ISO Summer Series

Sugar Market Development in China

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ISO Summer Series

MECAS studies
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Agenda

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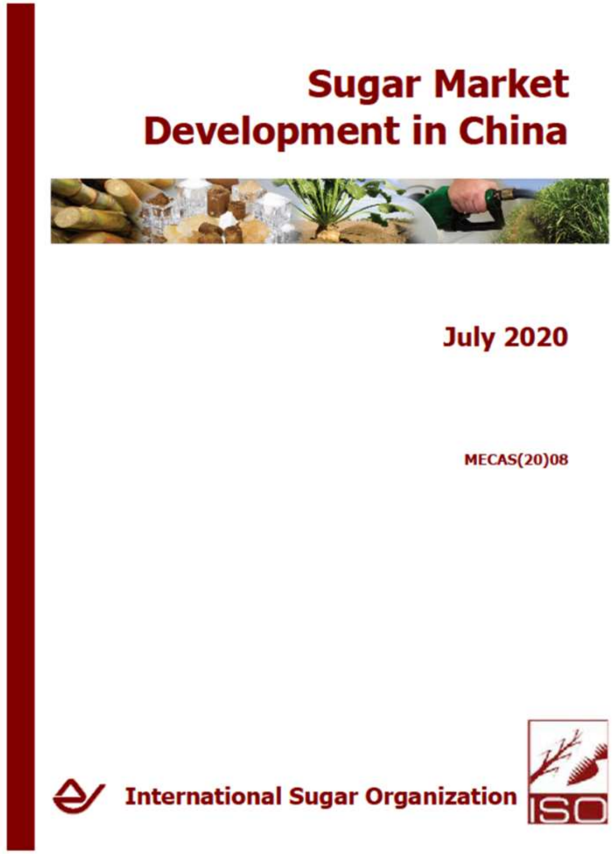
2 Production vs. Consumption
3 Imports?
4 Policy Change
5 Conclusion / Q&A


Sugar Market
Development in China

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MECAS(20)08

International Sugar Organization

China Overview

China

- Second largest economy in the world
- Annual GDP growth rate averaged 8.1% in 2008-2018
- Biggest population in the world - 1.428 bln people
- But limited agricultural land

Challenge

- feed almost 20% of the world's population
- with only 7% of the world's potable water
- and about 10% of the world's farming lands

China's Position in the World Sugar Market

In 2018 China:

- World sugar importer number one;

- 3rd biggest sugar consumer;

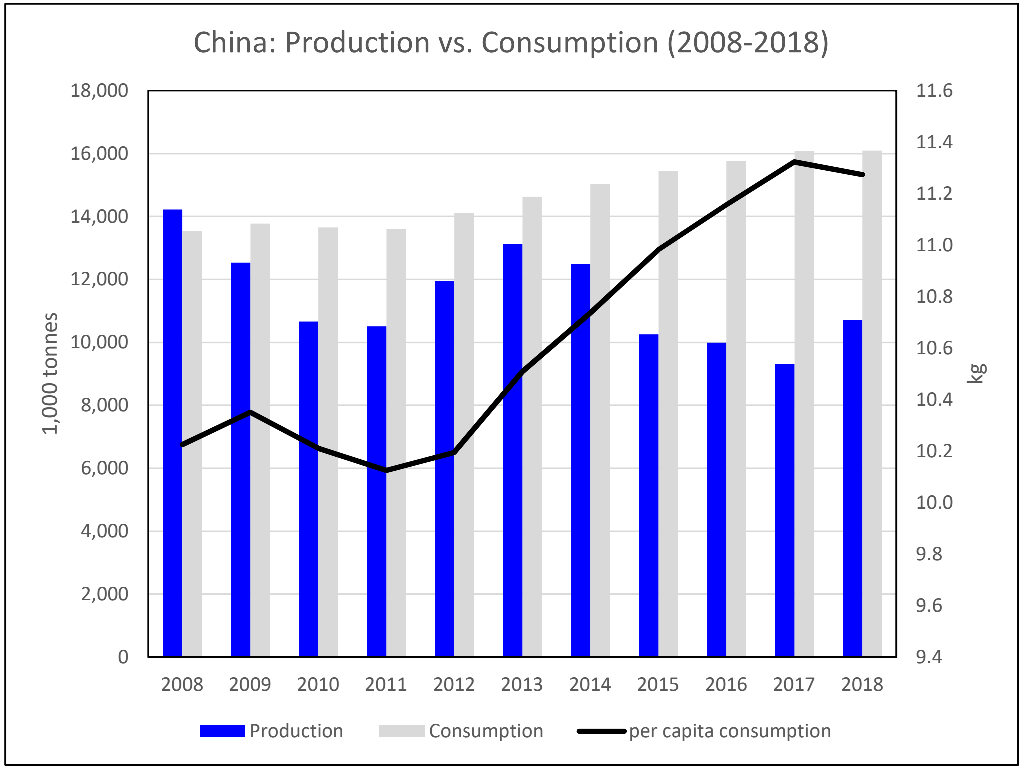
- 5th biggest sugar producer.

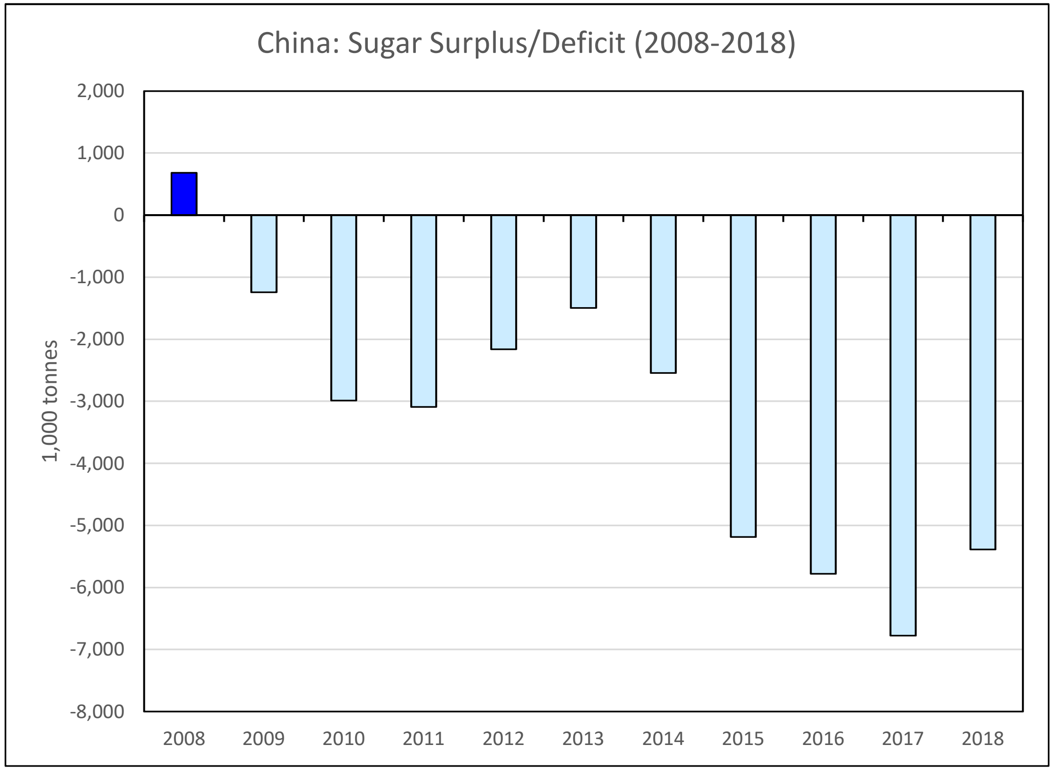
China Sugar Balance

China: Production, Import, Export, Consumption and Stocks of Sugar (2008-2018), (in tonnes)

Year	Production	Imports	Exports	Consumption	Year Ending Stocks
2008	14,227,300	779,967	62,407	13,545,000	5,029,534
2009	12,537,800	1,064,458	63,884	13,780,000	4,787,908
2010	10,670,000	1,766,124	94,363	13,660,000	3,469,669
2011	10,516,600	2,919,620	59,400	13,610,000	3,236,489
2012	11,950,322	4,247,351	47,146	14,112,236	5,274,780
2013	13,132,475	5,575,595	47,760	14,627,415	9,307,675
2014	12,483,000	4,486,023	46,214	15,025,000	11,205,484
2015	10,261,600	5,722,055	74,959	15,450,000	11,664,180
2016	9,992,400	5,059,519	149,041	15,775,000	10,792,058
2017	9,314,800	3,429,467	157,912	16,090,000	7,288,413
2018	10,710,554	5,254,527	195,729	16,100,000	6,957,765

Production and Consumption





Production and Consumption

China Cane and Beet Sugar Production

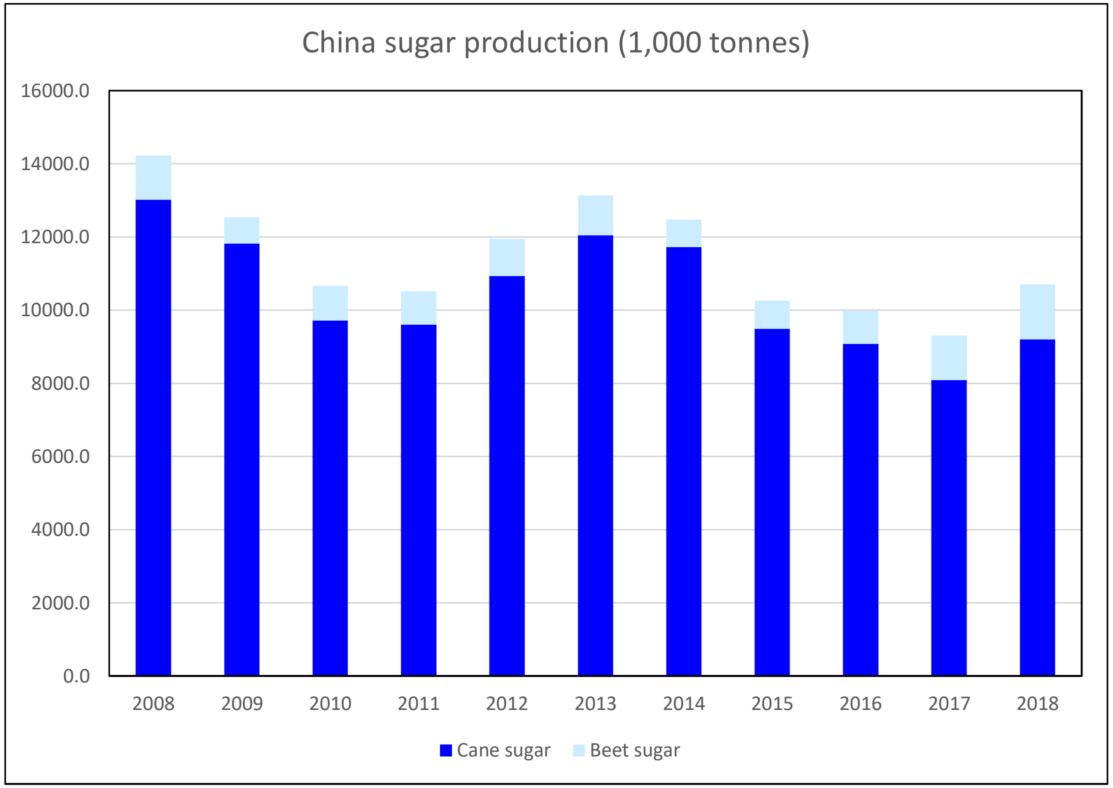
Sugar is produced from both cane and beet

- China beet production 12.1 mln tonnes
- China cane output 108.1 mln tonnes

Sugar cane is grown in the south of the country – four major sugarcane provinces: Guangxi, Guangdong, Hainan, and Yunnan

Sugar beet is grown in the northern provinces of Xinjiang and Heilongjiang, and the Inner Mongolia Autonomous Region

Sugarcane industry accounts for almost 90% of sugar production, while beet sugar makes up the balance



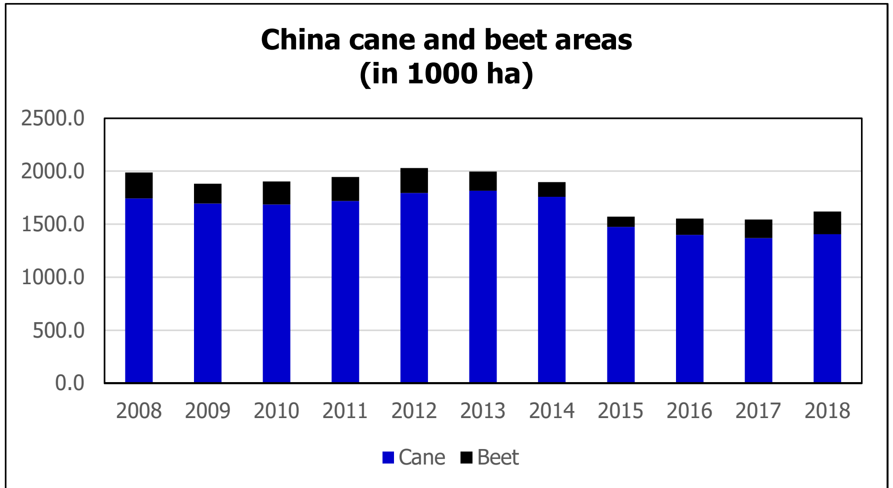
Production and Consumption

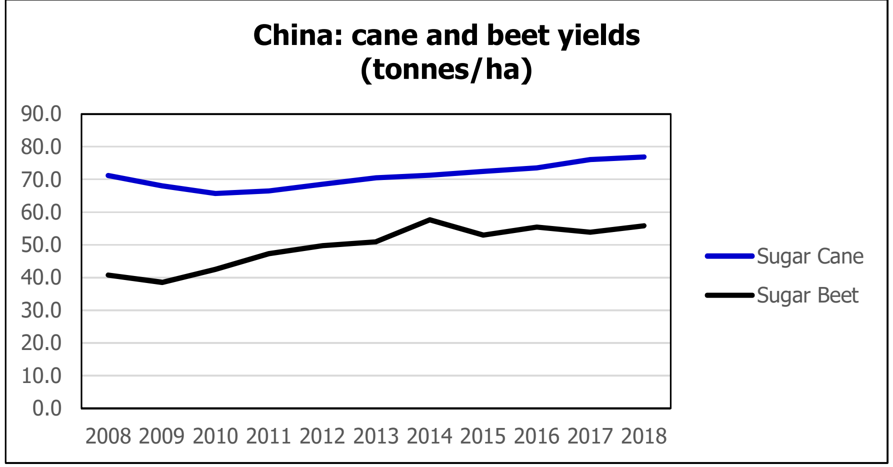
China cane and beet sugar production (2008-2018)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Av. change 2008/10 and 2016/18
Cane sugar												
Cane area (1,000 ha)	1743	1697	1686	1721	1795	1816	1760	1476	1402	1371	1406	-18%
Sugar production (1,000 tonnes)	13,022	11,821	9,718	9,609	10,938	12,047	11,726	9,492	9,082	8,097	9,204	-24%
Beet sugar												
Beet area (1,000 ha)	246	186	219	227	236	182	139	96	154	174	216	-16%
Sugar production (1,000 tonnes)	1,206	717	952	907	1,012	1,086	758	770	910	1,218	1,507	26%
Total												
Total area (1000 ha)	1990	1884	1905	1948	2030	1998	1899	1572	1556	1545	1622	-18%
Total sugar production (1000 tonnes)	14,227	12,538	10,670	10,517	11,950	13,132	12,483	10,262	9,992	9,315	10,711	-20%

Production and Consumption

- Cane yields improvements averaging nearly 2% a year, reaching the highest level of 76.9 tonnes/ha by 2018
- Beet yields have demonstrated even greater improvements, with most significant changes in 2010 and 2013 (by 10% and 13% respectively)
- In 2018, beet yields increased by 4% from 2017, and 45% above the lowest-in-a-decade recorded in 2009
- Beet yield improvements have been rather volatile, the path is littered with many ups and downs
- Average agricultural yields in China exceed the world average
- Between 2016 and 2018, the world average yield was 5% lower than China's



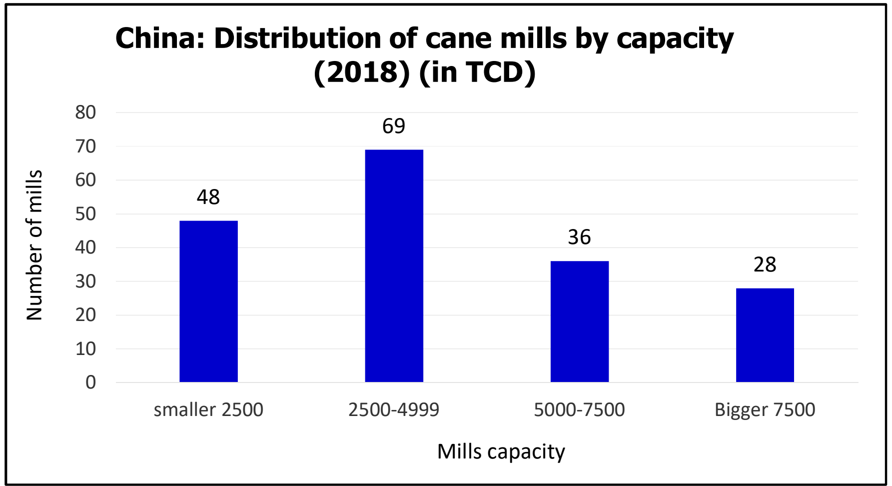


Production and Consumption

Distribution of sugar cane mills by provinces and their crushing capacity (2018) (in TCD)

Province	Number of mills	Average capacity	Total capacity
Fujian	4	3,850	15,400
Guangdong	32	4,425	141,600
Guangxi	76	7,111	540,500
Hainan	12	7,683	92,200
Hubei	1	3,000	3,000
Hunan	5	2,100	10,500
Jiangxi	2	1,750	3,500
Jilin	2	2,500	5,000
Liaoning	3	1,400	4,200
Ningxia	1	1,500	1,500
Sichuan	3	1,333	4,000
Yunnan	39	3,833	149,500
Zhejiang	1	6,000	6,000

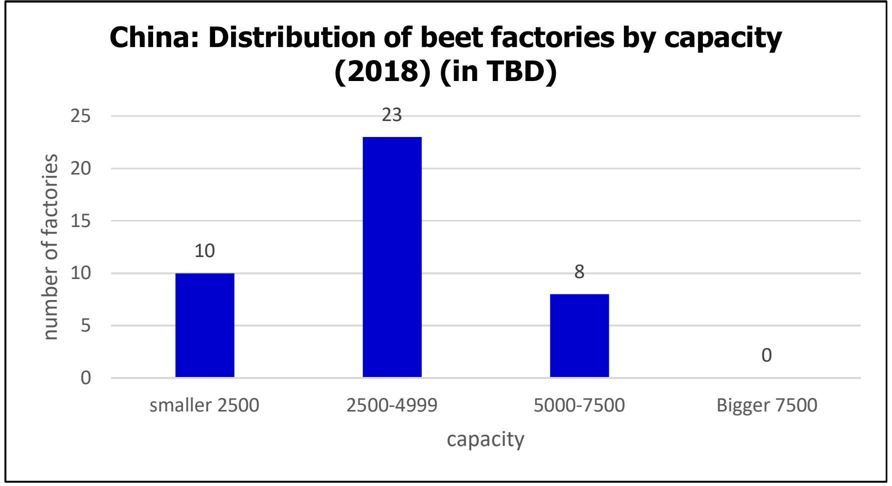
Source: FO Licht data



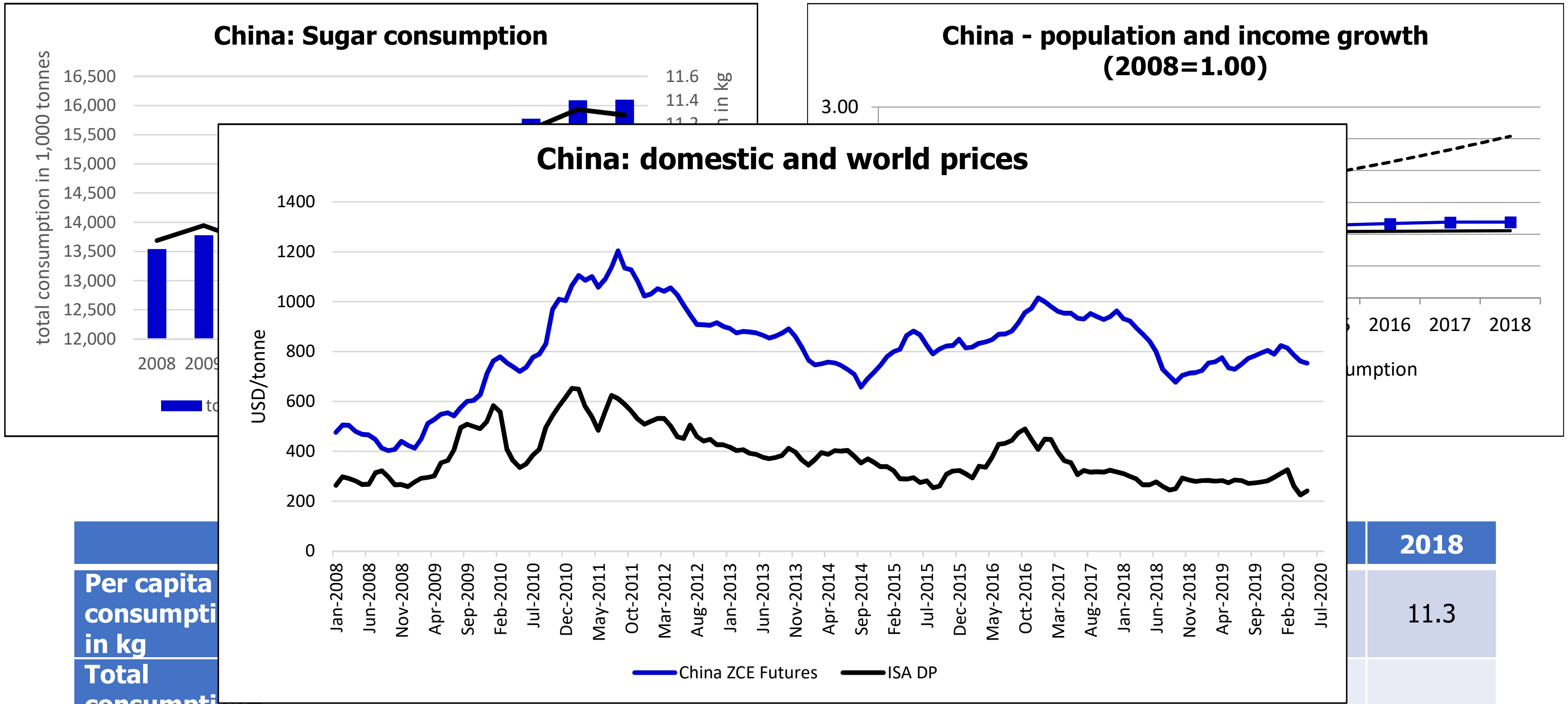
Distribution of sugar beet factories by provinces and their crushing capacity (2018) (in TBD)

Province	Number of factories	Average capacity	Total capacity
Hebei	2	2,350	4,700
Heilongjiang	11	2,763	30,400
Inner Mongolia	11	4,163	45,800
Shanxi	2	5,000	10,000
Xinjiang	15	3,233	48,500

Source: FO Licht data



Production and Consumption

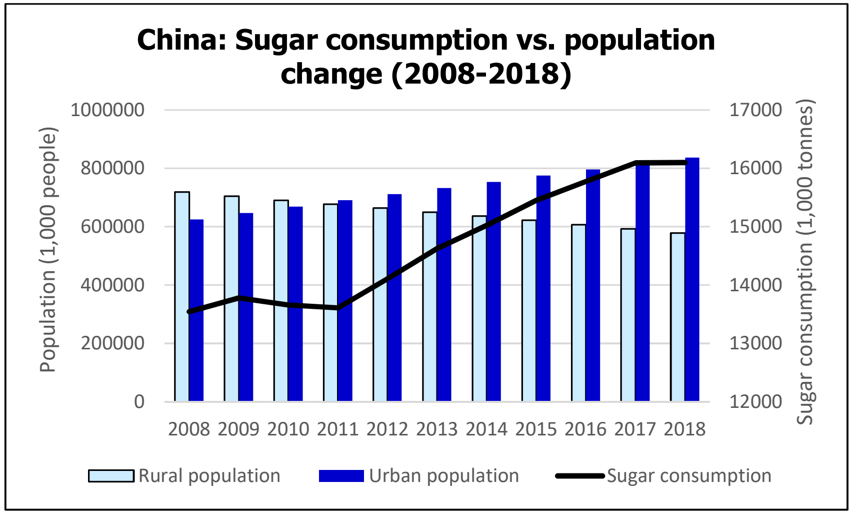


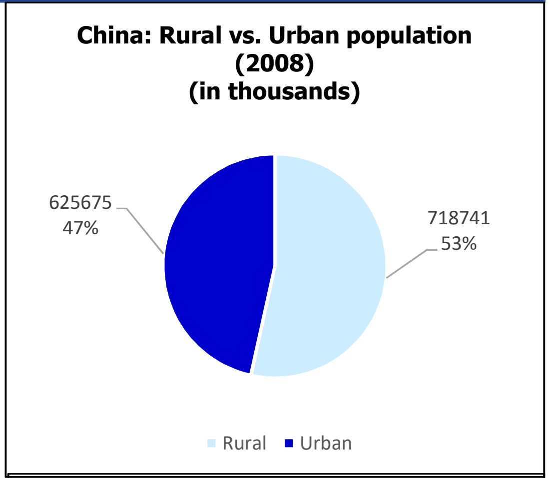
									2018
Per capita consumpti in kg									11.3
Total consumption (1,000 tonnes)	13,660	13,610	14,112	14,627	15,025	15,450	15,775	16,090	16,100

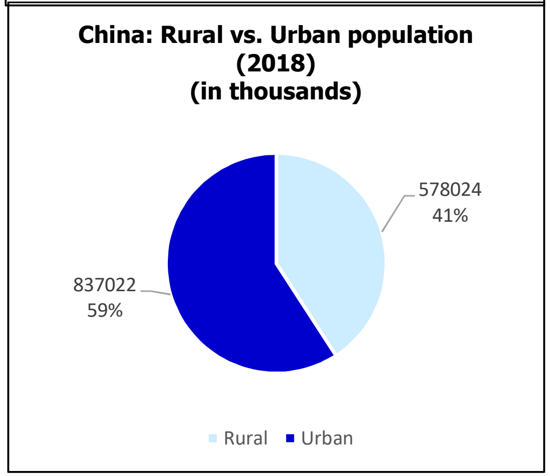
Production and Consumption

Rural vs. Urban population in 2008 and 2018

- Substantial economic growth
- More people move to cities
- Urbanisation implies higher sugar consumption





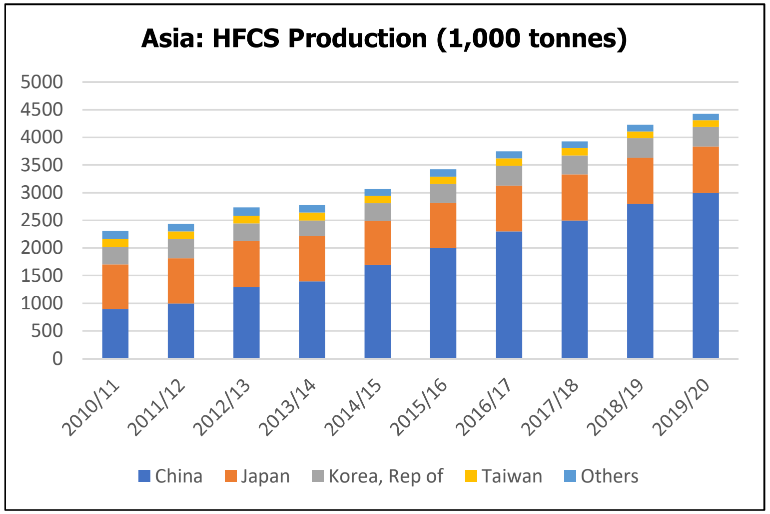


Overview | **Production - Consumption** | Imports | Outlook | Conclusion

Alternative Sweeteners

Alternative sweeteners

- China is the biggest HFCS producer in Asia
- Starch sweeteners annual production 11-12 mln tonnes
- Strong sugar and weak corn prices enhanced the production and use of HFCS up to 2020
- China major net-importer of sugar and exporter of HFCS
- Saccharin production is under the governmental control since 1999
- New environmental protection legislation in 2015 reduced production of saccharin by 17.5% as against the 2014



China: Saccharin Production, Exports, and Domestic Sales, (in tonnes)			
Year	Production	Export	Domestic sales
Targeted in 2015	19,000.00	15,800.00	3,200.00
2015	15,658.065	12,180.55	3,197.78
2016	16,892.299	13,532.549	3,052.965
2017	18,022.168	15,073.225	
2018	16,219.68	13,346.045	2,989.085
2019	17,584.605	14,343.166	2,926.100

China Sugar Trade - Imports

In 2018 China became the world's biggest sugar importer despite its self-sufficiency policy objective. At the same time China was ranked 3rd biggest sugar consumer and 5th biggest sugar producer.

In 2001, after joining WTO, import tariff quota (TRQ) was established.

On 22 May 2017 trade remedies for out-of-quota sugar imports was launched with a new safeguard measures, valid for three years up to 21 May 2020.

China's white sugar imports increased predominantly from neighbouring countries

Safeguard measures took a positive approach to developing and small sugar exporting countries

In 2017 imports considerably reduced, while the policy was allowed to expire on 21 May 2020

Sugar Policy

To promote sustainable development of the domestic sugar market and support local processors the government uses a set of tools:

- regulated purchases prices for sugar cane;
- stock management;
- a system of import duties;
- tariff rate quotas;
- limits on saccharin production.

The 13th Five-year Plan for the Sugar Industry (2016-2020):

- boost sugar production to an annual total of 15 mln tonnes by 2020;
- reduce imports

China's Foreign Agriculture Investments:

- over 1,300 agricultural, forestry, and fisheries enterprises with registered overseas investments, valued at CNY180 bln (USD26 bln) at the end of 2016;
- in 2014 outward agricultural investment by region was as follows: Asia (51%), Europe (15%), Oceania (14%), Africa (12%), Latin America (6%), North America (2%);
- Chinese FDI is predominantly focused on Southeast Asia

Sugar Policy

Regulated purchases prices for sugar cane and sugar beet

Purchase Price of Sugar Cane in Major Producing Provinces (2008-2020) CNY per tonne (USD = CNY6.2)				
	Guangxi	Yunnan	Guangdong	Hainan
MY 08/09	275	231	245	268
MY 09/10	350	280	400-410	304
MY 10/11	492	375	540-550	525
MY 11/12	500	420	510	550
MY 12/13	475	420	500	500
MY 13/14	440	400	385-420	450
MY 14/15	390-410	390-410	380-405	400
MY 15/16	430-440	430	440-450	440-450
MY 16/17	480-500	460	480	520
MY 17/18	500	450	440-480	530
MY 18/19	490-520	420-450	380-400	500
MY 19/20	490-520	450	380-450	500
MY 20/21 (estimated)	490-520	450	420	500

Purchase Price of Sugar Beet in Major Producing Provinces (2008-2019) CNY per tonne (USD = CNY6.2)			
	Inner Mongolia	Xinjiang	Heilongjiang
MY 08/09	320-370	300-330	320-360
MY 09/10	320-370	280	320-370
MY 10/11	390	353	400
MY 11/12	480-500	450	532
MY 12/13	500	450	560
MY 13/14	520-550	440	N/A
MY 14/15	530-550	440	550
MY 15/16	540	448	555
MY 16/17	530-540	443	560
MY 17/18	550	450	560
MY 18/19	530	460	N/A
MY 19/20	520	460	N/A
MY 20/21 (estimated)	530	460	520

Outlook

- Sugar production will increase to 13.269 mln tonnes by 2028
- Expected annual average growth rate of 2% up to 2028
- Weather is important for yields
- Sugar consumption will increase to 19.946 mln tonnes by 2028, reflecting a modest growth rate of 2% annually
- HFCS consumption growth rate is estimated at 3% annually by 2028
- Other sweeteners - intensive sweeteners and corn sweeteners (starch sugars) account for about 20% of the total sweetener demand
- Imports to growth moderately due to industry support
- State-wise policy is key to success

Conclusion

- Sugar deficit will continue due to limits in resources
- Consumption
  - will continue to growth steadily
  - due to population growth
  - due to economic growth
  - increase consumer demand for sugar-containing products, including processed foods, beverages, confectionery, and desserts
  - alternative sweeteners could potentially overlap some sugar demand
- Production
  - needs to be provided at higher level to secure a domestic base
  - government support needed
  - weather is important
  - new policies, including new qualitative approaches, such as mechanisation, fertilisation and innovations in agriculture are drivers for future development
- Imports
  - will continue to increase
  - lapse of safeguard measures will provide more opportunity for imports
  - Brazil exports to China has great potential
  - potential for Australia, India and Thailand to increase their share in China's imports

International Sugar Organization

Please contact the Secretariat for a copy of this study

Thank you!

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