

SUCDEN QUARTERLY

SUPERSIZE ME

AT A GLANCE

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SUGAR CROP OVERVIEW

BRAZIL CS: FALLING -5 MT YEAR-ON-YEAR

17/18: record production and ending stocks

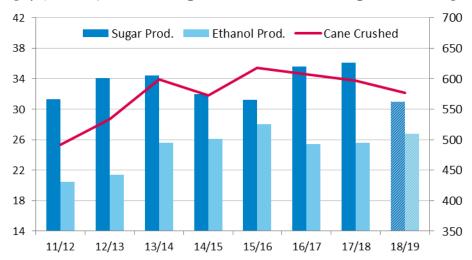
- 17/18 sugar production ended just over 36 Mt, all time record and 400 kt above 16/17.
- Season was marked by high ATR, strong sugar mix and average cane yields.
- Low shipments by the end of the season especially in Q1 2018 - led stocks to increase to record levels.

18/19: low sugar mix and flag on dry weather

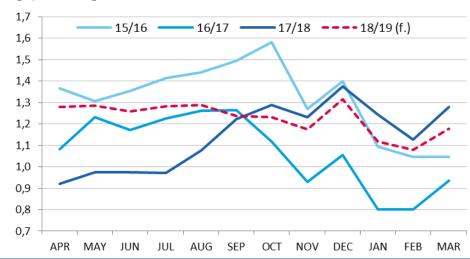
- 18/19 cane production is assessed at 575 Mt. Growing conditions are currently affected by low rainfalls in April and were already delayed due to the 2017 dry winter.
- ATR and crush pace should both pick up quickly, benefitting from the low rainfall pattern. However, 18/19 ATR is still assessed at 135 kg/t, below last year's good performance.
- Sugar mix is the major feature of this crop. It should be drastically down with ethanol paying better than sugar and ethanol demand remaining strong thanks to the low pump ratio.
- Sugar production is assessed at 31 Mt, -5 Mt lower year-on-year and close to 15/16 production levels, when mills also favoured ethanol.

CS Brazilian production

[Apr/March, Left: Mt sugar & Mm³ ethanol - Right: Mt cane]



CS Brazilian monthly hydrous ethanol consumption $[1,000 \text{ m}^3]$



INDIA: GIGANTIC CROP(S)

17/18: all time record

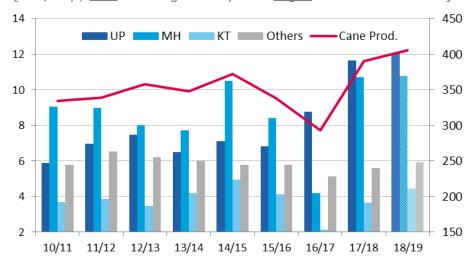
- India is on the way to reach an all time record crop. Maharashtra production has increased by 2.5 times year-on-year. UP is also continuing its steady growth with +35% year-on-year.
- The combination of acreage rise, favourable weather, good crop care and improved varieties, is leading India to increase its production by more than 50% to 32.6 Mt.

18/19: how much bigger?

- Monsoon is scheduled to be normal by most weather agencies including the IMD (at 97% of long-term average). Indian Ocean Dipole could also turn negative which generally leads to a positive rainfall pattern in India.
- Reservoirs are at satisfactory levels and will attenuate weather risks with ample irrigation resources.
- Despite low domestic sugar prices, cane price is still benefiting high FRP/SAP levels. Low sugar price signal is not yet transferred to cane growers. Further in the Western States, cane is already planted on a larger area than 17/18.
- Indian 18/19 production is seen up by about 5% with most of the hike concentrated in Karnataka, UP and Tamil Nadu.

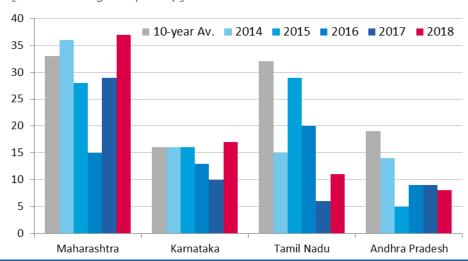
Indian production in the main states

[Oct/Sep, Left: Mt sugar tel quel – Right: Mt cane crushed]



Indian water reservoirs level

[% of storage capacity]



THAILAND: BEYOND ALL FORECASTS

17/18: all time records crop and exportable surplus

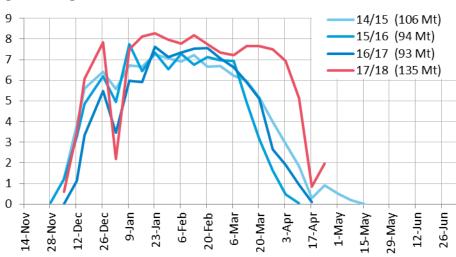
- Thai crop has challenged all forecasters to reach an all time record in the vicinity of 135 MT of cane. Sugar output is set to jump by +50% to 15 Mt.
- The previous structural major jump in cane production was in 10/11.
- 17/18 could mark a similar phenomena of longterm increase with new growers joining cane farming.
- Still 18/19 output is assessed lower than 17/18 due to the expectation of average weather conditions.

Exportable surplus increase by +75%

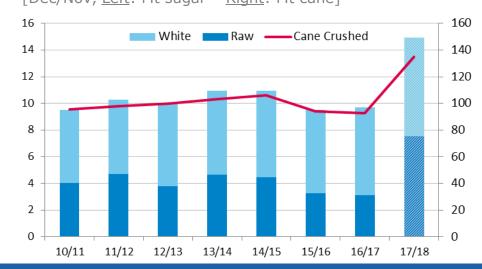
- Unlike India, all additional sugar production in Thailand will be available for export.
- The exportable surplus is expected at 11.5 Mt, vs 6.5 Mt last year. Most of the additional exported sugar will be as bulk raw.
- The industry might also decide to carry as raw sugar some of the exportable surplus to 18/19 but the odds of a large production again next year will limit this option.

Thai weekly cane crushed





Thai sugar production per quality and cane crushed [Dec/Nov, Left: Mt sugar - Right: Mt cane]



EU & BLACK SEA: 18/19 AREAS NOT YET IMPACTED BY DROPPING PRICES

18/19: areas roughly stable

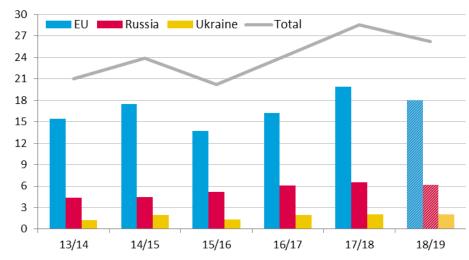
- After a sizeable output of 21.7 Mt in 17/18 with record yields, the EU beet acreage will likely be stable for 18/19.
- Weather-wise, a significant delay in sowing will potentially hit productivity. However, recent high temperatures combined with good soil moisture should boost vegetation and help the beets to recover the initial delay.
- EU 18/19 crop is forecast at 19.5 Mt (ethanol included) basis normal weather conditions forward.
- Areas also assumed roughly constant in Ukraine and slightly decreasing in Russia.

Exports at high pace since start of the crop

- The EU has already exported about 1.8 Mt by the end of March finding buyers in the Mediterranean Sea as well as further away in Western Africa, Middle East and South Asia.
- Russia has exported about 400 kt since the start of the crop taking advantage of Uzbekistan refineries stoppage and other CIS markets.
- Ukraine has decreased its overall exports and remained focused on CIS demand.

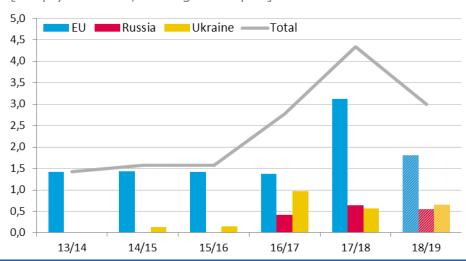
EU & Black Sea sugar production

[Crop year basis, Mt sugar tel quel]



EU & Black Sea sugar exports

[Crop year basis, Mt sugar tel quel]



17/18 NATIONAL CROP YEAR WORLD PRODUCTION UP BY +14%

17/18: world record sugar production

- On a national crop year basis, world sugar production should increase by +24 Mt.
- 17/18 national crops have been marked by record output in several countries with favourable weather. It also came from the 16/17 high flat price environment which boosted crop areas, crop care, and sugar mix.

18/19: high cane and beet areas maintained

- Despite the collapse of the world market prices, there is no expectation of a significant decrease of beet or cane crop areas in 18/19.
- The stagnation of cultivated land is due either to the world market price signal coming too late, or because of higher sugar prices on local markets diminishing world market impact for countries that have large domestic markets.
- Still, production should be back to average performance levels, while Brazil will significantly switch to ethanol. Hence world 18/19 crop year output should decrease by -4% but will remain at a high historical level.
- 19/20 should be the one hit by low prices with decrease of crop areas and less crop care, making weather event threats more relevant.

National Crop Year Basis			16/17	17/18	18/19
NORTHERN HEMISPHERE			Previous	Current	Next
CANE	TQ	India	20,3	31,6	33,2
	TQ	Thailand	10,0	14,9	13,0
	TQ	China	9,30	10,2	10,6
	TQ	Pakistan	7,08	7,50	7,00
	TQ	Mexico	5,96	5,95	5,90
	Raw	Guatemala	2,72	2,74	2,76
	TQ	NE Brazil	3,11	2,52	2,50
	Raw	Philippines	2,49	2,30	2,35
BEET	TQ	EU (w/o Ethanol)	16,2	19,9	17,8
	TQ	Russia	6,08	6,47	6,19
	TQ	Ukraine	2,01	2,06	1,99
	TQ	USA	8,14	8,29	8,16
		Sub-Total	93,4	114,4	111,5
SOUTHERN HEMISPHERE				Previous	Next
CANE	TQ	CS Brazil	35,6	36,1	31,5
	Raw	Australia	4,77	4,4	4,65
	Raw	South Africa	1,54	1,99	1,90
	TQ	Argentina	1,98	1,72	1,91
		Sub-Total	43,89	44,2	40,0
		WORLD	174	198	190
		Scale:	Below av.	Average	Above av.



SUGAR MARKET FEATURES

18/19 INDIA ANTICIPATED EXPORT LEVELS UNSEEN SINCE 07/08

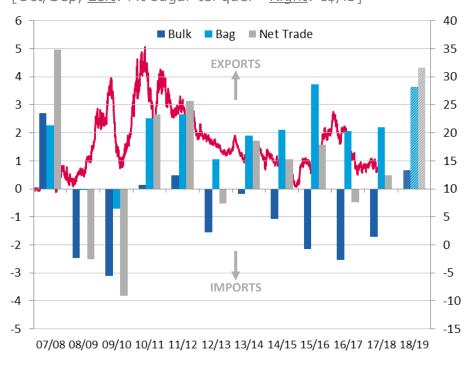
17/18: focusing on crystals exports

- The Government of India has already set up a MIEQ of 2 Mt for 17/18 as well as the subsidy for the cane farmers supplying mills meeting their MIEQ obligations.
- Less than 50% of the 2 Mt MIEQ is expected to be fulfilled during 17/18. Indeed a loss is still realized between world and domestic prices despite the subsidy amount. Additionally, monsoon constraints will slow down loading operations from June onwards. Said export flows should come exclusively as crystal bagged sugar.

18/19: impact similar to 07/08?

- Without exporting more than the 2 Mt MIEQ already granted, 18/19 stocks would end-up above 15 Mt. This should lead the Indian industry to export at least 3 Mt above the current MIEQ to reach a heavy 50% stocks-to-use ratio.
- With such an amount of export availability, Indian refiners are expected to turn away from Brazilian CS origin and source domestic raw sugar that will ultimately be exported as refined sugar. Some neighbouring refiners, such as Bangladesh, are also expected to buy Indian raw sugar.
- The combined impact on raw & white trade flows should hence be almost as big as 07/08.

Indian Trade Flows per sugar quality vs NY#11 [Oct/Sep, Left: Mt sugar tel quel - Right: c\$/lb]



COULD BRAZILIAN ETHANOL MAKE THE DIFFERENCE?

A growing ethanol market

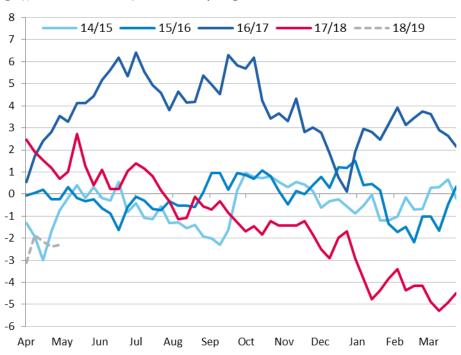
- Ethanol is benefiting today from high crude oil and gasoline prices through the Petrobras adjustment policy. Brazil GDP recovery is also boosting the otto-cycle.
- With the pump ratio already favouring ethanol use, 18/19 consumption should grow by +5%year-on-year.

How low could the sugar mix go?

- Ethanol prices have collapsed by more than -30% since the start of the crop on a faster pace than usual, reflecting mills strategy to capture the ethanol premium. However, viewing current pump ratio below 70% in Sao Paulo, prices are expected to stabilize from now on and keep a premium over sugar.
- Mills should thus continue to minimize sugar production and mix is currently seen at 41%.
- Ethanol prices could drop a bit further and gain additional market shares vs gasoline while still being favoured by mills. Should, for instance, ethanol prices drop to 100 pts above sugar parity, mix would reach 40.5% leading to a 30 MT sugar production. However, below a 100 pts parity mark, minimizing sugar mix should no longer be the absolute paradigm.

Sugar-Ethanol parity in CS Brazil

[c\$/lb differential, FOB tel quel]



ICE#11 STRUCTURE: 2014 BIS?

How big is the Thai trade flow surplus?

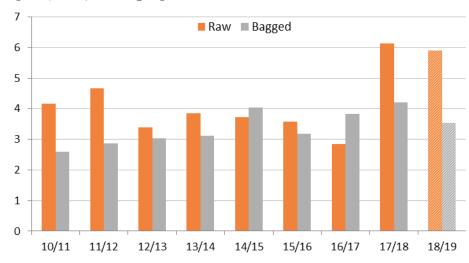
- Thai raw sugar exportable surplus is 40% bigger than in 2014.
- Regional demand is favouring Thai origin, benefiting today from strong Brazil freight rates to the Far East and from FTAs with main Asian buyers such as Indonesia.
- Still, about 2 Mt of Thai sugar should not find a regional home leaving it then to the market to create a place either at origin (as carry-out) or in the Western hemisphere.

#11VH 2014 spread scenario to repeat?

- Even with storage economics being currently matched, millers will try to limit inventories before a 18/19 crop that might be big again.
- Further, Thai sugar quality will deteriorate from July onwards, and this will limit buyers in the Western Hemisphere.
- Therefore the VH spread could show a similar behaviour than in 2014 in order to incentivize carry at origin, boost demand on Q4, and motivate potential takers such as China or the Middle East refineries vs Brazil CS origin.
- For the portion of sugar carried at origin, the issue will be postponed further in 2019.

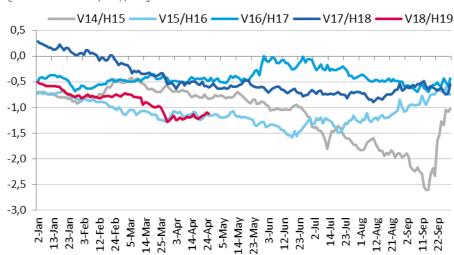
Thai sugar exportable surplus

[Dec/Nov, Mt sugar]



NY #11 October-March spreads

[Close value, c\$/lb]



COULD CHINA ABSORB THE WORLD TRADE FLOW SURPLUS?

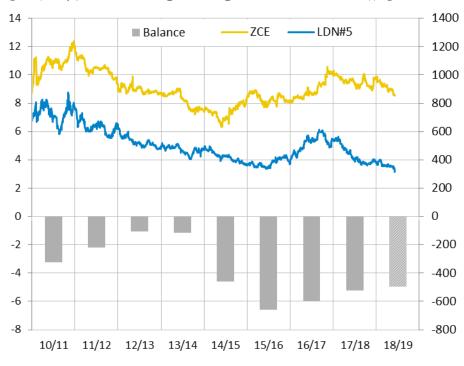
Still a wide deficit

- With a 10.2 Mt 17/18 production forecast, China has still a -5 Mt annual deficit.
- This deficit has been met so far by a combination of supplies: in-quota and AIL raw flows, crossborder white flows, and Strategic Reserve stock releases.

Could China solve the surplus?

- Despite high stock reserves, China could still opt to increase its raw sugar imports, considering the current world market price as an attractive level for restocking.
- Alternatively a wider domestic vs world market spread could also incentivize the cross-border flows and fill the deficit through the multiple white sugar roads.
- Answer will be in the hands of the authorities aiming or not to decrease their own controlled stocks. But its seems today unlikely that China would repeat the 14/15 & 15/16 campaigns when it absorbed close to 14 Mt sugar.
- China could however help the world balance through imports of Indian sugar or other exempted origins.

Chinese prod-cons. balance, ZCE prices & LDN#5 [Oct/Sep, Left: Mt sugar - Right: ZCE & LDN in \$/t]



WHITE PREMIUM TO BENEFIT FROM LOWER FLAT PRICE

White sugar has been the leader of the bear market so far

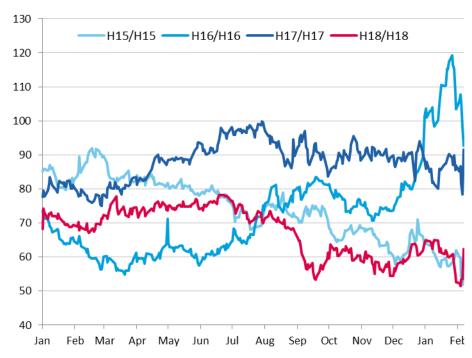
- The higher production-consumption balance in the Northern Hemisphere has led to ample white sugar availability from the European Beet belt to Pakistan.
- The white premium corrected in advance to the flat price and went to historical low levels as early as September 2017.

Will the white sugar market get tighter first?

- The EU and Black Sea should get back to regular productivity levels this year, leading to a reduced production for about -10%. Further low prices are making export economics detrimental and should also lead to a decrease of beet areas in 19/20. Such elements should bring European producers to increase their carry-over stocks.
- India should supply large crystal tonnages but part of it could offset lower Pakistan exports after record high volumes in 17/18.
- Perspectives of lower refined supply, potentially required to revive some of the idle refining capacity, could lead to an adjusted white premium complex, as a broader reversecorrelation of the flat price.

White sugar premium

[March-March, months prior expiration, \$/t]



ORDER FLOW: PRODUCER PRICING DELAY OR PROSPECTIVE VIEW

Producers pricings are still lagging behind

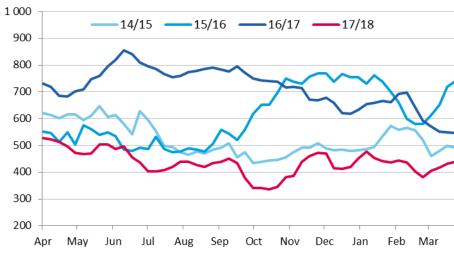
- Producers have been constantly postponing their pricings over the past year with the market steadily dropping.
- Such a low gross short commercial position is exacerbated by the higher world production having for a part to be exported and priced.
- The producer's pricing delay may trigger lingering and strong resistance to market spikes.

What strategy for the funds today?

- Funds have been net short for a year now and have benefited from the order flow where producers SEOs were many - running after the market - and buyers were covering only on a hand to mouth basis, hoping to benefit from an even better tomorrow.
- From a fund perspective, to ride the commercial order flow remains today a very valid option with strong producer resistance and weak end-user support.
- However, a more long-term view out of fundamental considerations - could stand on a probabilistic approach. Since May 1st, 2008, prices below the 10 c\$/lb mark have occurred less than 0.3% of the time, an appealing ratio.

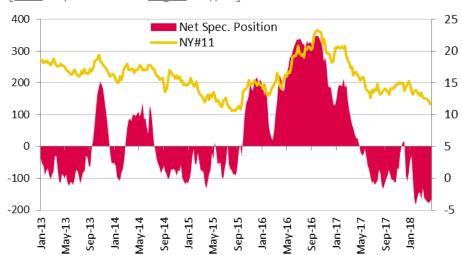
Weekly commercial gross short position





Net non-commercial position & NY #11

[Left: 1,000 lots - Right: c\$/lb]



WILL GRAINS RESCUE THE SUGAR MARKET?

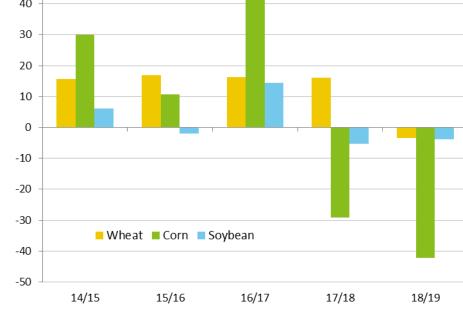
Grains stocks decreasing

- From 14/15 to 16/17, corn, soybean and wheat have displayed large surpluses, leading the world grains carry-over to increase by about +25%.
- 17/18 was a turning point and in 18/19, basis average weather patterns, grain outputs are seen decreasing so that stocks could decline by -10%.
- While still in a heavy stock environment, grain markets could get more sensitive to weather conditions and potentially more volatile after years of stability in a low range.

Patience required

- With the higher proportion (25%) of beet sugar in world production, competition with grains will be scrutinized and a switch could happen quicker than in cane farming.
- From a European perspective, current wheat prices already provide a better revenue than beet based on world market prices. A situation that could lead farmers to turn away from beet.
- While many beet growers would still maintain beet in their farms as a rotational crop and for many as cooperative shareholders, some farmers could look to increase their revenues through growing more wheat. But that would be mostly from 19/20 onward.

Grains production-consumption balance [Crop year, Mt] 50 40





GLOBAL SND AND OUTLOOK

HEAVY PROD/CONS CONTAMINATING TRADE FLOWS

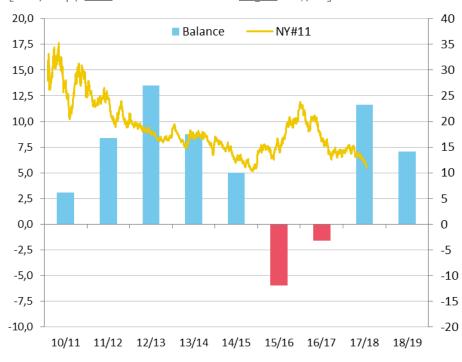
17/18 and 18/19 growing cumulated surplus

- Oct/Sept world production-consumption surplus for 17/18 + 18/19 is getting close to +20 Mt.
- This surplus already includes a cumulated decrease of CS production in 18/19 and 19/20 of -12 Mt.
- Lower flat price could decrease this surplus a little further, but only through ethanol parities since beet and cane crop areas are already planted.

Trade flows surplus unsolved

- The large production-consumption surplus will contaminate trade flows through the usual corollaries: reduction of demand, white trade flows surplus – affecting first the white sugar complex, and ultimately the raw sugar surplus.
- With the expected adjustment of CS Brazilian output, world supply is set to increase slightly with, however, a large switch from the Western to Eastern Hemisphere in terms of availability.
- The main component of the raw sugar trade flow surplus is in fact lower demand. India, the Middle East refiners or the Black Sea are key areas that have significantly reduced their demand (if not almost ceased as is expected for the EU CXL imports for instance).

Global production-consumption balance & NY #11[Oct/Sep, Left: Mt raw value - Right: c\$/lb]



OUTLOOK: SEARCHING FOR BULL FLAGS

Shock waves of a record output

- 17/18 favourable weather has increased productivity in the very fertile context created by the 2016 high sugar price environment. It boosted agricultural yields and sugar recovery around the world on a larger crop area that benefited from good crop care.
- This situation has led national crop year world production to jump by +14% in a year's time, the highest recorded increase. Shock waves are multiple and affecting trade flows, stocks, order flows and all market variables: white premiums, spreads, cash and flat price. These moves have been exacerbated by increasing production forecasts at the crop tail of key producers such as Thailand and India.

Requirement for several flags to invert the trend

- The fundamental perspective remains heavy. In the Northern hemisphere, the 18/19 crop is already sown in most of the countries at a similar level to last year. So far weather has proven average - except for late sowing in Europe - and good soil moisture across main producing areas or high reservoir levels like in India, will soften weather events. In the Southern Hemisphere, CS Brazilian cane could suffer further from current dry conditions, but ample sucrose is available should sugar prices get closer to ethanol parity. Thus only a combination of detrimental weather events could lead the market to tip in a potential "shortage" risk mindset.
- With such an ample supply pattern, delayed producer pricings will act as cap to price spikes even if funds were to buy back their shorts. The main bull element is in fact the price level itself. Indeed, market participants away from sugar fundamentals could consider 10 c\$/lb as an outright buy as a long-term investment. More fundamentally, it could also coincide with a perception of 19/20 as the market redemption since it should combine anticipated cuts in sugar crop areas - with a market below cost of production in many countries, lower crop care and eventually boosted consumption through low prices.
- However physically and trade flow wise, much of the high sugar production still has to connect with the market – with its effect on structure and cash, with plenty of sugar available and a new sizeable player coming in: India.

S&D SUCDEN

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