

Kingsman Asia Sugar Conference

September 5 - 6, 2018 | The Leela Ambience Gurgaon | NCT Delhi, India

The evolving future of the sugar industry



ISO

José Orive,
Executive Director
International Sugar Organization



ISO

21st Century Tectonic Shifts in the World Sugar Economy

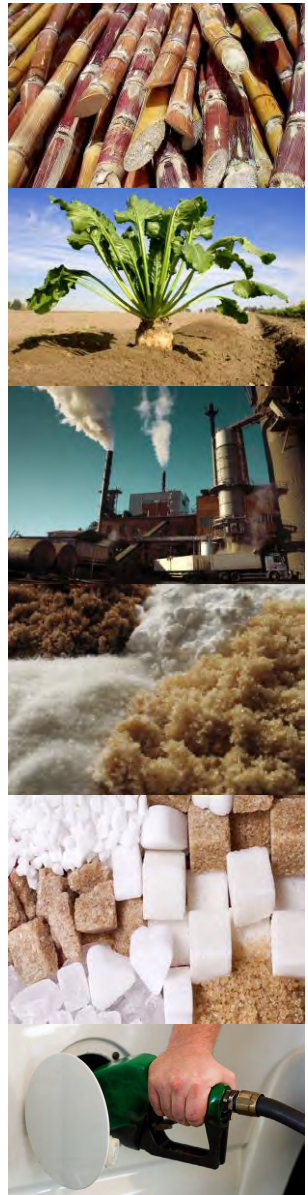
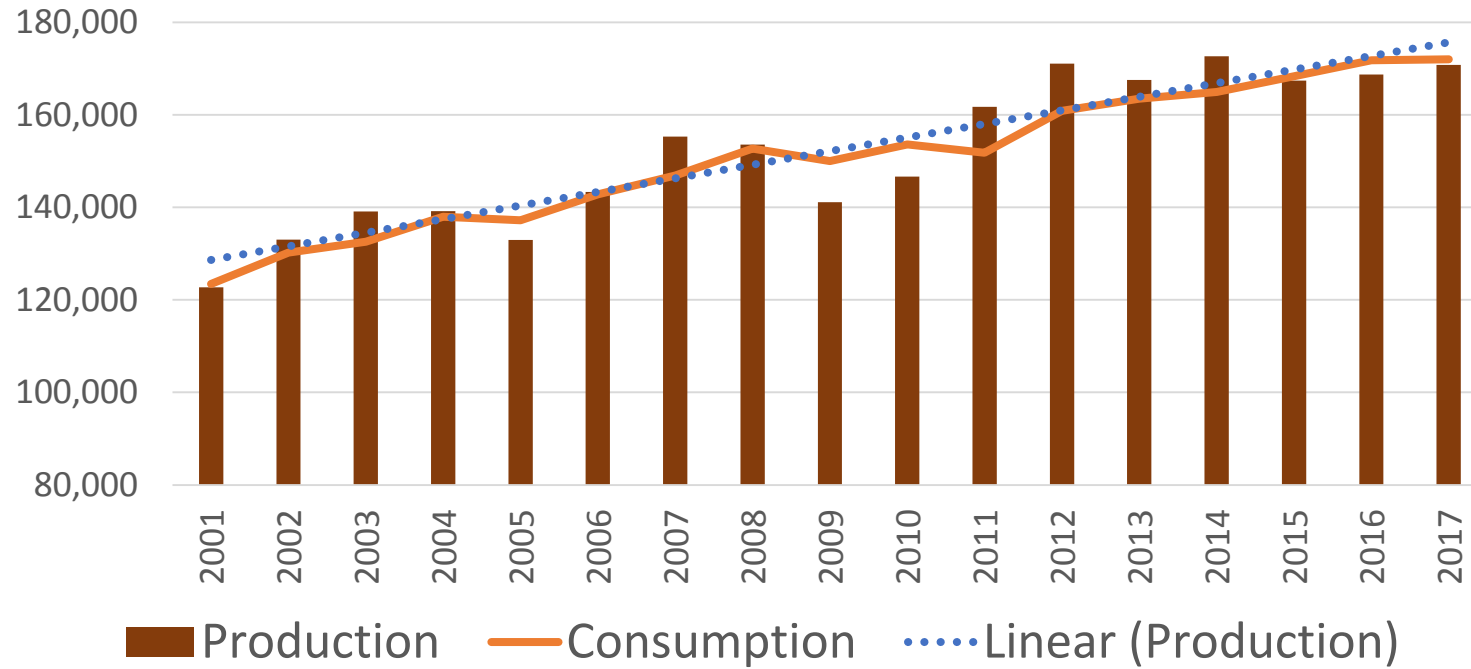
inter alia

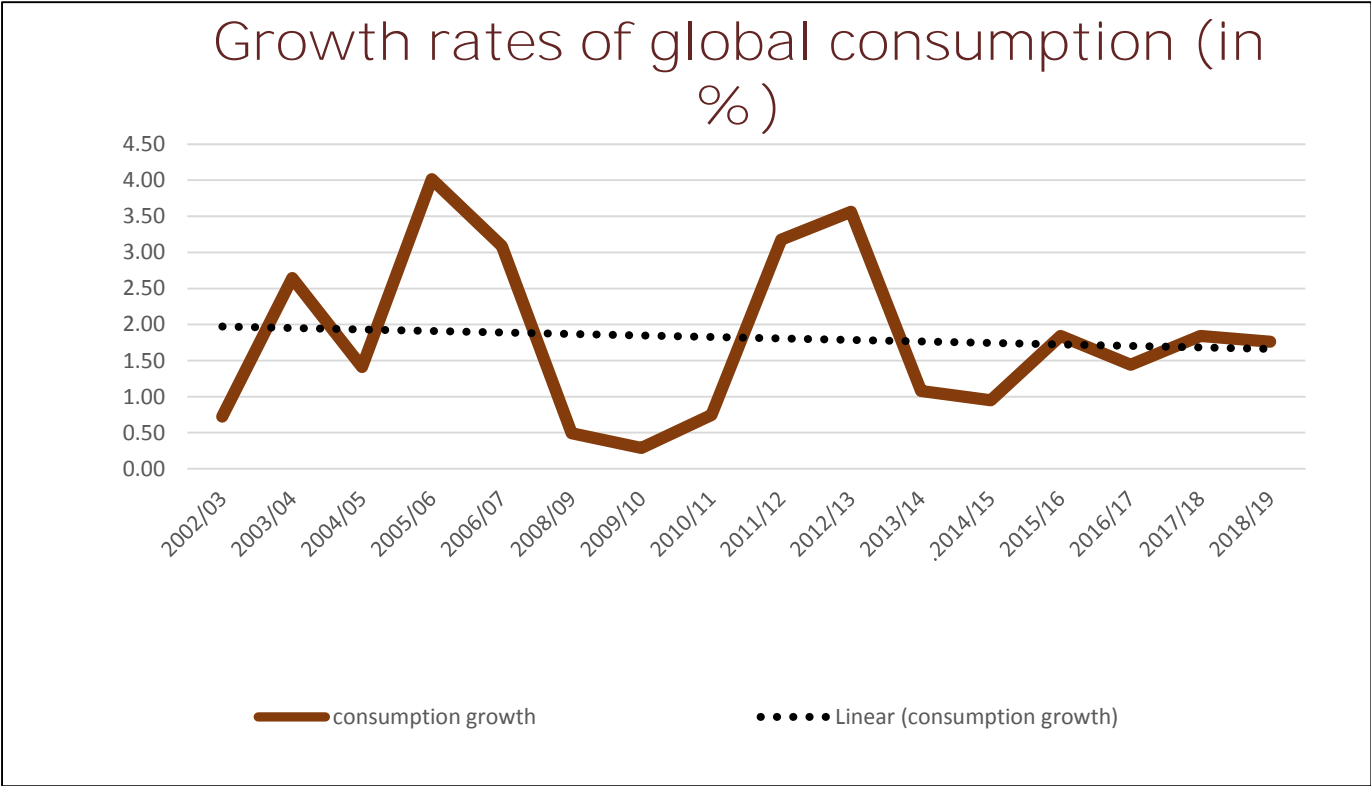
- since 2001 world production has grown by 50 mln tonnes or 40%
- the volume of world sugar trade has grown grew by 20 mln tonnes or 50%
- the introduction of flexible-fuel vehicles in Brazil and new paradigm of cane use
- the EU sugar regime reforms in 2006 and 2017
- a creation of the common sweeteners market in NAFTA
- robust growth of sugar output in Thailand and Russia
- an impressive growth of imports by China
- mushrooming destination refineries
- growing importance of VHP sugar in the international trade
- a widening anti-sugar campaign in many countries all over the world





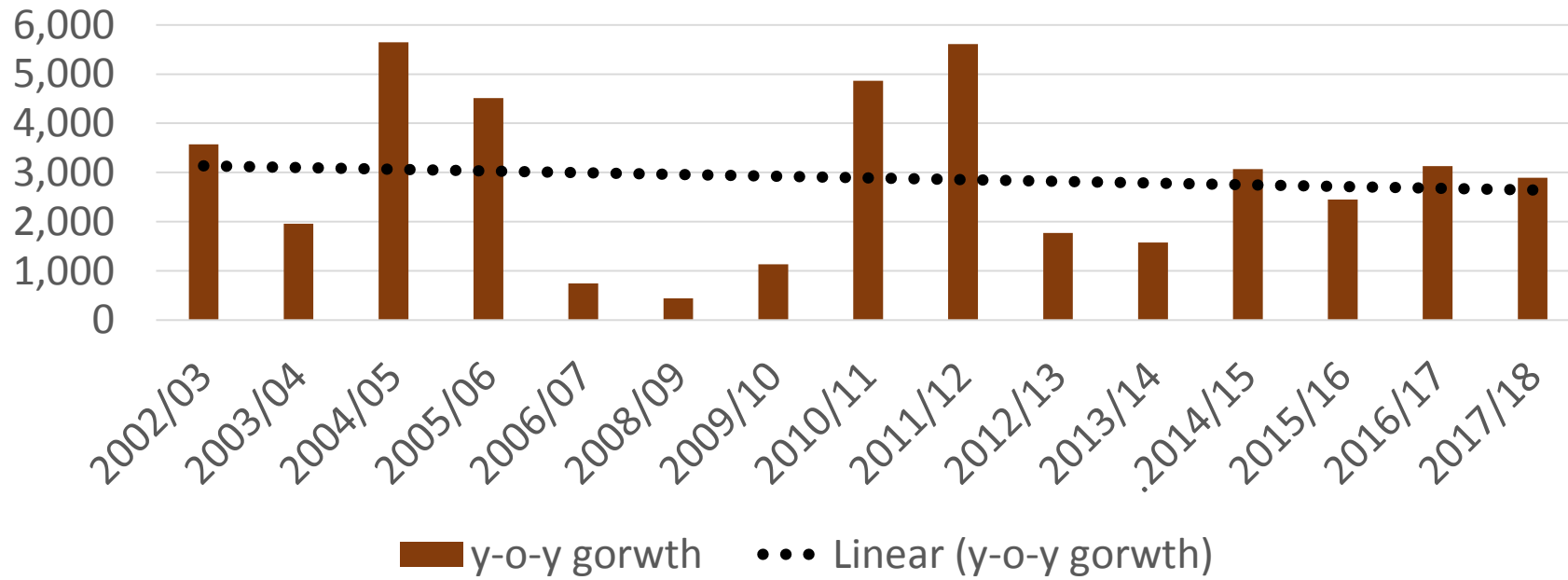
World Sugar Production and Consumption, 2001-2017 (in 1,000 tonnes, tel quel)







Year-on-Year growth in world sugar consumption (in 1,000 tonnes)





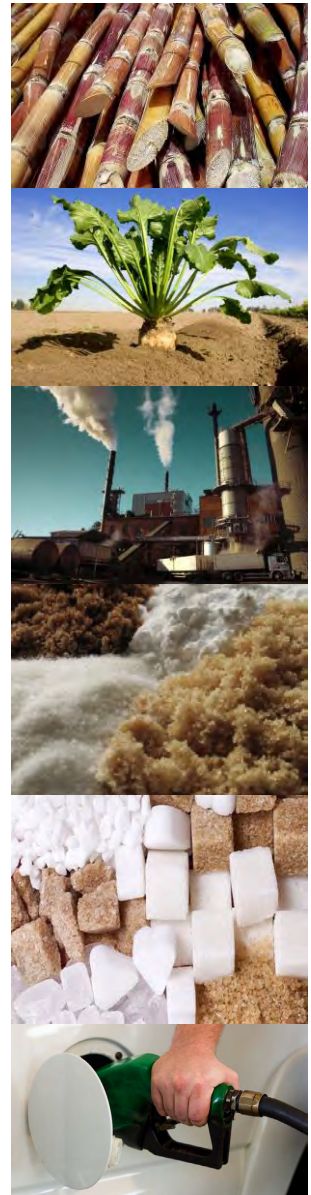
““ ...Usage is forecast to grow further to reach almost 200 tonnes by 2021/22.” August 2012

FO.LICHTS

**“World sugar consumption in 2021 = 202 mln tonnes”
June 2012**



“The new ISO sugar consumption model puts world sugar consumption in 2020 at 201 mln tonnes, a worldwide projected annual growth of 2% a year.” October 2010 - MECAS(10)17





““ ...Usage is forecast to grow further to exceed 200 mln tonnes, raw value, in 2023/24.” August 2018

FO.LICHTS

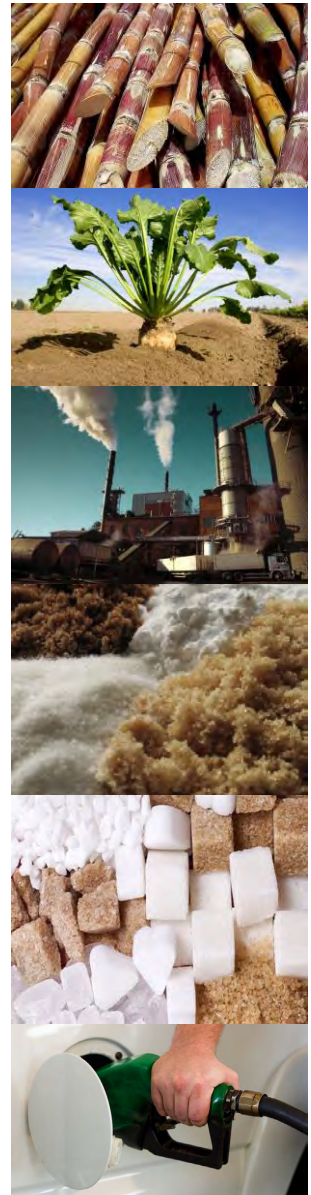
“World sugar consumption in 2027 = 198 mln tonnes, tel quel”

June 2018



“Assuming an average growth rate at a level of about 1.6% tonnes world consumption of sugar may reach 200 mln tonnes, tel quel, in 2025/26”

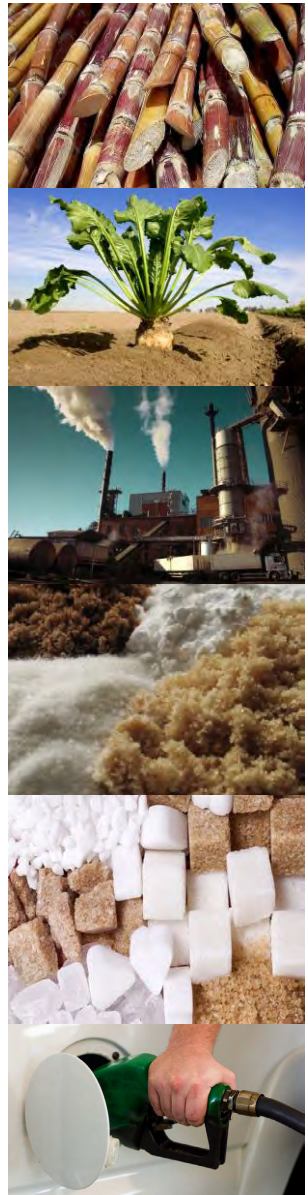
September 2018





Statistical “technicalities”

disappearance \neq consumption
consumption \neq human intake





Statistical “technicalities”

Disappearance v human consumption



Table 51 -- Refined cane and beet sugar: estimated number of per capita calories consumed daily, by calendar year 1/

Year	Primary weight (market level) 2/	Loss from primary to retail weight	Weight at retail level	Loss from retail/institutional to consumer level	Weight at consumer level	Loss at consumer level	Per capita consumption, adjusted for loss	Calories per serving (teaspoon)	Serving weight	Calories consumed daily 3/	Servings (teaspoons) consumed daily 4/		
	lb/yr	percent	lb/yr	percent	lb/yr	percent	lb/yr	oz/day	grams	number	grams	number	teaspoons
2011	65.9	0.0	65.9	11.0	58.7	0.0	38.7	1.7	48.1	16.0	4.2	183	11.5
2012	66.7	0.0	66.7	11.0	59.3	0.0	39.2	1.7	48.7	16.0	4.2	185	11.6
2013	68.0	0.0	68.0	11.0	60.5	0.0	40.0	1.8	49.6	16.0	4.2	189	11.8
2014	68.4	0.0	68.4	11.0	60.9	0.0	40.2	1.8	50.0	16.0	4.2	190	11.9
2015	69.2	0.0	69.2	11.0	61.5	0.0	40.6	1.8	50.5	16.0	4.2	192	12.0
2016	69.7	0.0	69.7	12.0	61.3	0.0	40.5	1.8	50.3	16.0	4.2	192	12.0



Source - <https://www.ers.usda.gov/data-products/sugar-and-sweeteners-yearbook-tables/sugar-and-sweeteners-yearbook-tables/#U.S.%20Sugar%20Supply%20and%20Use>





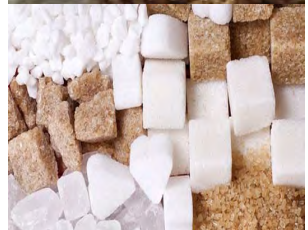
Statistical “technicalities”

ISO

The ISO does not include the sugar equivalent of beet and cane that were not processed into the end product crystal sugar (such as those used for fuel ethanol or biogas) in its sugar production estimates



or





Statistical “technicalities”

The trade of sugar-containing products?

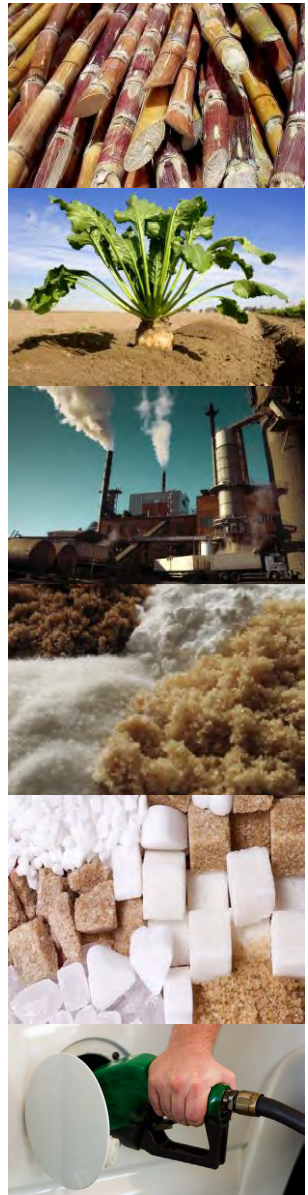




Long-term outlook

The most important drivers of sugar consumption:

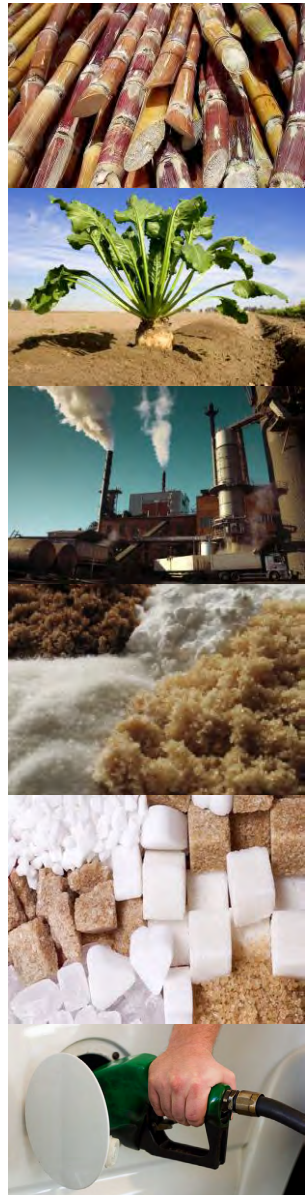
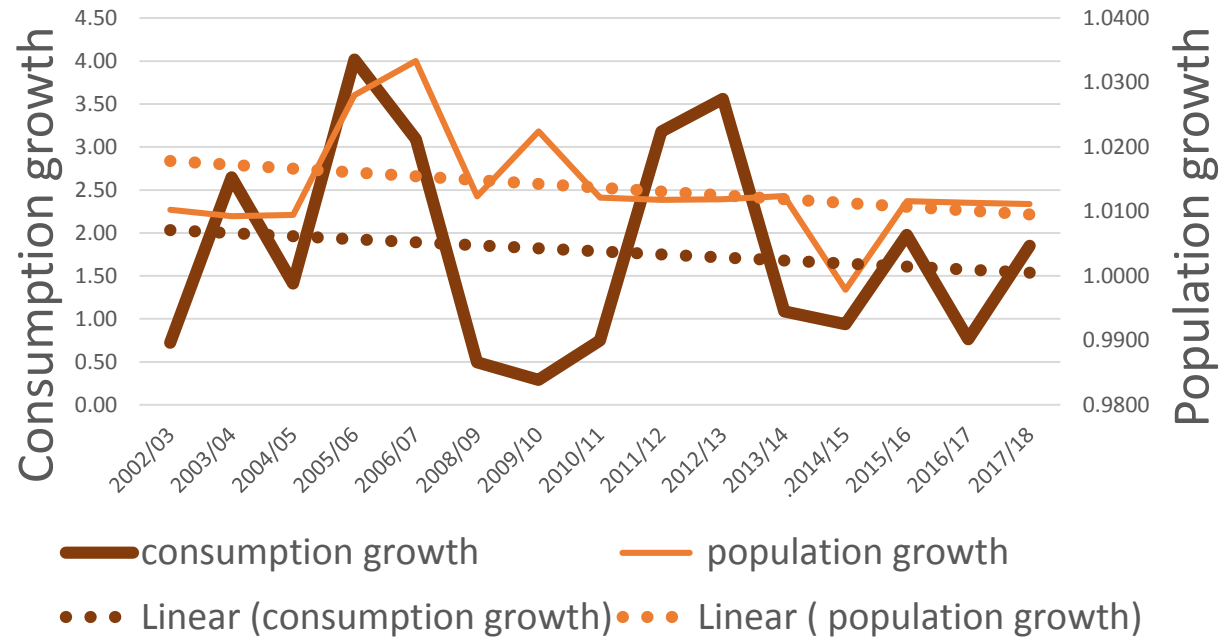
- Population growth,
- Per capita incomes,
- Domestic prices for sugar and sugar-containing products,
- The availability of alternative sweeteners and their prices,
- Changes in dietary habits (diet globalization), and since recently
- Health concerns.





Long-term outlook

Population and Sugar Consumption Growth Rates in %



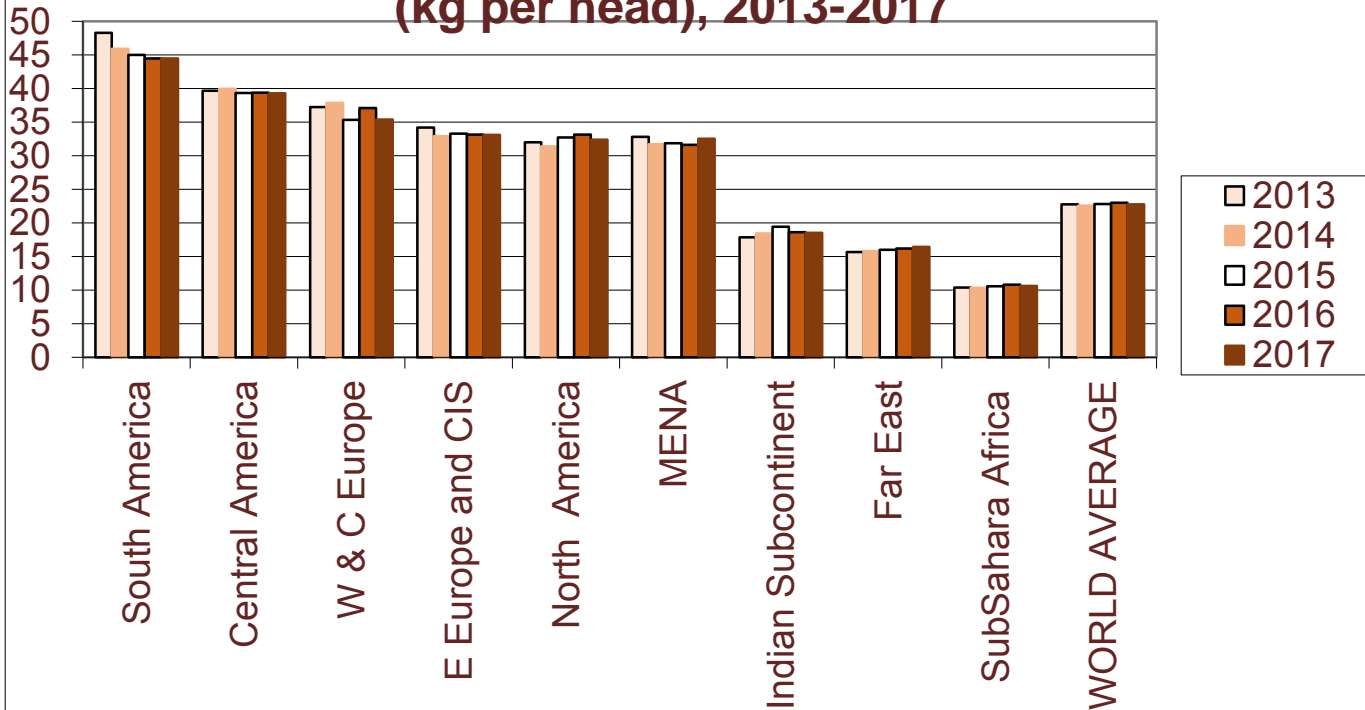


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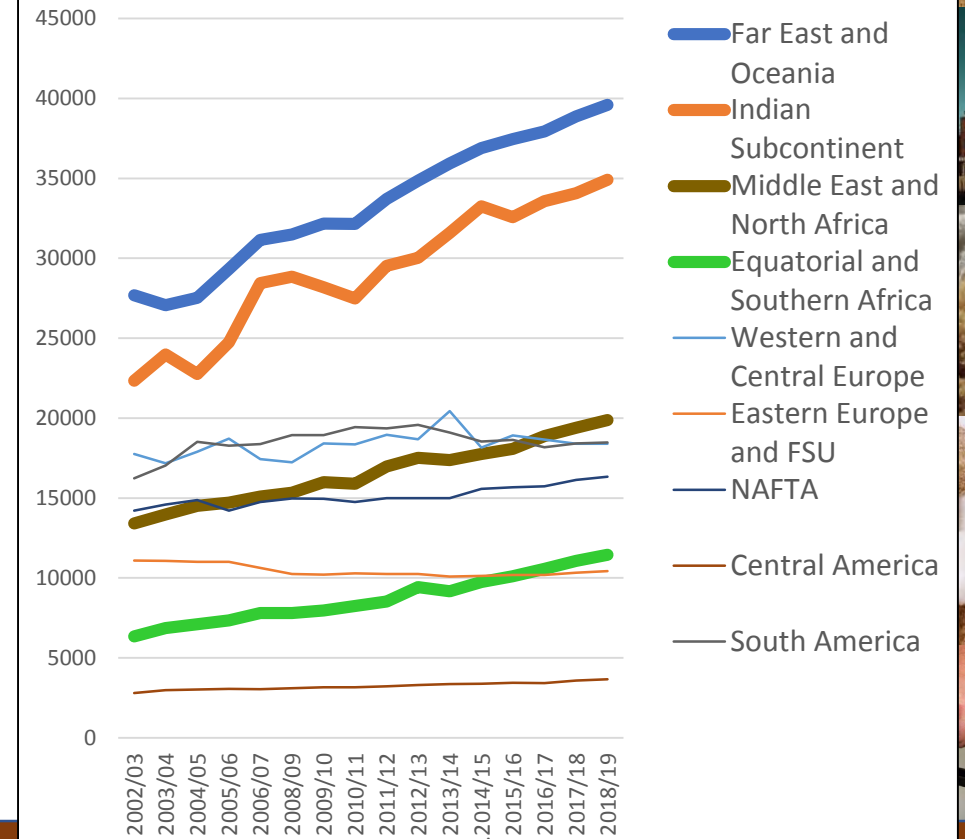
Long-term outlook



Per capita consumption by regions (kg per head), 2013-2017



Sugar consumption by regions (in 1,000 tonnes)

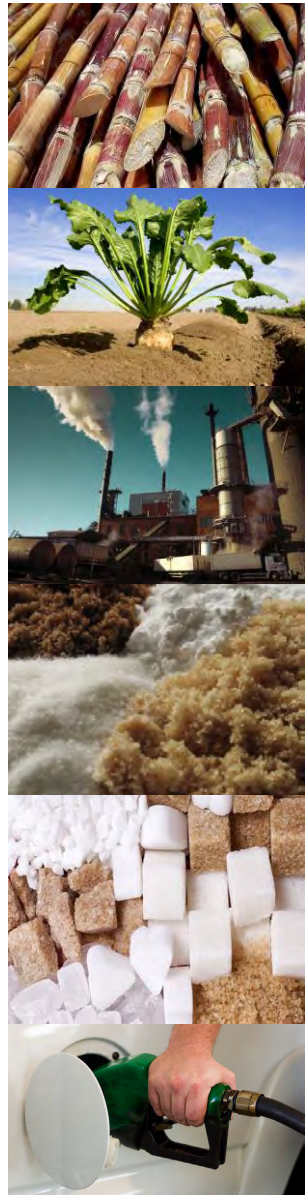




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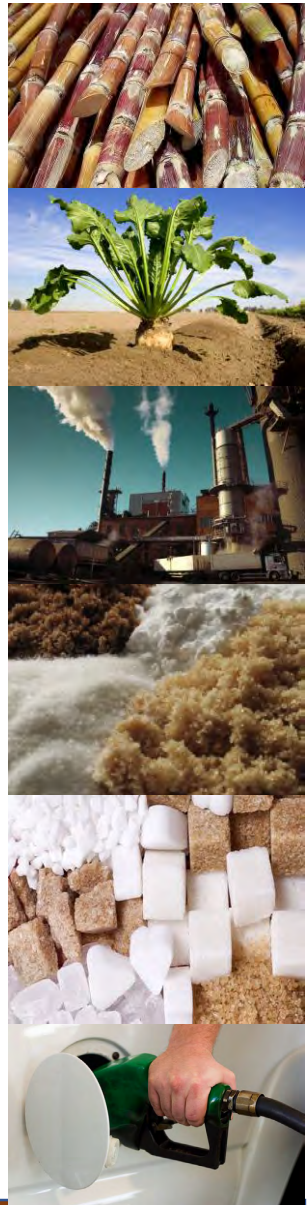
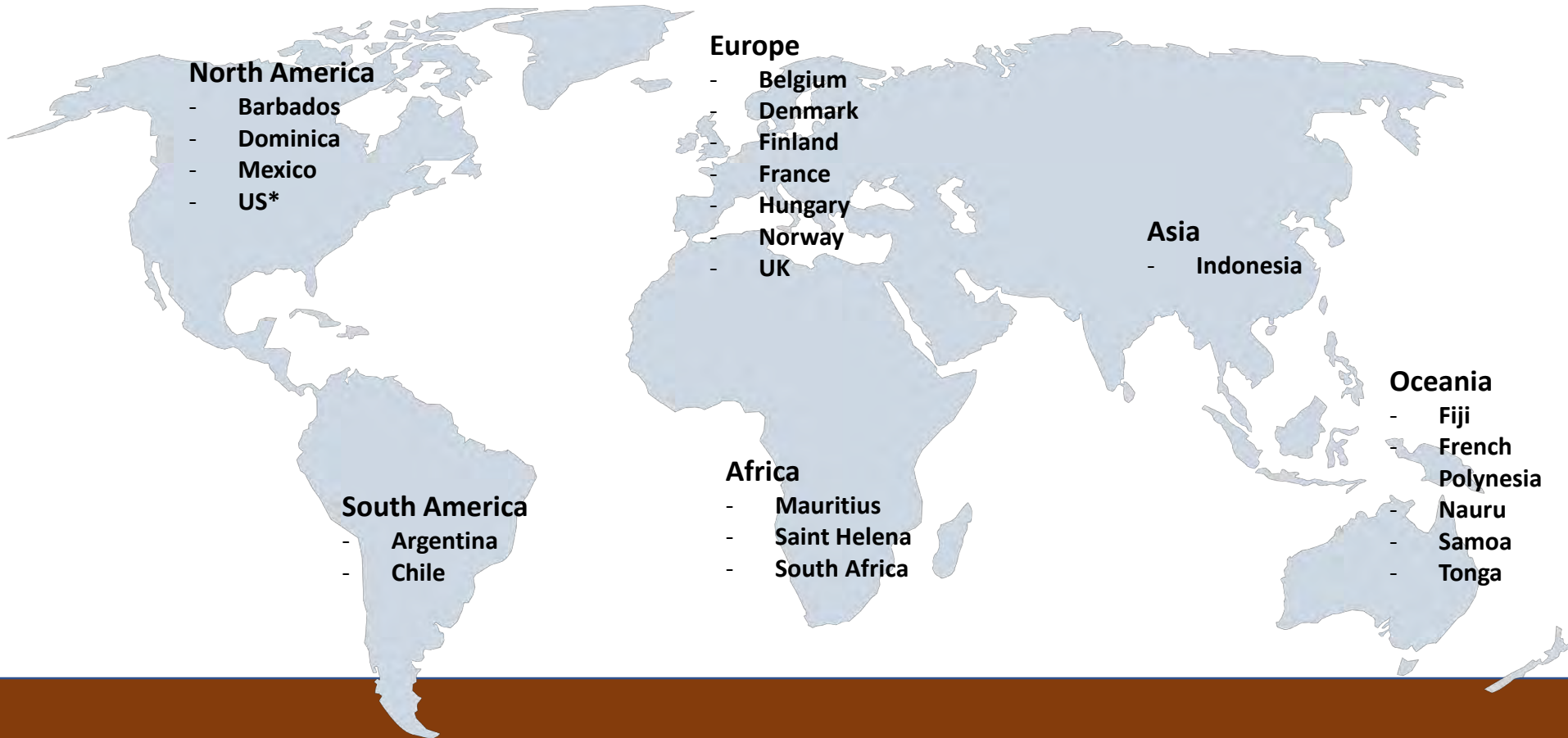
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**"The sugar tax is too sexy for politicians
... Everyone will jump immediately"
*Adamo Uboldi, the European Commission's DG
AGRI sugar team, April 2018***

Sugar Tax World Map

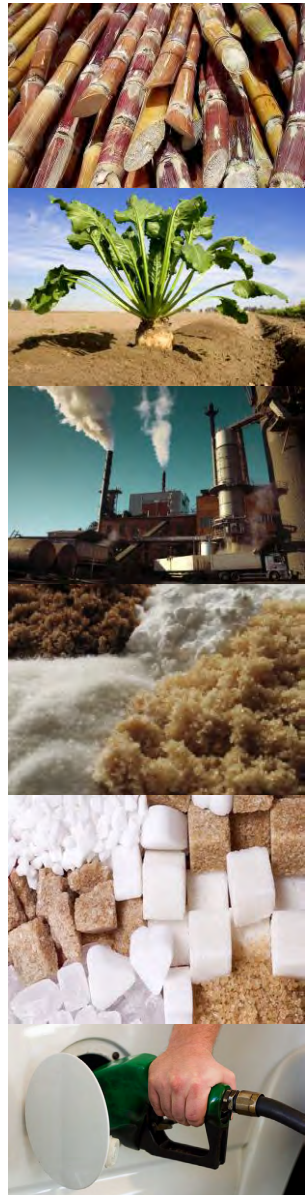




Long-term outlook

The most important drivers of sugar consumption:

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- **The availability of alternative sweeteners and their prices,**
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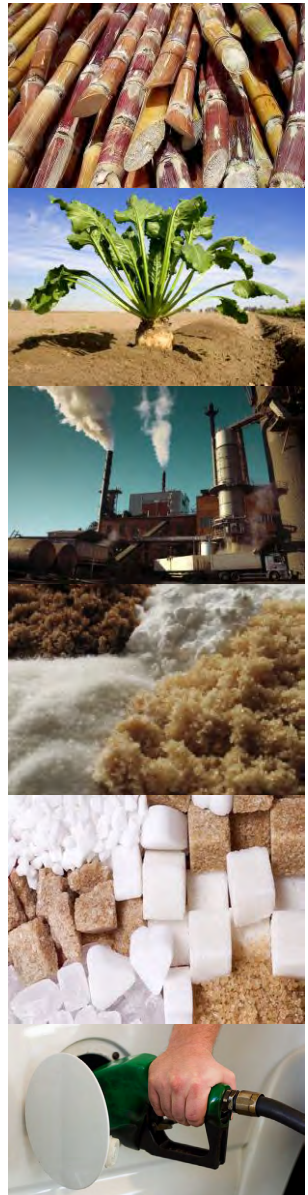




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ISO

The Sugar Backlash



REFINED SUGAR HAS NO NUTRITIONAL VALUE

0 VITAMINS
0 MINERALS
0 ENZYMES
0 FIBER

REFINED SUGAR IS LINKED TO:

- OBESITY
- NERVOUS TENSION
- HYPERTENSION
- ACHING LIMBS
- HIGH BLOOD PRESSURE
- DIABETES
- HYPOLYCEMIA
- ACNE
- DEPRESSION
- SKIN IRRITATION
- HEADACHES
- STIFFENING OF ARTERIES
- FATIGUE
- VIOLENT BEHAVIOR

Alternatives to SUGAR

Quantity	Maple	Stevia	Agave	Monk Fruit	Raw Honey
1 tsp	15g	0g	12g	0g	12g
1 cup	150g	0g	120g	0g	120g

Includes text: "Look for '100% Pure' on the label. Avoid 'natural' or 'flavored' sugars." and "Sweeteners are not a magic bullet. They can't make a diet healthy if you're eating too much of them." and "Sweeteners are not a magic bullet. They can't make a diet healthy if you're eating too much of them."



THE 34 HOUSES OF SUGAR

Includes a list of 34 different types of sugars and sweeteners, such as Cane sugar, Beet sugar, Maple syrup, Stevia, etc.



Sugar Drinks: Making Us Sick

Includes a graphic of a lollipop with the word **TAX** written in sugar crystals.

KEEP CALM AND EAT LESS SUGAR

SUGAR INEQUALITY: COMPARISON OF SWEETNESS, COMPOSITION & HEALTH RISKS

Sugar Type	Composition	Health Risks
HONEY	Fructose, Glucose	Lowest glycemic index
EMULSIFIED CANE SUGAR	Fructose, Glucose	High glycemic index
ORGANIC	Fructose, Glucose	Similar to cane sugar
DATE SUGAR	Fructose, Glucose	Low glycemic index



Reasons Why Sugar Destroys Your Health

- Suppresses the immune system
- Interferes with absorption of calcium and magnesium
- Causes hyperactivity, anxiety, difficulty concentrating, and crankiness in children
- Causes copper deficiency
- Makes eyes more vulnerable to age-related macular degeneration
- Leads to chromium deficiency
- Leads to cancer of the ovaries
- Increases the risk of breast cancer
- Contributes to acne in children
- Contributes to obesity
- Causes food allergies
- Can cause arthritis
- Can cause asthma
- Can cause heart disease
- Can cause hemorrhoids
- Can cause varicose veins
- Can exacerbate IBS
- Can lead to the formation of kidney stones

How Sugar Destroys YOUR HEALTH

OVER 60 AILMENTS are linked to sugar

sugarscience

Too much added sugar from soda and sports drinks can overload critical organs over time, leading to serious diseases.

Includes a graphic of a person with a green glow and the text "HEALTHY CHOICE".

POPULAR DRINKS AND THEIR SUGAR CONTENT

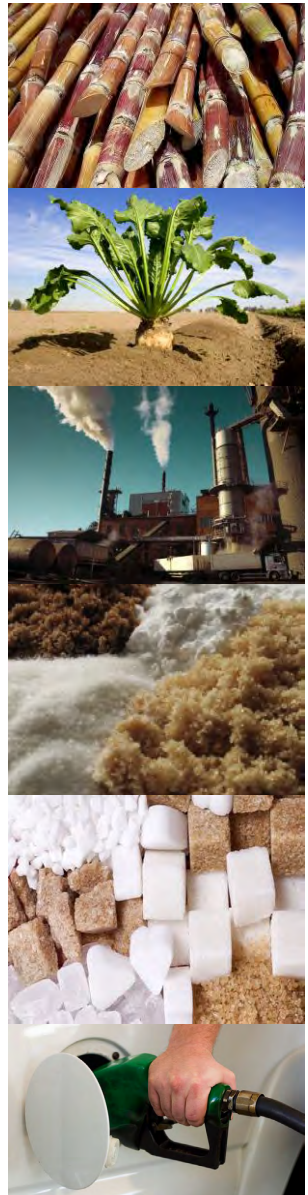
Drink	Sugar Content
7UP	39g
Sprite	39g
Fanta	39g
Coke	39g
Dr Pepper	39g
Mountain Dew	39g
Apple Juice	24g
Orange Juice	24g
Tomato Juice	16g
White Bread	16g
Whole Wheat Bread	16g
Butter	16g
Mayonnaise	16g
Salad Dressing	16g
Ice Cream	16g
Yogurt	16g
Flour	16g
Wheat	16g
Almonds	16g
Walnuts	16g
Peanut Butter	16g
Dark Chocolate	16g
Light Chocolate	16g
Dark Chocolate	16g
Light Chocolate	16g
Dark Chocolate	16g
Light Chocolate	16g

"We need to start viewing these drinks as 'threats, not treats' and certainly not something to be had every day."



Key messages to take away:

- Global sugar consumption peaks growing but at a slower rate (satisfying this growth will be a challenge but it is one which the sugar industry is likely to rise up to);
- All the stock holders including the governments need reliable and coherent data on the actual human intake of sugar;
- Governments must stand up and defend sugar consumption invoking sound scientific evidence and the contribution of sugar for development.
- Sugar companies must engage in the dialogue





Thank you!



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