Re-initiating Coverage

Balrampur Chini Mills Ltd.

March 17, 2022

RETAILRESEARCH

Balrampur Chini Mills Ltd.

Industry	LTP	Recommendation	Base Case Fair Value	Bull Case Fair Value	Time Horizon
Sugar	Rs. 485.5	Buy in Rs. 481-488 band and add more on dips in Rs. 432-438 band	Rs. 542	Rs. 579	2 quarters

HDFC Scrip Code	BALCHI
BSE Code	500038
NSE Code	BALRAMCHIN
Bloomberg	BRCM: IN
CMP (Mar 16, 2022)	485.5
Equity Capital (Rs Cr)	21
Face Value (Rs)	1
Equity Share O/S (Cr)	21
Market Cap (Rs Cr)	10195
Book Value (Rs)	122
Avg. 52 Wk Volumes	2713425
52 Week High	514.7
52 Week Low	190.5

Share holding Pattern % (Dec, 2021)	
Promoters	42.42
Institutions	35.89
Non Institutions	21.69
Total	100.0

HDFCsec Retail research stock rating meter

for details about the ratings, refer at the end of the report

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Our Take:

Balrampur Chini Mills Limited (BCML) is among the premier sugar mills of India. The company is a broad based and integrated sugar company with extensive interests in sugar and ethanol production as well as power co-generation. Over the years, the proportion of non-sugar revenues in the overall revenues of the company has increased, broadening the company's profile and strengthening its counter cyclicality. The company has 10 manufacturing facilities across East and Central Uttar Pradesh. BCML's operations have been marked by the element of 'stretch', reflected in the ability to generate more from less. The result is that the company is a resource-respecting organisation with corresponding improvements in recovery, operating efficiency, cost management, gearing, cash flows and operating margins. On the whole, it has been a prominent value-creator in the country's agriculture sector.

Valuation & Recommendation:

The sugar sector is known for its cyclical nature. However, it has seen structural changes with: (1) rational alterations in the government's policies, and (2) flexibility provided, as diversion of surplus cane and B-heavy molasses is now allowed to produce ethanol that can be used for blending with petrol c) differentiated pricing for ethanol (based on raw material). These structural changes in the basic fundamentals of the sugar industry in India, offering the fungibility from Sugar to ethanol and vice-versa has helped the sector to improve their profitability and stabilize the cyclicality. This would automatically help to optimize the sugar production and inventory, thus improving profitability and liquidity position of sugar mills.

BCML has leveraged the unprecedented policy tailwinds with increase in distillery capacities, likely to achieve 1050 KLPD by December 2022, making it the largest ethanol producer in Uttar Pradesh. This provides a solid revenue visibility while higher margins could aid the profitability growth. Higher salience of ethanol will further improve the working capital cycle leading to superior cash generation. We expect BCML revenues and PAT to grow at CAGR of 10% and 19% over FY21-24E. EBITDA margins to improve by 316 bps over FY21-24E.

We like BCML on account of its strong balance sheet, high level of integration (the company to maximise value for every cane stick crushed) and strong cash flow generation. The company has also created handsome shareholder value through consistent dividends and buybacks. **We think the base case fair value of the stock is Rs 542 (14.5x FY24E EPS) and the bull case fair value of is Rs 579 (15.5x FY24E EPS). Investors can buy the in stock Rs. 481-488 band (14x FY24E EPS) and add more on dips in Rs 432-488 band.**

Financial Summary

Particulars (Rs Cr)	Q3FY22	Q3FY21	YoY-%	Q2FY22	QoQ-%	FY20	FY21	FY22E	FY23E	FY24E
Operating Income	1212	1072	13%	1212.4	0%	4,741	4,812	4,669	5,552	6,440
EBITDA	100	36	174%	133.4	-25%	682	714	677	894	1,159
APAT	71	22	218%	81.6	-13%	509	470	433	590	786
Diluted EPS (Rs)	3.5	1.1	225%	3.9	-11%	23.1	22.4	20.6	28.1	37.4
RoE-%						22.9	19.0	15.7	18.4	20.6
P/E (x)						21.0	21.7	23.5	17.3	13.0
EV/EBITDA						17.1	16.0	16.6	12.6	9.3

(Source: Company, HDFC sec)

Q3FY22 Result Update

BCML reported a YoY revenue growth of 13.1 % to Rs 1,212 Cr in Q3FY22 on account of higher sugar realization (YoY growth of 11.9 % to Rs 36.3/kg) and a significant surge in B-heavy ethanol volumes by 130.7% YoY to 2.3 Cr litres during the quarter. The lower sugarcane availability in the current season due to weather conditions and red-rot disease in the company's catchment areas reduced the sugar production and impacted the sales volumes. Distillery revenue grew at a YoY rate of 27.7% to Rs 172 Cr, while distillery volumes (B-heavy & C- heavy ethanol) recorded a YoY growth of 4.0% to 2.6 Cr litres. The impact on revenue was lower than the sales volume due to the higher proportion of B-heavy ethanol volume in the segment. The share of B- heavy ethanol stood at 90.0% in Q3FY22, compared to 40.6% in Q3FY21.

The company reported a YoY growth of 47.6% to Rs 268 Cr in gross profit, while the gross margins improved at a YoY rate of 518 bps to 22.1% due to a favourable product mix. Similarly, EBITDA witnessed a YoY growth of 174.2% to Rs 100 Cr, while EBITDA margins improved by 484 bps YoY to 8.2% during the quarter. Interest cost declined at a YoY rate of 25.6% to Rs 4 Cr owing to lower interest rates and faster repayment of debt, while other income grew at a YoY rate of 138.4% to Rs 26.5 Cr due to dividend (Rs. 14.92 Cr) received from associate company. As a result, net profit reported a YoY growth of 138.5% to Rs 64 Cr, while net margins improved by 278 bps YoY to 5.3% during the quarter.

The company completed the expansion of its Gularia distillery from 160 KLPD to 200 KLPD. The greenfield/brownfield expansion programmes for distillery at Maizapur and Balrampur are on track, expected to commence production at the expanded capacity from November 2022.

Key Trends in Sugar Industry:

India Sugar Sector: A paradigm shift

There is no other agro-based sector which is heavily controlled by the state as much as sugar sector given it impacts rural livelihood of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills. It provides direct employment to over 5 lakh skilled laborers but also to semi-skilled laborers in sugar mills and allied industries across the nation. The sector also has a significant standing in the global sugar space as India is the second largest producer of sugar in the world after Brazil and is also the largest consumer.

Sugar is produced in India primarily in nine major states: Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Uttar Pradesh and Tamil Nadu. However, Uttar Pradesh and Maharashtra together contribute ~65% of the country's production.

Sugarcane cultivation in India has expanded in the last few decades. Factors like policies that incentivize production, including a minimum price, guaranteed sales of sugarcane and public distribution of sugar, have helped India become the second-largest producer of sugar worldwide. However, the inadequate action by the governments in past meant the industry's immense potential continued to remain untapped. Key challenges faced by the sugarcane industry were:

- **Pricing Controls:** In order to plug the demand-supply mismatch, the union & state governments have been controlling sugar prices through various policy interventions like export duty, imposition of stock limit on sugar mills, change in meteorology rule etc.

  However, the government control of pricing is populist in nature and this often leads to price distortion.
  This has triggered that sugar cycle oscillating between massive surplus and severe shortage.

- **High Input and Low Output Cost:** The falling/stagnant price of sugar in recent years in the backdrop of continuous rise in sugarcane prices is the main source of troubles faced by the sugar industry in the last few years.

  Due to this, the government grappled with large cane arrears while the industry survived on periodic government funded bail-outs and subsidies.
  It is because of the unviability of the business, no new private investments are being done in the sugar industry.

- **Unviability Sugar Exports:** Indian exports are unviable as the cost of producing sugar (thanks to high cane price) is way above the international sugar price.

The government sought to bridge the price gap by providing export subsidies, but this was promptly contested by other countries in the WTO.

Further, India under WTO's agreement on agriculture has been allowed to continue with the subsidies till December 2023. The fear is what will happen post-2023.

- **Dismal Performance of India's Ethanol Programme:** Blending ethanol with petrol for use as auto fuel, was first announced in 2003, but the project never took off.

  The poor pricing of ethanol supplied for blending, periodic shortages of sugar, insufficient resolve on the part of the Govt. and competing demand from the potable alcohol sector led to this delay.

Govt's thrust on Ethanol, the biggest game-changer for the industry

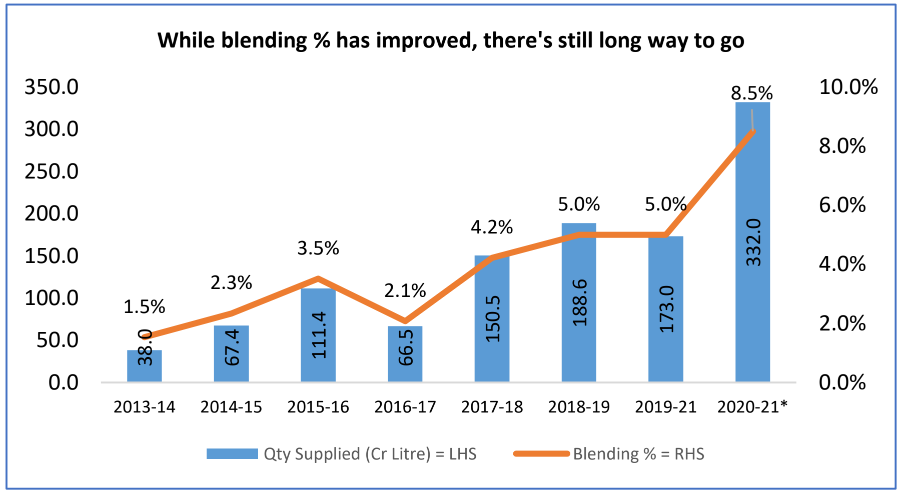
Ethanol Blended Petrol (EBP) programme was initially launched in January 2003 for blending 5% ethanol in petrol and later on increased to 10%. The programme sought to promote the use of alternative and environmental friendly fuels to reduce import dependence for energy requirements. Initially, the procurement was only from conventional C-Heavy molasses. However, due to low sugar recovery and lower distillery capacity, the blending target of 10% was never achieved. The National Biofuels Policy, 2018, aimed at taking forward the indicative target of achieving 20% blending by 2030, further expanded the scope of raw material for ethanol production by allowing use of B-Heavy molasses, Sugarcane Juice, Sugar Beet and damaged foodgrains like wheat, broken rice, etc. It also marked beginning of differentiated ethanol pricing, based on raw material utilised for ethanol production. OMCs also placed a premium on Cane Juice and B-Heavy molasses ethanol over the traditional C-grade molasses based ethanol. The sudden increase in ethanol requirement, and consequently shift of capacities from ENA to ethanol, had a positive impact on bulk alcohol realizations which quickly moved up since December 2018, reflecting a huge supply deficit situation in the industry.

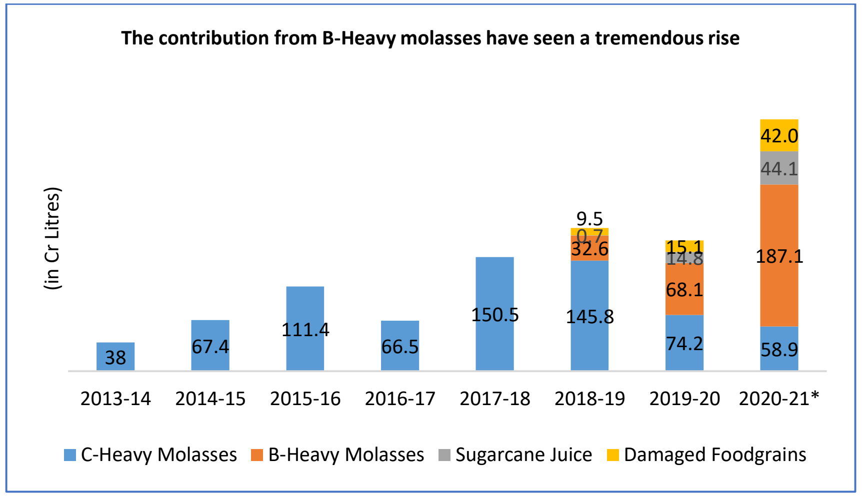
B-heavy molasses produce ethanol by cutting the sugar production cycle in between and diverting more sugarcane to produce more molasses and, in turn, more ethanol. In a typical 'B' heavy route, millers sacrifice ~15% sugar production and double ethanol production. If sugar companies decide to extract ethanol directly through sugarcane juice then they have to sacrifice entire sugar and ethanol extraction increases to 6x compared to the usual 'C' heavy route. In a usual 'C' heavy route, 1 tonne of sugarcane crush extracts 115-120 kg of sugar and 11 litre of ethanol. However, in a 'B' heavy route, 1 tonne of sugarcane crushed extracts 100-105 kg of sugar and 22 litre of ethanol. In ethanol production through sugarcane juice, 1 tonne of sugarcane crushed extracts 60-65 litre of ethanol whereas it sacrifices entire sugar in the process.

The B-Heavy molasses-based segment has emerged as one of the major contributors post Government of India relaxing the norms of raw materials for production of ethanol in 2018. The sugar mills have identified the importance of B-heavy ethanol manufacturing over the C-heavy process along with yielding ~83% of sugar output from 1 tonne of cane. The higher margins in ethanol production offsets the comparatively lower sugar manufacturing. B-heavy ethanol process seems to be point of equilibrium in the entire sugar and ethanol manufacturing process. The government is constantly promoting use of B-heavy over C-heavy ethanol along with fixing higher prices (Rs 59.1/litre for B-heavy against Rs 46.7/litre of C-heavy in SS21). Moreover, no major additional capex is incurred for B-Heavy production. Hence, most of the integrated leading sugar mills are adopting the B-Heavy process. We believe, increasing proportion of B-Heavy ethanol will moderate the sugar production along with improving the margins for sugar entities.

In a massive boost to ethanol producers, the Govt. of India in June 2021 advanced the 20% Ethanol blending target to 2025 from 2030. The shift towards ethanol production is likely to act as a superlative substitute for mitigating the effects of glut like scenario in domestic sugar market. The policy also presents an opportunity for mill owners to better utilize surplus sugar proceeds & improve financials as margins from Ethanol are higher compared to sugar.

We believe that enhanced stability will be generated from the fact that the sector and company will no longer be dependent on the government's sugar export policy (season to season) to evacuate excess sugar out of the country's inventory pipeline. By the virtue of providing millers with the flexibility to move from the production of sugar to ethanol, the government has provided the sector with the flexibility to transform a sectorial challenge (sugar excess) into an opportunity (ethanol manufacture).





Demand projection for fuel ethanol

Ethanol Supply Year (ESY)	Projected Petrol Sale (Cr. Litres)	Blending (in %)	Requirement of ethanol for blending in Petrol (Cr. Litres)
2019-20	3413 (Actual)	5	173
2020-21	3908	8.5	332
2021-22	4374	10	437
2022-23	4515	12	542
2023-24	4656	15	698
2024-25	4939	20	988
2025-26	5080	20	1016

(Source: Niti Aayog, HDFC sec)

The projected requirement of ethanol for ESY 2025-26 based on petrol (gasoline) consumption is 3x the current supply (332 Cr litres in 20-21).

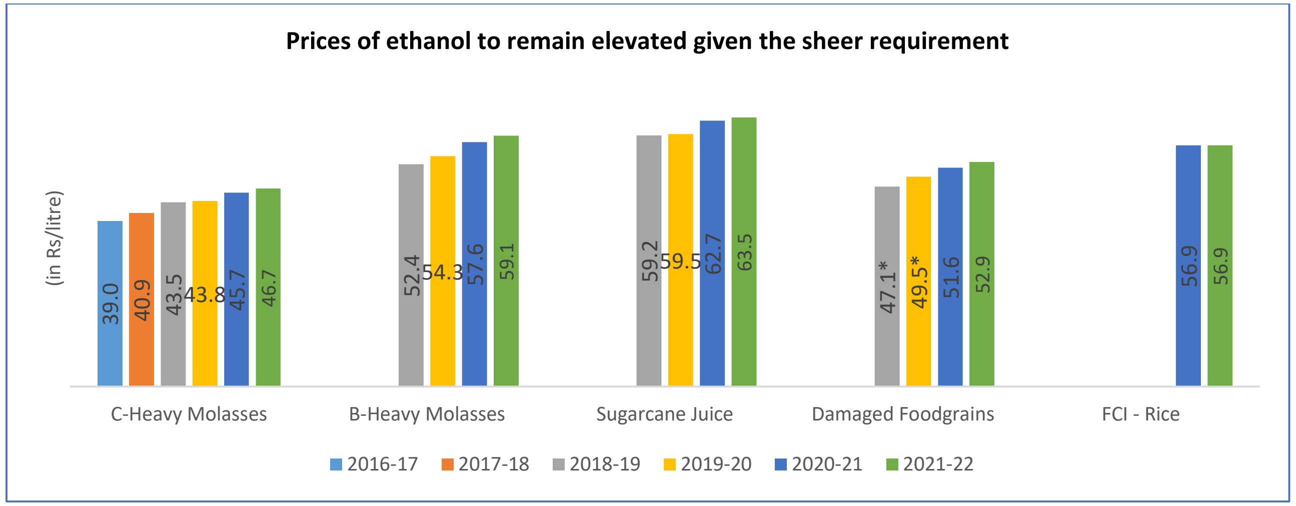
Sector-wise demand forecasts for Ethanol (in Cr Litres)										
ESY	For Blending			Blending (in %)	For other uses			Total		
	Grain	Sugar	Total		Grain	Sugar	Total	Grain	Sugar	Total
2019-20	16	157	173	5	150	100	250	166	257	423
2020-21	42	290	332	8.5	150	110	260	192	400	592
2021-22	107	330	437	10	160	110	270	267	440	707
2022-23	123	425	542	12	170	110	280	293	535	828
2023-24	208	490	698	15	180	110	290	388	600	988
2024-25	438	550	988	20	190	110	300	628	660	1288
2025-26	466	550	1016	20	200	134	334	666	684	1350

Total Capacity required by Nov 2026 to reach 20% blending target			
Ethanol Capacity (in Cr Litre)	Molasses based	Grain based	Total
Existing Ethanol/alcohol Capacity	426 (231 distilleries)	258 (113 distilleries)	684
New capacity required to be added	241	482	723
Total Capacity required	**760**	**740**	**1500**

(Source: Niti Aayog, HDFC sec)

With the recent announcement of advancing the timeline to 2025, the government's rapid strides are clearly visible. To reach to 20% blending of Ethanol a requisite infrastructure is a necessity and the roadmap projected by government clearly guides about the same. The

Ethanol capacity is likely to cross the 1500 Cr litre mark by 2025-26 from current capacity of 684 Cr litres. The government, in 2018 & 2019 notified two interest subvention schemes for molasses-based distilleries. The central government announced interest subvention at the rate of 6% per annum or 50% of the rate of interest charged, whichever is lower, on the loan sanctioned for a term of 5 years under Department of Food and Public Distribution (DFPD) plan. DFPD approved 368 projects for setting up of new distilleries / expansion of existing distilleries.



(Source: Niti Aayog, HDFC sec)

Historically, realizations of ethanol across feedstocks have increased at an average 4% p.a. and we have incorporated the same in our estimates. However, there is a possibility that the Govt. might announce mid to high single-digit increase in administered price for ethanol in current Ethanol Supply Year given the recent rally in crude oil price and as govt. seeks to encourage players to setup new capacities.

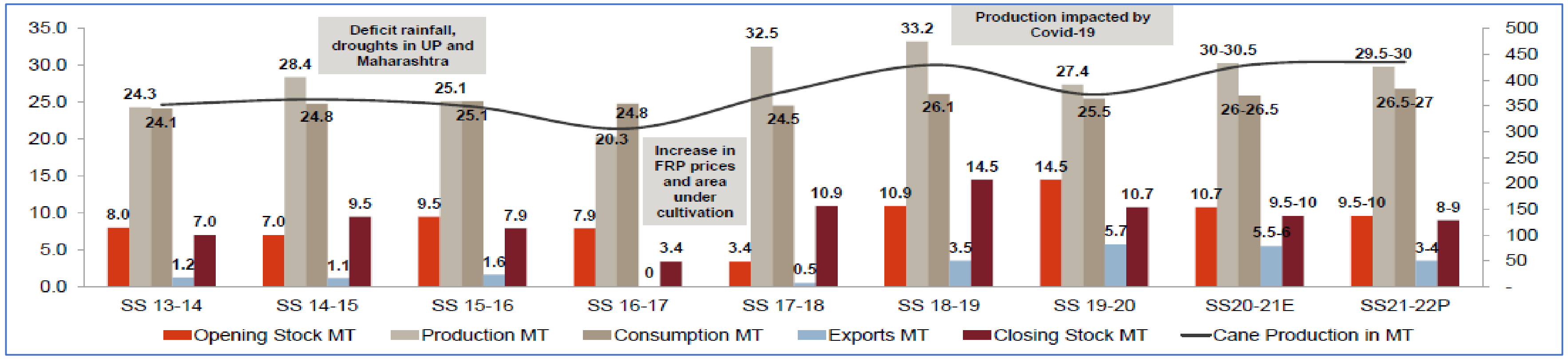
Demand to outpace supply even beyond 2025

The government has set a target of 20% ethanol blending by 2025. Along with the ENA and rectified sprit, total distillery demand is likely to be 1350 Cr litre by 2025-26. The government is also encouraging usage of flex fuel vehicles (can run on both petrol & ethanol).Though wide usage of flex fuel vehicles is going to take longer, we believe moderate usage of flex-fuels cars/bikes is going to increase ethanol demand even beyond 2025. India is following ethanol blending model of Brazil, which has increased the ethanol demand beyond 27% mandatory blending by encouraging usage of flex fuel vehicles in last two decades. Overall blending level in Brazil is above 50%.

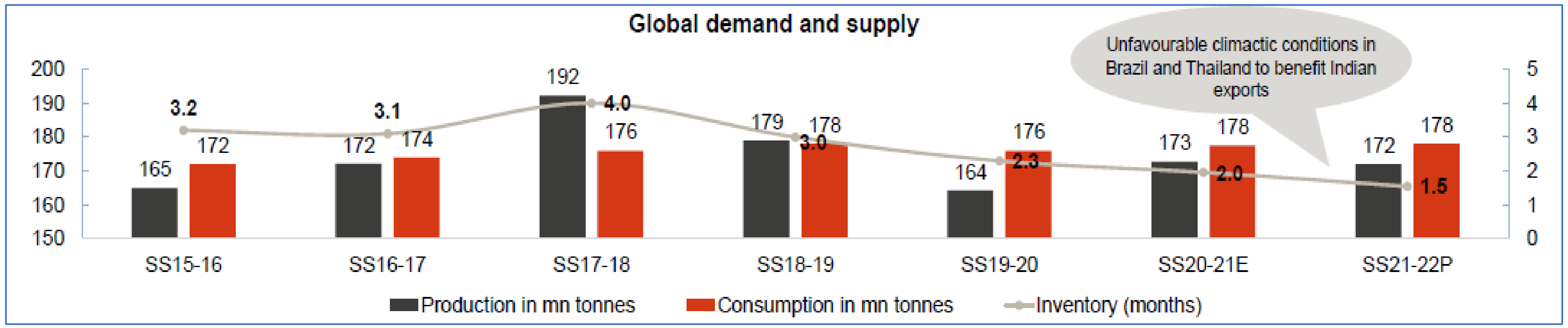
India, an emerging hub for sugar exports

India used to swing between import (SS 10/13/14/15/17/18) and export (SS11/12/14/15/16) but has become a consistent exporter since SS19 (SS21 is 3rd consecutive year of exports and SS22 would also have at least 3-4 mnt of exports) given the structural increase in sugar production. Global sugar prices have firmed up on account of expectation of higher diversion of sugarcane for ethanol in Brazil and now in India as well, in addition to continued issues in production in other key countries including in Thailand and Australia.

We believe India is not cost competitive in case of sugar industry due to the high cost of production led by the high sugarcane price paid to farmers (almost 80-90% higher than other leading producing nations). The government has swiftly handled the situation by permitting the subsidies for exports. Incumbent government has remained proactive in identifying the problems of sugar industry and has allocated an export subsidy that makes the arithmetic barely viable for sugar manufacturers.



Lower global inventory to support exports



(Source: Niti Aayog, HDFC sec)

During the 2020-21 marketing year, the country had exported a record 7.23 million tonnes of sugar. The maximum shipments were undertaken with the help of the government subsidy. The government has withhold the subsidies as the export equation has become economically viable owing to sharp rise in international sugar prices. The high international sugar price coupled with weak India Rupee has made export of sugar further attractive. Indian mills have signed sugar export deals for supply of 62 lakh tonnes so far in the current 2021-22 marketing year that started from October. Of the total volume signed for exports, 47.84 lakh tonnes of the sugar has already been shipped.

The Government's two birds in one shot move

We believe, the recent initiatives are likely to cast long term positive effects on domestic sugar industry. The government seems to have taken two birds in one shot. The dynamics of sugar industry are set to change with expected rise in ethanol demand – the game changer. The ethanol production provides alternative source of income to traditional monotonic sugar industry. The profitability of sugar producers is expected to improve due to higher margins of ethanol business. Also, India's dependence over the fuel imports is likely to get curbed to a certain extent with ethanol blending. Thus, there is a turnaround in Sugar Sector from being a cyclical to structural growth sector and not just agro-based cyclical sector anymore but a clean energy contributor.

Key Triggers for BCML:

Distillery segment to boost the profitability

Until 2015, BCML was essentially a sugar company with most of its gross block invested in sugar manufacturing assets. The announcement of the Biofuel Policy of 2018 represented a landmark in the history of the Indian sugar industry. To meet the rising demand, the company quickly embarked on more than doubling its ethanol manufacturing capacity from 320KLPD in FY18 to 560KLPD in FY21. In anticipation of demand outstripping supply, BCML announced a further increase in its ethanol manufacturing capacity to 1050KLPD.

The distillery investment announced in 2020 represents the first greenfield investment in the business since 2007. Following years of examining industry realities and waiting for the right environment, the company responded with speed when the opportunity emerged indicating its responsiveness in the face of a favourable long-term industry environment.

Sustainable ethanol platform that provides an effective organisational de-risking away from sugar on the one hand and enhances stable revenue visibility on the other. In a sector generally described as 'commodity', increased ethanol revenues will provide predictability in the company's profits and thus improve multi-year stakeholder confidence.

Ethanol volumes likely to grow at 28% CAGR over FY21-24E - BCML has announced three new projects in the ethanol segment: a) expansion of 170KLPD at Balrampur and b) new 320KLPD greenfield project at Maizapur. Berhampur distillery will produce ethanol from B-heavy molasses/sugarcane juice and Maizapur distillery will produce ethanol from sugarcane juice during the crushing season and from grains during off season. Post the completion of these projects, the total installed capacity will increase to 1050KLPD by Dec'22. We expect ethanol volume CAGR of 31% over FY21-24E.

On account of the fungible manufacturing capacity of the Maizapur unit, the increase in ethanol capacity will enhance profitability in various ways: shifting the product mix away from sugar during phases of weak sugar realisations (and vice versa) Apart from the new capacity, the debottlenecking of old plants has increased the operational days from 270 to 330, bringing in higher operating leverage, as the availability of molasses is not a constraint given a normal year.

Ethanol constituted 14% of overall revenue in FY21, up from 7% in FY18. However, owing to soft sugar prices and higher capacity, the EBIT contribution from ethanol was higher at 50% in FY21 vs. 26% in FY18. By FY24E, we expect ethanol revenue and EBIT contribution to increase to 33% and 65%, respectively, driven by capacity additions and higher realizations.

Higher Crushing with a change in Cane Variety in SS22:

While BCML and other UP mills were impacted by the red-rot disease in SS21, for SS22, it is working to shift 15%/40% of crop to Co 118 variety for SS22/SS23 to counter the impact. According to management there is a positive response from the farmers as it guides for similar yields and recovery rates. Despite adverse weather, it expects cane availability to be higher in SS22 vs. SS21 given pending dues by some of the adjacent mills.

We expect BCML to divert more sugarcane to make ethanol via the B-heavy molasses/cane juice route. However, due to the increased usage of the new cane variety, the overall sugar production is unlikely to drop. We expect the sugar production over FY22-24E to remain between 1.07-1.1mn tonnes.

Lower sugar production is likely to be partly offset by higher sugar prices led by reducing inventory. Sugar prices have firmed up to Rs 36/kg in 3QFY22 vs. Rs 33.8/kg in 1HFY22 and Rs 32.3/kg in FY21. In the current scenario of historic drought in Brazil coupled with rising global freight rates and crude prices, global sugar prices have inched up higher. Further, with the Indian government focus on diverting sugar to ethanol, global sugar market could be exposed to supply side pressures leading to even higher prices which augur well for Indian Sugar industry.

Strong financials and robust cashflow generation

Over FY21-24E, we expect the company to grow revenue at a CAGR of 10%, led by the doubling of ethanol volumes, continuous increase in ethanol prices by the government and firm sugar prices. EBITDA margin has improved by 500bps to 15% in FY21 from 10% in FY18, primarily due to higher distillery contribution and stable sugar prices. We expect this trend to continue and expect EBITDA margin to expand by 316 bps by FY24E from 14.8% in FY21. Interest cost to drive PAT CAGR of 19% over FY21-24E.

BCML has undertaken various initiatives to improve its working capital. This includes reduction in sugar inventories through cane diversion to ethanol, moderation of long-term debt by reducing dependence on short-term debt, lower reliance on export and realisation of subsidies from the government. As on 31st December 2021, long-term borrowings of the company were Rs. 280 Cr at a low interest rate of ~3.6-5% (net of interest subvention). Cash & cash equivalents stood at Rs. 594 Cr as on December 31, 2021

BCML has generated positive operating cash flows over the last eight out of ten years despite the highly cyclical nature of the business given its prudent business management and operational efficiencies. The company has planned a capex of Rs 1000 Cr over the next two years, but we still expect it to generate a cumulative FCF of Rs 962 Cr over FY22-24E due to higher profitability and improved working capital cycle.

Consistently rewarding the shareholders

BCML has a solid track record for dividend payouts aided by efficient and high cashflow generation. Along with dividend, the company has enhanced shareholder value during the last decade through Rs 601 Cr buyback.

Particulars	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
EPS (in Rs)	7.8	0.3	7.7	0.2	(2.6)	4.6	26.9	10.1	25	23.1	22.4
DPS (in Rs)	0.8		2				3.5	2.5	2.5	2.5	2.5
Dividend (in Rs Cr)	19		59.1				85.8	58.8	57.1	55	52.5
Buyback (in Rs Cr)							175	99		147.7	180
Total	19	0	59.1	0	0	0	260.8	157.8	57.1	202.7	232.5

Key Risks

Susceptibility of business performance to downturn in the sugar business: Sugar prices are largely market driven and are dependent on production for the sugar season and inventory levels prevailing in the country. Hence, higher production which adds to the sugar inventory levels may lead to steep fall in prices and impact profitability severely given that the cost of production is relatively sticky in nature. Dependence on monsoons have also rendered the sugar industry cyclical as monsoons have a bearing on cane production and recovery rate of cane impacting the sugar production in the country. This downfall in sugar prices is cushioned by the measure of Central Government through fixation of Minimum Support Price of Sugar.

Additionally, government has taken measures to encourage increased diversion of sugarcane to ethanol instead of sugar and to promote exports in order to address the excess inventory situation in the country and arrest the fall in prices. Also the impact of sugar down-cycles on BCML is expected to be lower given its superior operating efficiencies, increasing contribution of distillery segment and integrated nature of operations.

Exposure to regulatory changes in the sugar industry: While sugar prices are market driven, the government is empowered to fix the price paid to cane growers annually. Sugarcane pricing is controlled through the SAP in UP which is currently higher than the Fair and Remunerative Price (F&RP; earlier the statutory minimum price). Though a higher SAP results in a higher cost of production for UP based mills, increasing use of early variety of cane which are characterised by higher recovery rates reduces the difference considerably for players such as BCML. Hence BCML's profitability remains vulnerable to changes in the SAP and other regulatory changes in the sugar industry including export duties, quotas, import duty, re export policies etc. Also any slowdown or reversal in encouragement to ethanol blending could result in derating of earnings and valuations.

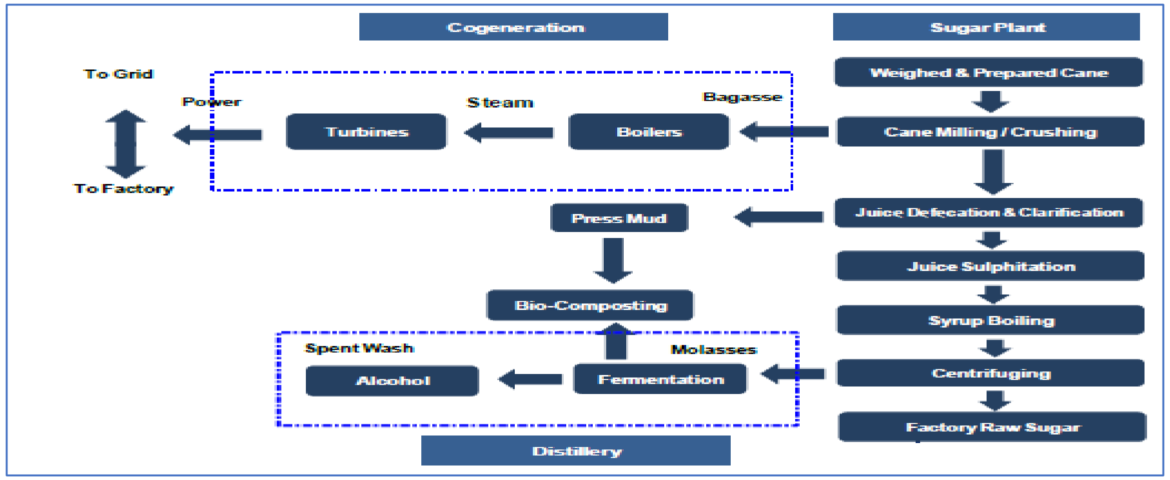
Company Background

BCML is one of the largest sugar producers in India. The operations of the company are forward integrated, manufacturing ethanol, using molasses' a by-product of sugar, and power, using cogeneration from bagasse, generated out of sugar manufacturing. Its facilities consist of ten sugar mills in Uttar Pradesh with a combined capacity of 76,500 tonnes per day (TPD) of sugarcane, 520 kilo litres per day (KLPD) of distillery and 165.2 megawatt [MW] of saleable cogeneration capacity.

Annexure

Sugar Manufacturing Process

The process of manufacturing sugar starts with crushing of sugarcane to extract juice followed by boiling which results in thickening of juice and sugar begins to crystallize. Crystals are spun in a centrifuge to remove syrup, thereby producing raw sugar. Raw sugar is then transported to a refinery where it is washed and filtered to remove remaining non-sugar ingredients and colour. It is then followed by crystallization, drying and resultant packaging of the refined sugar.



(Source: Company, HDFC sec)

By-products - An integral part of sugar industry:
In case of integrated sugar player, a substantial part of earning contribution comes from selling by-products, thereby de-risking the overall business. Greater the level of integration better is the ability to wither the downturn and de-risk the business from cyclicality. Major by-products comprise of bagasse, molasses and press-mud, which are utilized to generate power, produce industrial alcohol/ethanol and fertilizers, accounting ~40% of crushed sugar cane by weight.

Bagasse is the fibrous matter that remains after sugarcane or sorghum stalks are crushed to extract their juice (recovery rate is 30-33% per tonne of sugarcane crushed). It is used as a combustible in furnaces to produce steam, which is used to generate power. Integrated sugar companies have established cogeneration power plants using bagasse as raw material for both power generation for captive consumption and sell to state grids. Current realizations for mills stand between Rs 4-5 per unit.
Molasses, a by-product, is further processed to produce industrial alcohol/ethyl alcohol to be used in other industries. In India molasses is used mainly in manufacturing of industrial/ potable alcohol, ethanol rectified spirit and various value added chemicals. Ethanol is consumed by chemical industry and is also used in blending with petroleum to produce Ethanol Blended Petroleum (EBP).

Organic manures accounts for ~3%-5% of the sugar cane crushed. Sulphitation press mud is mainly used as manure and is free of inorganic elements present in the traditional form of organic manures, commonly used by the farming community. It increases soil porosity and helps the crop in the uptake of chemical fertilizers (NPK).

Sugar Industry - Business Model: To set up a sugar mill there are four types of models that prevail in the industry ranging from least integrated standalone model to the most integrated sugar-distillery- cogeneration model.

Model	siness
Standalone Sugar Model	Least integrated model Manufacture sugar Sell the byproducts like molasses and bagasse without any value addition
Sugar-Distillery Model	Integration of Distillery segment Manufacture Sugar and convert molasses into ethanol Sell the byproducts like bagasse without any value addition
Sugar-Cogen Model	Integration of Cogen Power segment Manufacture Sugar and convert bagasse into power Sell the byproducts like molasses without any value addition
Sugar-Distillery-Cogen Model	Most integrated model Manufacture sugar and convert molasses into ethanol and bagasse into power Molasses and bagasse can be sold without any value addition too.

Financials

Income Statement

(Rs Cr)	FY19	FY20	FY21	FY22E	FY23E	FY24E
Net Revenues	**4286**	**4741**	**4812**	**4669**	**5552**	**6440**
Growth (%)	*-1.3*	*10.6*	*1.5*	*-3.0*	*18.9*	*16.0*
Operating Expenses	3597	4059	4098	3992	4658	5281
EBITDA	**689**	**682**	**714**	**677**	**894**	**1159**
Growth (%)	*52.6*	*-1.0*	*4.7*	*-5.2*	*32.0*	*29.7*
EBITDA Margin (%)	***16.1***	***14.4***	***14.84***	***14.5***	***16.1***	***18.00***
Depreciation	96	101	112	118	137	159
Other Income	43	39	33	47	50	58
EBIT	**636**	**619**	**635**	**605**	**807**	**1059**
Interest expenses	41	64	39	35	33	27
PBT	**595**	**555**	**596**	**570**	**774**	**1031**
Tax	24	46	126	137	184	245
PAT	**571**	**509**	**470**	**433**	**590**	**786**
Share of Asso./Minority Int.	0	0	0	0	0	0
Adj. PAT	**571**	**509**	**470**	**433**	**590**	**786**
Growth (%)	***158.1***	***-10.7***	***-7.8***	***-7.7***	***36.0***	***33.3***
EPS	25.0	23.1	22.4	20.6	28.1	37.4

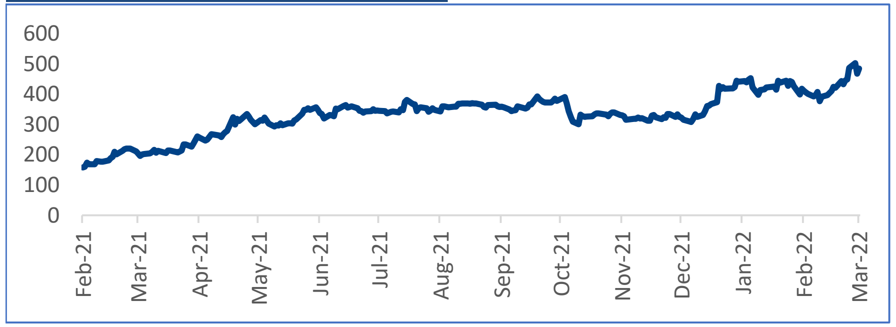
Balance Sheet

As at March	FY19	FY20	FY21	FY22E	FY23E	FY24E
SOURCE OF FUNDS						
Share Capital	23	22	21	21	21	21
Reserves	2060	2348	2543	2924	3440	4131
Shareholders' Funds	**2083**	**2370**	**2564**	**2945**	**3461**	**4152**
Total Debt	1734	1482	1240	1100	1105	710
Net Deferred Taxes	78	24	47	47	47	47
Total Sources of Funds	**3895**	**3877**	**3851**	**4092**	**4613**	**4910**
APPLICATION OF FUNDS						
Net Block & Goodwill	1422	1624	1599	1729	2082	2274
CWIP	46	12	14	14	14	14
Investments	119	185	177	177	177	177
Other Non-Curr. Assets	87	15	17	42	29	38
Total Non Current Assets	**1673**	**1837**	**1808**	**1963**	**2303**	**2504**
Inventories	2316	2295	2378	2303	2510	2646
Debtors	450	239	245	256	304	353
Cash & Equivalents	5	5	3	65	77	119
Other Current Assets	212	372	128	240	289	279
Total Current Assets	**2983**	**2911**	**2754**	**2864**	**3181**	**3398**
Creditors	606	670	593	576	685	794
Other Current Liab & Provisions	155	201	118	160	187	199
Total Current Liabilities	**761**	**871**	**711**	**736**	**872**	**992**
Net Current Assets	2221	2040	2044	2128	2309	2405
Total Application of Funds	**3895**	**3877**	**3851**	**4092**	**4613**	**4910**

Cash Flow Statement

(Rs Cr)	FY19	FY20	FY21	FY22E	FY23E	FY24E
Reported PBT	595	555	596	570	774	1,031
Non-operating & EO items	-12	-7	-11	-15	11	-7
Interest Expenses	39	61	39	35	33	27
Depreciation	96	101	112	118	137	159
Working Capital Change	-1,108	238	-34	-31	-167	-56
Tax Paid	-132	-99	-53	-137	-184	-245
OPERATING CASH FLOW (a)	**-523**	**850**	**649**	**540**	**603**	**908**
Capex	-126	-242	-98	-250	-490	-350
Free Cash Flow	-649	608	551	290	113	558
Investments	0	-68	16	0	0	0
Non-operating income	-33	5	1	0	0	0
INVESTING CASH FLOW (b)	**-159**	**-305**	**-81**	**-250**	**-490**	**-350**
Debt Issuance / (Repaid)	790	-266	-251	-140	5	-395
Interest Expenses	-39	-64	-42	-35	-33	-27
FCFE	68	215	275	115	85	136
Share Capital Issuance	0	0	0	0	0	0
Dividend	-57	-55	-53	-53	-74	-95
FINANCING CASH FLOW (c)	**694**	**-385**	**-346**	**-228**	**-102**	**-517**
NET CASH FLOW (a+b+c)	**11**	**160**	**222**	**63**	**12**	**42**
Opening balance of cash	**5**	**16**	**176**	**398**	**461**	**473**
Closing balance of cash	**16**	**176**	**398**	**461**	**473**	**515**

One-year Share Price Movement:



Key Ratios

Particulars	FY19	FY20	FY21	FY22E	FY23E	FY24E
Profitability Ratios (%)						
EBITDA Margin	16.1	14.4	14.8	14.5	16.1	18.0
EBIT Margin	14.8	13.1	13.2	13.0	14.5	16.4
APAT Margin	13.3	10.7	9.8	9.3	10.6	12.2
RoE	31.1	22.9	19.0	15.7	18.4	20.6
RoCE	19.9	16.1	16.6	15.4	18.7	22.5
Solvency Ratio (x)						
Net Debt/EBITDA	2.5	2.2	1.7	1.5	1.1	0.5
Net D/E	0.8	0.6	0.5	0.4	0.3	0.1
PER SHARE DATA (Rs)						
EPS	25.0	23.1	22.4	20.6	28.1	37.4
CEPS	29.2	27.8	27.7	26.3	34.6	45.0
BV	91.2	107.7	122.1	140.2	164.8	197.7
Dividend	2.5	2.5	2.5	2.5	3.5	4.5
Turnover Ratios (days)						
Debtor days	27	27	18	20	18	19
Inventory days	175	177	177	183	158	146
Creditors days	59	49	48	46	41	42
VALUATION						
P/E	19.4	21.0	21.7	23.5	17.3	13.0
P/BV	5.3	4.5	4.0	3.5	2.9	2.5
EV/EBITDA	17.3	17.1	16.0	16.6	12.6	9.3
EV / Revenues	2.8	2.5	2.4	2.4	2.0	1.7

(Source: Company, HDFC sec)

HDFC Sec Retail Research Rating description

Green Rating stocks

This rating is given to stocks that represent large and established business having track record of decades and good reputation in the industry. They are industry leaders or have significant market share. They have multiple streams of cash flows and/or strong balance sheet to withstand downturn in economic cycle. These stocks offer moderate returns and at the same time are unlikely to suffer severe drawdown in their stock prices. These stocks can be kept as a part of long term portfolio holding, if so desired. This stocks offer low risk and lower reward and are suitable for beginners. They offer stability to the portfolio.

Yellow Rating stocks

This rating is given to stocks that have strong balance sheet and are from relatively stable industries which are likely to remain relevant for long time and unlikely to be affected much by economic or technological disruptions. These stocks have emerged stronger over time but are yet to reach the level of green rating stocks. They offer medium risk, medium return opportunities. Some of these have the potential to attain green rating over time.

Red Rating stocks

This rating is given to emerging companies which are riskier than their established peers. Their share price tends to be volatile though they offer high growth potential. They are susceptible to severe downturn in their industry or in overall economy. Management of these companies need to prove their mettle in handling cyclicality of their business. If they are successful in navigating challenges, the market rewards their shareholders with handsome gains; otherwise their stock prices can take a severe beating. Overall these stocks offer high risk high return opportunities.

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