Global Trends & Perspectives for Sugar

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DATAGRO

UNITED STATES DEPARTMENT OF AGRICULTURE
WORLD AGRICULTURAL OUTLOOK FORUM
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Variables influencing Sugar Trends

- Exchange rates
- Ag productivity
- Cost of logistics
- Intensity of Diversification
- Production factor costs
- T&EPAs
- Regulatory & Investment Environment
Brazil in the world of cane

- 35.3% of world’s cane supply (2014);
- 42.7% of world exports is 42.7% (2014);
- 29.8% of Cane dedicated to Export Sugar (2014).
Brazilian Sugar Exports
(in million tons tel quel)

Source: MDIC/SECEX
Advantage of Diversification towards Ethanol

• Enabled sugars in molasses, usually sold at discount over sugar, to be priced closer to sugar equivalent.
Ethanol substituted between 1975-2014
2.41 billion barrels of gasoline

Proved reserves of oil & condensates (including Pre-Salt) in 2014:
13.13 billion barrels (SEC), or
16.61 billion barrels (SPE/WPC).

Between 1975 & 2014, volume de gasoline substituted by ethanol:
2.41 billion barrels

At current pace, every year another 127 million barrels are substituted without the need of new investments because it is renewable!
Hard currency savings

• Between 1975 & 2014, substituted gasoline valued at its world price enabled savings of

**US$ 185.4 billion**, without considering the cost of foregone debt, or
**US$ 381.3 billion**, considering the cost of foregone debt

(estimated at Prime Rate + 200 base pts).

Source: DATAGRO

Brazil’s foreign reserves
**SIZE OF THE DOMESTIC FLEET (OTTO CYCLE)**

- **Flex Fuel Vehicle Fleet**
  - Million units
  - Source: DATAGRO

- **Vehicle Fleet by Type of Fuel (2014)**
  - Flex Fuel 67.00%
  - Gasoline 30.77%
  - Ethanol 2.23%
  - Source: DATAGRO

- Flex cars were responsible for 67.0% of total light vehicle fleet. This proportion is rising every year:
  - 2013: 63.12%
  - 2012: 58.02%
  - 2011: 52.07%
Brazilian Supply of Sugar+Ethanol (in TRS equivalent): with intense growth 2003-2010 period

Source: DATAGRO
Note: TRS is Total Reducing Sugars, a common denominator for sugar and ethanol.
Exchange Rate (Reais per US$)

Source: Brazil’s Central Bank (BACEN).
Factors affecting Brazil’s Sugar Industry

- Government intervention in the domestic price of gasoline, sold at subsidized levels to consumers during last 6 years;
Price of Gasoline Differential in Brazil

(% difference between Price at Refinery in Brazil and RBOB Houston)

Source: DATAGRO
Factors affecting Brazil’s Sugar Industry

• Government intervention in the domestic price of gasoline, sold at subsidized levels to consumers during last 6 years;

• Adverse climate conditions since 2009;

• Rise in production costs caused by:
  – high debt and debt services caused by the financial crisis of 2008/09, and
  – the profound operational consequences of the rapid mechanization of harvesting and planting.
Stagnant investments in crush capacity since 2010, and bumpy road until 2014...

Source: DATAGRO

Note: TRS is Total Reducing Sugars, a common denominator for sugar and ethanol.
DATAGRO PRICE EQUIVALENCIES

For typical mill located in RIBEIRAO PRETO, SP
US$ c/lb FOB

Source: DATAGRO
Brazil: production of sugar has fallen since 2012

Source: Elaborated by DATAGRO, from data obtained with Sindicatos of Producers.
Brazil: a new record production of ethanol achieved in 2014/15

Source: Elaborated by DATAGRO, from data obtained with Sindicats of Producers.
A large shift in production mix since 2012/13

Fonte: DATAGRO
India’s government is inclined to renew the sugar export subsidy at 4,000 rupees per ton (equivalent to 65.5 dollars per ton), with the objective of exporting up to 1.4 million tons in 2015, restricting it to mills that produce ethanol, thus providing an incentive to their diversification.

India has an installed sugar production capacity of 31 million tons, and it should be expected that the current production of around 26 million tons white value (against 24.27 million tons in the previous crop) may rise steadily towards the 29 to 30 million ton level in the medium term.
DROUGHT HITS THAILAND

- In Thailand, we also observe a steady expansion path. While the current crop is being affected by drought, exports may reach a record 8 million tons in 2014/5, with ending stocks still maintaining a high level around 8.05 million tons.

- Acreage in cane can grow 74% in the next 3 years, from 1.48 to 2.57 million hectares, from a government-led program of conversion of rice acreage to cane.

- Considering current productivity, Thailand can produce 18 to 19 million tons of sugar in 2017/18. With domestic consumption of only 2.5 million tons,
RUSSIAN SUGAR PRODUCTION IN 2014/15
ABOVE EXPECTATION

• Russia, which used to import more than 5 million tons of sugar per year, in 2014/15 will import less than 890 thousand tons.

• Russia’s beet production continues to expand benefiting from import tariffs that range from 171 to 240 dollars per ton, during the year.

• The region’s customs union is strengthening trade links between Russia and nearby countries, which have also benefited from significant productivity gains in beet.

Source: DATAGRO
OTHER FUNDAMENTS OF THE SUGAR MARKET

• In Australia, sugar production reached 4.55 million tons, an 8.3% rise over the previous year. For 2015, the same production level is expected.

• Tariffs, trade and economic partnership agreements (EPAs) continue playing an important role in determining flow trades and regional industry development.

• Europe is regaining its relevance in world sugar trade. Container return freight from Europe to Asia at nearly zero cost has brought renewed competitiveness for EC’s white sugar with product from independent refineries in various destination markets. Colombia, Peru and certain Caribbean countries are benefiting from their EPAs with the EC not only for the European market, but using it as a hub to access Asia.

• In NAFTA, the US reduced significantly its imports of sugar from Mexico in 2014/15. US Department of Commerce investigation recommended countervailing duties of 17.01% and anti-dumping charges of 47.26%. Decision is pending on the matter.
WORLD SUGAR S&D FOR 2014/15 INDICATES LOWER DEFICIT

World Sugar Balance - Surplus/Deficit

millions tons (raw value)

Source: DATAGRO
For 14/15, relation stock/consumption should fall marginally to 45%, a level that still provides comfort to maintain market supplied;

An accumulated deficit of 7 million tons is needed to bring the ratio down by 4 percentage points.
### DATAGRO’s World Sugar S&D Production

#### Sugar Production (in metric tons raw value) - Period October/September

<table>
<thead>
<tr>
<th></th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>Var. 14/15 vs. 12/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>40.050.885</td>
<td>37.726.671</td>
<td>35.482.555</td>
<td>- 4.568.330</td>
</tr>
<tr>
<td>EU</td>
<td>17.035.339</td>
<td>16.634.398</td>
<td>19.133.916</td>
<td>2.098.577</td>
</tr>
<tr>
<td>Thailand</td>
<td>10.343.458</td>
<td>11.639.342</td>
<td>10.955.818</td>
<td>612.360</td>
</tr>
<tr>
<td>India</td>
<td>26.508.413</td>
<td>25.246.832</td>
<td>27.413.043</td>
<td>904.630</td>
</tr>
<tr>
<td>United States</td>
<td>7.920.916</td>
<td>7.926.149</td>
<td>7.610.239</td>
<td>- 310.677</td>
</tr>
<tr>
<td>Russia</td>
<td>5.132.065</td>
<td>4.797.130</td>
<td>4.786.326</td>
<td>- 345.739</td>
</tr>
<tr>
<td>Others</td>
<td>62.229.907</td>
<td>63.506.424</td>
<td>61.741.354</td>
<td>- 488.553</td>
</tr>
<tr>
<td>World</td>
<td>176.121.244</td>
<td>173.544.654</td>
<td>173.323.251</td>
<td>- 2.797.993</td>
</tr>
</tbody>
</table>

Source: DATAGRO.
# DATAGRO’s World Sugar S&D Consumption

## Sugar Consumption (in metric tons raw value) - Period October/September

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<th>Country</th>
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<th>Var. 14/15 vs. 12/13</th>
</tr>
</thead>
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<tr>
<td>Brazil</td>
<td>11,799,546</td>
<td>11,893,324</td>
<td>12,010,572</td>
<td>211,026</td>
</tr>
<tr>
<td>EU</td>
<td>19,280,127</td>
<td>19,292,543</td>
<td>19,293,655</td>
<td>13,528</td>
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<tr>
<td>Thailand</td>
<td>2,735,175</td>
<td>2,745,002</td>
<td>2,755,439</td>
<td>20,264</td>
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<tr>
<td>India</td>
<td>24,431,185</td>
<td>24,841,957</td>
<td>25,371,957</td>
<td>940,772</td>
</tr>
<tr>
<td>United States</td>
<td>10,543,335</td>
<td>10,923,492</td>
<td>10,915,026</td>
<td>371,691</td>
</tr>
<tr>
<td>Mexico</td>
<td>4,398,563</td>
<td>4,494,244</td>
<td>4,683,007</td>
<td>284,444</td>
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<tr>
<td>Russia</td>
<td>5,638,366</td>
<td>5,650,871</td>
<td>5,701,450</td>
<td>63,084</td>
</tr>
<tr>
<td>Others</td>
<td>88,044,777</td>
<td>90,865,306</td>
<td>93,410,496</td>
<td>5,365,719</td>
</tr>
<tr>
<td>World</td>
<td>166,871,073</td>
<td>170,706,738</td>
<td>174,141,601</td>
<td>7,270,527</td>
</tr>
</tbody>
</table>

Source: DATAGRO.
Flags

- The government regulated price of gasoline in Brazil, and whether there will be a bail-out of the highly indebted part of the Brazilian industry;
- Consequences of the phase-out of sugar production quotas in Europe;
- Exchange rate movements between the US dollar and: the Brazilian Real, the Euro, the Thai baht, the Indian rupee, and the Russian ruble;
- The intensity of diversification towards ethanol in India, Thailand, Colombia and the Philippines;
- The speed of the Thai conversion from rice to cane;
- The impact of lower oil prices in Nigeria and other relevant sugar-relevant countries in Africa; and
- The final ruling and agreement on sugar between the US & Mexico.
FUTURE EVENTS CALENDAR

13 May 2015 (New York Sugar Dinner)
9th ISO DATAGRO New York Sugar & Ethanol Conference
Waldorf=Astoria Hotel, New York

10 July 2015
4th Sugar & Ethanol Summit – Brazil Day
IoD – Institute of Directors, London

25 August 2015
4th DATAGRO Ceise Br Fenasucro Conference
Sertaozinho, Brazil

21-22 September 2015 (Sao Paulo Sugar Dinner)
15th DATAGRO International Conference on Sugar & Ethanol
Grand Hyatt São Paulo, Brazil