Brazilian Sugarcane Sector: Recent Developments and the Path Ahead

Leticia Phillips
Representative - North America
About UNICA

- The Brazilian Sugarcane Industry Association (UNICA) is the **leading sugarcane industry association** in Brazil. Its more than **120 member companies**, voluntarily engaged, represent over 50% of the ethanol and 60% of the sugar produced in Brazil.

- Representing the sector with public entities in **Brazil** and **abroad**, establishing a constructive dialogue with stakeholders, monitoring (and influencing) legislation related to biofuels, sugar and bioelectricity, promoting the Brazilian ethanol image as a clean and renewable and sustainable energy abroad.

- It has offices in **four locations**: São Paulo (headquarters), Brasília, Washington DC and Brussels.

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**8 billion gallons**

2nd world largest producer: 25% of production and 20% of world exports

**15 million MWh**

4% of Brazilian electricity consumption

**40 million tons**

Largest producer and exporter in the world: 20% of global production and more than 40% of exports
Breakdown of Sugarcane’s Energy

Energy equivalent of 1 ton of sugarcane = 1.2 oil barrel

Source: UNICA
Sugarcane in Brazil

90% of national production

Source: NIPE-Unicamp, IBGE and CTC. Elaboration: UNICA
The Brazilian Sugar Market:
An overview
Evolution of the Brazilian sugar market

Production, exports and consumption (million tonnes)

Source: UNICA, MAPA and Brazilian Foreign Trade secretariat (SECEX). Note: * geometric growth rate
Brazilian market-share in the world market

0% 15% 30% 45% 60%

Brazil is one of the leaders of a world market that includes:
- 100 producing countries
- 70 exporting countries

In 2017 Brazil exported sugar to 121 countries
Challenges for the sugar industry

- Stigmatization of sugar consumption
  - Sugar harmful for mental health, researchers say
  - The bittersweet story of sugar
    - Why sugar is bad for you
    - And why its dangers are still being ignored in too many countries
  - Brasilieiros consomem 50% a mais açúcar do que deveriam, diz OMS
  - Too much sugar could increase depression risk in men, study suggests

- Protectionist and distortive sugar policies across the globe
  - Thailand, India, China, United States and European Union
As of January 15th, 2018 the Thai government adopted a new regime, as a result of a challenge by Brazil. Brazilian government is analyzing the changes to ensure that it is compliant with WTO rules.

Brazil will defend its interest with respect to the safeguard measures promoted by China - Brazil represented 60% of Chinese imports, Brazil the most affected country.

Continuous monitoring of potentially distortive public policies, by sugar producing countries.

- Brazil’s sugar quota in the US is smaller than DR’s.
- Quota established based on trade flows in the 80s.
- US sugar TRQ represents 0.5% of BR exports.
The Brazilian Ethanol Market:
An overview
The evolution of ethanol production in Brazil

Brazilian ethanol production (billion liters)

1973
1st oil price shock

1975
Proálcool Launch
High governmental intervention

Late 80’s
Reversion in oil price
Deregulation of the sector

2003
Flex Fuel Vehicles were launched

GOVERNMENT-DRIVEN

MARKET-DRIVEN

Elaborated by UNICA with data from MAPA and UNICA
Expansion based on efficiency and productivity **GAINS**

Historical productivity data in Brazil (liters of hydrous ethanol per hectare - moving average)

- In this period, ethanol yields **more than double**
- Up to the 2000’s, productivity raised on average **3.5% p.y.**
- Productivity gains were even more significant depending on the region
With the **RIGHT INCENTIVES**, from both public policies and from the market, the sugarcane sector responded **POSITIVELY** and **TIMELY**

- Flex Fuel technology
- Federal tax differential between fossil and renewable fuels
- Reduction of VAT over hydrous ethanol
- Rising oil prices
- Competitive production costs
- Global interest on biofuels and emission reduction alternatives
What lays ahead?
2018/2019 Harvest

• UNICA still analyzing data to do a forecast

• Harvest update will be published in April, coinciding with the beginning of our harvest

• What we know so far?
  
  • Harvest will favor ethanol production
  
  • Sugar production will likely decrease
Recent Policy Changes
• China and EU closed their markets to the US ethanol making Brazil the only market available to receive excess ethanol supplies.

• US exported 660 MG to Brazil in 2017, three times more than 2016 exports (220MG) and five-times more than 2015 exports (135MG).

• UNICA acted to moderate the positions in the industry and produce a fair compromise - maintaining ethanol in MERCOSUR’s exception list.

• August 2017 Brazilian government approved an import tariff of 20% on any import volume exceeding 158.5MG/year - quota is average annual import volume from 2014 - 2016.

• **Brazil’s TRQ represents about 16% of US ethanol exports.**

• Tariff is valid for 2 years, starting September 2017. Temporary solution to what we hope is a temporary problem.

• In Brazil sugar and ethanol are the same industry - NE producers are the most affected by lack of access to larger sugar quotas in markets like US and by imports of ethanol!
RenovaBio

Program promoted by the Department of Biofuels (DBIO) of the Ministry of Mines and Energy (MME)

Highly important initiative to ensure emissions reduction through the sustainable expansion of biofuels supply in the country, guaranteeing the fulfillment of the commitments signed in the Paris Climate Agreement and increasing the guarantee of supply

43% reduction of GHG emissions by 2030 when compared to 2005 levels
Mandate to reduce emissions

Maximum level of GHG EMISSION commercialized in the form of fuels for the Brazilian fleet “x” grams of CO$_2$eq. per Megajoule

Establishment of **PERIODIC** DECARBONIZATION TARGETS for the fuel sector

- Guarantee of supply
- and in a sustainable manner
- PREVISIBILITY
- and CLEAR RULES

Vital to promote **INVESTMENTS** in the production and for development of other government programs
How will decarbonization targets be met?

Each fuel will have a specific level of emissions, defined from its LIFE CYCLE.

Increasing Level of Emissions

- Gasoline
- Imported Ethanol
- Brazilian Sugarcane Ethanol
- Cellulosic Ethanol

Competition between sources in meeting decarbonization targets

Guarantee of incentives for the search for the highest environmental and economic EFFICIENCY.
How the RenovaBio works

Producer

Trade of CBio via Stock Exchange

Ethanol Gallons

Distributor

Emmission of CBio
1 CBio = reduction 1 t CO₂eq

Acquisition of CBio

Fueling Stations

Ethanol Gallons

Consumer

Market

Ethanol Gallons

Individual Target

Brazil's Decarbonization Target

(gCO₂eq/MJ)
Next Steps

- Up to 6 months after sanction (June 2018): definition of targets
- 18 months after definition of targets: regulatory completion
- Effective from the beginning of 2020
Thank you!

www.sugarcane.org  @SugarcaneOrg
leticia@unica.com.br