

Initiating Coverage Dwarikesh Sugar Industries Ltd.

March 17, 2022





Dwarikesh Sugar Industries Ltd.

Industry	LTP	Recommendation	Base Case Fair Value	Bull Case Fair Value	Time Horizon
Sugar	Rs. 123.6	Buy in Rs. 120-126 band and add more on dips in Rs. 108-112 band	Rs. 136	Rs. 156	2 quarters

HDFC Scrip Code	DWASUGEQNR
BSE Code	532610
NSE Code	DWARKESH
Bloomberg	DSIL: IN
CMP (Mar 16, 2022)	123.6
Equity Capital (Rs Cr)	18.8
Face Value (Rs)	1
Equity Share O/S (Cr)	18.8
Market Cap (Rs Cr)	2327
Book Value (Rs)	31
Avg. 52 Wk Volumes	4818294
52 Week High	138.4
52 Week Low	28.4

Share holding Pattern % (Dec, 2021)	
Promoters	42.09
Institutions	8.13
Non Institutions	49.78
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:

Promoted by Mr. Gautam R. Moraraka, Dwarikesh Sugar Industries Ltd. (DSIL) was incorporated in 1994 through the establishment of a 2,500-TCD sugar plant in the sugar-rich belt of UP at the Bundki village in the Bijnor district. It has been raising the crushing capacity regularly and the capacity has since been increased to 21,500 TCD. It has three sugar plants, viz. Dwarikesh Nagar, Dwarikesh Puram and Dwarikesh Dham, at present. It is respected as one of the most efficient producers of sugar in North India. The recovery reported by the company is among the best in North India. Besides, DSIL has co-generation facilities of 17 MW at DN, 33 MW at DP and 36 MW at DD unit. Of these, DSIL exports 8 MW from DN, 24 MW from DP and 24 MW from DD unit to the state grid. The company also has a distillery of 162.5 KLPD at its DN unit, which is capable of manufacturing industrial alcohol and ethanol. Further, DSIL has embarked upon a project to set up a 175-KLPD distillery in DD in July 2021, which is expected to be operational by June-July 2022. This would increase the total distillery capacity to 338 KLPD.

Valuation & Recommendation:

For more than 25 years, DSIL was largely a sugar company with a relatively small portion of revenues derived from its non-sugar businesses. In December 2019, the company selected to shift its strategic needle: the company invested in the manufacture of ethanol. The decision of the company to re-orient its strategic direction is the result of the Indian government's commitment to enhance the sustainability of the sugar sector and reduce dependence on crude oil imports. During the last few years, the government made far-reaching interventions to strengthen prospects for the industry and cane farmers. The Biofuels Policy of 2018 was a landmark intervention while preponing of 20% ethanol blending target was a complete game changer. From being completely dependent on the commodity cycle, the government now empowered the country's sugar sector to assume control of their own destinies through swing capacities; these capacities made it possible for them to move from the manufacture of sugar to ethanol and vice versa. In doing so, sugar companies now can literally select which product to manufacture, liberating them from a sense of dependence to one of empowered control.

DSIL is one of the most efficient sugar companies with abundant sugarcane availability, best sugar recoveries in UP and aggressive distillery expansion. Riding on the ethanol wave, the company is on the path to increase its capacity by 10X from 30 KLPD in FY19 to 338 KLPD by FY24. We expect DSIL's revenues to grow by 10% CAGR over FY21-24E, with higher revenues from the distillery division, led by enhanced capacities and improved realisations, despite some moderation due to the likely reduction in sugar volumes. EBITDA margins are likely to expand 516 bps driven by firmed-up domestic and international sugar prices, supported by increased ethanol volumes and improved blended distillery realisations with favourable change in feedstock mix for ethanol production. Further, higher sucrose diversion towards B-



heavy molasses/juice-based ethanol would moderate the inventory levels and lower the working capital debt and hence the total debt levels (despite increase in debt for distillery capex) going forward. Higher operating profit and lower interest cost is likely to drive PAT CAGR of 39%. Improving profitability coupled with reduced working capital requirements to drive robust cashflow generation (cumulative FCF of ~Rs 613 Cr over FY21-24E) to be utilised for debt reduction or further expansion. Consequently, DSIL could witness a massive jump in return ratios. **We think the base case fair value of the stock is Rs 136 (10.5x FY24E EPS) and the bull case fair value of is Rs 156 (12x FY24E EPS). Investors can buy the in stock Rs 120-126 band (9.5x FY24E EPS) and add more on dips to Rs 108-112 band.**

Financial Summary

Particulars (Rs Cr)	Q3FY22	Q3FY21	YoY-%	Q2FY22	QoQ-%	FY20	FY21	FY22E	FY23E	FY24E
Operating Income	601	381	58%	506	19%	1,336	1,839	2,041	2,122	2,418
EBITDA	55	23	138%	75	-26%	136	201	257	303	389
APAT	29	7	286%	40	-27%	73	92	138	176	244
Diluted EPS (Rs)	1.5	0.4	283%	2.1	-27%	3.9	4.9	7.3	9.3	13.0
RoE-%						15.5	17.2	21.8	23.5	27.1
P/E (X)						32	25	17	13	10
EV/EBITDA (X)						23	15	11	9	7

(Source: Company, HDFC sec)

Q3FY22 Result Update

Consolidated revenue witnessed growth of 58% to Rs 601 Cr led by 52.8% growth in sugar segment sales & 157% growth in distillery segment sales. Sugar segment sales growth was led by higher domestic sales quota and increase in sugar realization. Sugar sold during Q3FY22 is 14.17 lakhs quintals (including export of 2.50 lakh quintals) as compared to 10.38 lakh quintals sale of sugar (all domestic) during corresponding quarter last year. Sugar sold during 9MFY22 is 35.88 lakhs quintals (including export of 2.50 lakh quintals) as compared to 34.26 lakh quintals (including 8.05 lakh quintals of sugar exported during corresponding period last year. Sugar stock as on 31st December 2021 was 11.07 lakh quintals as compared to stock of 19.49 lakh quintal as on 31st December 2020.

Distillery volumes grew to 2x to 1.13 Cr litre with the ramping up of capacity utilisation. Further, distillery realisation increased 26% to Rs 58.6/litre on account of increasing proportion of B-heavy ethanol. The company is entirely producing B-Heavy ethanol given higher prices (B-heavy prices prevailing at Rs 59/litre compared to Rs 46.6/litre for C-Heavy ethanol). Co-generation sales remain flat at Rs 15.6 Cr. Power sales were 4.9 Cr units against 5.0 Cr units whereas power tariff was Rs3.2/ unit vs. Rs 3.1/unit



EBITDA grew 138% to Rs 55 Cr on the back of increase in sugar volumes, sugar realisation & higher proportion of B-heavy ethanol. With liquidation of excess inventories & reduction in working capital debt, interest cost has come down from Rs 9.6 Cr to Rs 3.9 Cr. PAT jumped up 4x to Rs 29 Cr led by higher operating profit & lower interest costs.

The company would be commissioning 170 KLPD distillery by June-2022. Currently the company is storing B-heavy molasses in Dwarikesh Nagar Factory, which would be utilised for the production of B-heavy ethanol after the commissioning of new distillery. On an annualised basis, DSIL would be diverting 25-30% sugarcane towards ethanol from FY24 onwards

Total debt as on December 2021 is Rs 190 Cr, which includes Rs 30 Cr debt for new distillery. It will take further Rs 150 Cr debt for the new distillery in the next three months. However, working capital debt requirement for peak crushing would come down considerably.

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.

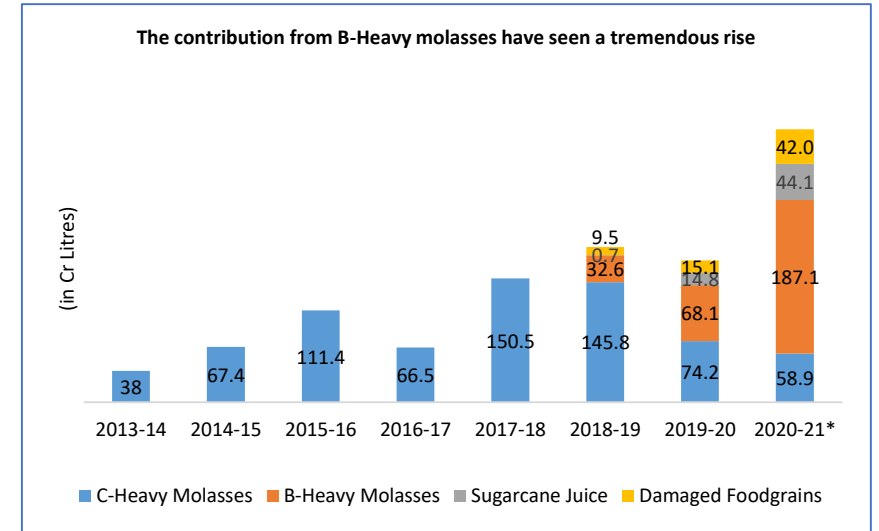
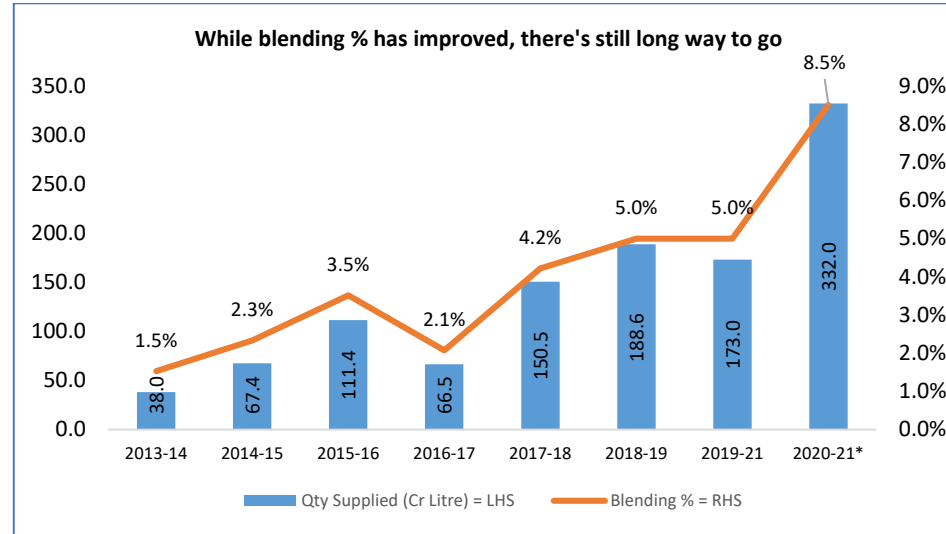


B-heavy molasses produce ethanol by cutting the sugar production cycle in between and diverting more sugarcane to produce more molasses and, in turn, more ethanol. In a typical 'B' heavy route, millers sacrifice ~15% sugar production and double ethanol production. If sugar companies decide to extract 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)



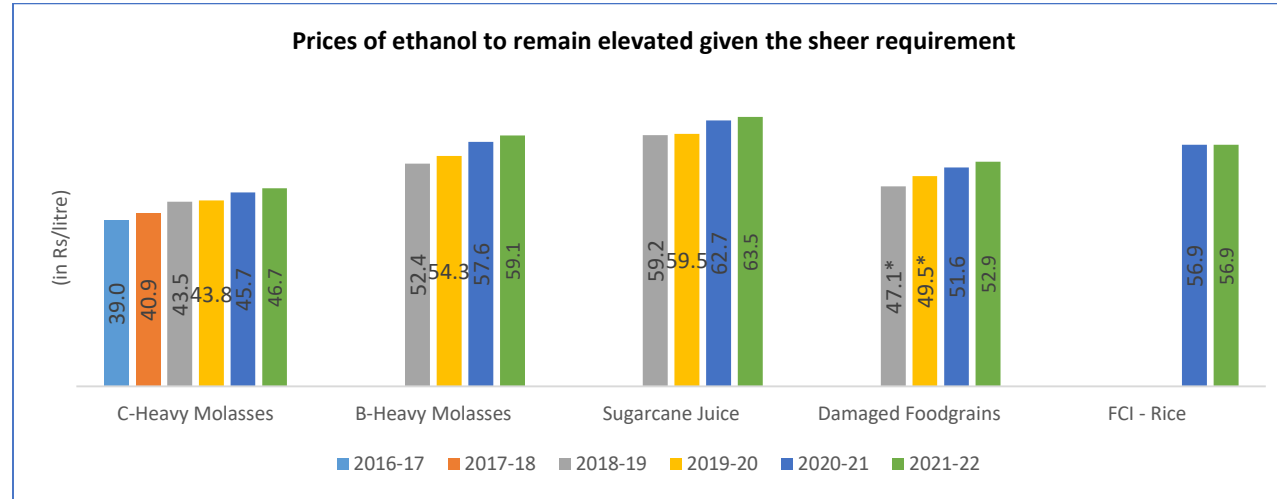
The projected requirement of ethanol for ESY 2025-26 based on petrol (gasoline) consumption is 3x the current supply (332 Cr litres in 20-21).

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

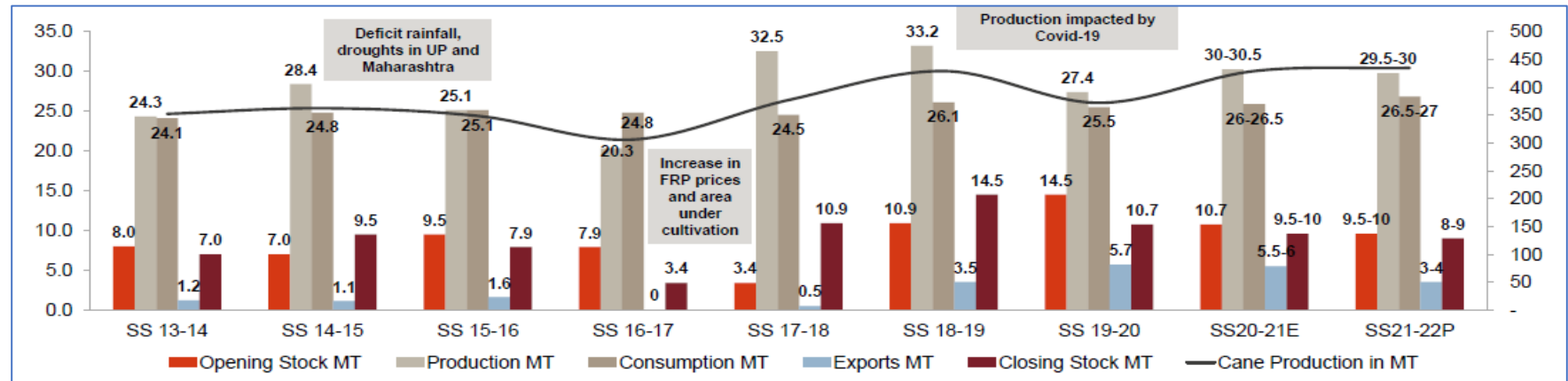
The government has set a target of 20% ethanol blending by 2025. Along with the ENA and rectified spirit, total distillery demand is likely to be 1350 Cr litre by 2025-26. The government is also encouraging usage of flex fuel vehicles (can run on both petrol & ethanol). Though wide usage of flex fuel 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

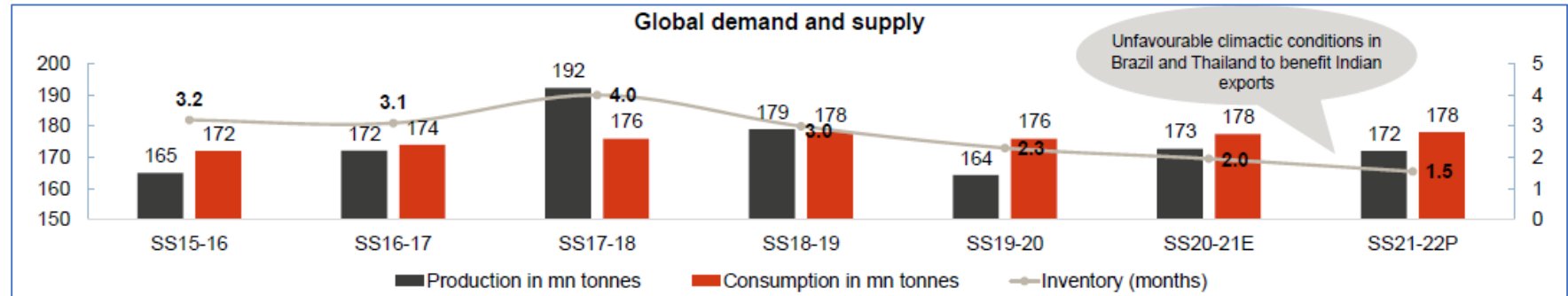
India used to swing between import (SS 10/13/14/15/17/18) and export (SS11/12/14/15/16) but has become a consistent exporter since SS19 (SS21 is 3rd consecutive year of exports and SS22 would also have at least 3-4 mnt of exports) given the structural increase in sugar production. Global sugar prices 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.



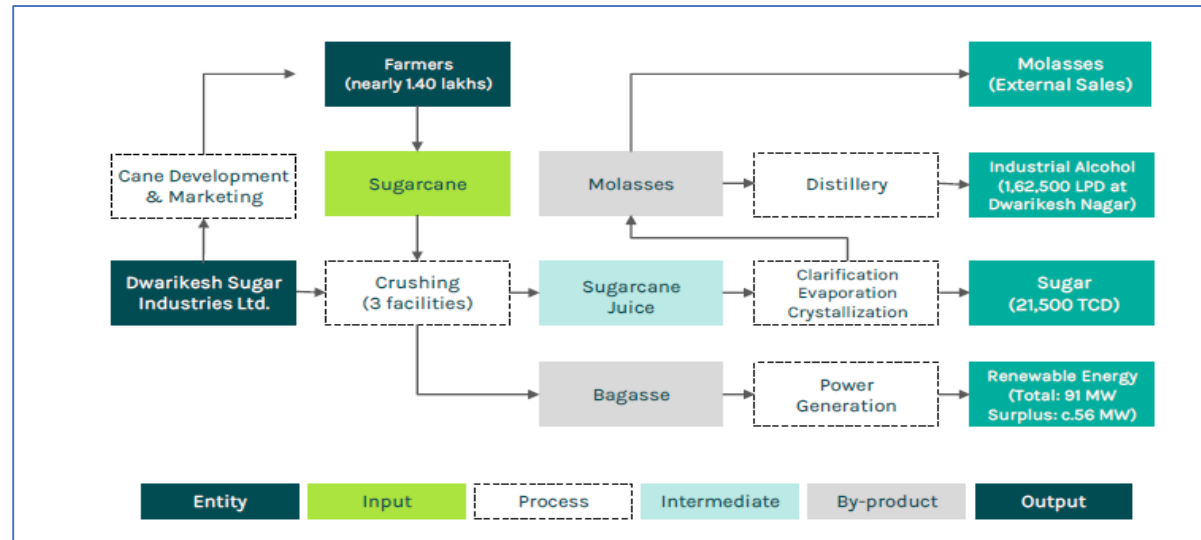
The Government’s two birds in one shot move

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 DSIL

Forward integrated business model

DSIL operates 21,500-tonnes crushed per day (TCD) of sugar capacities in UP at three sugar mills. The plant’s operations are forward integrated into power and alcohol business—co-generation capacity of 91 mega-watt (MW) (surplus – 56 MW) and distillery capacity of 162.5 kilo litre per day (KLPD). DSIL is planning to increase its distillery capacity by 175 KLPD, by June-July 2022, to strengthen its operational profile. The integrated operation provides alternate stream of revenues and cushions its profitability against the cyclicity in sugar business. The sugar business accounted around 80% of the company’s revenue, followed by distillery contributing ~7% (increased from 2-3% over the previous years) and the balance being derived from the co-generation business in FY21. Increased revenues from the expanded distillery capacity would moderate the seasonality associated with sugar business, as the distillery operates for around 325 days in the year.



(Source: Company, HDFC sec)



Highest sugar recovery amongst UP based peers

DSIL commissioned its maiden manufacturing unit in Bijnor with a cane crushing capacity of 2,500 tonnes per day in 1995. Over the years, the company invested in various initiatives to improve cane yield, enhance recovery and optimise costs. These initiatives have comprised of tight cane inventory management, shift from manual to mechanical loading (tractor-mounted loading), utilisation of ‘brick’ sowing to combat soil sludge during the monsoons, engagement with farmers through WhatsApp groups and the increased use of digital cane supply notices to farmers to enhance process transparency. It has also modernised & automated its plants so as to enhance efficiencies, minimise losses and optimise recoveries.

Further, DSIL was the first one to encourage high yielding sugarcane variety in its catchment area and currently 100% of its Sugarcane is Co-0238 variety. This has helped the company to keep the per kg raw material for the company lower than the industry peers. For every 0.1% increase in the sugar recovery rate, the cost of production on average falls by 0.8%.

Its recovery rate improved from 9.4% in FY11 to 11.9% in FY21, offsetting the increase in cane costs. However, recovery rate of the company is now saturated and less likely to improve further.

DSIL’s recovery rate is highest amongst peers

Company (%)	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
DSIL	9.4	9.7	9.8	10.2	10.8	11.7	11.6	11.3	12.3	12.3	11.9
Balrampur Chini	9.4	9.5	9.5	9.8	9.8	11.1	10.7	10.8	11.6	12.1	10.6
Dhampur Sugar	9.3	9.2	9.4	9.3	9.5	10.5	10.9	11.3	11.5	11.9	10.6
Dalmia Bharat	9.3	9.1	9.9	10.5	10.9	12.1	11.6	11.8	12.2	12.2	11.6
Triveni Engg	10	9.1	9.3	9.3	9.6	10.8	11.1	11.4	11.8	12	11

(Source: Company, HDFC sec)

With increased focus on ethanol, contribution from sugar segment will moderate in the times to come as more sugarcane will be diverted to make ethanol via the B-heavy molasses/cane juice route. Lower sugar production is likely to be partly offset by higher sugar prices led by reducing inventory.

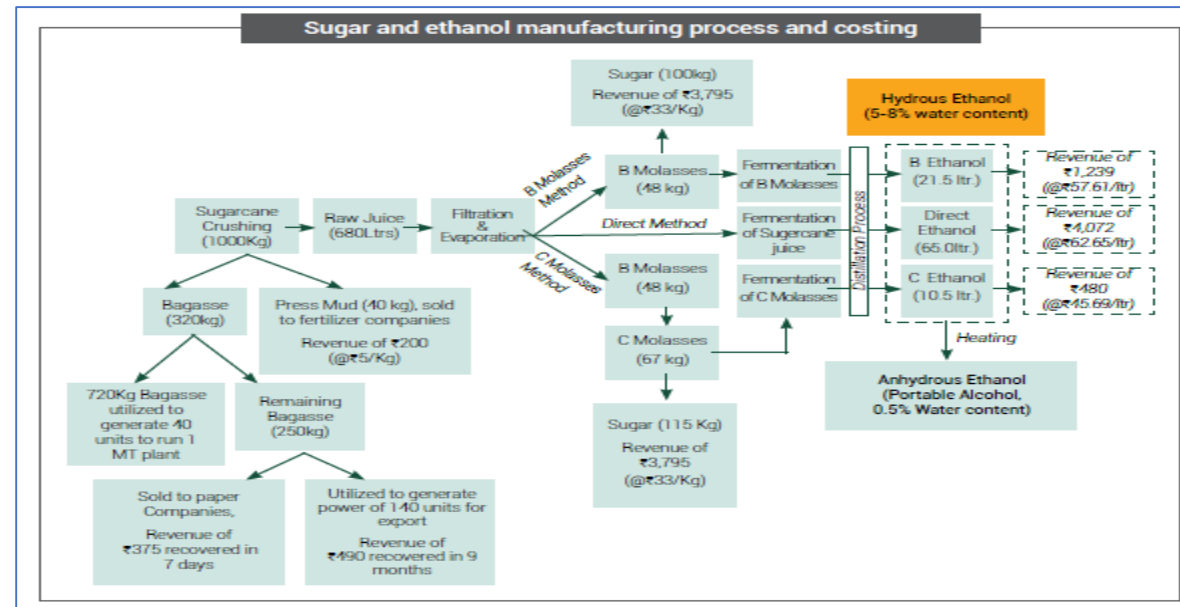
10x increase in distillery capacity over FY19-24E!

DSIL has been reasonably cautious with regards to investments in non-sugar business. Until FY19, it had a mere 30KLPD distillery against a cane crushing capacity of 21,500 TCD. This low level of integration meant that the company was forced to sell more than two-thirds of its molasses supply in the open market. During the sugar glut, molasses realization crashed adversely, dragging profitability. Some 12 years after it commissioned its first distillery (30 KLPD Capacity) in 2005, it invested in capacity expansion at that site to increase the capacity at more than

4 times to 130 KLPD w.e.f. from November 22, 2020, to participate in massive opportunity created by Government’s ethanol blending programme. DSIL is now empowered to produce more than 4 Cr litres of ethanol and use B heavy molasses generated in two of its units. It has installed best-in-class boilers and effluent treatment equipment to take this business ahead.

Further, in July 2021, the company announced a capex to set up a 175KLPD distillery at its Dwarikesh Dham unit. The proposed distillery will utilize sugarcane juice/syrup as its principal feedstock during the cane crushing season and turn to the B-Heavy molasses route (or grain) during the offseason for continuous manufacture of ethanol. The company is likely to invest Rs 232 Cr, of which Rs 186 Cr will be funded through low-cost debt while the remaining Rs 46 Cr through internal accruals.

The commissioning of new ethanol capacity has made DSIL completely integrated; the surplus molasses that is sold by the company in the marketplace can potentially be converted into ethanol within, enhancing its value-addition and maximising the value it can generate from a stick of cane. The investment could also serve as a hedge. During weak sugar markets, it will be encouraged to ‘sacrifice’ sugar in favour of additional ethanol and vice versa, when sugar realisations become attractive. This fungible capacity will serve as an insurance against the long-standing sectorial cyclicity, enhancing revenue visibility and corporate stability.



(Source: Company, HDFC sec)



Expect revenues to grow at 10% CAGR over FY21-24E

Going ahead, we expect DSIL to report 10% CAGR over FY21-24E driven by distillery business which is likely to grow by 4.5X on the back of robust capacity expansion. We expect the overall sugar production to drop to 42.3 quintals by FY24E from 45.93 quintals in FY21 with DSIL likely to divert more sugarcane to make ethanol via the B-heavy molasses/cane juice route. Lower sugar production is likely to be partly offset by higher sugar prices led by reducing inventory across the industry. Sugar prices have firmed up to Rs 36/kg in Q3FY22 vs. Rs 33.8/kg in H1FY22 and Rs 32.3/kg in FY21. Sugar prices are likely to remain high in near term due to higher global prices amidst shortage in Brazilian output and lower production domestically due to higher diversion to ethanol.

EBITDA margins likely to expand by 516 bps over FY21-24E

We expect DSIL to report EBITDA CAGR of 25% over FY21-24E, led by higher contribution from ethanol and firm sugar prices. Likewise, the EBITDA margins are likely to witness an expansion of 516 bps over FY21-24E.

Earnings to grow at 39% CAGR over FY21-24E: Higher sucrose diversion towards B-heavy molasses/juice-based ethanol would moderate the inventory levels and lower the working capital debt and hence the total debt levels (despite increase in debt for distillery capex) going forward. Additionally, the funding of new projects is at a substantially lower interest rate. Higher operating profit and lower interest cost is likely to drive and PAT CAGR of 39%.

Lower working capital requirements and improved profitability to drive higher FCF generation

With massive improvement in profitability owing to higher ethanol sales, the return ratios of the company are expected to significantly improve going ahead. Higher cash generation could be used to repay the debt or even further expand its distillery capacities, given the production of molasses is higher than the ethanol requirement. Over FY21-24E, we expect DSIL to generate cumulative FCF of ~Rs 613 Cr.

Key Risks

Profitability is reliant on GoUP's policy on cane prices – DSIL's profitability, along with other UP-based sugar mills, continues to be vulnerable to the GoUP's policy on cane prices. The cane price is determined by the GoUP at the start of the crushing season. Thus, the company's performance can be impacted by a disproportionate increase in cane price. Further, its profitability remains vulnerable to the Government's policies on exports, MSP and remunerative ethanol prices. However the latest assembly election outcome reduces this risk in the near term.

Vulnerable to industry cyclicality and agro-climatic risks – Being an agri-commodity, the sugar cane crop is dependent upon climatic conditions and is vulnerable to pests and diseases, which may influence the yield per hectare and the recovery rate. These factors can have a significant impact on the company's profitability. Further, high dependence on a single crop variety may affect the yields and recovery rate. Nonetheless, DSIL has been exploring other varieties to mitigate this risk to a certain extent.



In addition, the cyclical nature in sugar production results in volatility in sugar prices. However, the sharp contraction in sugar prices is curtailed after the introduction of MSP by the Central Government. Over the long term, higher ethanol production with increased diversion towards B-heavy molasses and direct sugar juice are expected to help in curtailing the excess supply of sugar, resulting in lower volatility in sugar prices and in turn, cash flows from the sugar business.

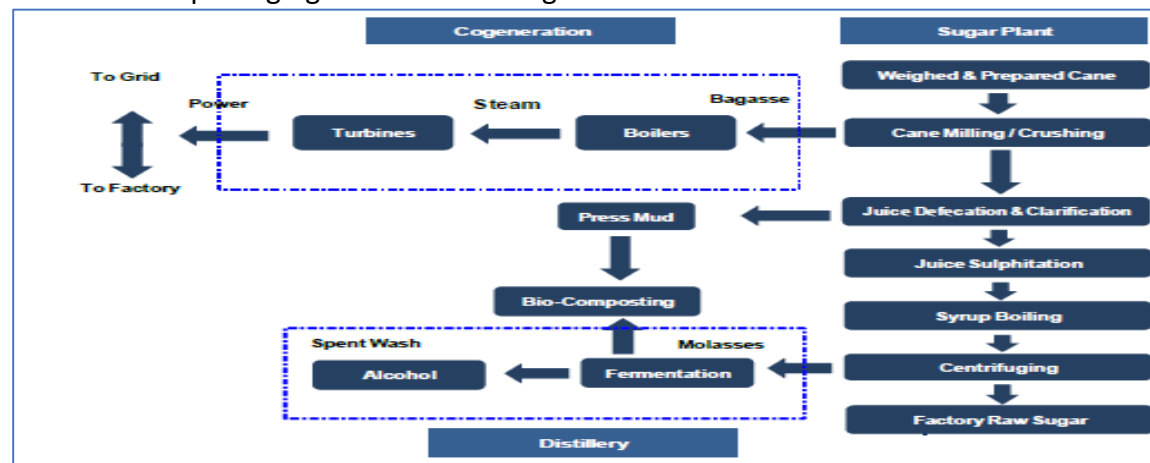
Company Background

Promoted by Mr. Gautam R. Moraraka, Dwarikesh Sugar Industries Limited (DSIL) was incorporated in 1994 through the establishment of a 2,500-TCD sugar plant in the sugar-rich belt of UP at the Bundki village in the Bijnor district. It has been raising the crushing capacity regularly and the capacity has since been increased to 21,500 TCD. It has three sugar plants, viz. Dwarikesh Nagar (DN), Dwarikesh Puram (DP) and Dwarikesh Dham (DD), at present. DN and DP are located in the Bijnor district and DD is located in the Bareilly district. Besides, DSIL has co-generation facilities of 17 MW at DN, 33 MW at DP and 36 MW at DD unit. The company also has a distillery of 162.5 KLPD at its DN unit, which is capable of manufacturing industrial alcohol and ethanol. Further, DSIL has embarked upon a project to set up a 175-KLPD distillery in DD in July 2021, which is expected to be operational by June-July 2022. This would ultimately increase the total distillery capacity to 337.5 KLPD.

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 cyclicity. 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	Business
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

Particulars (Rs Cr)	FY19	FY20	FY21	FY22E	FY23E	FY24E
Net Revenues	1084	1336	1839	2041	2122	2418
Growth (%)	-24.2	23.2	37.6	11.0	4.0	14.0
Operating Expenses	955	1200	1638	1784	1819	2029
EBITDA	129	136	201	257	303	389
Growth (%)	-9.4	5.4	47.9	27.8	18.0	28.3
EBITDA Margin (%)	11.9	10.2	10.9	12.6	14.3	16.1
Depreciation	33	37	41	45	52	59
Other Income	36	5	7	8	13	17
EBIT	132	105	167	220	264	348
Interest expenses	21	33	48	35	28	20
PBT	111	72	120	185	236	328
Tax	16	-2	28	47	60	84
PAT	95	73	92	138	176	244
Share of Asso./Minority Int.	0.0	0.0	0.0	0.0	0.0	0.0
Adj. PAT	95	73	92	138	176	244
Growth (%)	-6.3	-22.8	24.6	50.5	27.7	39.0
EPS	5.1	3.9	4.9	7.3	9.3	13.0

Balance Sheet

As at March	FY19	FY20	FY21	FY22E	FY23E	FY24E
SOURCE OF FUNDS						
Share Capital	19	19	19	19	19	19
Reserves	445	465	560	664	795	973
Shareholders' Funds	464	484	579	683	813	992
Minority Interest	0	0	0	0	0	0
Total Debt	656	843	607	587	462	327
Net Deferred Taxes	0	0	0	0	0	0
Total Sources of Funds	1119	1327	1186	1270	1275	1319
APPLICATION OF FUNDS						
Net Block & Goodwill	319	427	408	447	570	541
CWIP	16	2	1	1	1	1
Investments	0	0	0	0	0	0
Other Non-Curr. Assets	80	78	53	109	99	103
Total Non-Current Assets	415	507	462	557	670	646
Inventories	824	913	855	755	669	729
Debtors	60	98	68	67	64	73
Cash & Equivalents	1	3	1	84	73	107
Other Current Assets	64	86	57	105	104	106
Total Current Assets	950	1099	982	1011	910	1014
Creditors	183	208	187	196	204	232
Other Current Liab & Provisions	63	71	70	102	100	109
Total Current Liabilities	246	279	257	298	303	341
Net Current Assets	704	820	724	713	606	673
Total Application of Funds	1119	1327	1186	1270	1276	1319

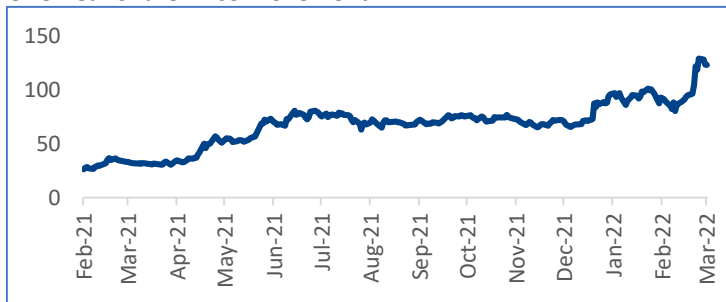


Dwarikesh Sugar Industries Ltd.

Cash Flow Statement

Particulars (Rs Cr)	FY19	FY20	FY21	FY22E	FY23E	FY24E
Reported PBT	111	72	120	185	236	328
Non-operating & EO items	0	0	0	-41	11	-1
Interest Expenses	17	29	43	35	28	20
Depreciation	33	37	41	45	52	59
Working Capital Change	-391	-112	93	79	96	-37
Tax Paid	-20	-14	-1	-47	-60	-84
OPERATING CASH FLOW (a)	-250	11	296	257	362	284
Capex	-48	-112	-19	-85	-175	-30
Free Cash Flow	-298	-100	276	172	187	254
Investments	0	0	0	0	0	0
Non-operating income	4	0	2	0	0	0
INVESTING CASH FLOW (b)	-44	-111	-18	-85	-175	-30
Debt Issuance / (Repaid)	313	187	-236	-20	-125	-135
Interest Expenses	-21	-39	-43	-35	-28	-20
FCFE	-2	49	-2	116	35	99
Share Capital Issuance	0	0	0	0	0	0
Dividend	0	-45	0	-34	-45	-66
FINANCING CASH FLOW (c)	292	103	-280	-89	-198	-221
NET CASH FLOW (a+b+c)	-2	3	-2	83	-11	33
Opening balance of cash	1	-1	3	1	84	73
Closing balance of cash	-1	3	1	84	73	107

One-Year Share Price Movement:



Key Ratios

Particulars	FY19	FY20	FY21	FY22E	FY23E	FY24E
Profitability Ratios (%)						
EBITDA Margin	11.9	10.2	10.9	12.6	14.3	16.1
EBIT Margin	12.2	7.8	9.1	10.8	12.4	14.4
APAT Margin	8.8	5.5	5.0	6.7	8.3	10.1
RoE	22.9	15.5	17.2	21.8	23.5	27.1
RoCE	14.5	8.6	13.3	17.9	20.7	26.8
Solvency Ratio (x)						
Net Debt/EBITDA	5.1	6.2	3.0	2.0	1.3	0.6
Net D/E	1.4	1.7	1.0	0.7	0.5	0.2
PER SHARE DATA (Rs)						
EPS	5.1	3.9	4.9	7.3	9.3	13.0
CEPS	6.8	5.9	7.0	9.7	12.1	16.1
BV	24.6	25.7	30.7	36.3	43.2	52.7
Dividend	1.0	1.0	1.3	1.8	2.4	3.5
Turnover Ratios (days)						
Debtor days	19.1	21.6	16.5	12.1	11.3	10.3
Inventory days	228.1	237.2	175.4	144.0	122.4	105.5
Creditors days	66.9	53.4	39.2	34.2	34.3	32.9
VALUATION						
P/E	24.5	31.7	25.4	16.9	13.2	9.5
P/BV	5.0	4.8	4.0	3.4	2.9	2.3
EV/EBITDA	23.1	23.3	14.6	11.0	8.9	6.5
EV / Revenues	2.8	2.4	1.6	1.4	1.3	1.1
Dividend Yield (%)	0.8	0.8	1.0	1.5	1.9	2.8
Dividend Payout	19.8	25.6	25.7	24.6	25.7	27.0

(Source: Company, HDFC sec)



Dwarikesh Sugar Industries Ltd.

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. These 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 cyclicity 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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