

SUCDEN SUGAR MARKET REPORT

SPECTRE

FEBRUARY 2019

EXECUTIVE SUMMARY

- Over the past months, the market has succeeded to break away from its ten years low. Such extreme low price was engendered by the aftermaths of the 17/18 Oct/Sept world record output. Today's 18/19 paradigm looks the opposite of 17/18 "perfect" year : detrimental weather was prominent almost everywhere. It led world production to fall sizably. India, Thailand, the EU or even CS to quote the main ones all show disappointing crop productivity.
- 19/20 does not display a better perspective. Even-though sugar prices improved since October, they
 remain unattractive so that beet and cane areas will retreat in exporting countries. In India, Western cane
 areas are at threat because of water scarcity. In the EU, a further negative flag is raised by producers:
 the neonicotinoid pesticides ban, putting the crop performance at risk.
- Still, 17/18 world record output has been achieved with a record low CS sugar output, as an immediate casualty of the sugar price. Since then, paradigm has also changed in CS: sugar prices are about 15% up while crude oil is 15% down. A renewed maximization of the ethanol output looks unlikely. Lower crude oils prices will also dampen ethanol consumption. CS 19/20 production will recover and is therefore offsetting part of 18/19 Northern-Hemisphere crop failures.
- Overall, production-consumption balance points toward neutrality in 18/19 or even deficit in 19/20. However, for a mild sugar price increase, the market could buy additional sugar in Brazil and the industry could adjust upward the mix. Hence, at that stage, the production-consumption tightness is a "sugar" one and not a "sucrose" one. This excludes an irreversible perspective of shortage.
- What could make the sugar come off the road? Fear of losing sucrose rather than losing sugar in CS. To this extent, the erratic weather is already hurting the cane output and will induce a late start of the crush. Final 18/19 Thailand and India crops outcomes will also be decisive, knowing it could diverge significantly from forecasts.
- On the short-term, raw trade flows will require Indian exports to balance given the tight 18/19 CS intercrop. While it is a an opportunity for India to find liquidity on the export market and reduce its lingering surplus, the window is short with roughly a month left to produce raws. Recent time also proved that forecasting India's flows could be as perilous as forecasting its crop.

AT A GLANCE

01 SUGAR CROP OVERVIEW

CS 19/20: no rest for cane India: 18/19 already reverting the trend? EU 19/20: unfavourable prospects Thailand: production shall erode over next campaigns World production: North down, South back

02 SUGAR MARKET FEATURES

CS mix: the market buffer Indian exports crucial to balance CS intercrop Is 13 cts a happy price for sugar producers? White market: supply cut ahead

03 GLOBAL SUPPLY & DEMAND

Deficit at sight but mix excludes shortage outlook



SUGAR CROP OVERVIEW

CS 19/20: NO REST FOR CANE

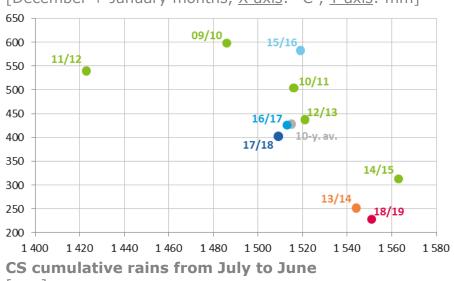
Poor rainfall distribution

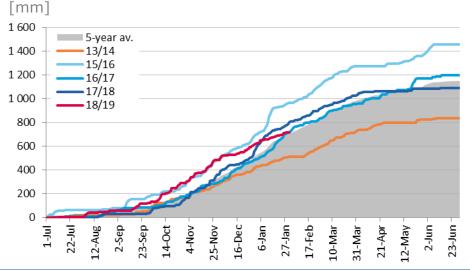
- Rainfall in CS has proven highly erratic so far: dry winter, wet October and November, and low rains in the key-months of December and January.
- While the season cumulative rainfall is close to average, its irregular distribution impacts negatively the cane growth. Current dry and hot summer is particularly harmful.
- Short term impact will be a late start: the industry will try to expend the vegetative season.
- In addition, cane aging in CS has induced a structural decline in yields over the past years. Such phenomenon is still valid for the 19/20 crop.
- Planted cane area is seen slightly down because of the diversion of cane fields to soybeans.
- Such challenging context points toward a 560 Mt cane crop in CS, with average rainfall ahead.

A high mix range

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- 18/19 production will end at about 26.5 Mt sugar, more than 25% lower than 17/18 while sucrose was only 3% lower.
- 19/20 sucrose is seen a further 3% lower because of smaller cane production and average ATR.
- Still, the mix flexibility leaves the sugar production potentially much above 18/19.





S.Paulo Dec&Jan cumulative rainfall and temperature [December + January months, X axis: °C ; Y axis: mm]

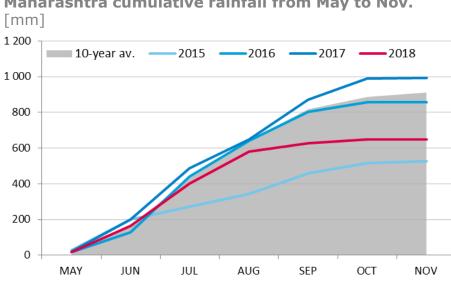
INDIA: 18/19 ALREADY REVERTING THE TREND?

A disappointing monsoon

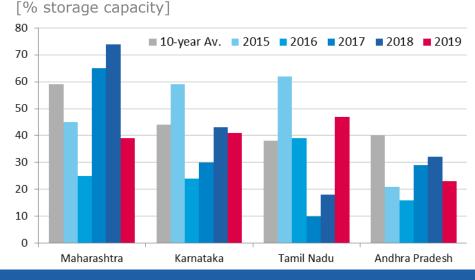
- After a good start, Indian monsoon has been weak in the Western States and not enough to fill-up the reservoirs.
- In 18/19, such water shortage induces a decrease of the expected agricultural yields. In 19/20, it is preventing a good run of the plantings and will also drive to aging cane.
- As a result, 19/20 Indian crop is expected to fall to 26-27 Mt sugar, a drop aggravated by cane payment issues.

Significant surplus in 18/19

- Indian 18/19 SnD shows high sugar availability: large initial stocks and a 5 Mt productionconsumption surplus.
- Statistically, India should export a sizeable tonnage to decrease the stock and cash flow burden by the end of the crop.
- Even though such exports started, it is below the expected level. Mills have limited their commitments on the usual "wait & see" strategy, despite the subsidy scheme and mounting cane arrears.



Indian Reservoirs Level



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Maharashtra cumulative rainfall from May to Nov.

EU 19/20: UNFAVORABLE PROSPECTS

18/19 featuring a 15% production decrease

- The EU has gone through harsh climate during 2018. With only 6 full months to grow, beet could not cope with such chaotic weather and yields have been falling across the EU.
- Production should suffer a major 3 Mt drawback year-on-year.
- Even-though production drop will partly be offset by higher imports and stock decrease, 18/19 exports are expected to be half of 17/18 level.

19/20 output seen unchanged

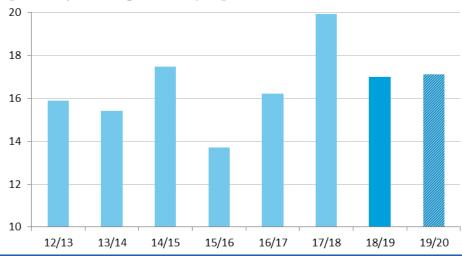
- Beet area shall drop next year due to better prices for alternative crops, especially for wheat.
- Beet performance will also start with a technical hiccup: the ban in the main EU producing countries of neonicotinoids, a widely used insecticide. This will be detrimental to the yields and induces higher productivity risk. It will also increase crop protection costs.
- In such environment, 19/20 EU production shall not recover despite the expectation of a more favourable weather.

18/19 rainfall and temperature deviation in the EU [March-to-December 2018 deviation from 10-year average]

	10-year March- average Dec.		Diff. w/ Average		Daily Av. Diff.	Diff. w/ Averag
	[mm]	[mm]	[mm]	%	[°C]	%
		PRECIPI	TEMPERATURE			
France	584	534	-50	-9%	0,9	7%
Germany	630	464	-166	- 26 %	1,3	11%
Poland	527	407	-120	-23%	1,2	10%
UK	493	467	-26	-5%	0,5	5%

EU sugar production

[Oct/Sep, Mt sugar, Tel Quel]



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THAILAND: PRODUCTION SHALL ERODE OVER NEXT CAMPAIGNS

MAR

MAY

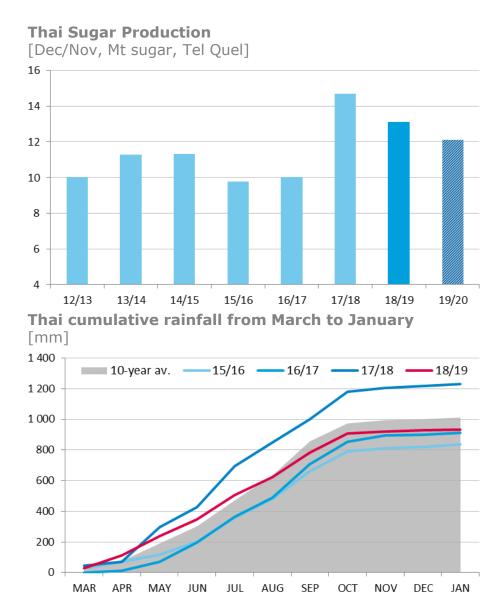
JUN

A short-end monsoon

- Despite a monsoon start with plentiful rains, conditions turned drier than average from August onward particularly in Northern and Central areas.
- Such poor rainfall have hit the yields potential of Thai rain-fed cane. The crop should turn lower by about 10% as compared to all-time 17/18 records.
- With high stocks accumulated during 17/18, sugar exportable surplus should be kept unchanged in 18/19.

Odds for a smaller 19/20 crop

- 18/19 cane price stands about 20% lower yearon-year.
- With such a price decrease, alternative crops like cassava offer a better revenue and their area will grow at the expense of cane.
- Thai production shall drop for two years in a row due to cane area decrease and negative impact on productivity of subsequent cane aging.



OCT

SEP

AUG

WORLD PRODUCTION: NORTH DOWN, SOUTH BACK

A collapsing Northern Hemisphere production

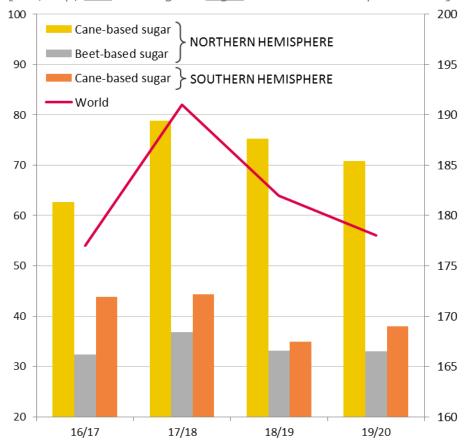
- Northern Hemisphere 18/19 crops have been hit by detrimental weather. Such drop opens a reversing trend after 17/18 booming production which benefited ideal weather, high planted areas and good crop care.
- 19/20 Northern Hemisphere should display a new decrease. Detrimental economics for sugar crops will drive beet and cane areas down in many keycountries. Coincidently Indian cane plantings are being reduced due to current water scarcity.

Sizeable sugar reserve in CS

- 19/20 CS sugar output should recover despite persistent drought - thanks to higher sugar mix.
- The CS mix that reached an all time low in 18/19 leaves indeed a significant buffer for crop failure elsewhere in the world by being adjusted back up.
- Such mix level shall be dictated by the sugar/energy arbitrage during the crush.
- At current sugar/ethanol arbitrage, the world sugar production is assessed to retreat by more than 10 Mt in 2 years.

Sugar production per feedstock and hemisphere

[Oct/Sep, Left: Mt sugar - Right: Mt Total world production]





SUGAR MARKET FEATURES

CS MIX: THE MARKET BUFFER

Mills to keep the sugar-ethanol arbitrage open

- CS millers will keep the sugar-ethanol flexibility all along 19/20 crush so that the mix will keep being a moving target.
- Given the high correlation between crude oil and ethanol prices, and its subsequent impact on the sugar-ethanol parities, any crude oil price moves will have an immediate effect on sugar profitability vs ethanol. This will induce sizeable order flow from the mills (sell or buy back).

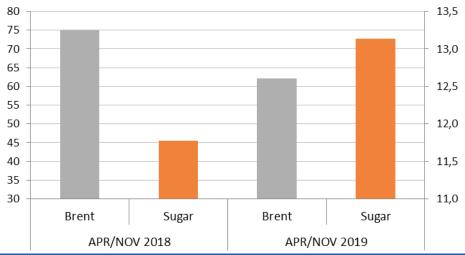
A range effect on the market

- 19/20 Brazil sugar production is bounded between 25 and 35 Mt.
- On a year-on-year approach, crude is today about 15% down while sugar 15% up during the pivotal crushing period of April-November: mills are facing a different arbitrage paradigm for 19/20.
- Because of lower crude oil prices, forward ethanol-gasoline pump ratio is higher year-onyear and ethanol consumption potential is limited.
- 19/20 sugar output is currently pegged at 30-31 Mt. Through sugar and crude oil prices moves, such estimate will vary widely during the crush and will bring resistance or support to the market.

Scenarios of cane crushed and mix in CS for 19/20 [Mt cane and sugar, % of mix sugar/ethanol]

SUGAR OUTPUT SCENARIOS		CANE CRUSHED (Mt)								
		550	555	560	565	570	575			
SUGAR/ETHANOL MIX	40%	28,5	28,8	29,0	29,3	29,5	29,8			
	41%	29,2	29,5	29,8	30,0	30,3	30,5			
	42%	29,9	30,2	30,5	30,8	31,0	31,3			
	43%	30,6	30,9	31,2	31,5	31,8	32,0			

Crude oil and NY#11 sugar prices in 2018 and 2019 [Apr. to Nov., Left: \$/Barrel – Right: c\$/lb]





INDIAN EXPORTS CRUCIAL TO BALANCE CS INTERCROP

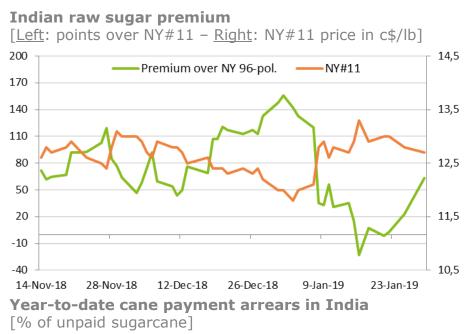
The usual multivariable Indian saga

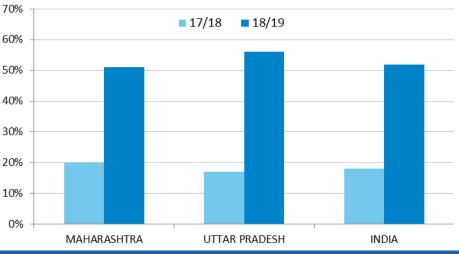
- Indian exports decision is today a perfect blend of economics, politics, cash flow burden and domestic market perspective.
- With current subsidy and local prices close to world market parity, exports were seen granted. However, the perspective of a lower 19/20 crop in Maharashtra may have changed mills view on export opportunities. Additionally, the complex regulation attached to the subsidy could also dissuade some mills to export their MIEQ.
- Mounting cane payment arrears should ultimately push mills to export to get the required cash flow in a crucial election year.

Export timing remains uncertain

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- The exports flow has been limited so far and mostly detected as bagged sugars as opposed to overseas bulk raw exports.
- The window to compensate the drastic decline of the CS 18/19 raws availability - beyond the reduction of the coastal refiners demand - could be missed with roughly a month left to produce raw sugar.
- This could bring short-term tightness on the raw sugar market and leave the white market to deal with the Indian surplus for the rest of the year.





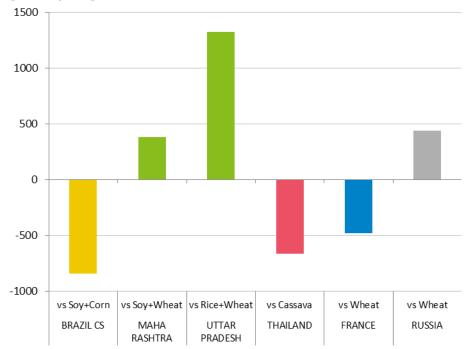
IS 13 CTS A HAPPY PRICE FOR SUGAR PRODUCERS?

World price not incentivizing production yet

- EU and Thailand are representative countries where current sugar prices are not appealing enough compared to alternative crops.
- India and China controlled cane prices remain attractive. However, an increase of Indian cane area is unlikely because of cane payments arrears and current low water-reservoir level. In China, there is limited millers or Government ambition to increase cane sugar production.
- In CS, economics remain in favour of soybeans. However land diversion is slow in Brazil given the mills' estates share and the cane multi-annual growth pattern. Only a small portion of the cane area is subject to change.

Northern Hemisphere flow to be impacted first

- 19/20 production-consumption balance will be the first casualty of current price level.
- Regarding trade flows, first impacts will be white sugar supply cuts in the Northern Hemisphere as well as a smaller raw supply from Thailand.
- For CS, arbitrage between sugar and oil will remain more relevant to determine the sugar availability than sugar price alone.



Sugar crop EBIDTA spread vs main competitive crops [\$/ha/year]



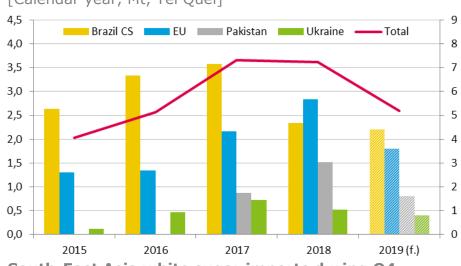
WHITE MARKET: SUPPLY CUT AHEAD

Decrease in white sugar availability

- Among white sugar producers, many are expected to decrease their production and subsequent exportable surplus over 18/19 and 19/20.
- The EU, Ukraine, Thailand, India or Pakistan all major white exporters – are assessed with lower production potential.
- Because of white sugar millers' output reduction, the autonomous refiners could need to increase their running capacity.
- Such outlook brings a positive perspective for the white premium.

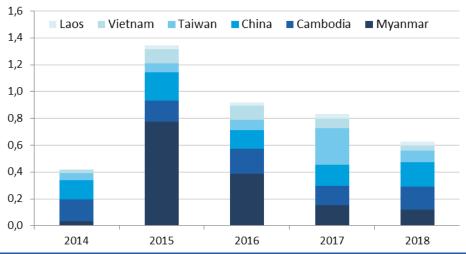
China remains crucial to the white market

- China and its neighbouring countries have represented a substantial market for the whites over the past years. The region gathered about 20% of the world exports.
- China impacts currently the market mainly by not channelling Indian crystal exports, as it did during Q3 2018. Without China, Thais whites will also have to go beyond the Far East area.
- The revival of China flows will be required for a supported white complex.



Flows of main white sugar millers exporters [Calendar year, Mt, Tel Quel]

South-East Asia white sugar imports during Q4 [Oct.+Nov.+Dec. shipment, Mt, Tel Quel]







GLOBAL SUPPLY & DEMAND

DEFICIT AT SIGHT BUT MIX EXCLUDES A SHORTAGE OUTLOOK

A deficit vulnerable to price rise

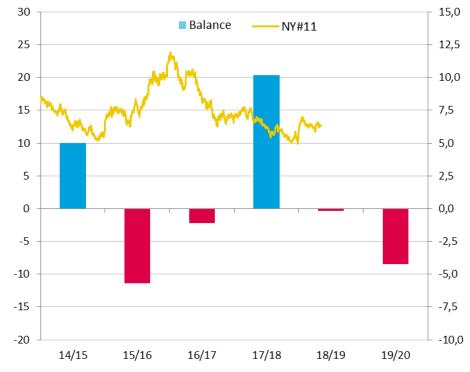
- After a 10 Mt surplus in 17/18, the world Oct/Sept production-consumption balance should be neutral in 18/19 and in deficit in 19/20.
- In both 18/19 and 19/20 scenarios, sugar production in CS could increase by 4 to 5 Mt by pulling up the mix thanks to a mild sugar price advance or falling crude oil prices.
- An irreversible shortage perspective could spread in the market only because of further crop failures in the Northern Hemisphere or persistence of CS dry conditions. Such events would pull back the energy-sugar arbitrage at a second role.

Trade flow balance and the Indian equation

- India has been responsible of about 50% of the world production changes. However, such moves were mainly dealt within Indian borders: domestic stocks were the ones fluctuating.
- Hence large moves of world production-consumption had limited impacts in terms of trade flows and especially raw physical activity.
- Still, on a shorter-term perspective, India shall compensate a tight CS intercrop. Unless India gets again into its favorite role: surprise the market.

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Global production-consumption balance & NY#11



[Oct/Sep, Left: c\$/lb - Right: Mt raw value]



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