

The sugar cycle – alive & kicking

What will impact global market direction?

Tom McNeill
Tues 13 February, 2018



Green Pool Commodity Specialists

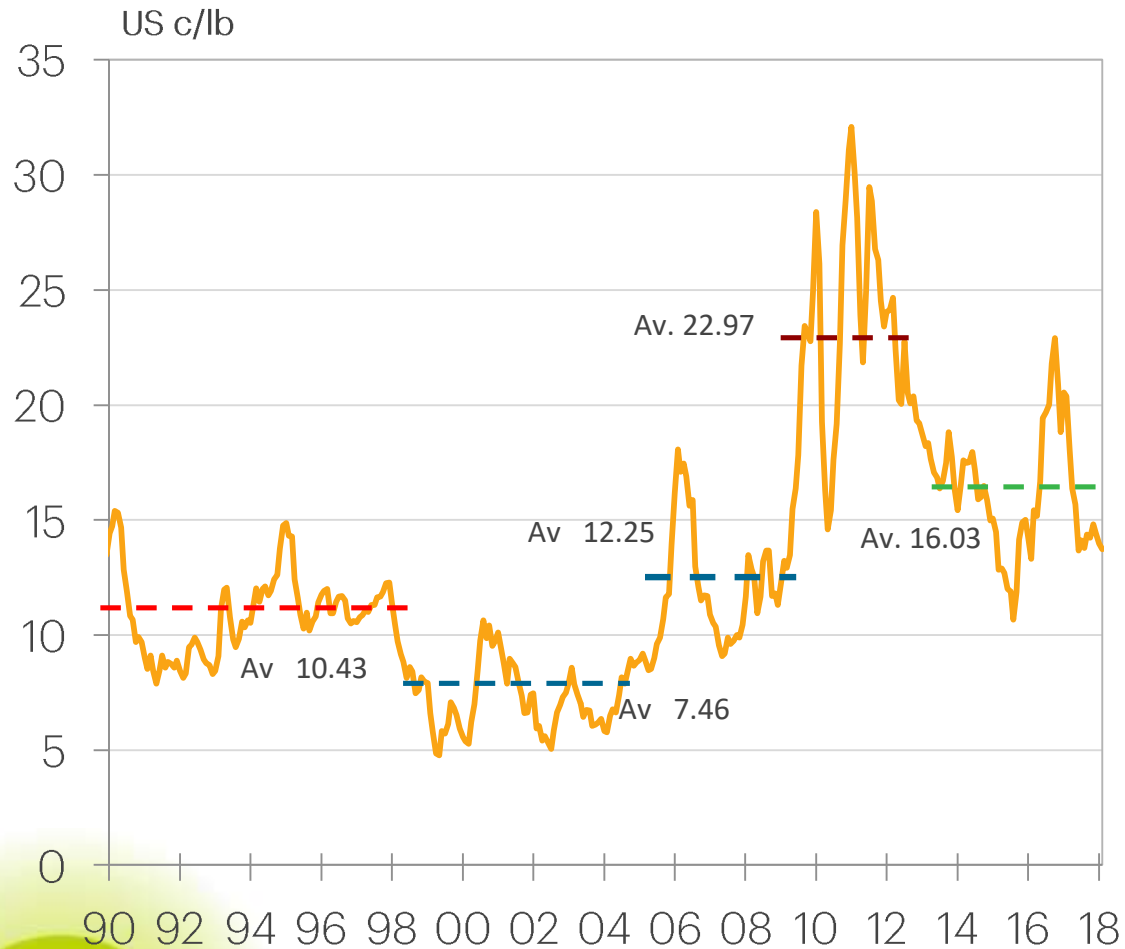
- Independent market analysts – established late 2011
- Prior to that, 8 years for EU-based analysts in similar business
- Based in Brisbane, Australia
- Focus on global sugar, ethanol, biofuel feed-stocks
- Client Base: international
- Client base - Producers, traders, refiners, food companies, banks, hedge funds etc
- Output – Price reports, Analysis, Consultancy, Statistics re market, Global balances, Global trade-flows etc

Prices, production cycles & trade

- Longer term prices in global sugar market
- What do historical prices/phases tell us?
- Focus on past 5 years – is **this** the future?
- S&D – cycles, timing, changes
- S&D – our outlook 17/18 and 18/19
- Major country focus – Brazil, India, EU, China, Thailand
- Cost Of Production – impact, implications?
- Price and outlook – what conclusions can we draw?

Longer term phases – NY11 sugar prices

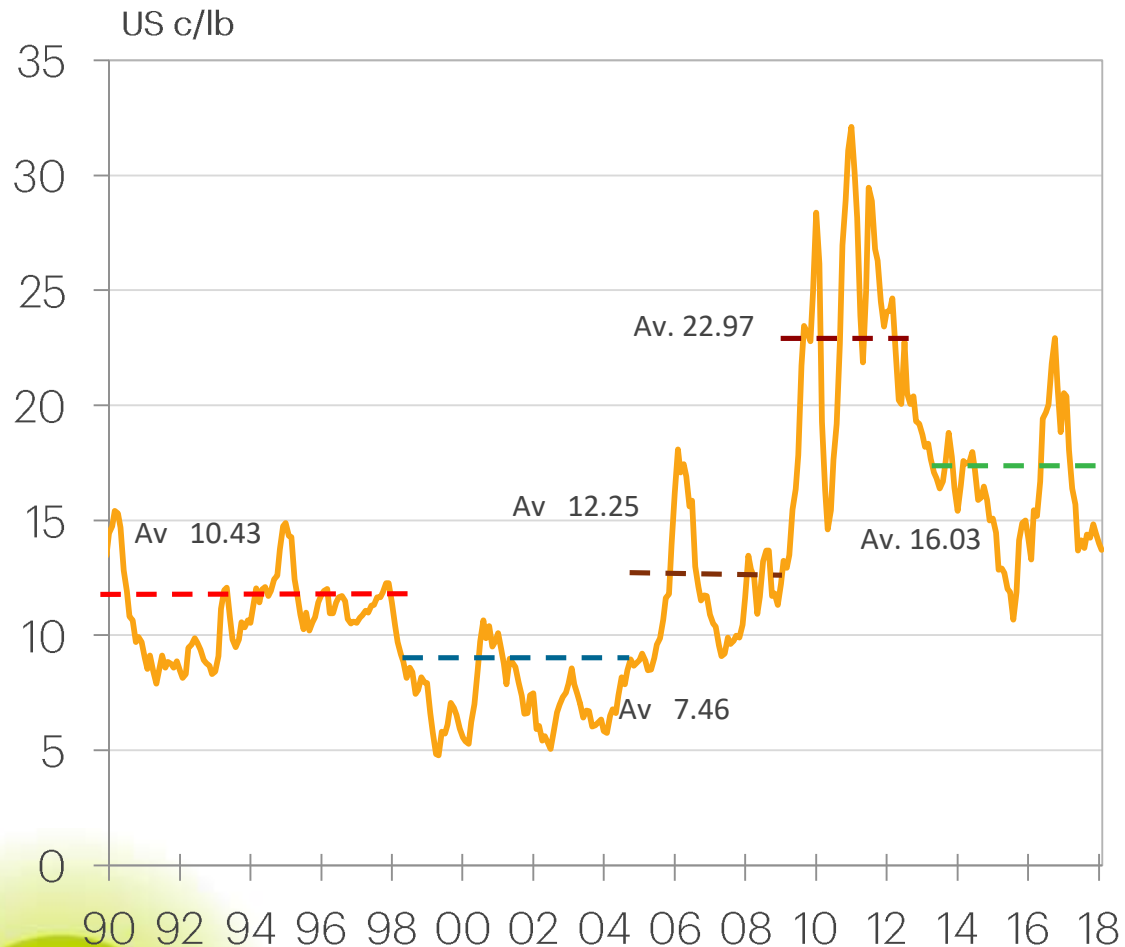
ICE11 Monthly Av Price 1990-2018



- 1990s av. of 10.43 c/lb – adequate global expansion
- 2000-06 – Brazil expands, weak Real
- 2006-08 – Brazil ethanol expands
- 2008-13 – Global weather issues, large deficits in sugar, BRL strong
- 2014-18 – surplus to deficit, to encroaching on further surplus

Longer term phases – NY11 sugar prices

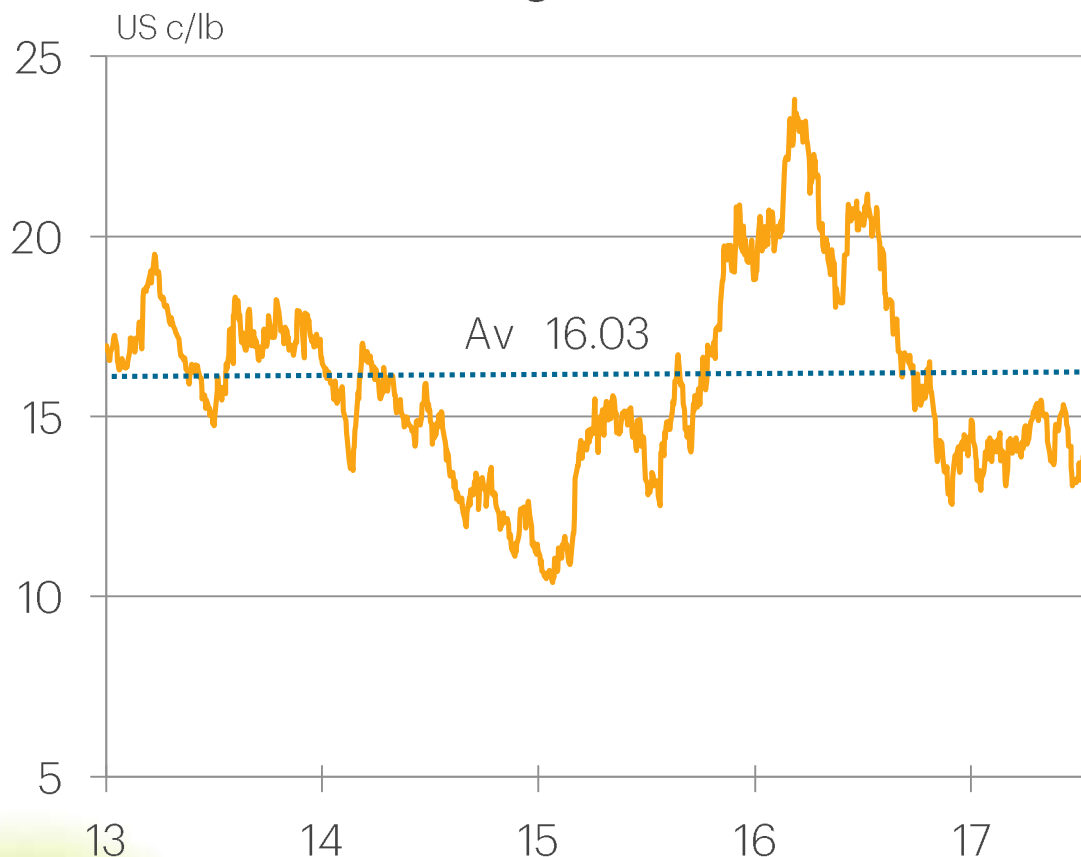
ICE11 Monthly Av Price 1990-2018



- These longer term averages usually dictated by the cost of bringing new marginal capacity to market
- Overlay - sometimes low cost producers chase market share, or
- high cost producers dump excess on global market (EU – 2006)

Aug 13 to current – as good as it gets?

ICE11 Av Price Aug 2013 to Feb 2018

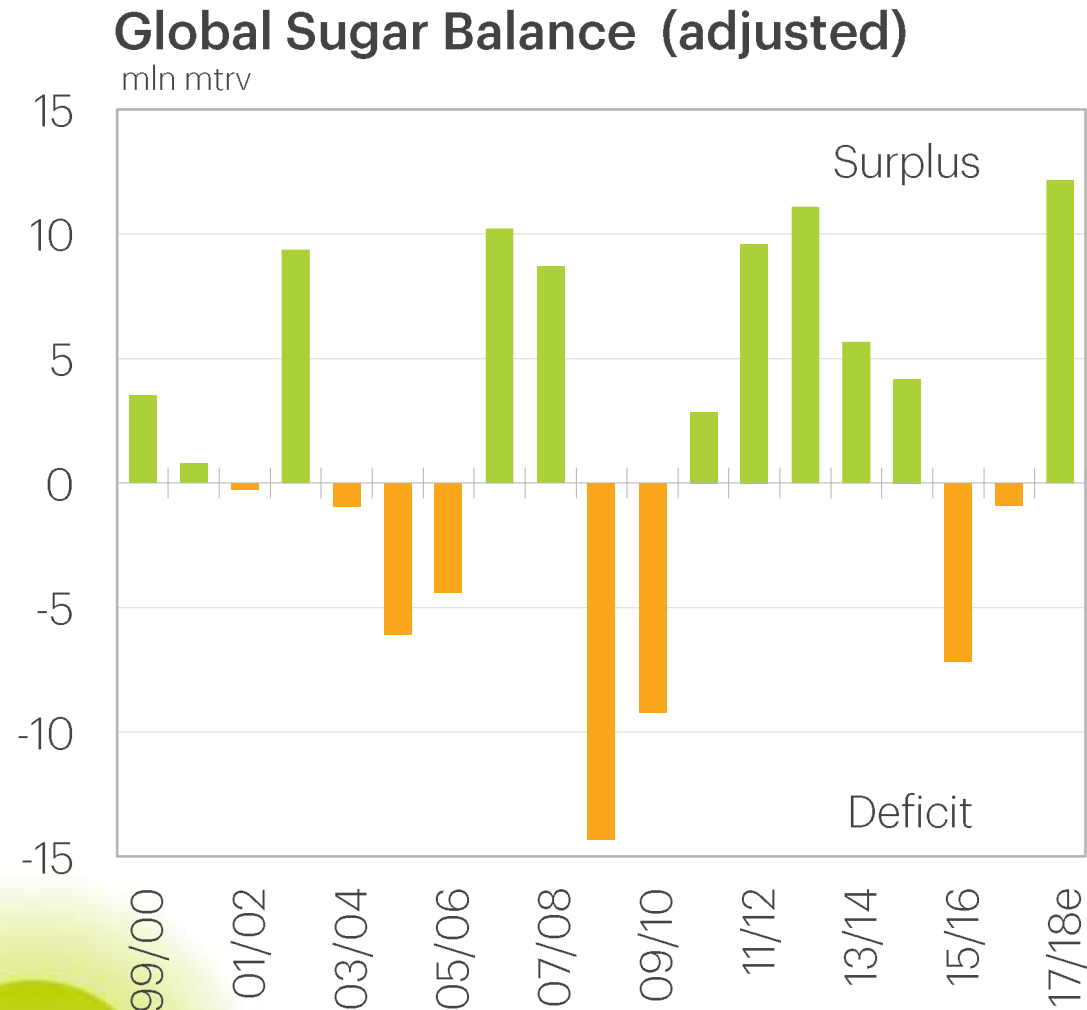


- Aug 13 - Feb 18: Tail end of 5 yr surplus (but follows large deficits)
- El Niño drought in Asia 2015/16
- Low of 10.30 c/lb Aug 15
- High of 24.10 c/lb Sep 16
- Stabilised into 13 – 15.5 c/lb range since Jun 17
- A 16 cent price covers costs for efficient global producers
- Back to COP later

Prices, production cycles & gravity

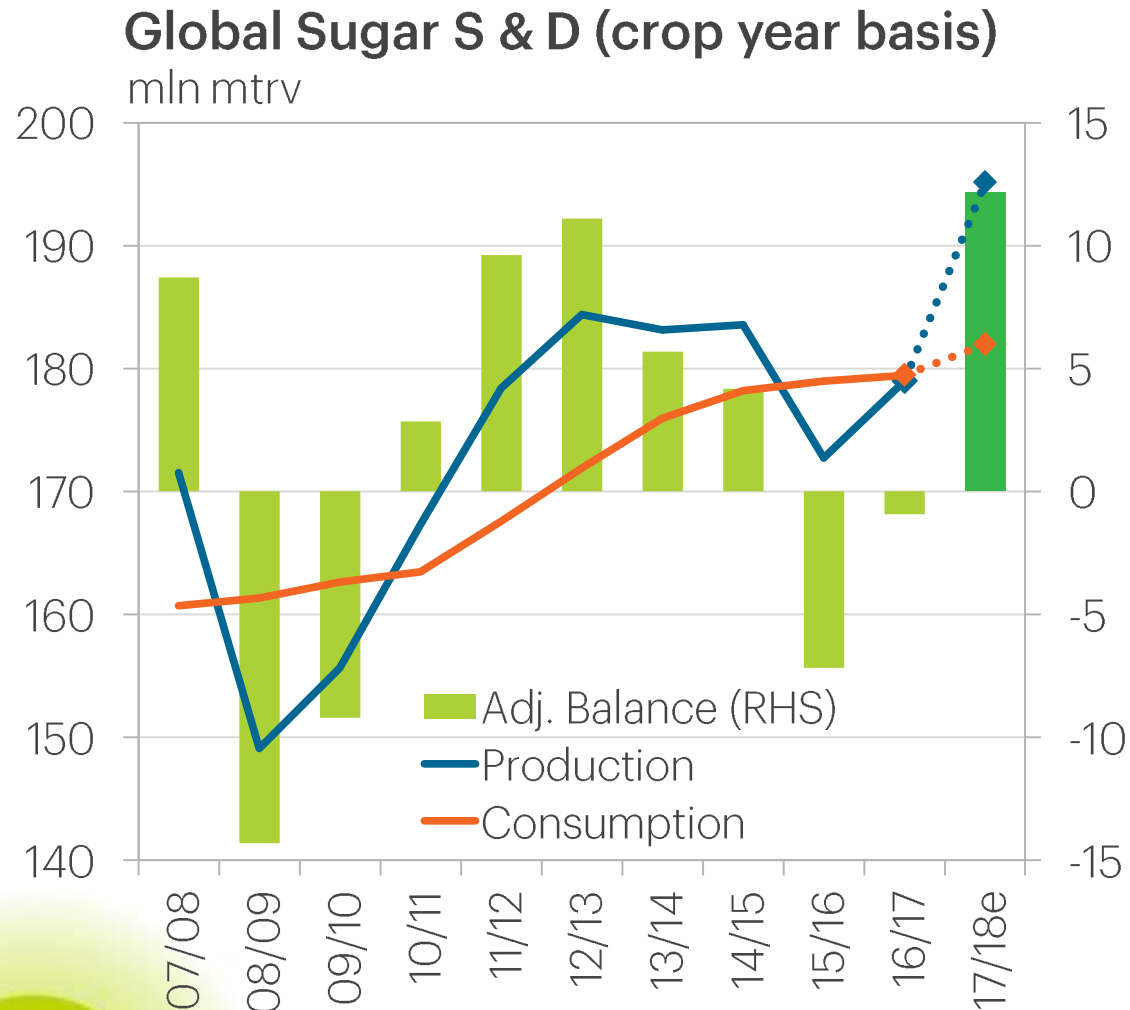
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Global S& D – longer term cycles



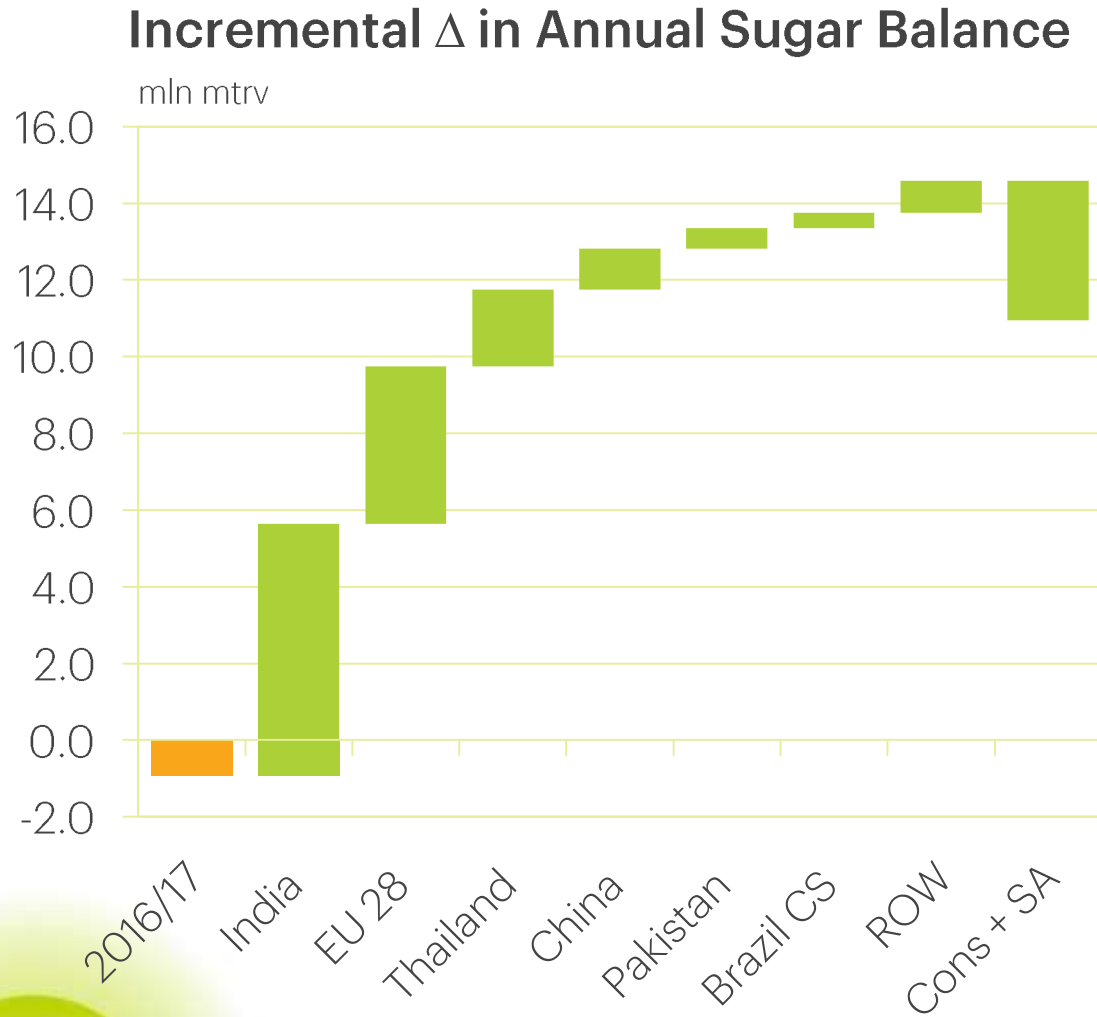
- Sugar has slightly longer surplus cycles than deficits
- 5 year surplus 2010/11 to 2014/15 unusual
- Driven by very high prices 2010 to 2012, big incentives to expand
- India also stabilised cane production through that period
- Green Pool view that more likely to see 2/3 cycle – 2 deficit, 3 surplus
- 2 major drivers - **cane** with up to 5 years plant/ratoon & **weather/India**

Global S& D 17/18 crop year forecast



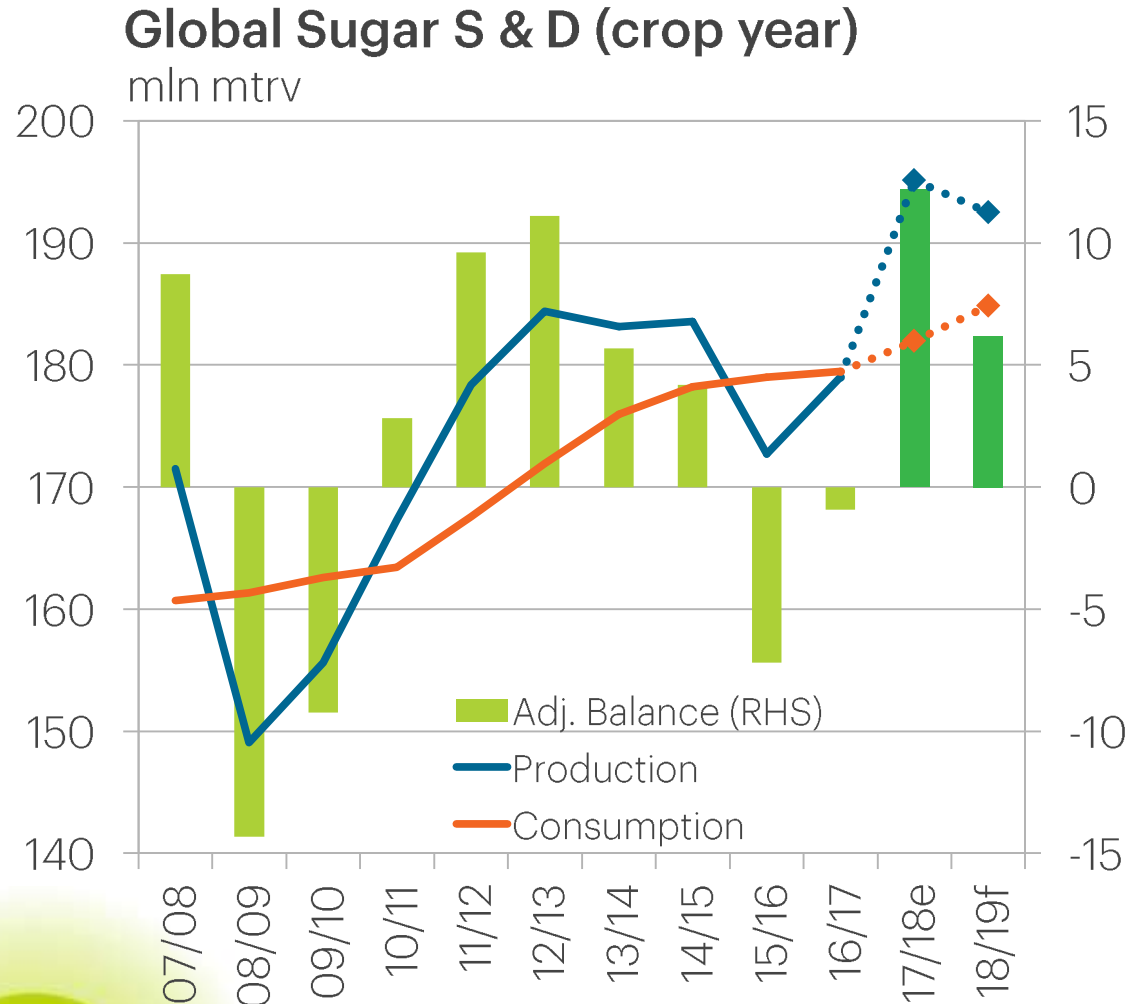
- 15/16 and 16/17 deficits were expected to be larger – 16/17 forecast as much as -8.0 mln mt
- 15/16 El Niño drought in Asia, wet weather in CS Brazil
- 17/18 surplus has been building – good monsoons in Asia 2016 & 17
- Big CS Brazil crop 2017 - 36 mln mt
- India 2017/18 – maybe 27.5 mln mt?
- EU also added 3.7 mln mt sugar as sugar regime deregulated

Global S& D – major changes from 16/17 to 17/18



- Green Pool uses a crop year basis for production stats
- Most of the change due India (up at least 6 mln mt)
- EU, Thailand, China next in line for production increases
- Only small offsets from South Africa & Australia whose production fell
- Consumption rising only slowly (1.4%), but higher than 16/17 (0.3%)

Global S& D - 18/19 crop year forecast



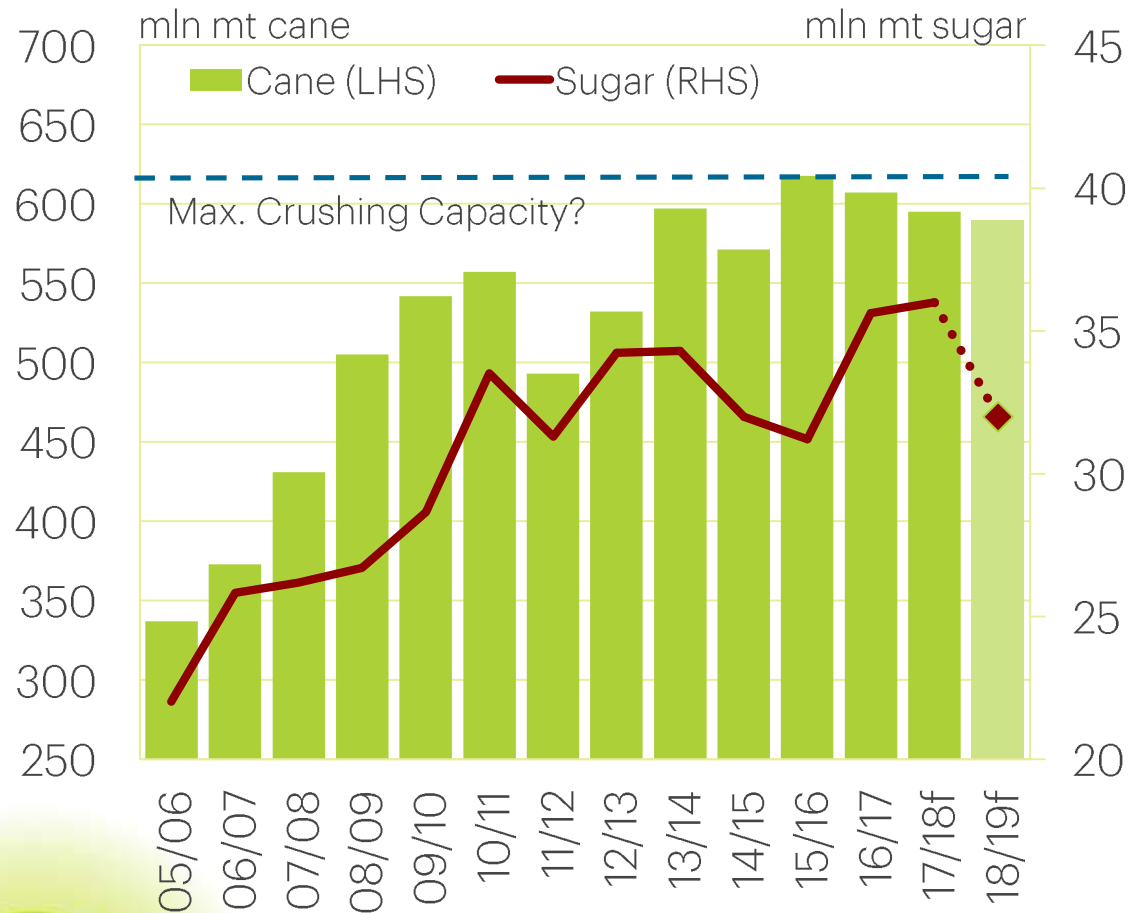
- We just released to clients – we expect a 5.5 mln mt surplus 18/19
- Sharp cut to CS Brazil (-4.0 mln) due high ethanol prices
- Lower EU output (~0.800 to 1 mln mt) due drop in yields
- But India, China to raise prodn
- Consumption should increase, given lower prices (+1.6%)
- 2 consecutive surpluses will add to global stocks burden (over 50% STU)

Prices, production cycles & gravity

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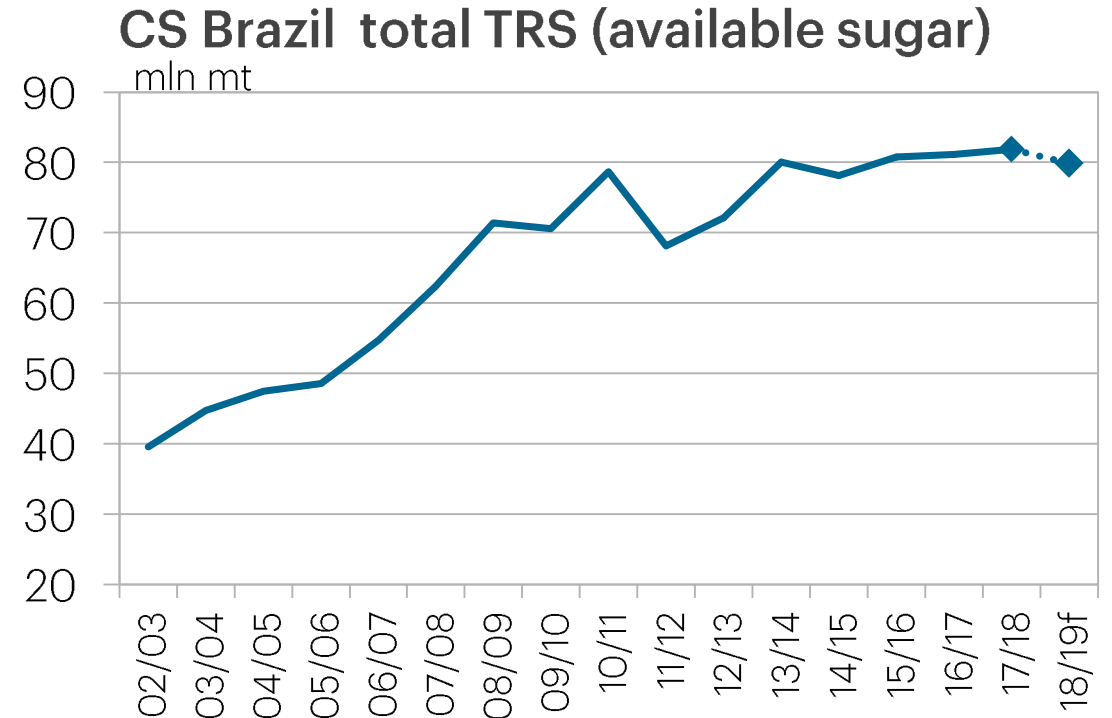
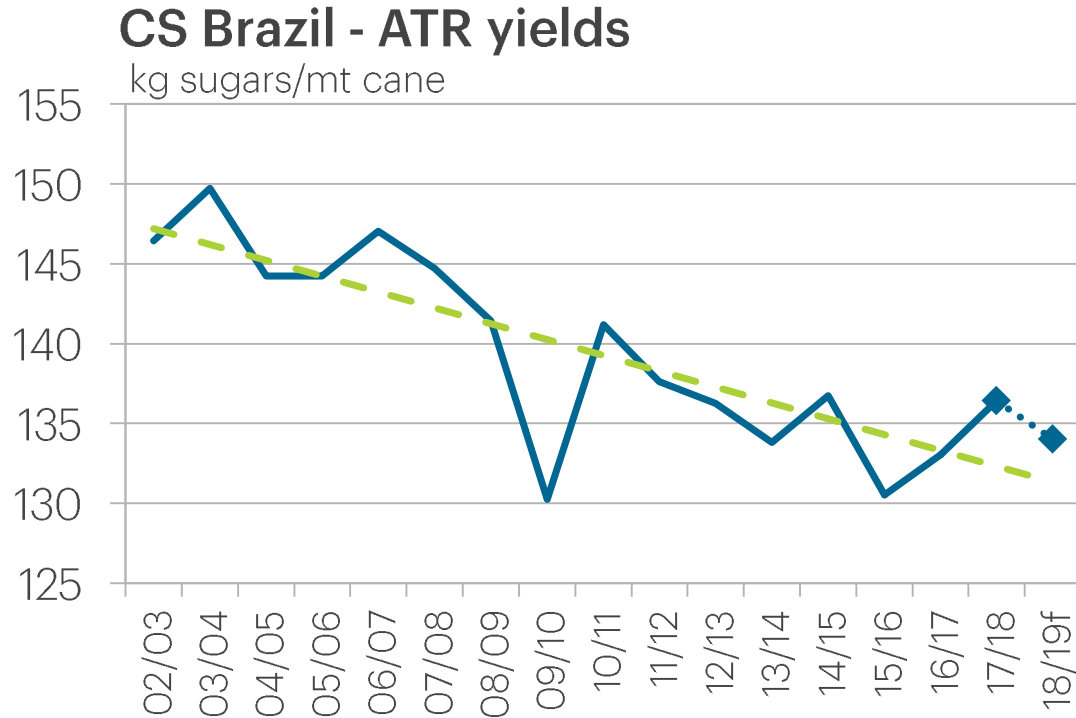
CS Brazil – has industry hit peak?

CS Brazil Cane & Sugar Prodn



- Note: cane tonnage stagnant to falling (max 15/16 at 620 mln mt)
- Sugar peaked 17/18 at 36 mln mt as ethanol share fell
- We expect cane to fall from 595 to 590 mln mt in coming harvest
- Big shift from sugar to ethanol output, given better ethanol prices
- Mill closures in past 5 years means max crushing capacity has fallen
- Virtually no new investment in mills – just sale of existing mills

CS Brazil – impact of mechanization

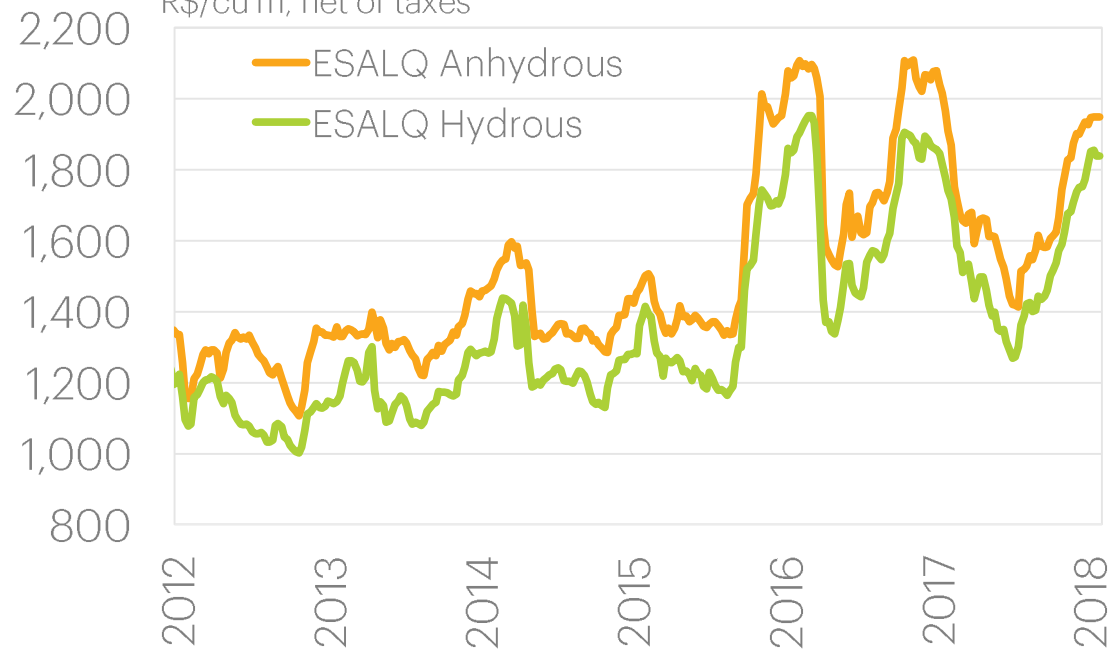


- ATR – yield measured as kg sucrose/tonne cane – has fallen consistently
- Even though total tonnes cane rose, total recoverable sugars TRS stagnant

CS Brazil – ethanol price up, sugar down

CS Brazil - Ex-Mill Ethanol Prices

R\$/cu m, net of taxes



Brazil VHP Sugar Prices

BRL/mt

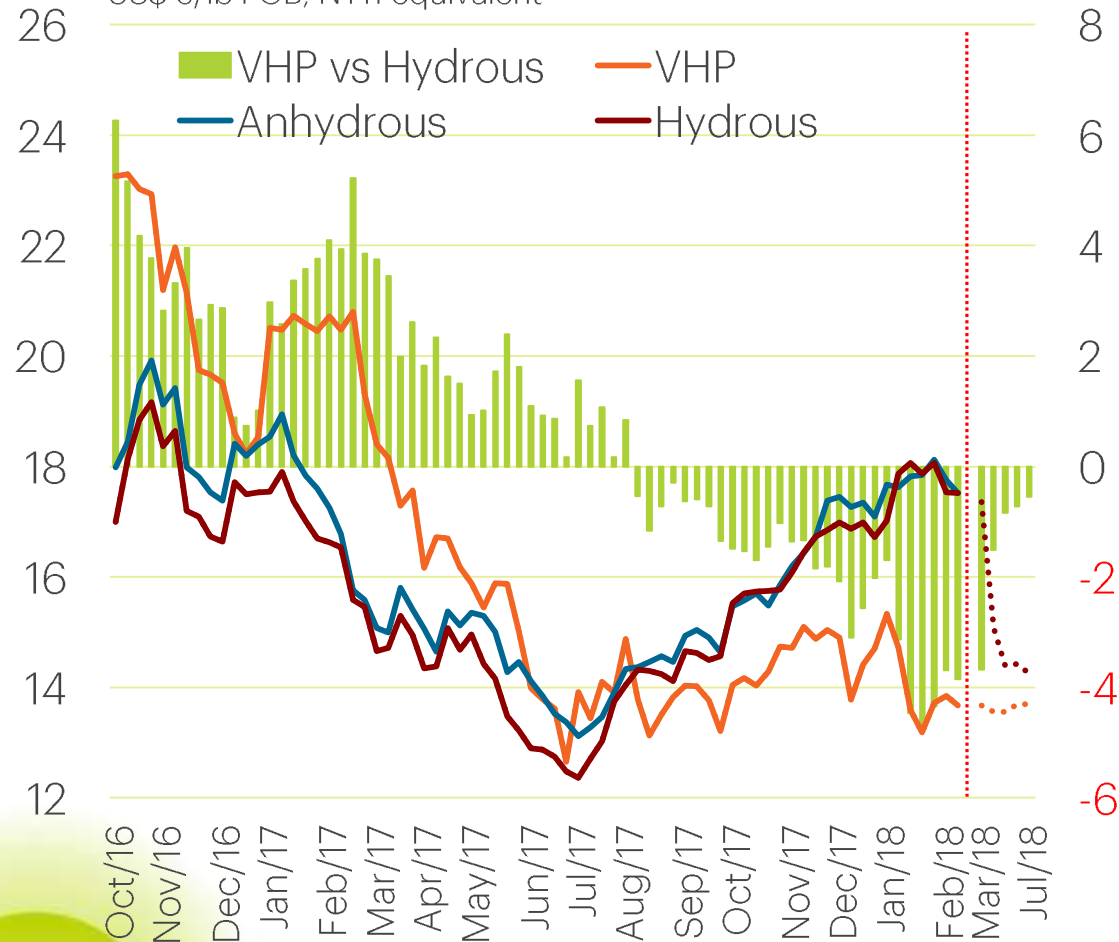


- With Petrobras following world gasoline price, av. ethanol price higher
- Taxation of fuel ethanol now much more uniform between states
- Sugar prices, even with weak Real, back down near R\$1000/mt

The Parity Equation

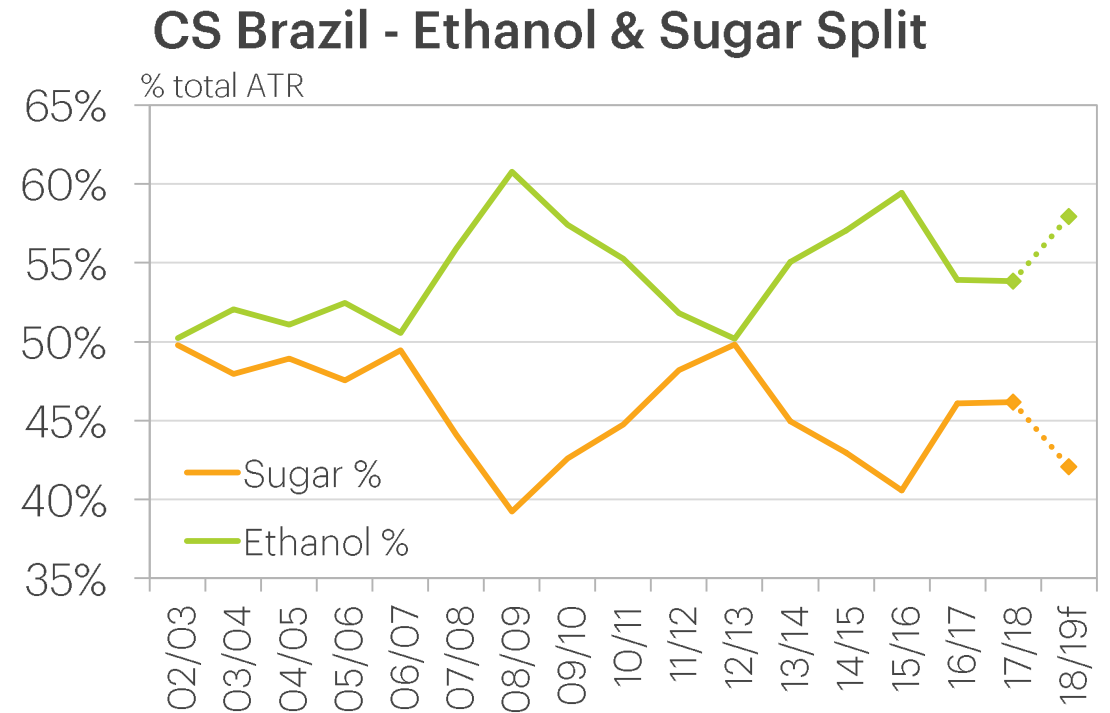
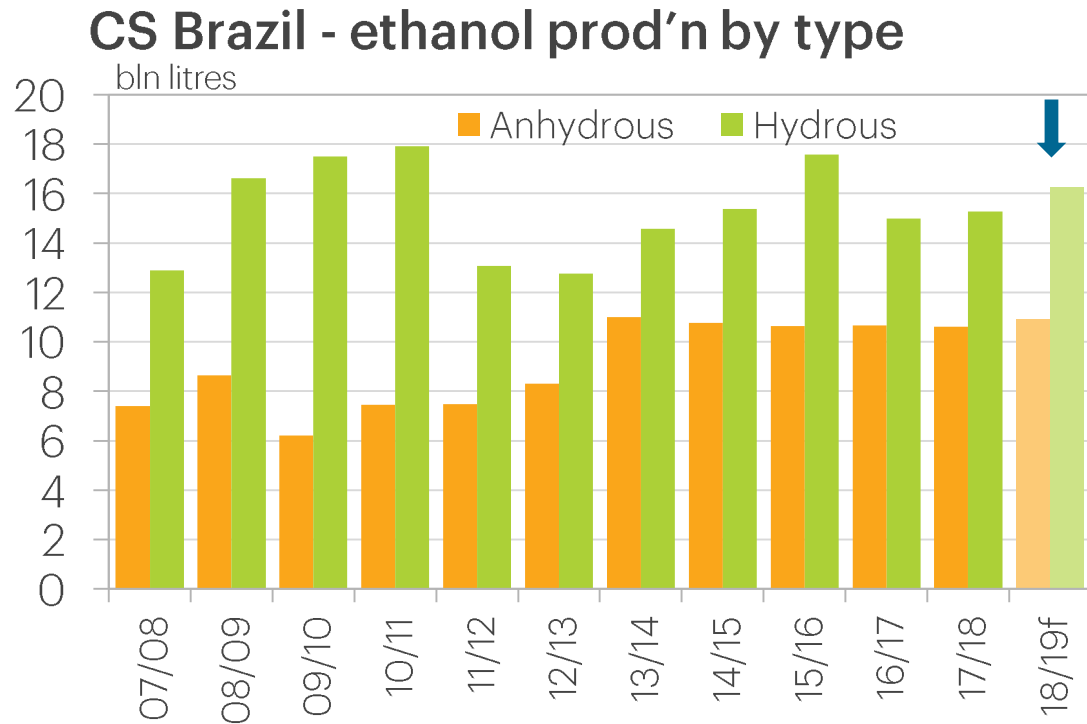
Brazil - Sao Paulo Sugar/Ethanol Parity

US\$ c/lb FOB, NY11 equivalent



- Daily tool used by all Brazil mills to look at parity of products
- Strong advantage of sugar (VHP) over ethanol Oct 16 – Aug 17
- Switch now almost as extreme – full 4-5 c/lb ethanol over raw sugar in CS Brazil
- This is driving the sharp drop in Brazil sugar output (-4.0 mln mt)
- Forward curve favours ethanol but not by so much - ethanol price will fall once harvest underway in Q2 18

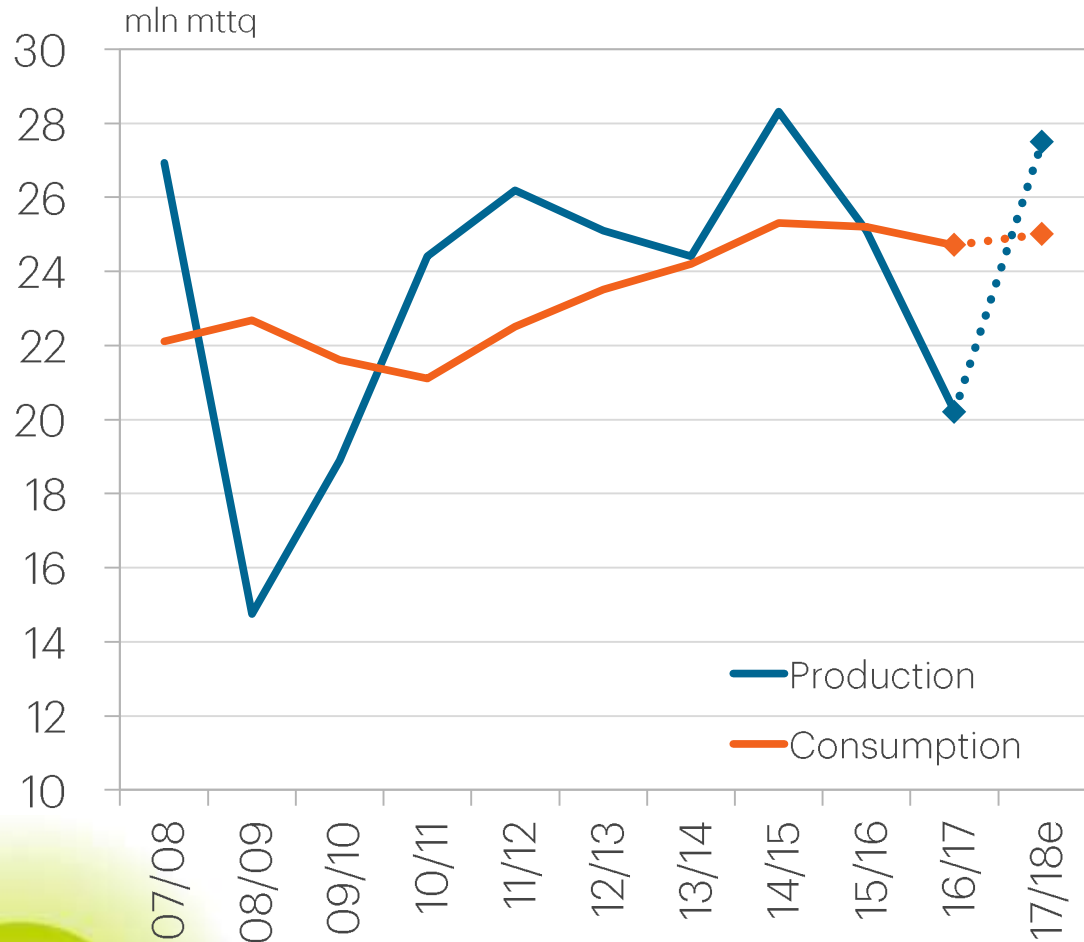
CS Brazil – the switch is on



- Our % sugar mix at 42.5%, but others are lower
- Most of the additional ethanol produced will be hydrous
- Depends on higher oil prices in 2018 being maintained (an assumption only)

India – back with a vengeance

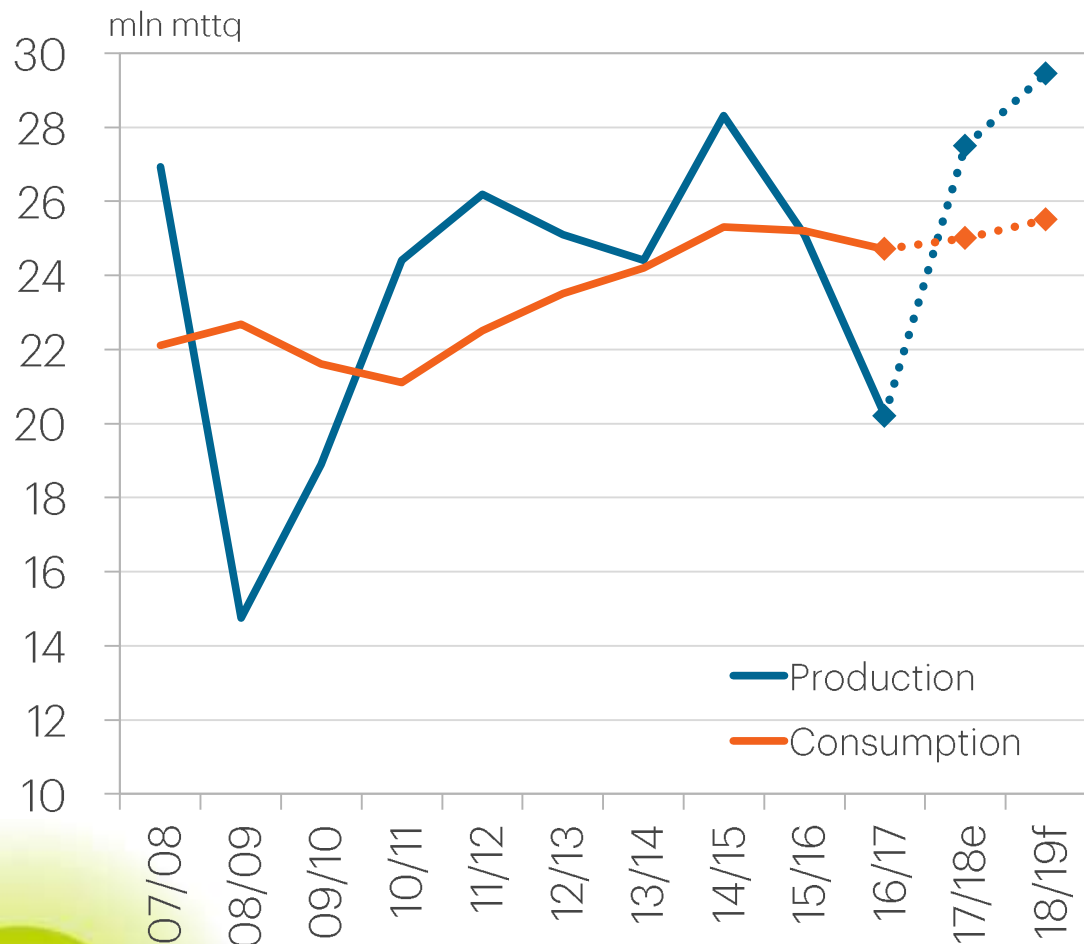
India - Production & Consumption



- India's massive swings in production have reduced somewhat
- Still prone to strong El Niño events such as 2015
- Irrigation more widely used (drip), better cane varieties (UP state)
- Prod'n forecast for current crop now 27 to 27.5 mln mt (up fm 20.3 mln)
- Cane price is set by govt in India, giving millers a headache of a falling domestic sugar price

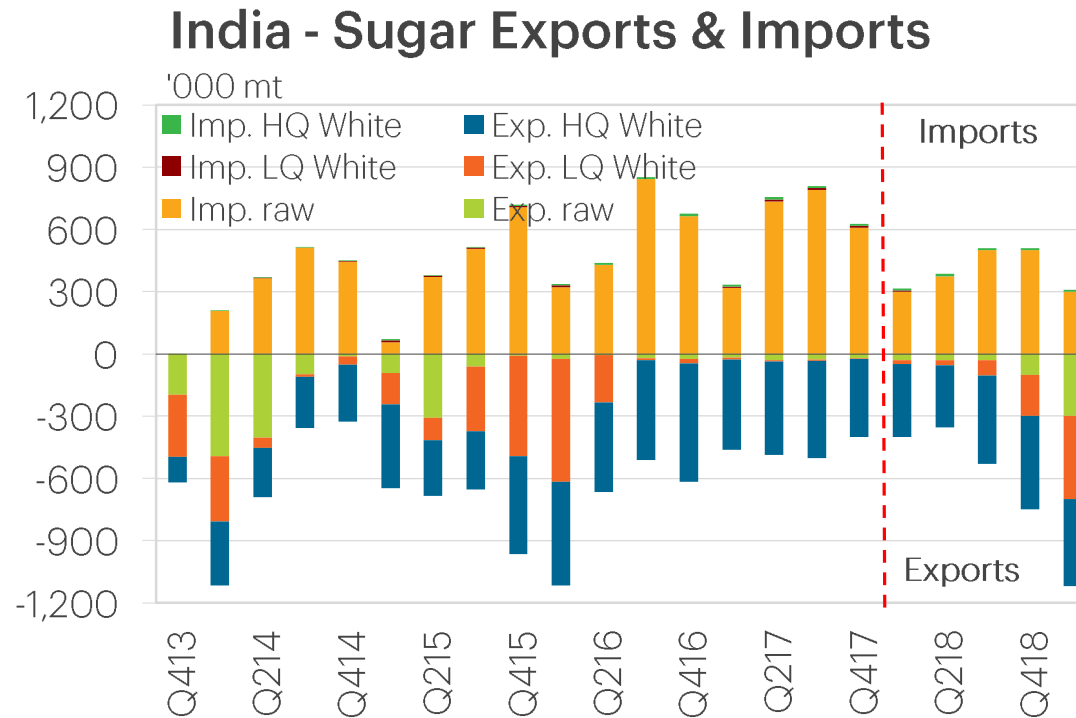
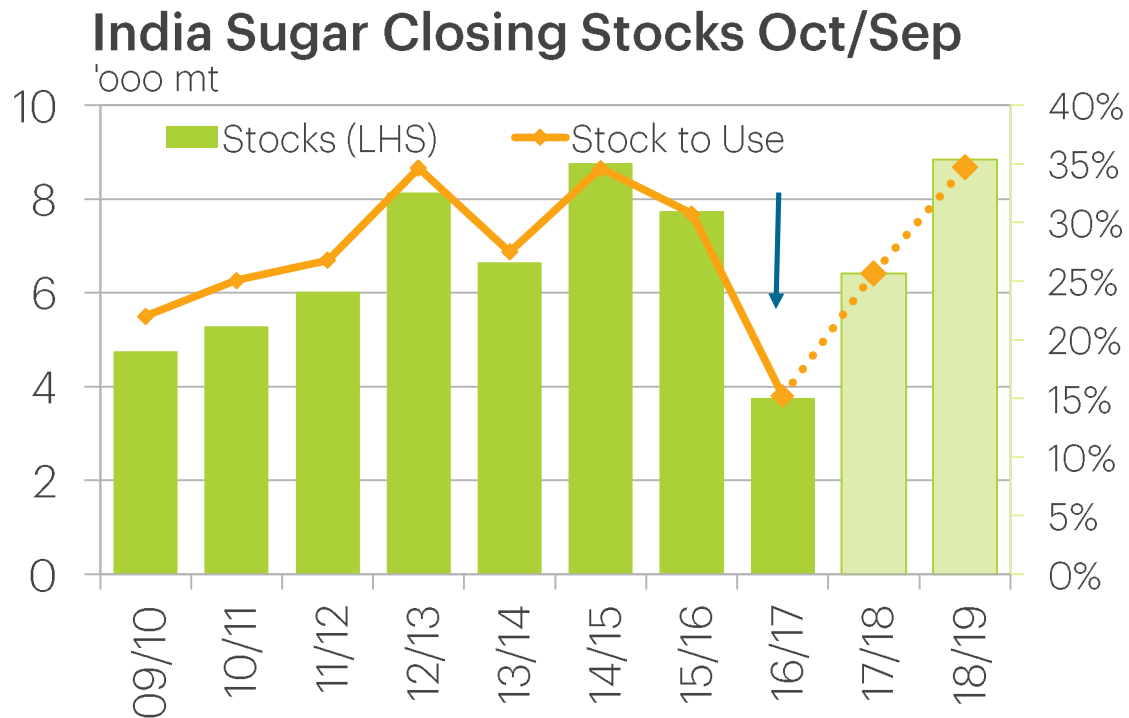
India – and more to come

India - Production & Consumption



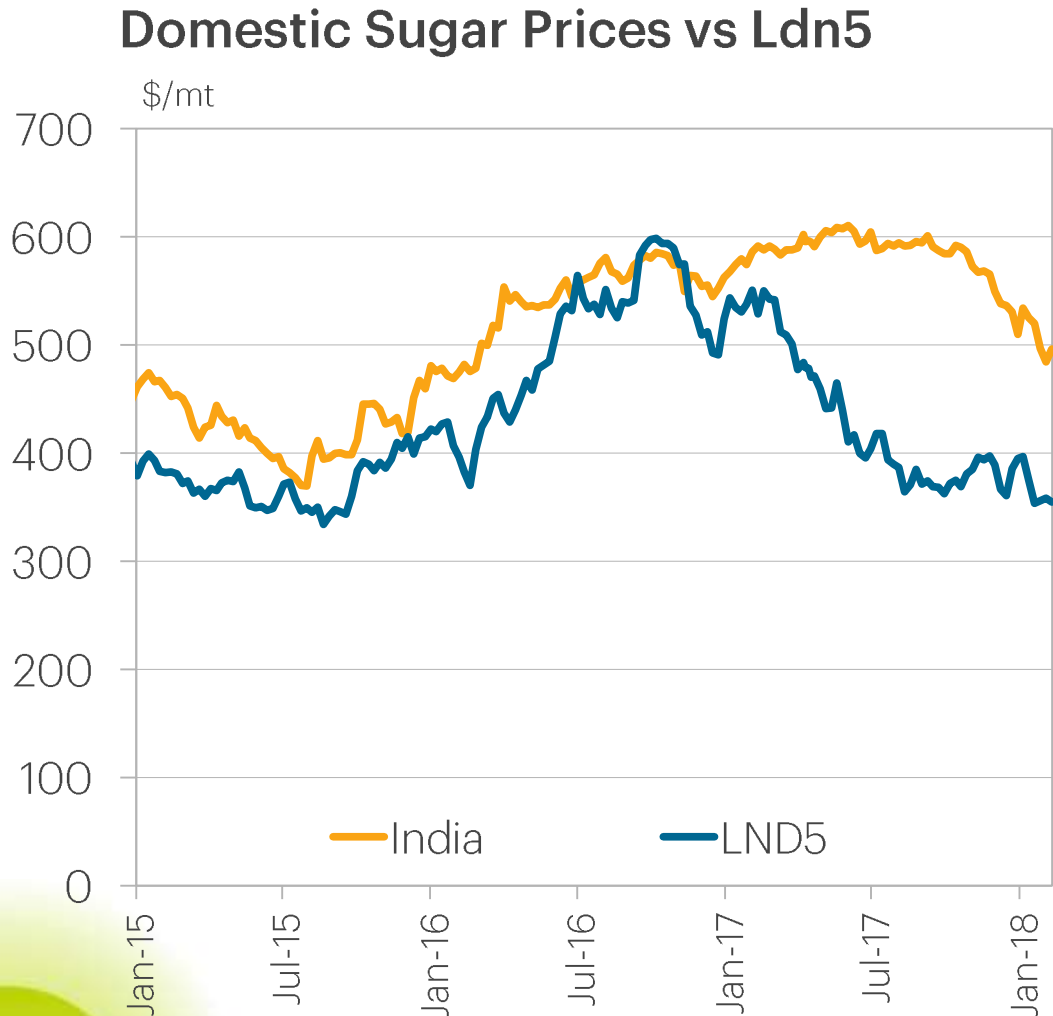
- India's 18/19 crop projected to be larger again – 28-30 mln mt not out of the question
- It is risky forecasting India's next crop prior to summer monsoon
- But some cane already planted
- Massive increase in current harvest an ominous sign
- Risk is that mills can't pay farmers (building arrears)
- India's stock level will also build

India – end stock & export f'cast



- Government has agreed to industry only keeping 2 months stocks (4 mln mt)
- Industry already agitating for export subsidies, stockholding rebates etc
- India will export – just a matter of how much, when & what conditions?

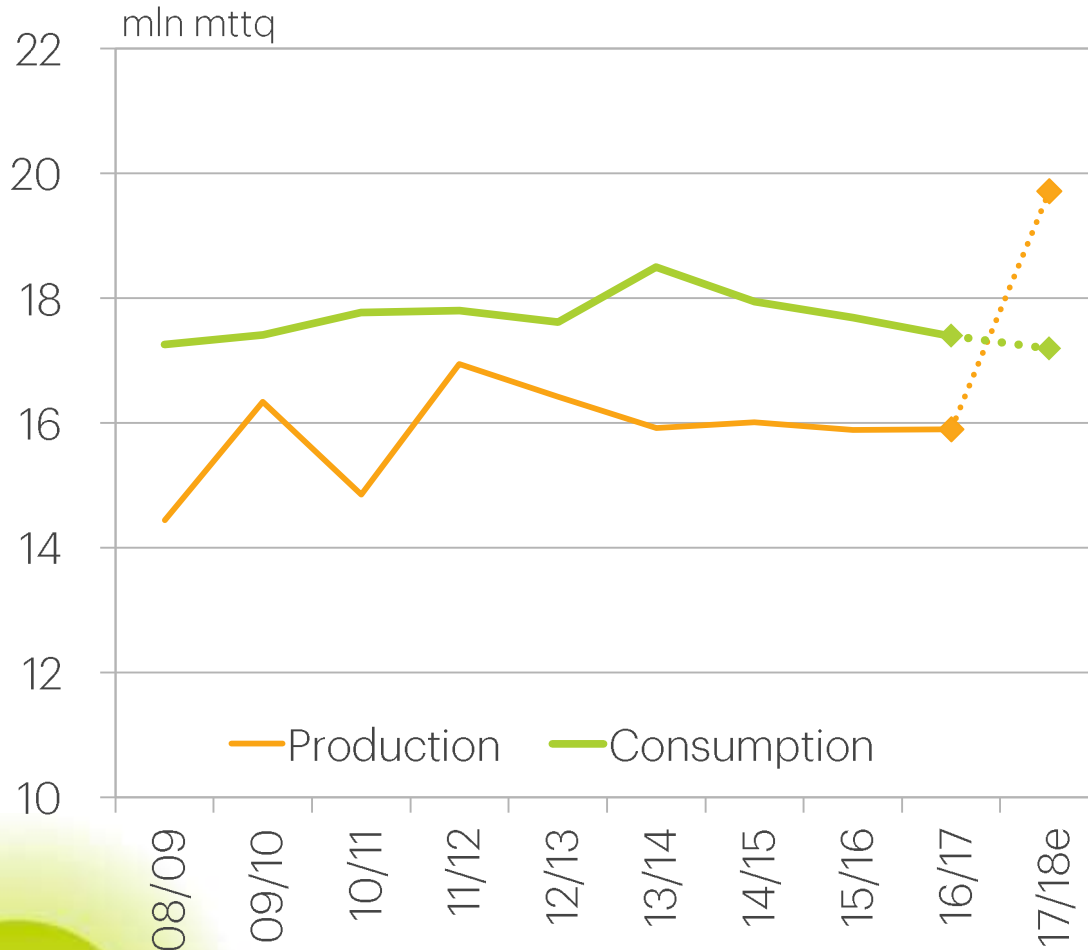
India – trouble at mill?



- India's domestic prices are still higher than global, but have fallen sharply since harvest started Nov 17
- (Orange line - India domestic price)
- India's govt raised (fixed) cane price last year, facing election in 2019
- As the margin over global prices drops, 50% tariff losing effectiveness
- Also, mills lose money with high cane price – farmer arrears will grow
- The clamour for export subsidies, stocks finance etc will grow also

EU – “excusez-moi”

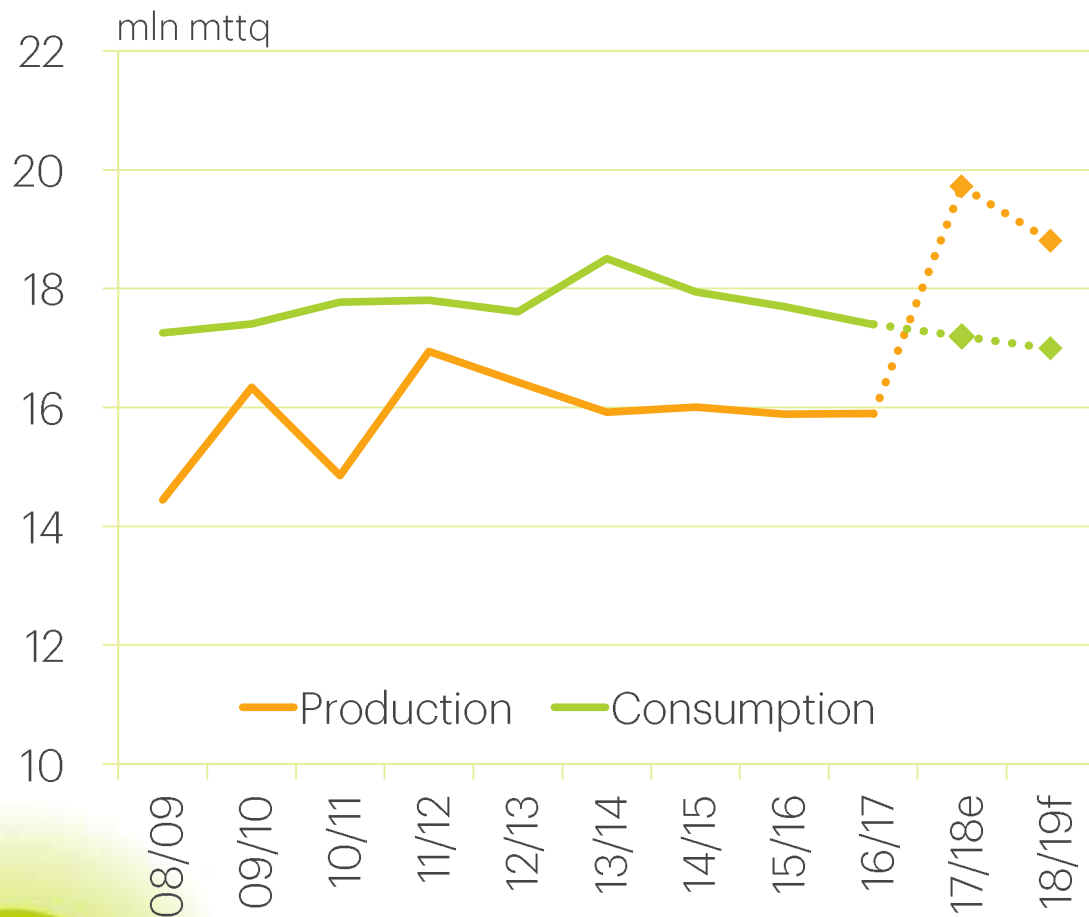
EU - Sugar Production & Forecast



- EU sugar policy reform saw lifting of production quotas, reduction of domestic price support
- EU beets are high yielding, have been very efficient
- WTO (2006) limited exports to 1.37 mln mt until 1 Oct, 2017
- EU an exporter of high quality white sugar (beet) so White Premium is less relevant consideration (see later)

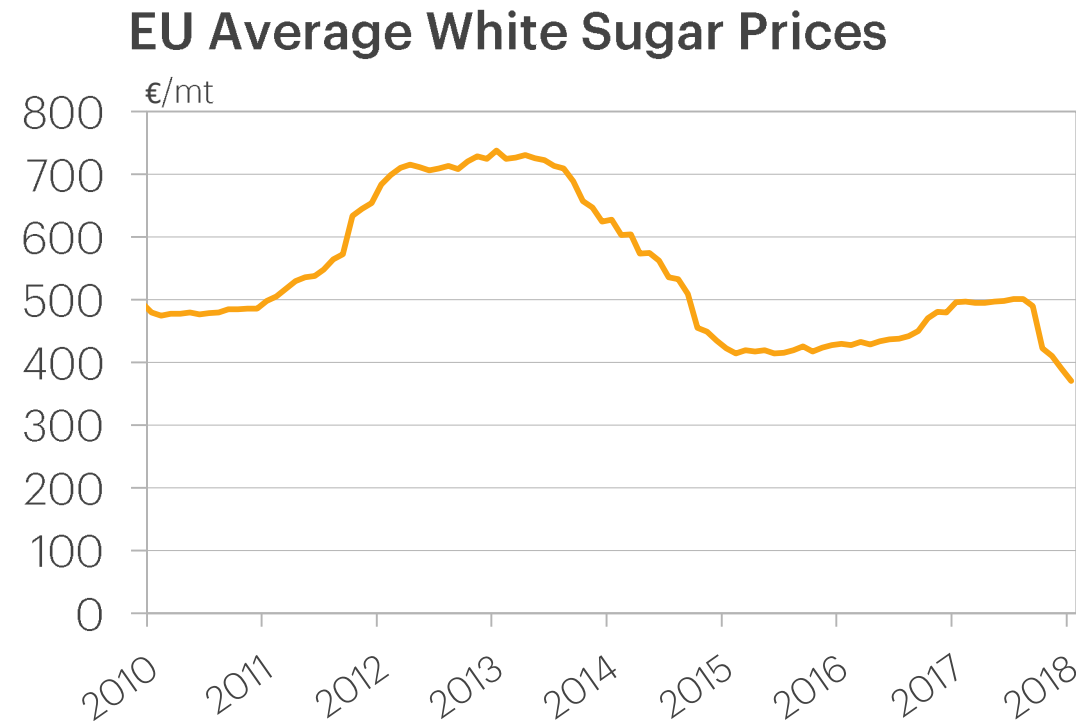
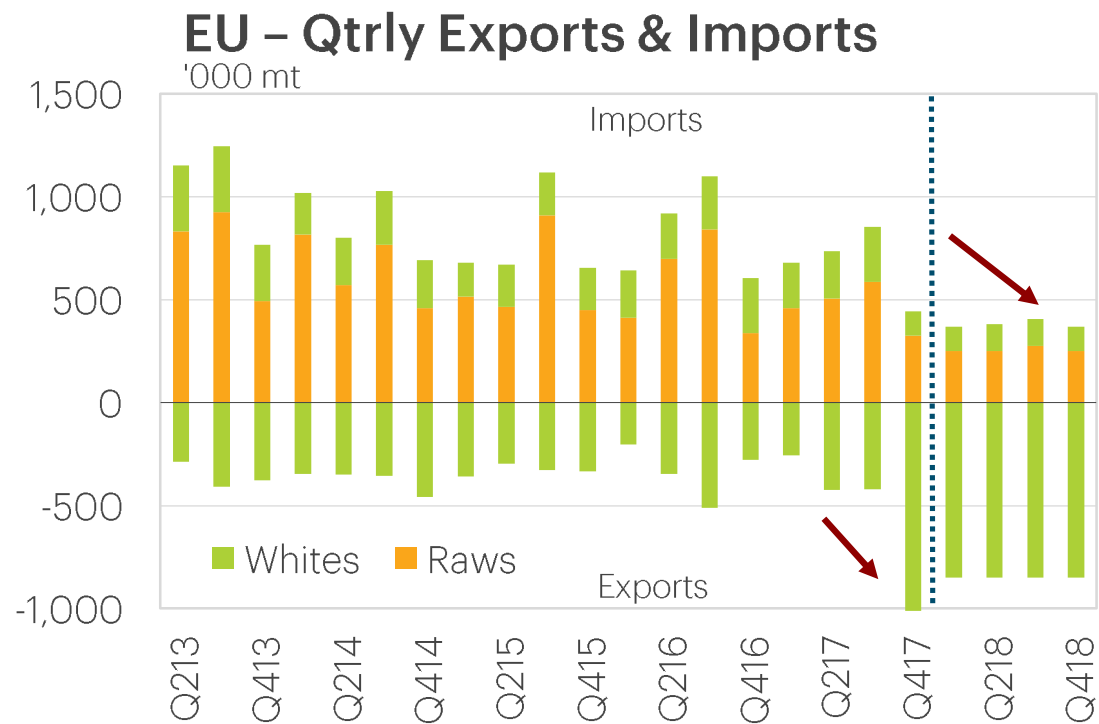
EU – “excusez-moi” (Take 2)

EU - Sugar Production & Forecast



- 2018/19 - EU likely to plant little less area, f'cast average yields (17/18 yield outstanding)
- Consumption likely to fall again since Isoglucose (HFS) output rising
- Larger companies have offered multi-year minimum price contracts to farmers (some co-operatives) at Euro 25/t+ beet
- Assertive push to re-establish large export market presence

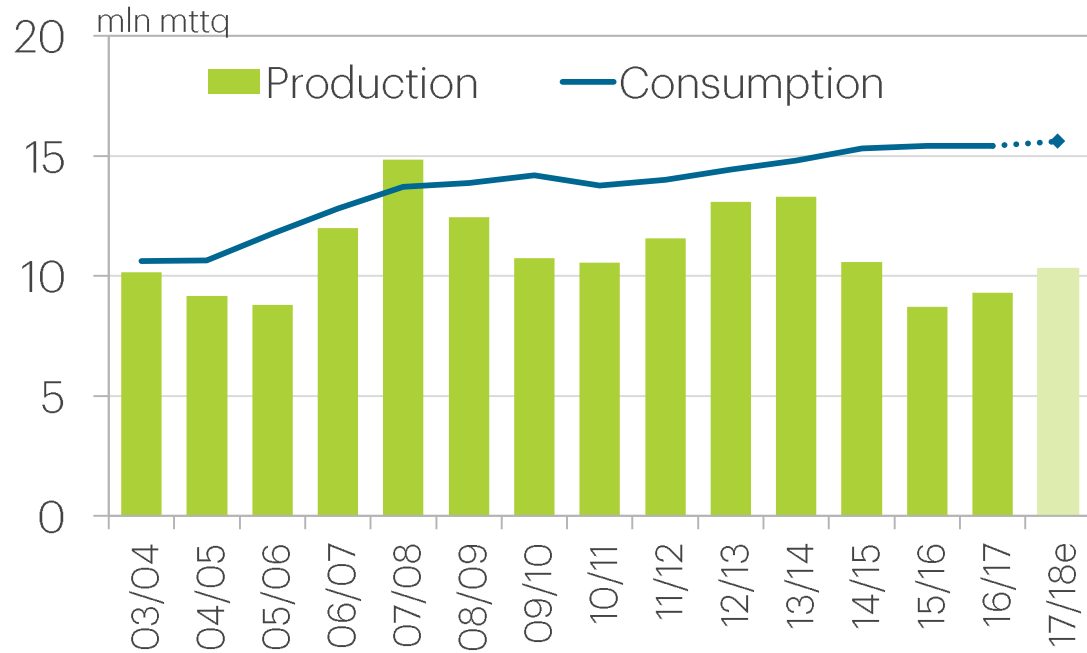
EU – fortuitous timing – or not?



- EU – f'cast exports ~ 800k/qtr = 3.20 mln mt. But Q4 17 exports hit 1.0 mln mt
- Raw imports down – seems inevitable some refinery capacity will close
- Price in Euro falling – but still closer to import than export parity

China – regulatory morass

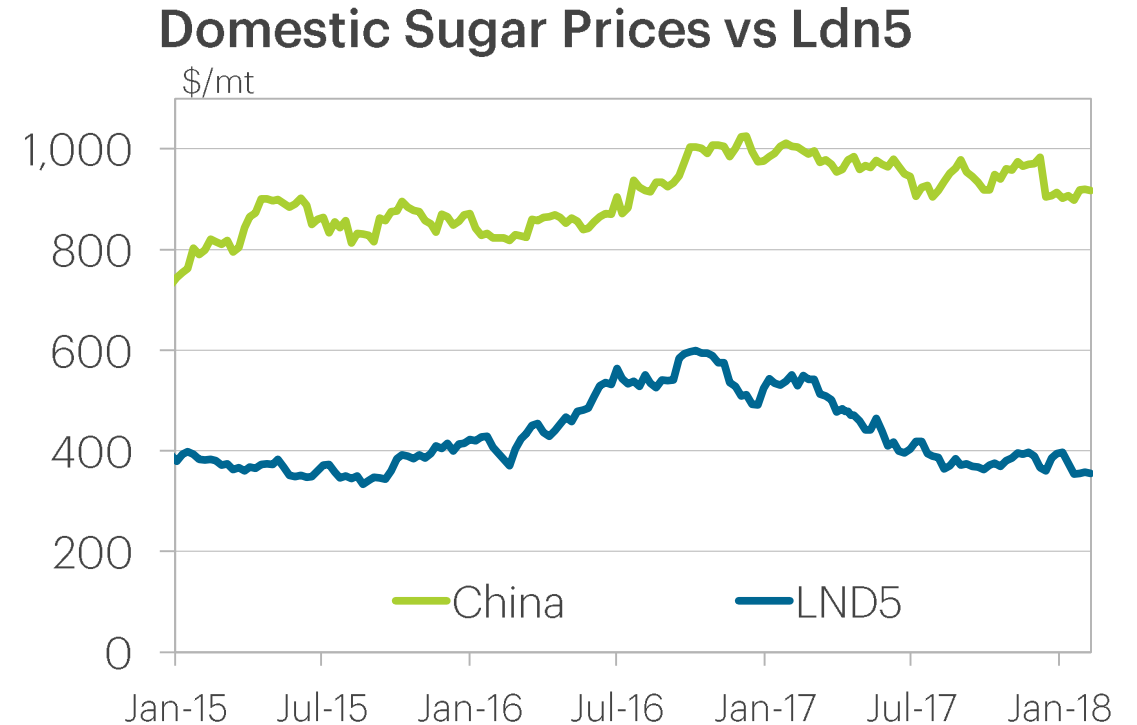
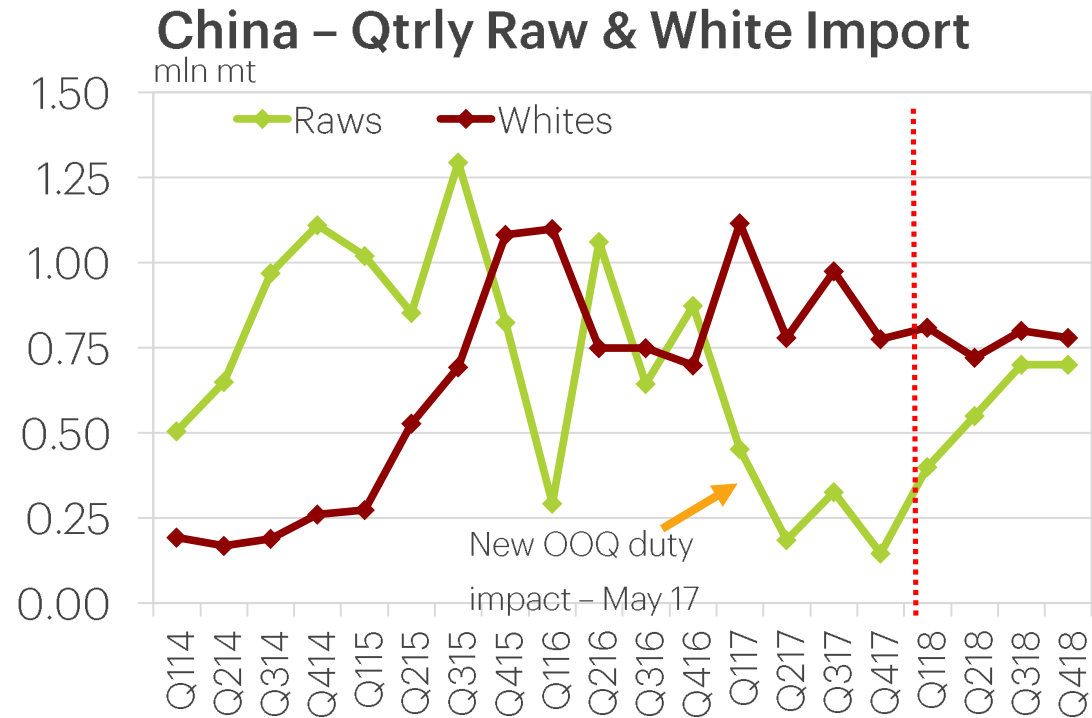
China - Production & Consumption



China Sugar Prod Forecast 17/18			
000 mt	CSA	GPC	16/17 final
National	10,200	10,180	9,288
Cane Sugar	9,070	8,980	8,242
Guangdong	900	900	772
Guangxi	5,900	5,800	5,295
Yunnan	1,940	1,950	1,878
Hainan	200	200	165
Others	130	130	132
Beet Sugar	1,130	1,200	1,046
Heilongjiang	70	80	25
Xinjiang	490	550	487
Inner Mongolia	500	500	463
Others	70	70	71

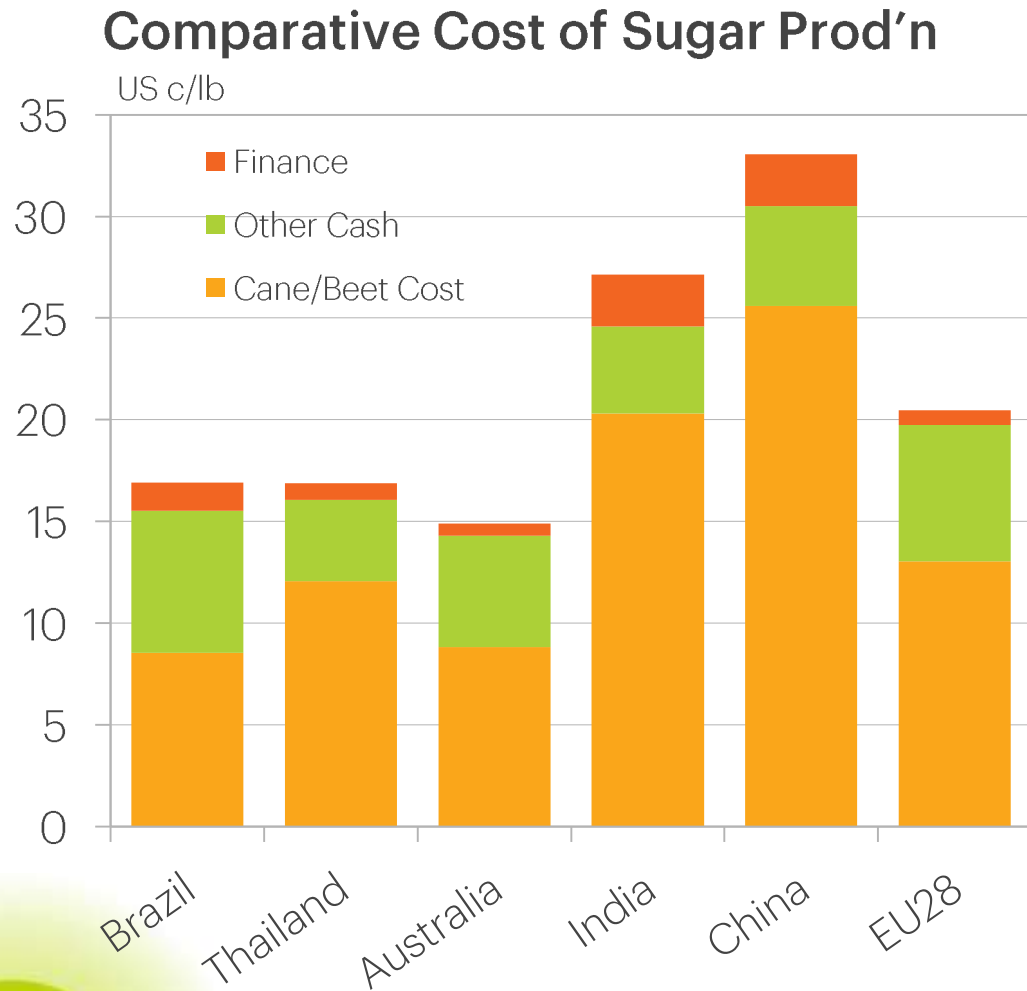
- China – govt has many competing demands – farmers, millers, refiners, manufacturers. High internal prices (US\$920/t wholesale) attract smuggling
- We reduced China crop f'cast to 10.18 mln mt 17/18 last week, frosts impact

China – regulatory morass



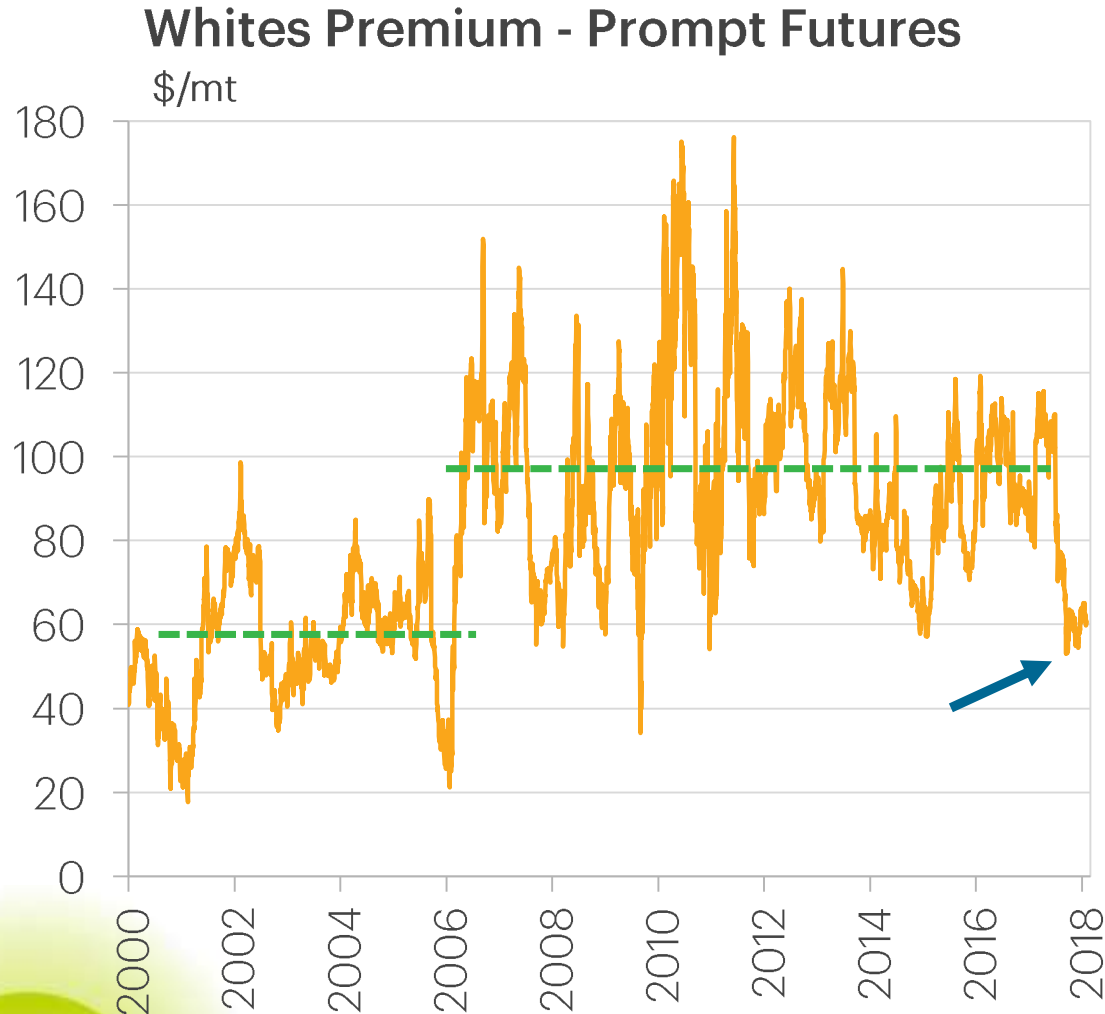
- How China’s imports in 2018 pan out is difficult to guess – many competing objectives for govt. Cane prices ~ US\$70-75/t cane
- Scenario - higher raws imports, capped smuggled white, min. stock releases

Global Production Costs



- Cane cost still lowest in Brazil – but total cost higher (transport/fobbing)
- Analysis puts in cost of cane/beet for all countries except those that revenue share (Australia and Brazil)
- EU using current beet prices, but will reduce as beet costs fall. Also, Euro has strengthened vs USD
- Efficient producers excl. finance in the 14-16 range – we expect this is average market level for time being

Global whites premium (Ldn 5 – NY 11)



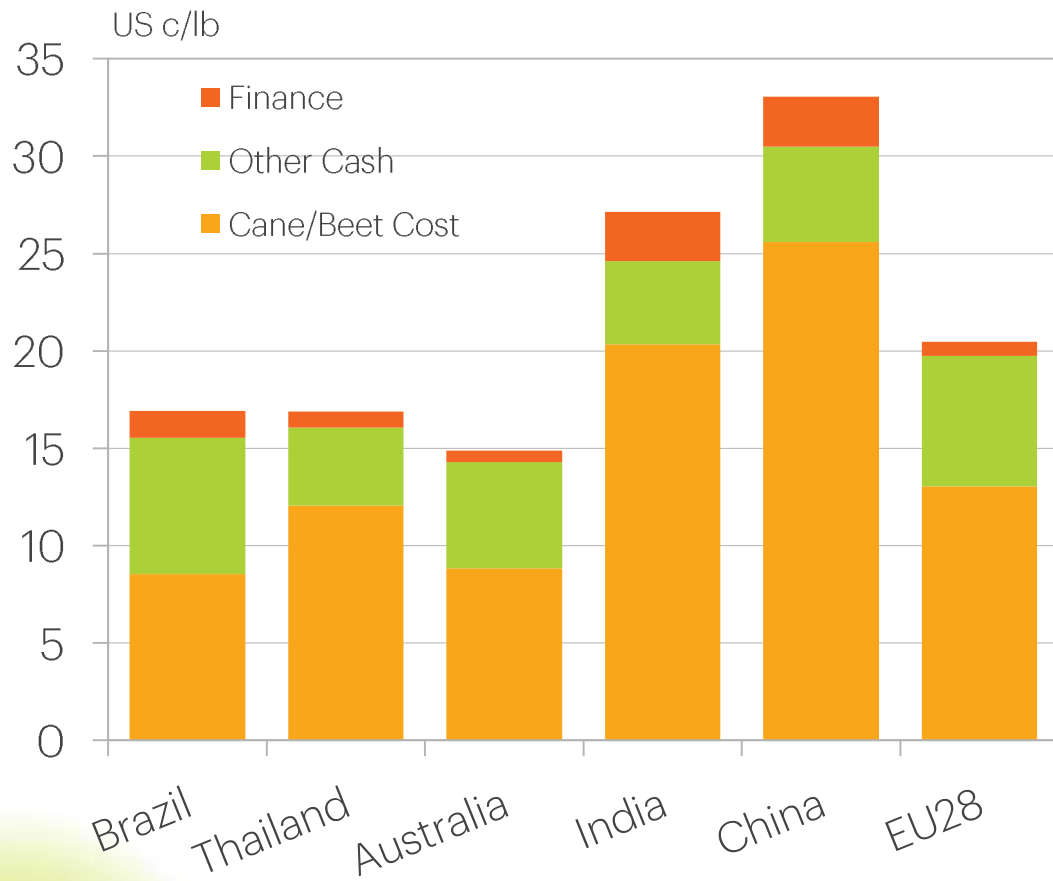
- Easy to discern “EU major exports” to 2006 vs post-EU exports. \$58/t vs \$98/t
- Since July 2017, prompt WP fallen from > \$100/t to <\$60/t
- Prompt traded to \$53/t (Sep 17)
- Most “toll” refiners require min. \$90-100/t to stay in business
- Whites premium likely to stay under pressure this year

Prices, production cycles & gravity

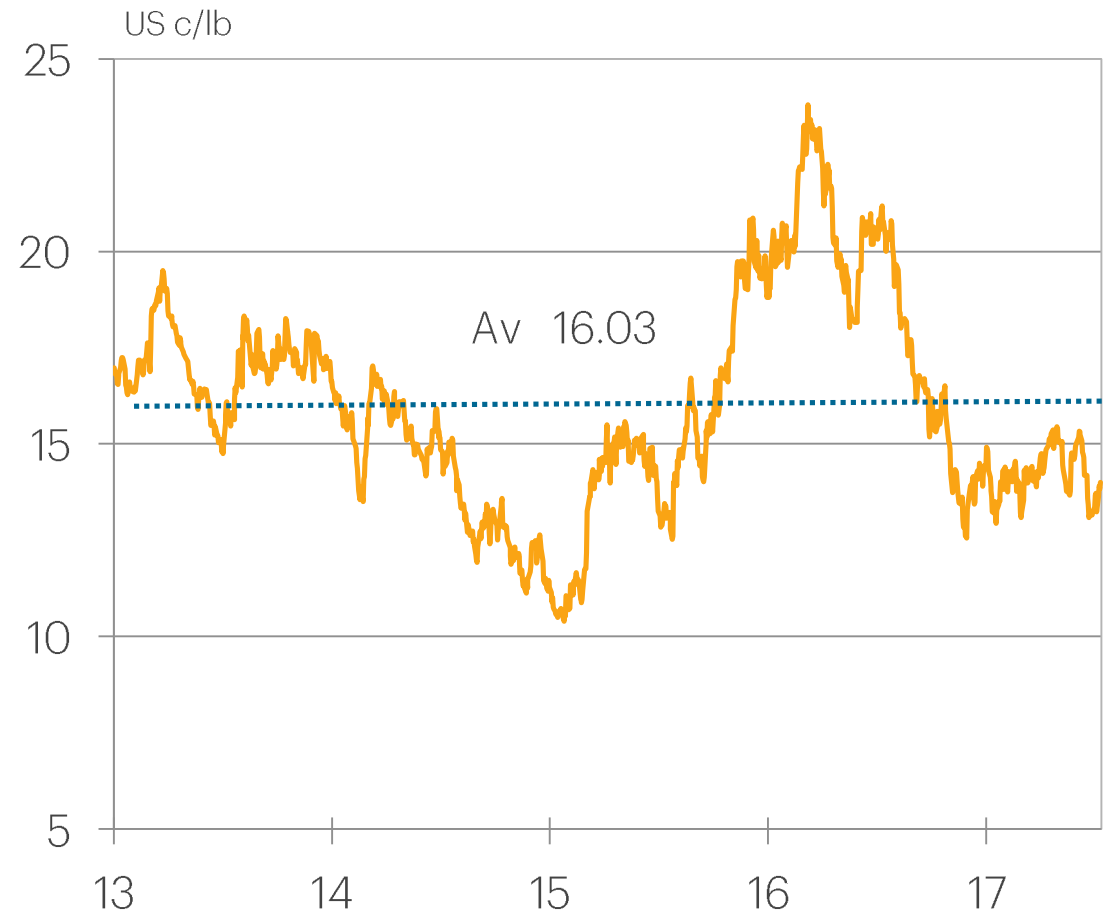
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Costs, prices and cycles (4 charts)

Comparative Cost of Sugar Prod'n

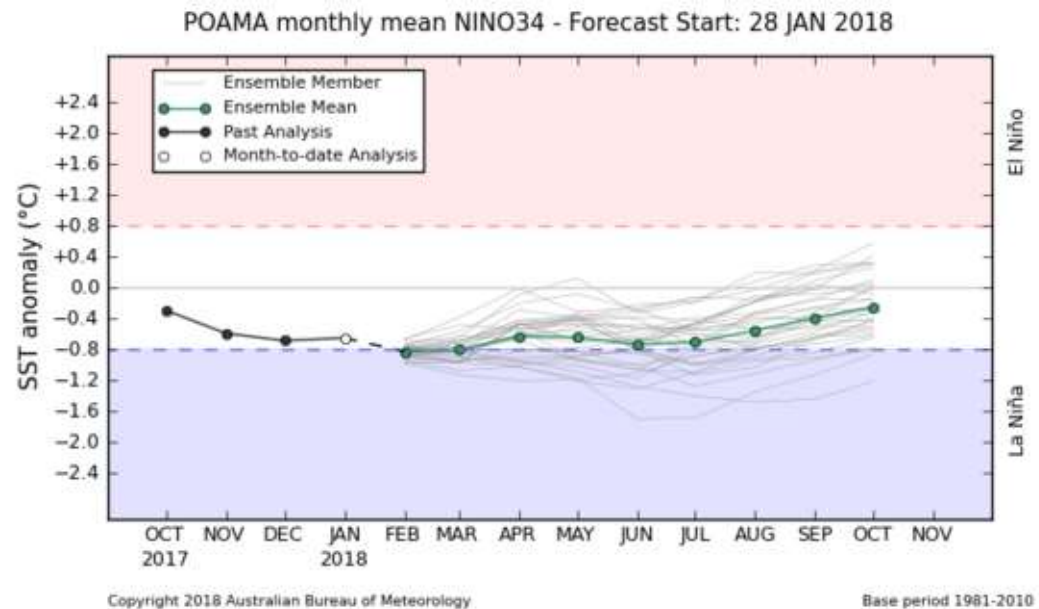
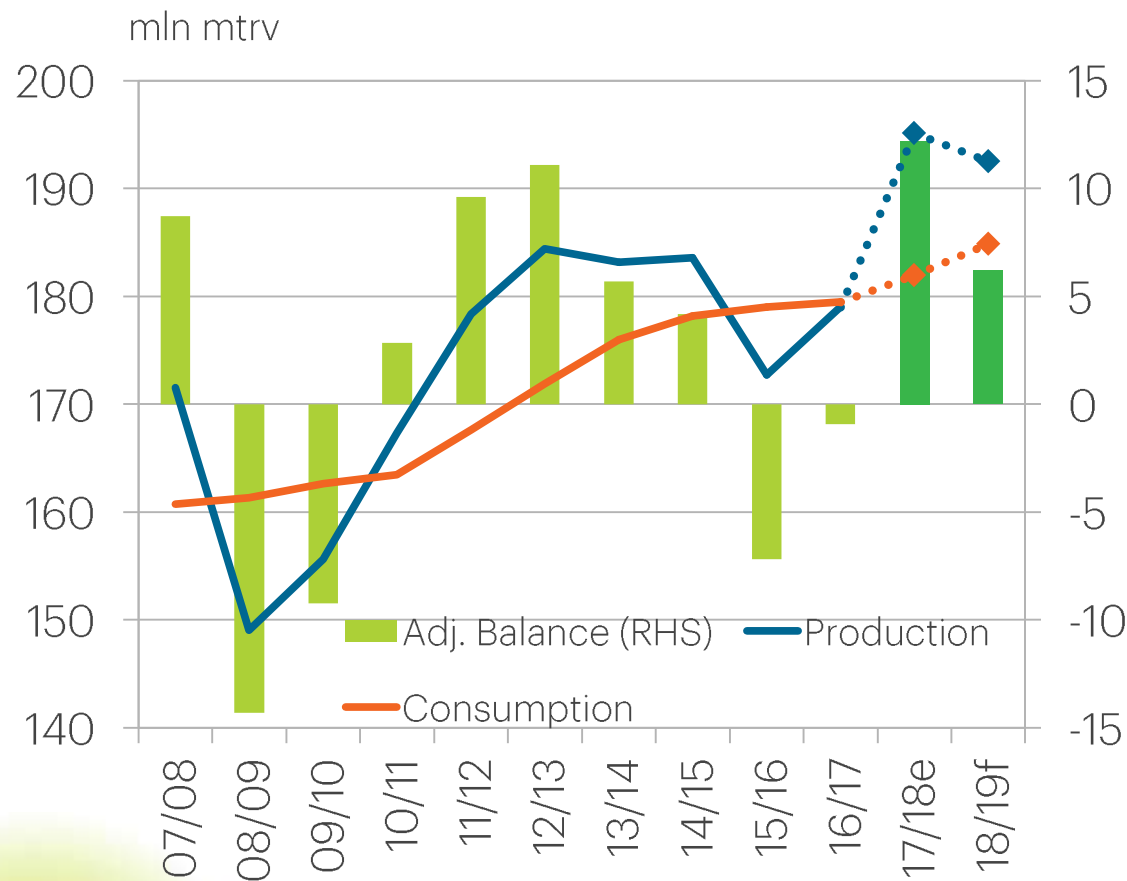


ICE11 Av Price Aug 2013 to Feb 2018



Costs, prices and cycles

Global Sugar S & D (crop year)



- Global climatic cycles – coming from weak La Niña – to ? Possibly an extended La Niña or ENSO neutral pattern?
- Normal chance of El Niño (~20%)

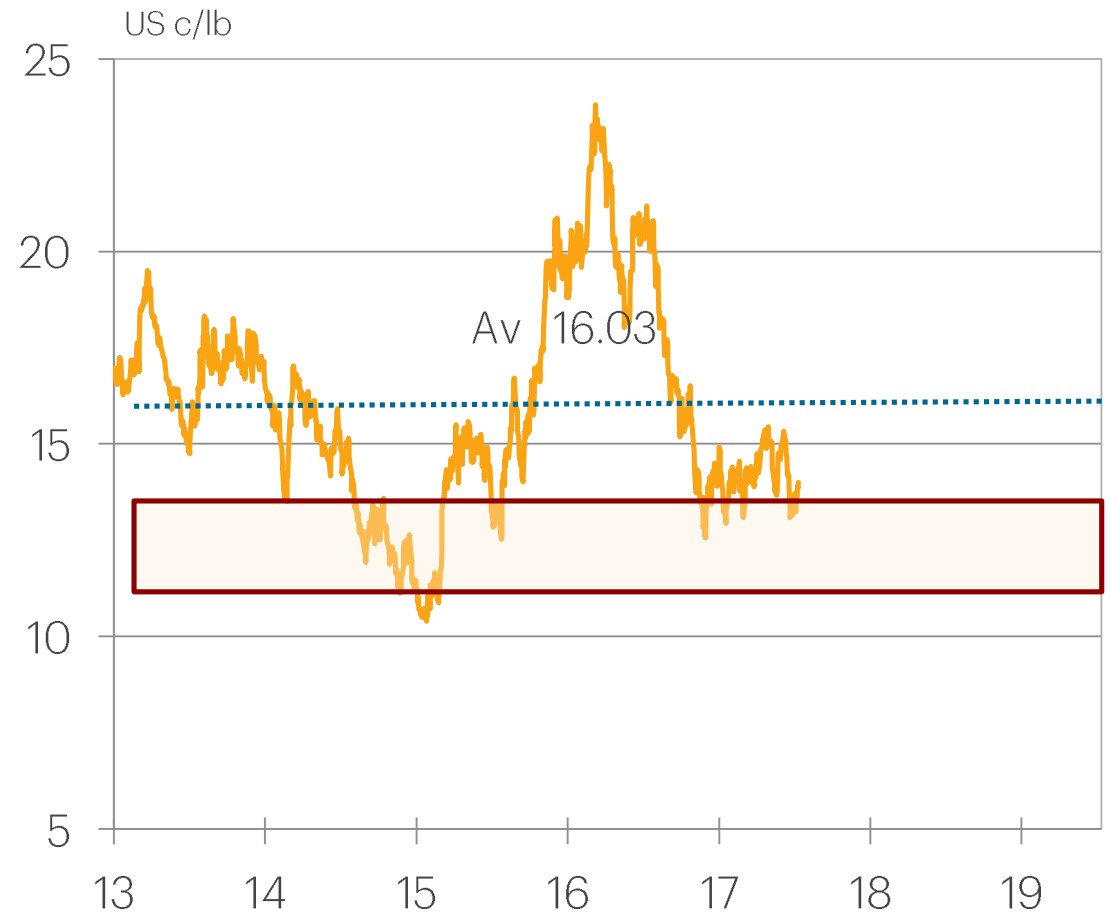
Summary & Conclusions

- Market is just nibbling at the 17/18 surplus, prodn in N.Hemisphere accounts for 70% global prodn
- Brazil's ethanol price at 17-18 c/lb equivalent a strong counter-signal, but such price unlikely to last
- If producers need a strong signal to reduce production, may need 3-6 months of ICE11 well below COP
- Low point of last surplus cycle (Aug 2015) 10.39 c/lb
- Low point of current cycle going into surplus 12.76 c/lb (Jun 2017)
- Specs/algos increase price volatility

Summary & Conclusions

- In 2018, if no major climatic event, prices seem likely to spend an **extended** period in a **range of 11-13.5 c/lb** to turn production around for 2019/20 or 2020/21
- A major climatic event could change this equation
- A 2 to 3 year surplus appears a minimum surplus cycle, given India, Pakistan, Thailand are all **cane** producers with plentiful supply. EU also “locked in” for 18/19
- Pain ahead for producers

ICE11 Prices 2013-2018 + Projection



Thank you

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