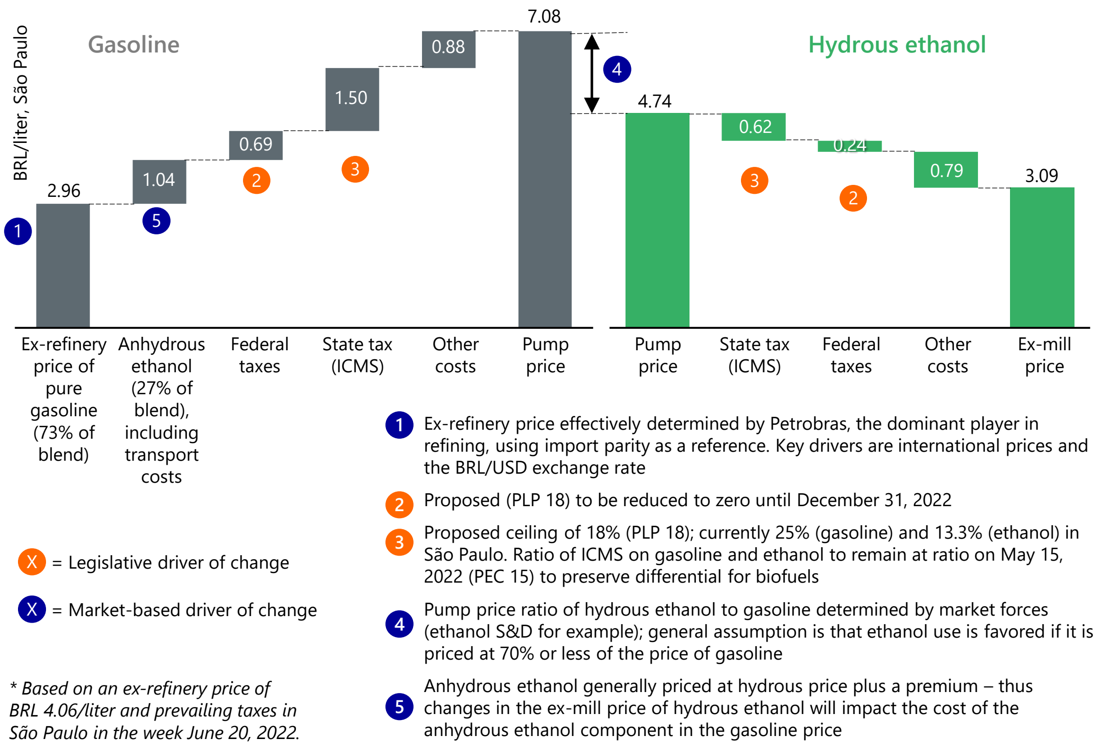
Furthermore, maintaining prices below import parity puts Petrobras executives and directors in a difficult position, with the government (which holds the majority of voting shares) pressuring for no adjustment to be made but executives and directors still accountable to all shareholders for any decisions that may negatively impact the company's performance.

The announcement of a price increase clearly frustrated the politicians attempting to reduce pump prices via tax changes. It highlighted the fact that any measures they implement can be at least partially offset by market factors that are beyond their control via an approach to ex-refinery pricing at Petrobras, which even the government struggles to influence as its controlling shareholder.

Future Developments and Their Potential Impacts

While future developments remain uncertain, we hope to provide some context and orientation for those who want to follow the action in the coming days and weeks. Figure 1 provides a guide to the structure of gasoline and ethanol pricing, along with indications of the key sources of change in the future, both from market drivers and from legislative proposals.

Figure 1: Gasoline and ethanol price structure and key sources of possible change*

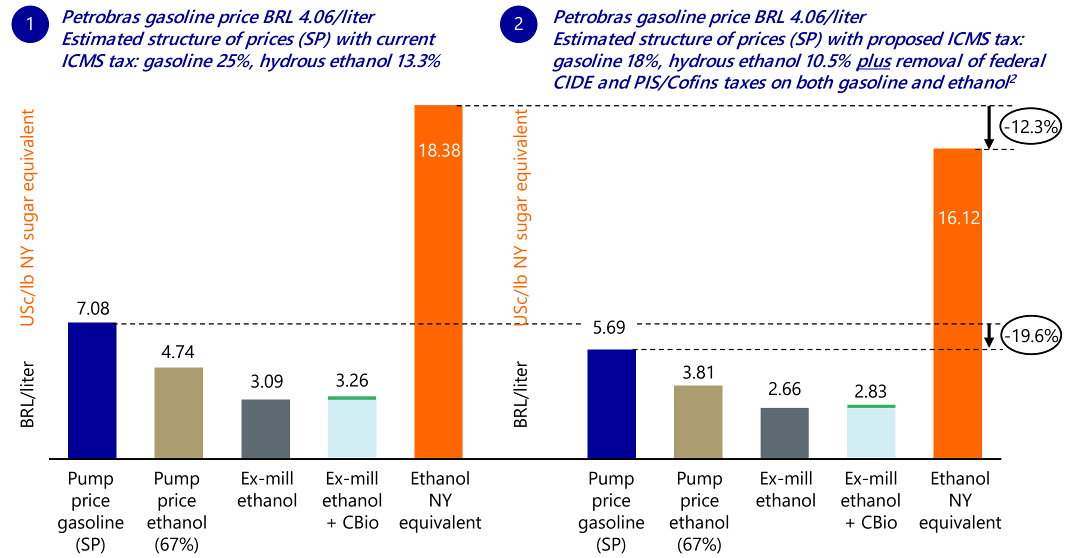


Note: Based on prices and taxes in São Paulo state
Source: ANP, Fecombustíveis, Rabobank 2022

Figure 2 presents a scenario for the change in gasoline and ethanol prices in São Paulo state, assuming that:

- the ICMS tax in the state is reduced from 25% to 18% for gasoline and from 13.3% to 10.5% for hydrous ethanol,
- the federal PIS/Cofins and CIDE taxes are suspended for gasoline and the PIS/Cofins taxes on ethanol (there is no CIDE tax on ethanol) are also suspended,
- the value of the CBio[2] (decarbonization certificate) that mills can emit at the same time that they sell ethanol for fuel purposes is also added to the ex-mill price of ethanol to create a total ex-mill return from ethanol that is converted to a New York sugar-equivalent price, using an exchange rate of 5.15 BRL/USD.

Figure 2: Simulation of fuel price changes with changes in taxes



1. Simulation based on the ex-refinery price of gasoline announced on June 17, 2022 and assuming a pump price ratio of hydrous ethanol to gasoline of 67% (prevailing ratio for the second week of June 2022)
2. Until December 31, 2022, according to PLP 18/2022

Source: Rabobank 2022

This scenario illustrates that if the measures detailed above were to be implemented, then, all other things being equal, we would expect to see the pump price of gasoline in São Paulo decline by around BRL 1.40 per liter, and the ex-mill return from ethanol (CBio contribution included) would drop by around 12%, to a New York sugar equivalent of just over USc 16/lb.

Whether prices would actually fall by this amount and how long such a price change would last will also depend on many other variables. Potential influences would include further changes in ex-refinery prices, the seasonality of ethanol prices, and the extent to which tax cuts are fully passed through the supply chain to the pump.

Furthermore, under the current proposals, the federal tax suspension would only last until January 1, 2023, implying that a significant share of the decline in pump prices projected in Figure 2 would be reversed as of that date.

The coming weeks are likely to bring new developments. For the world's importers and exporters of sugar, further immersion in the alphabet soup of Brazilian taxes – ICMS, PIS/Cofins, CIDE – may not be welcome, but it might be useful.

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[1] A reduction of the ICMS tax on gasoline in São Paulo from 25% to 18% would necessitate a proportional decrease of the ethanol ICMS from 13.3% to 10.5% – i.e. 13.3%*(18/25).

[2] For an explanation of the CBios market, see our 2021 report *Cane, Carbon and a Little Cash: Brazil's RenovaBio Is Up and Running*

Imprint

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