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BRAZILIAN GOVERNMENT ATTEMPTS TO STABILIZE ETHANOL SUPPLY WITH NEW REGULATION

By Ana Cristina Powell

For the past four decades, Brazil has moved to replace petroleum with highly efficient sugarcane-based ethanol, primarily to protect against recurring global oil crises and address concerns about the effect of greenhouse-gas emissions on the environment. Despite the immense promise of the ethanol industry, however, Brazilian drivers who choose to fill their tanks with the biofuel continue to face uncertain supplies and unstable prices.

Even before being sworn in on Jan. 1, 2011, Brazil's President-elect Dilma Rousseff met with her agriculture minister-designate Wagner Rossi to request that he confer with ethanol producers to inform them how dissatisfied the government was with the high prices of the product at the pumps. At that time, Rossi said Rousseff wanted him to express that the government was worried about producers' inability to keep prices stable."

The new president's dissatisfaction with the ethanol pricing structure is likely to trigger yet another change in the industry's long history in a country that is also the world's largest sugar producer.

Ethanol industry created in response to 1973 oil crisis

After the first oil crisis in 1973, the Brazilian military government moved to reduce the country's dependence on imported Middle Eastern petroleum. Government agencies started investing in technologies to produce alcohol as fuel, and in 1975 the Proálcool (Programa Nacional do Álcool) was implemented. Ethanol was added to gasoline in the first phase of the program. But, after the second oil shock of the decade in 1979, the first modern car to run on pure ethanol (a Fiat 147) was introduced in the Brazilian market.

In the 1980s, the price of ethanol at the pump was on average 41% lower than gasoline, and about 90% of all new cars made in Brazil ran only on ethanol by 1988.

Soon after that, however, a combination of factors that included the drop in oil prices, the cut to government subsidies to producers, and the rise of sugar prices made it more profitable for sugarcane farmers to produce sugar rather than ethanol. The fuel shortage that followed caused a major downturn in the demand for cars that ran on ethanol. In 1990, the car industry in Brazil had caught up with the changes, and 90% of the new cars produced that year ran on gasoline. By the mid-1990s, even though not officially ended, Proálcool was virtually dead.

In 2002, when Brazil revisited the idea of investing heavily in ethanol production, the country accounted for about 33% of the world's sugar production and had developed the most efficient agricultural technology for sugarcane cultivation. In March 2003, only three months into the first term of President Luiz Inácio Lula da Silva (2003-2011), the Brazilian auto industry started

manufacturing the new flex-fuel vehicles. Unlike the cars created during the early days of Proálcool, the "flex" cars, as they are known, can run on either 100% ethanol or ethanol/gasoline blends. They have electronic sensors that detect the fuel blend mix and automatically adjust the engine combustion.

At that point, pure ethanol was down to 10% of the total fuel consumption in the country. By the end of Lula's second term in 2010, 45% of all Brazilian light vehicles were flex, and the União da Indústria de Cana-de-açúcar (UNICA) estimates that the percentage will increase to 85% by 2020. In 2009 alone, 92% of all new cars sold in Brazil were flex-fuel.

Domestic supplies not guaranteed

The growth in the sector is seen as a positive development, but Rousseff's dissatisfaction stems from UNICA's projections that the Brazilian sugarcane industry can only guarantee the ethanol supply to 45% of the flex fleet. "This might happen because the growth in demand that is predicted for the next years is much higher than the speed of growth of the supply," Antônio de Pádua Rodrigues, technical director of UNICA, said in March 2011.

Given these circumstances, it is a good thing that cars made since 2003 are flex-fuel, because, according to the projections, drivers will have to increasingly rely on the blend of 75% gasoline and 25% ethanol sold at the pumps alongside pure ethanol.

With a record harvest of 642 tons of sugarcane this year, ethanol supplies should not be a problem. However, about half of this sugarcane output becomes the sugar that Brazil consumes and exports.

For 2011, about 52% of the harvest will be used to produce ethanol, UNICA announced in May, a smaller percentage than the 54% allocated for ethanol in 2010.

Ethanol production varies according to the sugar market. "With the high price of sugar, many growers decided they needed to invest less in ethanol, and its production has consequently decreased," said Plínio Nastari, director of DATAGRO, a private consulting company in the sector. Therefore, some industry observers argue that it is not that sugarcane producers cannot guarantee the supply but rather that they will not.

Although it is likely that in 2012 ethanol production will increase regardless of any intervention, the Brazilian government has taken some action to regulate the market and avoid future disruptions in supply. On April 28, 2011, President Rousseff signed a provisional executive order (Medida Provisória 532) that changes the classification of ethanol from an agricultural product to a fuel. The change allows the Agência Nacional de Petróleo (ANP) to regulate production.

Once ethanol is treated as fuel, "ANP will be able to curb abuses," said Minister of Energy Edison Lobão. He added that Brazil's state-run oil company Petrobrás now produces only 5% of the ethanol in the country but intends to increase that proportion to 15% in three to four years, "allowing the company to act as an efficient regulator of ethanol supply and prices."

UNICA's response to MP 532 was positive. Marcos Jank, president of the organization, welcomed the changes and added that the recent hike in ethanol prices was beyond the control of sugarcane producers and was caused by a drought that compromised the harvest.

The Banco Nacional do Desenvolvimento (BNDES) recently announced that it would provide 35 billion reais (US\$22 billion) to finance expansion in the sugarcane sector through 2014. The head of BNDES, Luciano Coutinho, said that he is "very optimistic" that production will increase.

About two weeks into the month of May 2011, the price of ethanol at the pump had decreased 13% in the nation's capital, Brasília, and close to 6% in São Paulo. The price will continue to fall as a result of the new harvest, but the failure of ethanol producers to invest and plan to avoid shortages has not been forgotten by the government or consumers. It is likely that there will be a problem meeting internal demand and achieving the desired stability until some of the new measures are fully implemented, and consumers will need to be patient a little longer.

"It's important to consider that the sector is going through a new phase of challenges that government and business are going to face and overcome together," Lobão said in early June.

Meanwhile, sugarcane producers are pleased with the July 31, 2011, expiration of import taxes imposed by the US government on Brazilian ethanol because this could boost their chances of exporting more of the biofuel. But producers might have to demonstrate to the Rousseff administration that they can meet domestic needs before sending more ethanol out of Brazil.