



**Green Pool**

Mapping tomorrow's markets

## **India Sugar – The Impact of Over-production**

**For:**

**Australian Sugar Milling Council Pty Ltd**

IBM Building

Level 11, 348 Edward St,

Brisbane, Australia

**By:**

**Green Pool Commodity Specialists**

**Brisbane, Australia**

**27 February, 2019**

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# About Green Pool Commodity Specialists

## Who we are

Green Pool Commodity Specialists Pty Ltd is an independent and privately owned company based in Brisbane, Australia, which specialises in global sugar and biofuels market analysis, reports and consultancy.

Green Pool was launched in 2012 and has since developed a reputation as one of the leading independent sugar and ethanol analysts.

## The Green Pool team

Green Pool consists of a well-established and experienced team comprised of both commercial practitioners, many of whom also have significant experience on the producer, marketing and/or trading side.

In addition to the Australian team, Green Pool has a biofuels analyst in the UK and a market analyst based in New York, plus representatives in the US.

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## Executive Summary

India has become the world’s largest sugar producer in 2018/19, as Brazil has been forced by low prices (in turn courtesy of oversupply) to turn a very large quantity of cane into ethanol rather than sugar. CS Brazil alone has shrunk its production by 9 to 10 mln mt sugar to accommodate oversupply by other producers, of which India has been the major expander. **India is the main influencer of swings in global sugar supply and demand** (Figure ES 1).

India’s government has made it compulsory for mills to export their portion of 5.0 million tonne (mln mt) export requirement in order for farmers to receive government payments, and for mills to receive transport subsidies. **India’s government claims the subsidies are WTO legal, but this is disputed by other sugar exporters, particularly Australia, Brazil and Thailand.**

India’s government mandates the payment of higher than world market prices for cane to its farmers (Figure ES 2 & 3). This is the primary cause of oversupply – high, rising fixed prices for cane combined with better agronomic practices, better use of irrigation, government sponsored research and farm extension, and several good monsoons have yielded overproduction. India’s government is facing elections in April/May 2019, and has committed to ensuring farmers receive high prices for their crops.

Green Pool used a simple model of global stocks-to-use (STU) vs global prices to forecast the price impact of stocks. By continuing to produce sugar surplus to domestic requirements at high prices, the government forces mills to either store the excess, or to export it at subsidised prices. There are two impacts – global stocks rise, pushing global prices lower, and subsidised exports undercut other efficient producers keeping prices and premiums under substantial pressure. This impact will last for several more years yet.

India’s government has instructed mills to export, and to ensure farmers are paid for cane promptly. The Indian buying and export situation is shown in Figure ES 3. The NY11 global market price is shown as a green line. The price of cane alone to Indian mills is shown in blue. The price at which mills are prepared to sell raw sugar for export without subsidy is shown as the orange line. Finally, the price at which mills can export raw sugar with government subsidies under the programme announced end-Sept 2018 is shown as the dark red line. It has been, and is, significantly below world market prices.

Some 0.650 mln mt of low quality white sugar was sold with subsidies up to end Sept 2018 and shipped to global market destinations under the government’s 17/18 subsidy package (including to Myanmar, most likely then smuggled into China). Some 1.210 mln mt has been exported or shipped to Indian export refineries since 1<sup>st</sup> Oct 2018, being 0.710 mln mt raw sugar and 0.500 mln mt white sugar. Target markets are Bangladesh, China, Malaysia, Indonesia and Sri Lanka (and others). A number of these markets are traditional markets for Australian raw sugar, whereby further harm (over and above the basic modelled damages) is likely to have been incurred.

Using the simple STU model above, the direct impact that India’s surplus production has had on the global market was tallied over 3 years. As shown in Table ES 1, the impact on Australian producers in 2017/18 is estimated at A\$183.62 mln, 2018/19 at A\$195.38 mln and 2019/20 at \$89.54 mln. **That is a conservative total of A\$468.54 mln, due to the surplus production by India over those three years (either into stock or exported with subsidies).** Further, India’s high stock levels estimated at 14.65 mln mt at 30 Sept 2019, will overhang the market, and cause further harm in later years if no reform occurs. **Loss of Australia’s market share to subsidised Indian raw sugar in key export markets would cause further injury (not estimated here).**

Figure ES 1

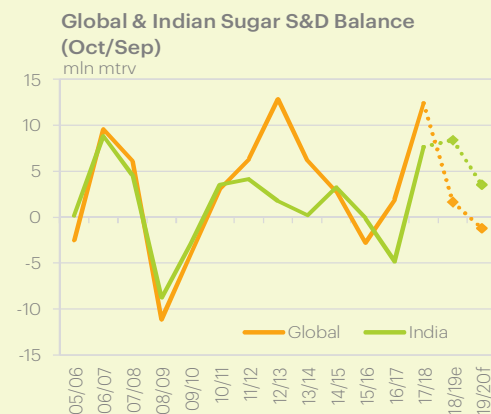


Figure ES 2

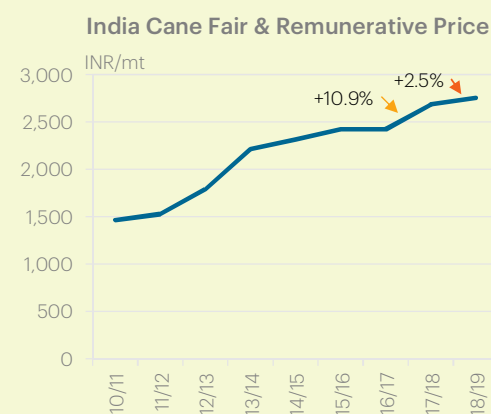


Figure ES 3

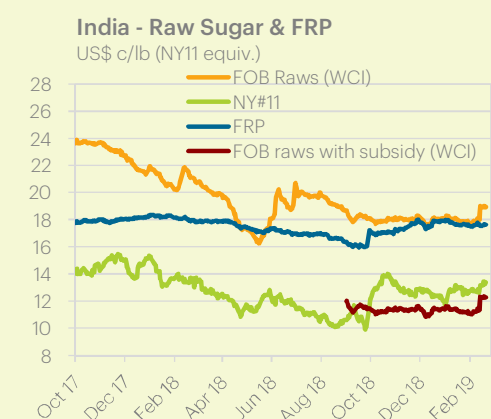


Table ES 1

Australia Sugar Production			
'000 mt IPS	17/18	18/19e	19/20f
Crop Year (Jun/May)	4,480	4,720	4,560
Statistical Year (Oct/Sep)	4,455	4,240	4,560
US TRQ (Oct/Sep) *	83	83	83
Exposed Tonnage	4,372	4,157	4,477
Estimated Damages (A\$/mt)	\$ 42	\$ 47	\$ 20
Estimated Damages (A\$ mln)	\$ 183.62	\$ 195.38	\$ 89.54

## Global sugar market setting

India has always been a major sugar producer, and has been a swing importer/exporter in the global market. It is the global sugar market’s biggest swing factor – Figure 1 shows India’s domestic surplus/deficit situation vs the global situation (Oct/Sep basis). There is a strong correlation ( $R^2=0.63$ ) (Figure 2) – as is befitting a major swing factor in a commodity where trade is a limited portion of the global market (such as sugar). Surpluses and deficits in the global market drive prices, and India’s sugar balance drives the global balance. **The market focusses intently on India’s balance, because it matters to the global trade situation.**

## Global market Cost of Production

Long term average prices in commodity markets tend to reflect one of two related factors - the cost of production (COP) of efficient producers (in times where the market is adequately supplied) or the cost of bringing new production into the market (when it is suffering structural undersupply). Efficient markets commonly bring in production from the most efficient supplier first. Thus, longer term average market prices tend to reflect the cost of efficient supplier(s) bringing new supply into an expanding market. In the raw sugar market (Figure 3), the price average since Jan 2000 (over 19 years) is 14.01 c/lb while the most recent 5 years since Nov 13 was 15.15 c/lb. Green Pool’s estimates of COP for the efficient global raw sugar exporters (Brazil, Thailand, Australia) are between 14-18 c/lb over that 5 year period (and more recently 14-16 c/lb), so for the market to average 15.31 c/lb supports the logic outlined above. India’s estimated COP over the same 5 year period has been 23 – 25.5 c/lb. **Indian sugar milling sector is not globally competitive and requires export subsidies to compete with the exports from the likes of Brazil, Thailand, Guatemala and Australia.**

## India Cane Prices – a one way street

The most efficient global cane growers and sugar producers have market disciplines thrust upon them – that is, low prices enforce cost efficiency. Very few cane growers globally have the luxury of an ever-increasing cane price as India does (Figure 4) (note State Advised Prices are often higher than the FRP and are also rising). Indian farmers get further support by way of assistance payments (paid via mills) and further energy, water and fertiliser subsidies. In combination with favourable weather, the effect of these subsidies in 2017/18 and 2018/19 was to boost cane and sugar production far in excess of domestic sugar requirements. As a consequence, additional export subsidies have been provided by government to incentivise mills to ‘move’ sugar externally, due to their high fixed costs, falling internal sugar prices and low global prices. In doing so, globally efficient producers suffer because they are unable to consolidate their competitive position, thereby incurring operating losses which end up threatening their viability.

**India’s fixed prices for cane are never fixed lower than the prior year, and they are not orientated to either domestic price controls or variable export parity prices. Figure 4 shows that even after the 10.9% rise in the FRP in 17/18, which caused a massive domestic surplus, India’s government went ahead in July 2018 and locked in a further 2.5% rise for 18/19 (not by coincidence a National government election year in India). It is the combination of high and increasing national and state determined cane prices and other generous subsidies, together with increasing cane yields (and therefore efficiencies) and high reservoir levels coupled with**

Figure 1

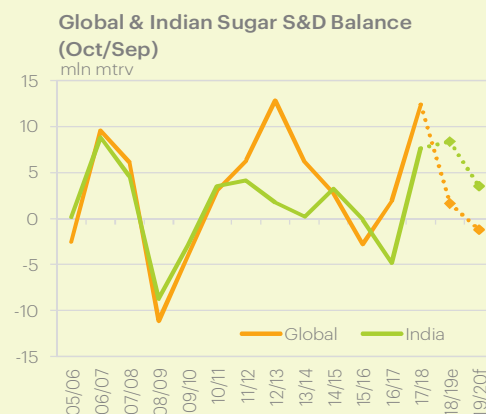


Figure 2

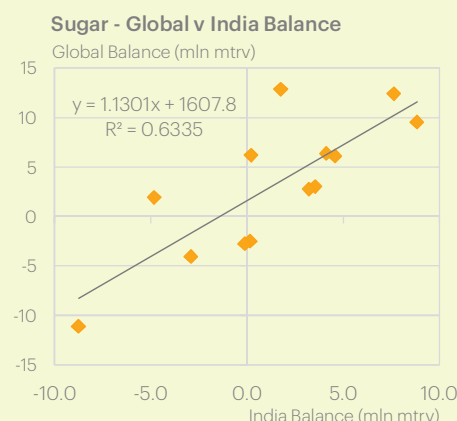


Figure 3

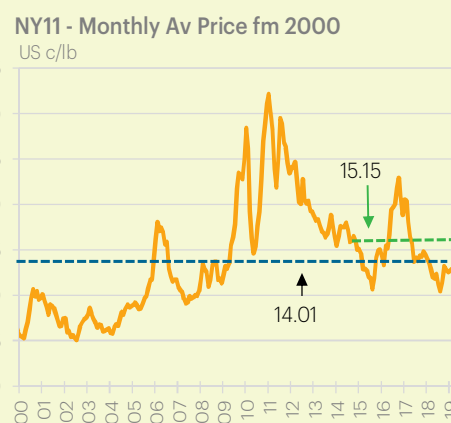
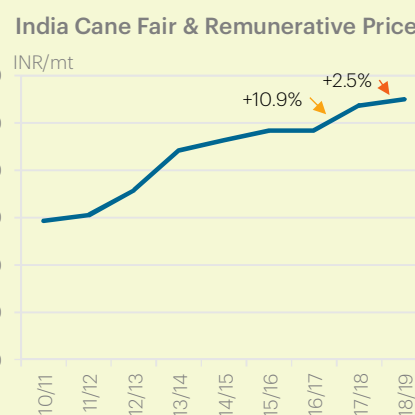


Figure 4



increasing water efficiency (water storage) that results in ongoing surplus production in India. The only restraints are weather and payment defaults.

### Locking in surplus production?

High cane prices and better cane varieties and agronomy threaten to lock India into an ongoing surplus cycle (Figure 5). Its only hope of escaping the mounting high cost domestic stocks in the short term is to export this surplus production onto the global market. The Indian industry spent much of 2018 imploring the Indian government to provide export subsidies to facilitate sugar exports. The global sugar market fell sharply in 2018 in response to this threat of large compulsory exports under generous subsidies (these have been separately documented). The required legislation for 18/19 was set in place on 27 September 2018 and 5 October 2018 respectively. The market’s reaction to those subsidy measures bears close examination.

NY11 raw sugar prices spent much of 2018 well below the “globally efficient” cost of production which Green Pool estimates currently at 14-16 c/lb. The market reacted sharply to global oversupply, due to higher production in other countries such as the EU and Thailand as well as India. However, its sharpest falls occurred following emerging evidence in Mar/Apr 2018 that the Indian crop would be much larger than previously expected, and stocks would increase sharply. The price continued to fall through mid-year as India received a “normal” but not “above normal” monsoon, ensuring a continuation of strong production in 2019. With subsidised exports occurring under the 17/18 export subsidy programme, and widely broadcast debate over further export subsidies and rising cane prices in 2018/19, the market fell to below 10 c/lb – some 40% below the bottom of the range of COP for globally efficient producers of 14-16 c/lb (Figure 6).

With the prospect of up to 7 mln mt of subsidised exports from India (2.0 mln from 17/18 crop and 5.0 mln mt from 18/19 crop), the market fell for a second time below 10 c/lb on the day the 18/19 subsidies were announced (27 Sept). Within a week, India’s government realised that the 18/19 subsidy payments would exceed that of 17/18, making the former redundant, and the 17/18 version was cancelled. That reduced India’s potential subsidised exports by 1.350 mln mt (only around 0.650 mln mt for 17/18 was done by end Sept 2018). This relieved some of the gloom on global sugar markets, where price subsequently rose. **In short, the decision of the Indian government to financially support significant levels of compulsory exports has had a real and perverse impact on the global market.**

### Other factors in global sugar rally

Weather and price are the main drivers of commodity markets, and these two factors also interact with each other. With a massive 17/18 surplus, low sugar prices in 2018 pushed Brazilian millers to apply a “lowest loss” strategy by making hydrous ethanol rather than VHP (Very High Pol) raw sugar (Figure 7). Weather reduced the 18/19 EU crop, and weather also intervened in CS Brazil to allow millers to produce even less sugar than they had planned (instead they produced more ethanol). With 18/19 surplus forecasts dropping, and some analysts even projecting forward to a 19/20 deficit in global sugar, the funds and speculators reversed their heavy short (sold) position over the month of October 2018 to be neutral or slightly long (bought) by early Nov 18 (Figure 8). **Thus the market’s small relief that India would not export 7.0 mln mt (instead only 5.60 mln mt) needs to be seen in a wider context of market events.**

Figure 5

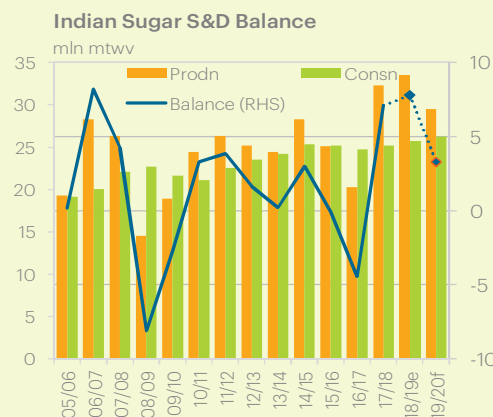


Figure 6



Figure 7

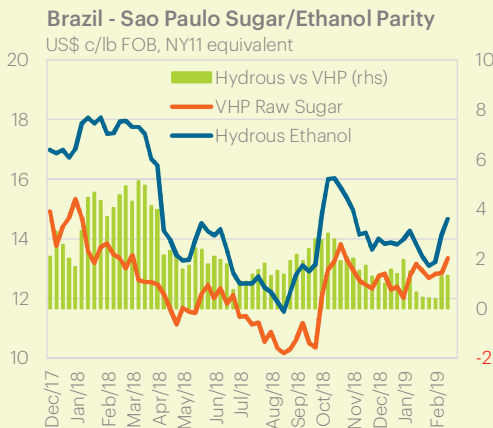
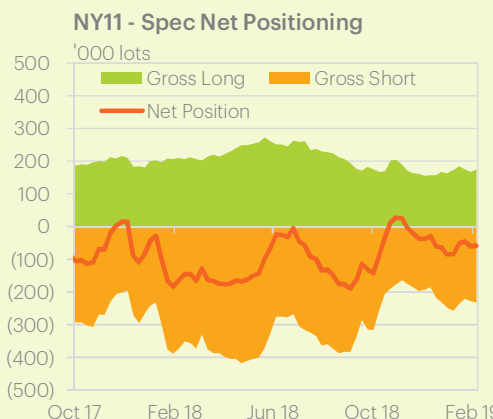


Figure 8



## Brazil adopts “least-loss” strategy

For most of 2018, both sugar and ethanol remuneration were below the cost of production for most Brazilian producers. However, higher oil prices and a willingness of Petrobras to more closely follow import parity pricing for gasoline allowed some additional cane to be switched from sugar to ethanol production as millers adopted a “least-loss” strategy in the face of very low global sugar prices. As per Table 1, this resulted in Brazilian millers sharply cutting the sugar mix from 46.5% to 35.3% (our forecast of 18/19 output), and taking sugar output down from 36.1 mln mt in 17/18 to 26.4 mln mt in 18/19. **CS Brazil alone in 2018 reduced its sugar output by over 9.5 million tonnes as India’s surplus production and exports hit the sugar market.**

CS Brazil’s harvest ran from April to November 2018, with an inter-harvest period from December 2018 to April 2019. Its reaction to the very low prices in 2018 have an element of forecasting to them – despite little or no forward pricing market in ethanol, millers looked forward and decided their prospects of selling sugar profitably in those circumstances in the global market were poor, and so made ethanol for domestic sale instead. This was a commercial gamble, but one that appears to have been forced on them by poor returning sugar prices through most of the 2018/19 cane harvest (Figure 9).

## Market outlook given India exports

The enormous commercial advantage to the Indian sugar industry from the most recent export subsidies (5 Oct 2018) is shown in Figure 10. On a free-on-board, West Coast India (FOB WCI) basis, the orange line shows the raw sugar export price Indian millers would need to achieve parity with domestic sales. Alternatively, the short red line shows the FOB raw sugar export price that would incentivise the Indian millers to export with the benefit of the 5 October government subsidies. **At global prices currently of 12.8 c/lb, and with a subsidy-included price just over 12 c/lb, there is clearly an incentive for Indian millers to export with the government subsidies.** This will continue to weigh on the global market through to the current end of the export programme set for September 2019. (As a side note, India’s government also commonly extends such deadlines).

While the NY11 market reached as high as 14.01 c/lb (settlement basis) on 24 October 2018, it has since mostly traded 12 – 13.5 c/lb to late February 2019. White sugar has fared worse – and the pressure on white sugar has recently been attributed to sizeable quantities of Indian white sugar being offered for sale from December 2018 onwards.

**A bigger risk to the market, and to the efficient global producers is that, having endured 12-18 months of very low world prices for their own exports, India’s exports will act as a ceiling on any market rallies (as was likely the case in early November 2018).** Not only is up to 5.0 mln tonnes of sugar being heavily subsidised by India’s government and taxpayers, but there is more available should the market seek to rise in the next year or so. As Figure 11 shows, India’s stocks at end September 2019 are projected to be as high as 14 mln mt, whereas required domestic stocks for India are only around 5.0 mln mt. That means, should the market rise unexpectedly to 16-18 c/lb over the next 1 to 2 years, Indian millers will likely sell more in order to relieve their stockholding costs. **This reduces the likelihood of the globally efficient millers getting back towards or above long term average cost of production (COP). It keeps the global price cycle lower for longer.**

Table 1

CS Brazil	17/18	18/19e	19/20f
Cane (mln mt)	596	574	581
ATR (kg/mt)	136.6	137.9	136.0
Sugar (mln mt)	36.06	26.61	29.60
% to Sugar	46.5%	35.3%	39.3%
Ethanol (bln L)	26.10	30.87	29.00
Hydrous	15.70	21.67	19.40
Anhydrous	10.40	9.20	9.60

Figure 9

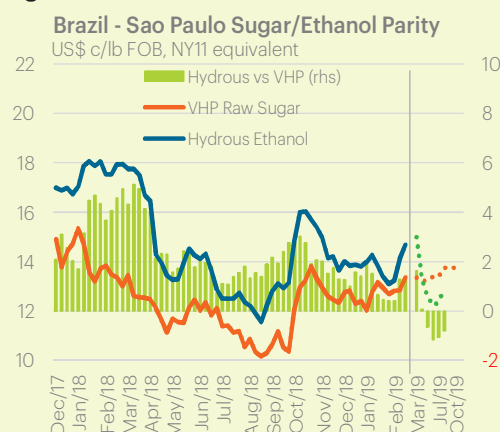


Figure 10

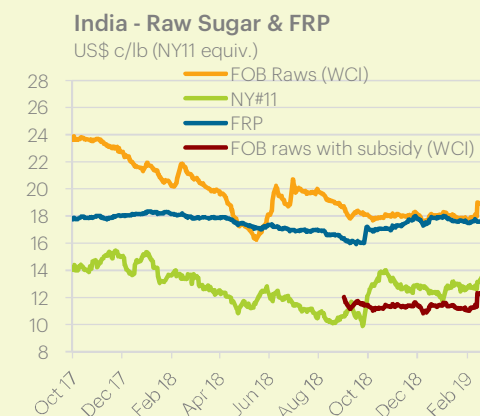
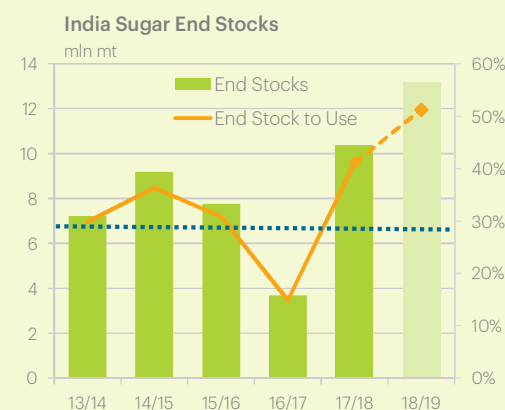


Figure 11





India’s stock and export situation can be summarised more simply in this Figure 12. In 2017/18, India had a total surplus sugar production of 7.1 million tonnes. Of that 7.1 mln mt, around 0.650 mln mt was exported (orange bar), while India also imported 0.220 mln mt prior to the harvest starting. Thus 6.67 mln mt was added to India’s stocks in 2017/18 (green bar), resulting in final stocks of 10.4 mln mt (Figure 11 shows final stocks). **In 2018/19, if India were to export the amount targeted by the government and required of mills of 5.0 mln mt, then based on our forecast production of 33.5 mln mt, that will add a further 2.8 mln mt to final stocks, which would amount to total final stocks of 13.2 mln mt.**

Note that our balance table in Appendix 1 makes slightly different assumptions ie that all 5.0 mln mt won’t be exported, and that India’s toll refiners continue to import raw sugar from other countries for their exports.

### An Assessment of Injury

A relatively simple model which Green Pool has utilised over time with good results is a global stocks-to-use vs price model. This is a widely used indicator in commodity markets, with inherent appeal – global stocks rise in response to surpluses (production exceeds consumption), lowering prices. Stocks fall in response to deficits (production less than consumption) and this pushes prices higher (Figure 13 graph shows sugar’s relationship since 2005/06).

As with most models, there are limitations in using an annual stock measure to generate a market price forecast. Markets increasingly seek longer term supply and demand information as well as focussing on the composition of the speculative elements in futures markets. Its predictive capability may be reduced in transition years from surplus to deficit (the same can be said for the opposite transition also). While stocks to use (STU) may be high at that time, the market’s forward focus may in fact see price rise, anticipating tighter market conditions ahead, despite high stock levels (particularly if stocks are in countries such as China or US, that won’t usually export at all).

The STU/Price relationship has improved over time – this Figure 14 shows that over the time period 05/06 – 17/18 is a moderately strong relationship in the market context. However, once the impact of the EU’s dumping on the global market finished, and the Brazilian cost of production began to escalate to approach that of other efficient producers (from 2010 onwards), this relationship strengthened further. As per Figure 15, from 10/11 onwards shows an R<sup>2</sup> value of 0.9734, a very strong relationship.

**India’s part in the global sugar balance:** As detailed above, India is probably the biggest contributor to global sugar balance changes (Figure 16, next page). When India’s balance moves, the global balance moves. As shown below (Table 2, next page), on an Oct/Sept statistical basis, for 17/18 year, India’s domestic surplus was 7.635 mln mt of a global surplus of 12.390 mln mt or 62% of the total. For 2018/19, our estimate is that India will have a domestic surplus of 8.385 mln mt, while the global surplus is 1.65 mln mt. **That means that the 18/19 global balance would actually show a deficit of 6.735 mln mt (rv) were it not for the Indian domestic surplus as follows:**

**Global balance excluding India (+1.65 – 8.385 = - 6.735 mln).**

The difference between an exportable surplus of 8.385 mln mt for 18/19 (plus excess domestic stocks already built up in India) and something closer to balance is that the market is not only concerned that India’s 5.0 mln tonne subsidised exports will hit the market, but much more is available if market prices rise. **That is likely to suppress global prices for a longer period.**

Figure 12

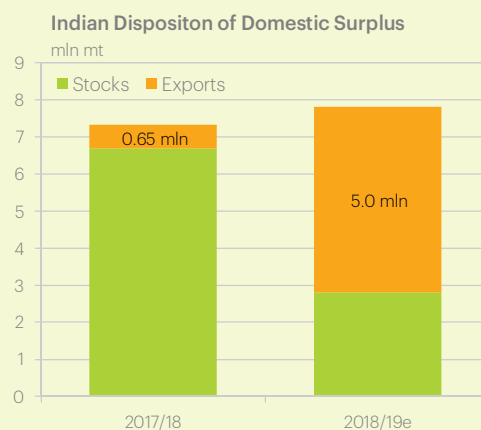


Figure 13

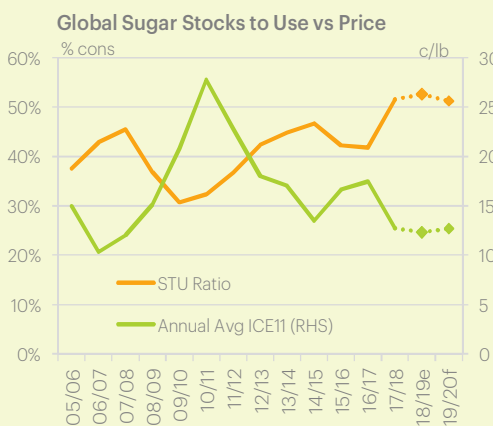


Figure 14

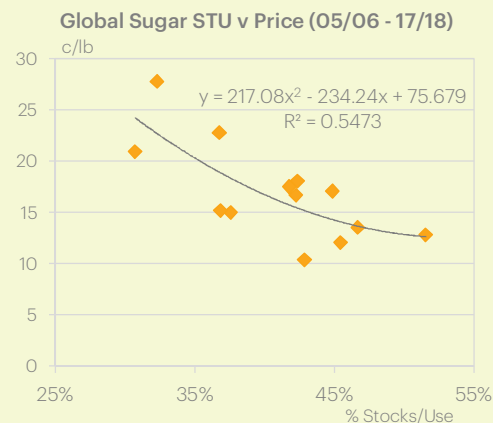
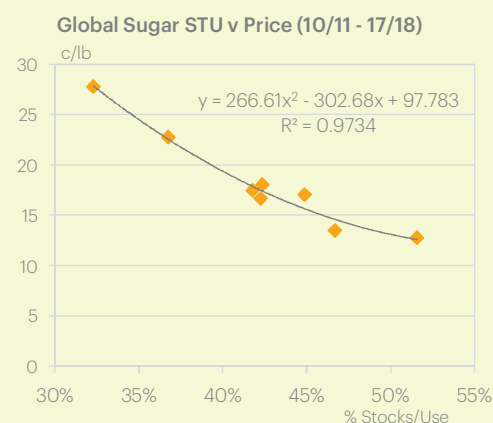


Figure 15





**A\$ damage assessments:** Now that the size of India's stocks have been estimated, and the global stocks-to-use model run, the A\$ damage assessment to the Australian sugar industry can be calculated.

In Table 3, the US c/lb forecast average prices are converted to A\$/mt average sugar prices, using a forecast AUD/USD exchange rate of 0.7250 for 2018/19. We note that this is a relatively low exchange rate, in the realm of less than 10% of the last 10 years trading history for AUD. From Figure 17, we note that the 5.0 mln mt that the increased stocks due to India's overproduction results in a 2018/19 forecast average price of A\$375/mt (equivalent to US 12.33 c/lb), A\$47/mt less than otherwise expected.

This damage estimate is on top of the estimate of damage in 2017/18 of A\$42/t being the difference that the higher annual STU pushed prices down.

Focussing on 2018/19, Australian millers and farmers (under the model's assumptions and forecasts) could have expected an annual average return of \$421/mt sugar, but instead face a return of A\$375/mt. Australian millers and farmers are efficient, but in the face of a massive surplus on global markets in 17/18, and more in 18/19, expect returns to be below cost of production.

## Cost of India's exported surplus

In this analysis, we have derived a estimated cost to the Australian industry of India firstly adding stocks to the global market, which is shown to depress prices, particularly in global surplus years. High Indian production adding to global stocks, and subsidising exports, can be expected to keep the global price lower than it would otherwise be. Of course, there are further stocks available to export (Figure 12 above) in 2019/20 and further forward, of which we derive a cost for 19/20 at a further A\$20/mt.

As shown in Table 5 here, if we take the A\$42/mt for 17/18 calculated in Table 4 for the build-up in India's stocks adding to world stocks as well as its 0.650 mln mt export tonnage, this amounts to injury for 17/18 year of A\$183.62 mln. Further, for the 18/19 year, if we take the \$47/mt damages calculated for the additional stocks build, this results in a further A\$195.38 mln in damages to the Australian industry. For 19/20 the damage is \$89.54 mln. **Over the 3 year period, 17/18 to 19/20, we estimate total damages of A\$468.54 million due to global price suppression. We think this is a conservative estimate of the damages to the Australian sugar industry.**

Note that we have reduced the impacted tonnage by the amount that Australia will export to the USA (around 83,000 mt) that is priced on the US market at higher prices under the import quota allocated to Australia. That results in an "exposed tonnage" of 4.372 mln mt in 17/18, 4.157 mln mt in 18/19 and 4.447 mln mt in 19/20 (Table 5).

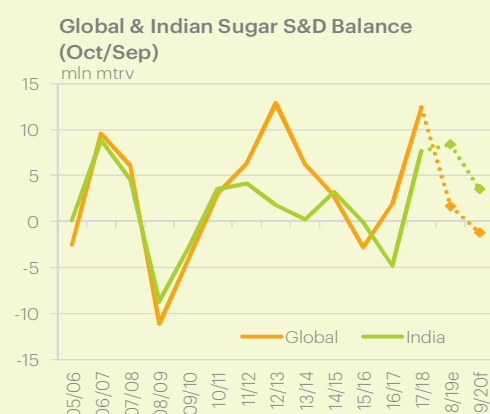
**Further possible market impact:** India's government and industry have announced a series of markets that are being targeted as part of the 5.0 mln mt export push in 18/19 (and likely ongoing). These include Bangladesh, Indonesia, Malaysia, Iran and China. Bangladesh recently announced it will cut import duties on Indian raw sugar exports, and CS Brazil will definitely feel the impact of lost market share in a market that they have almost exclusively serviced over the last 3-5 years.

Indonesia, Malaysia and China are all important raw sugar markets for Australia (as well as for other exporters Thailand and Brazil). Competition is already stiff in these markets – the push by India to sell subsidised raw sugar in them has potential to cause further direct injury to Australia and other

**Table 2**

Sugar Balances '000 mtrv	17/18	18/19e	19/20f
Global Adjusted Balance (Oct/Sep)	12,408	1,654	-1,204
India - Balance	7,635	8,385	3,530
India - % of Surplus	62%	507%	n/a

**Figure 16**



**Table 3**

Price Forecasts	2015/16	2016/17	2017/18	2018/19e	2019/20f
STU	42.3%	41.8%	51.6%	52.6%	51.2%
Price (US c/lb)	16.65	17.47	12.74	12.33	12.69
Exch Rate	0.7366	0.7618	0.7774	0.725	0.7217
AUD/mt	\$498	\$506	\$361	\$375	\$388

**Table 4**

Annual Average ICE11 Prices			
US c/lb (Oct/Sep)	17/18	18/19e	19/20f
Current S&D Balance	12.74	12.33	12.69
Excluding India Surplus	14.21	13.87	13.34
Difference	1.47	1.54	0.65
AUD/mt (Oct/Sep)			
FX (AUD/USD)	0.7774	0.7250	0.7217
Current S&D Balance	\$361	\$375	\$388
Modelled S&D Balance	\$403	\$422	\$408
Difference	\$42	\$47	\$20

**Table 5**

Australia Sugar Production			
'000 mt IPS	17/18	18/19e	19/20f
Crop Year (Jun/May)	4,480	4,720	4,560
Statistical Year (Oct/Sep)	4,455	4,240	4,560
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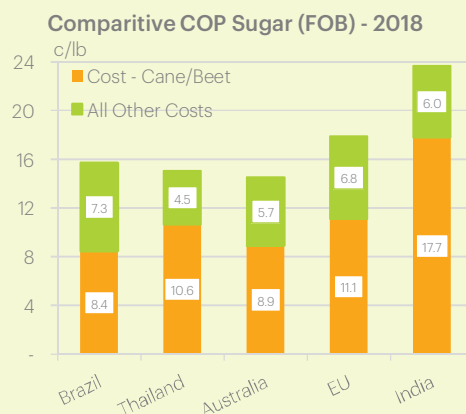
efficient sugar producers. Already, a large cargo of Indian raw sugar has been exported to Malaysia, but further incursion seems probable. Indonesia recently also announced it could take up to 3 million tonnes of Indian raw sugar “at the right price”. Australia could expect to have to pay higher freight rates and receive lower returns for having to push further afield due to market losses. Additionally, more India sugar in Asia is likely to erode regional premiums for both raw and white sugar, the former being an important factor in the Australian raw sugar industries’ returns over time.

### India – sugar cost of production

Finally, as discussed above, India’s cost of production (COP) for sugar is well above that of global efficient producers. Figure 17 shows the current US c/lb cost of production at 2018 exchange rates and borrowing rates in various countries. It shows that in 2018, Brazil (15.7 c/lb), Thailand (15.1 c/lb) and Australia (14.6 c/lb) are all globally efficient producers, lying within the COP band of 14-16 c/lb discussed earlier.

India’s COP of raw sugar is massively inflated by the high price of cane that mills must pay the farmers (under the government’s Fair and Remunerative Price or FRP). **The cane price alone is more than the globally efficient band of 14 to 16 c/lb, equating at current exchange rates to 17.7 c/lb.** Processing, storage and transport (assuming the sugar is sold in current year) add a further 6.0 c/lb to give a total production cost of 23.7 c/lb. **It is obvious that sugar costing 23.7 c/lb to produce, store and transport cannot be sold at world market prices (average 12.74 c/lb in Oct/Sep 17/18 year) without either massive losses or massive government subsidies.** India’s national government has openly committed to an industry assistance package in 18/19 equating to approximately US\$750 million in subsidies and direct assistance to help the country’s sugar industry. Those subsidies are reducing the returns of globally efficient sugar producers such as Australia.

Figure 17



## Appendix 1

**Table 1 – India Annual Sugar Balance (including forecasts)**

MY Oct - Sep	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19e	2019/20f
Opening Stocks	8,450	6,972	9,084	7,782	3,818	10,642	14,947
Production	24,400	28,300	25,100	20,225	32,300	33,500	29,500
Imports	<b>1,105</b>	<b>1,417</b>	<b>2,354</b>	<b>2,578</b>	<b>1,967</b>	<b>960</b>	<b>1,040</b>
- raws	1,083	1,379	2,299	2,508	1,937	940	1,000
- whites	22	38	55	70	30	20	40
Exports	<b>2,783</b>	<b>2,305</b>	<b>3,556</b>	<b>2,067</b>	<b>2,243</b>	<b>4,455</b>	<b>4,350</b>
- raws	1,194	475	61	97	102	1,000	1,000
- LQ whites	676	609	1,429	42	631	1,550	1,750
- Refined	913	1,221	2,066	1,928	1,510	1,905	1,600
Consumption	24,200	25,300	25,200	24,700	25,200	25,700	26,210
Balance	- 1,478	2,112	- 1,302	- 3,964	6,824	4,305	- 20
<b>Closing Stocks</b>	<b>6,972</b>	<b>9,084</b>	<b>7,782</b>	<b>3,818</b>	<b>10,642</b>	<b>14,947</b>	<b>14,927</b>
<b>Stocks to Cons</b>	<b>29%</b>	<b>36%</b>	<b>31%</b>	<b>15.5%</b>	<b>42.2%</b>	<b>58.2%</b>	<b>57.0%</b>

**Note:** the above table contains verified trade and production figures, as well as estimates for consumption and 18/19 trade estimates. Forecast net exports can be derived from exports less imports ie for 18/19, net exports = 3.485 mln mt. All figures in the table are thousand mt, tel quel (TQ).