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Operations for sugar industry in Uttar Pradesh – Sustainability challenges

Uttar Pradesh Sugar Mill Association October 2014



Preface

Sugar industry plays a vital role in the rural economy and is the second largest agro based industry in India. The state of Uttar Pradesh is the leading producer of sugarcane and the second largest producer of sugar in the country. However, UP's sugar industry is grappling with serious concerns related to the cyclical nature of sugarcane production, unreasonable sugarcane prices, various policies controlling the procurement and pricing for raw material and finished products along with global pricing making it unviable for many mills to operate.

This ISMA-Grant Thornton report is an attempt towards an in-depth study on the operational and economic viability of the sugar mills in Uttar Pradesh. It also reviews progress of sugar industry in UP both in financial and macro economic terms to understand the challenges faced. Uttar Pradesh even after being the second largest producer of sugar in India has operational issues such as highest cost of production of sugar and mounting cane arrears. The mills in Uttar Pradesh are running into heavy losses as they are not able to recover their cost of production. One of the primary reason for the increased cost of production is the unreasonable SAP prices that the state has laid down.

We believe that this report will provide its stakeholder's with an insight into the financial viability and profitability of Uttar Pradesh's Sugar Industry. We hope that the report will encourage more discussions and policy initiative around the sustainable development of sugar industry in the country and specifically Uttar Pradesh.

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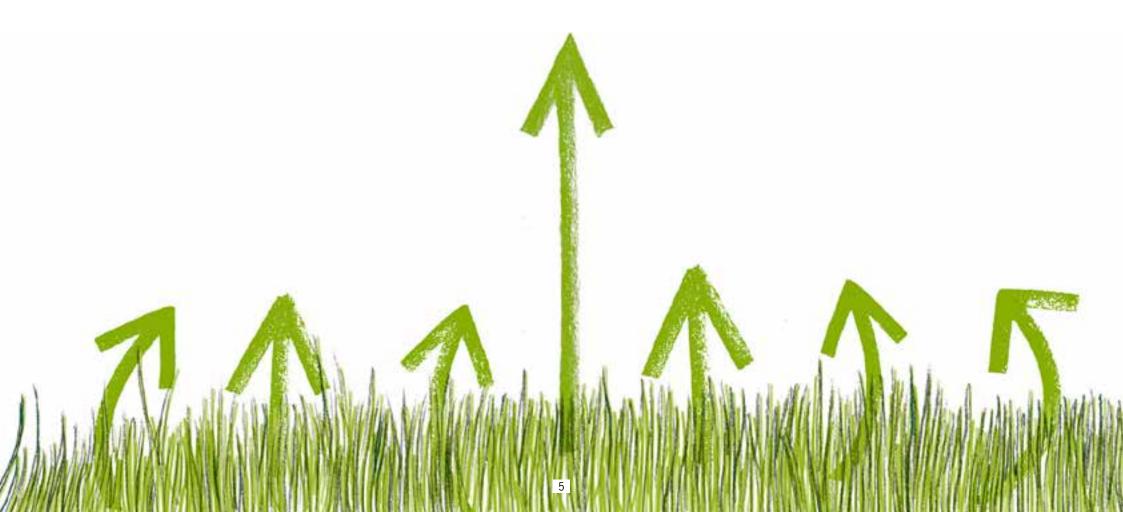


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Executive summary





Executive summary

Sugar Industry is one of the largest agro-based industry of the country after textiles with a worth of more than INR 80,000 crore (from sugar and allied activities). This is one of the industry that can be considered as a multi-product industry producing not only sugar but also industrial/ potable alcohol, bio-electricity, fuel ethanol, bio-gas. Apart from contributing to the GDP, the industry also supports around 5 crore sugarcane farmers and approximately 5 lakh skilled and semi-skilled workers for their livelihood and also plays an important role in contributing to the renewable energy pool of the country. India is the second largest producer of sugar after Brazil. The total sugar production of the country is estimated to be 243 lakh tons for the year 2013-14. Major sugar producing states of India are Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu and Andhra Pradesh. These 6 states collectively contribute to more than 85% of India's sugar production. Uttar Pradesh and Maharashtra together contribute to more than 60% of country's sugar production. Sugarcane, which is the raw material for production of sugar in the country, had a total production of around 3,456 lakh tons out of which UP contributes around 39% followed by Maharashtra at 22%. Around 53.4 lakh hectares of land is under cultivation of sugarcane of which 47% area falls under Uttar Pradesh. Apart from sugar, by-products of sugar industry have the capacity to produce around 1100 MW/h (2013-14) and 994 MW/h (2012-13) of exportable power and annual installed capacity of 6,999 lakh ltrs (2012-13) of ethanol which adds to the country's production and revenue.

However, despite generating revenue and employment for the country, the industry is grappling with serious concerns related to the cyclical nature of sugarcane production, unreasonable sugarcane prices, various policies controlling the procurement and pricing for raw material and finished products along with global pricing making it unviable for many mills to operate. The worst affected is the Uttar Pradesh state which contributes around 39% to the total sugarcane production and around 27% to the total sugar production of the country. Therefore, any adverse policy would have a negative impact on the farmers as well as the millers and Uttar Pradesh farmers and millers would be affected the most. Considering the grim situation of the industry and to take step forward for corrective measures, States governments of Maharashtra and Karnataka have already taken initiatives as suggested by the Rangarajan Committee, one being linking the sugarcane prices to the revenue from the industry through a value sharing ratio. Hence, it is also need of the hour for Uttar Pradesh's government to support the industry by making pro-industry policies and helping it survive.

The key concerns affecting the sustainability of sugar industry in Uttar Pradesh are as follows:

1. Unviability of sugar production due to sugarcane prices - Sugarcane prices in India are controlled at the central level as well as the state level. Year on year the central government fixes a Fair and Remunerative Price (FRP) to be paid to sugarcane farmers for procurement of sugarcane by sugar mills. Above this various states also fix up a State Advised Price (SAP). However, the Rangarajan Committee has recommended for revising the existing arrangement of declaration of SAP and emphasised on paying farmers on the basis of value sharing ratio. Karnataka and Maharashtra have adopted the recommendation, while Tamil Nadu and Uttar Pradesh still continue to announce SAP over and above the FRP. The SAP is highest in the state of Uttar Pradesh at INR 280 per quintal as compared to the cane prices of Karnataka (INR 250 per quintal) and Maharashtra (INR 255 per quintal) which are other leading producers of sugar in the country.

At this SAP, the cost of sugar production for UP millers is around INR 35.99/ kg whereas the counterparts in Maharashtra and Karnataka are operating at INR 28.29/ kg and INR 28.35/ kg respectively (considering FRP) which is around INR 7.5/ kg lesser than Uttar Pradesh. This is not only because of higher cane prices but also due to lower sugar recovery rate in UP. Also due to the higher cost of production and comparable exmill prices with other counterparts, UP millers are making a net loss of around INR 569/ quintal of sugar sold. Currently, sugarcane cost as a proportion to revenue realisation at mill gate of sugar for UP is 99.8% which is much higher than the non SAP controlled states like Maharashtra (81%) and Karnataka (83%), because of which sugar industry across the country is incurring losses which is more in the case of UP

Executive summary (contd.)

- 2. Mounting cane arrears The cane arrears for the Indian sugar industry had touched a record figure in the sugar season 2013-14 mounting to around INR 13,124 crore as on 31 March 2014. This is resultant of non alignment between the input cost (primarily sugarcane procurement cost) and the output prices (sugar prices). The state of Uttar Pradesh is worst hit by mounting arrears where it constitutes around 57% (INR 7,500 crore) of the total arrears as on 31 March 2014. This is highest among any of the major sugar producing states making the situation exacerbated. It is also notable that due to low sugar recovery rates in UP as compared to Maharashtra and Karnataka, high cane prices (which are also not linked to the sugar recovery) and increasing losses year on year, the UP millers are facing the challenge of accumulating arrears. The very existence and sustenance of the sugar industry in Uttar Pradesh is in jeopardy.
- 3. UP sugar mills losing out in competition with other states The UP sugar mills are losing out in the competition with other leading producers like Maharashtra due to its high cost of production. It also has lower sugar recovery rate and sugarcane yield as compared to other leading sugar producing states. Maharashtra with its surplus sugar and low cost of production is in a position to cater UP's traditional market (for sugar) like Delhi even after including the cost of transportation to the cost of production which still would be much less than the cost of production of sugar in Uttar Pradesh.
- 4. Landlocked area Uttar Pradesh is landlocked and transporting sugar to warehouses/ ports for exports adds to the transportation cost and increases the input cost for the millers making it unviable to sell the product outside the country. Hence, they are also not able to benefit from the subsidies for exports. Also the cost of production of sugar for non-UP millers are low, therefore if Non-UP sugar is sold in other states too, it can be done at lower than cost price of UP. As a result, non UP sugar will out price the sugar produced by UP millers.

5. Financial health of UP mills showing alarming signals -

- UP sugar mills are incurring losses year on year. This reached to around (-ve) INR 2019 crore in 2013-14 (based on companies contributing 63% to production of companies (18 companies) under consideration). The PAT for the industry is negative for the last four consecutive years. This coupled with cane arrears, production of sugar is becoming unviable for UP sugar industry
- The total revenue from sugar and sugar based by-products was INR 26,952 crore in 2012-13 and INR 16,735 crore in 2013-14 (based on companies contributing 63% to production of companies (18 companies) under consideration). Out of this 14% is from the by-product industry which is helping the industry just about to survive
- The industry is facing net losses and hence the EBITA margin ratio and ROCE are much lower and showing downward trend
- The interest coverage ratio for UP based companies is close to 0.1 and most of the companies are not making enough margins to service interests



Executive summary (contd.)

- The debt-equity ratio is nearing 1, resulting is huge debt burden for the millers. The repayment capacity has been seriously impaired due to year on year losses and high cost of production
- The working capital requirement is increasing every year as return on working capital is negative for last four consecutive years and millers are finding it difficult to meet the requirement of margin money
- Impact of struggling industry is also visible through falling share prices of the companies in Uttar Pradesh where the investors are also losing confidence

Despite incurring losses, the industry contributed around INR 13,698 crore in 2011-12 to the state as taxes and other levies which increased to around INR16,463 crore in 2012-13. Though the industry is grappling with various issues for survival, however, it is contributing back to the society with various initiatives through Corporate Social Responsibility (CSR). These initiatives are in various sectors like education, health, environment, etc. In addition, the industry is also an employment generator. Around 40 lakh farmers are directly dependent on UP's sugar mills for their livelihood. The UP's sugar industry also employ's around 2.6 lakh workers directly and indirectly.

Way forward

Immediate steps

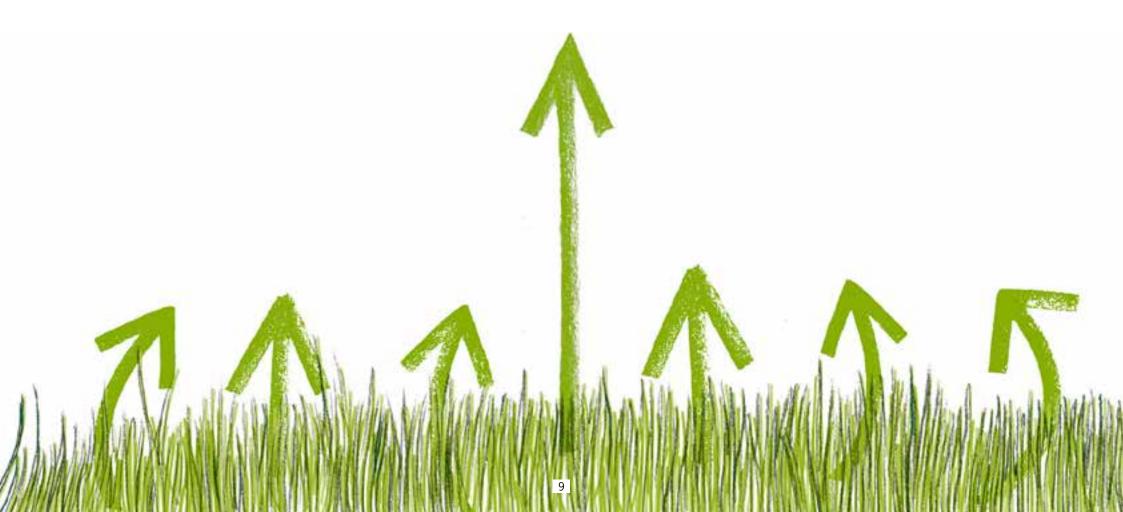
- 1. Linking the sugarcane prices to the revenue from sugar industry through a value sharing ratio one of the important recommendation of Rangarajan Committee Report and removal of SAP system
- 2. Abolishing the reservation policy for sugar by-products like molasses
- 3. Encouraging the industry by increasing the selling prices of by-products specially power in line with other green energy sources

Long-term steps

- 1. Looking at complete restructuring (debt restructuring) of the sugar industry
- 2. Re-looking at drawing parallels with regard to controls for Gur/ Khandsari in line with sugar industry
- 3. Improvement in sugarcane production yield and quality to ensure more sugar recovery
- 4. Providing subsidies to millers for R&D specially in the area of recovery rate improvement and yield improvement



Indian scenario – sugar industry



Indian sugar industry – Uttar Pradesh, a leading producer

Sugar industry is the second largest agro-based industry after textiles in India. With a total output worth of around INR 80,000 crore, it is also an important employment generator. Around 5 crore sugarcane farmers and approximately 5 lakh sugar mill workers are directly dependent on their livelihood on sugar industry. Along with these, there are many others involved with the ancillary and by-product industry of sugar like that of co-generation, alcohol, etc.

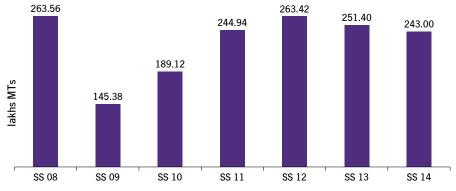
India is the largest consumer of sugar in the world and the second largest producer of sugar. The industry has witnessed a shift in sugar production in the past few years. After registering a 8% increase in production in SS 2011-12, the sugar production for the last seasons showed a decline. As per current estimates the country's sugar production is around 243 lakh tons for SS 2013-14.

The major sugar producing states of India are Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu and Andhra Pradesh. These 6 states collectively contribute to more than 85% of India's sugar production. Uttar Pradesh and Maharashtra together contribute to more than 60% of India's sugar production. The decline in production was primarily driven due to the lower sugar production in Uttar Pradesh. Even though there has been marginal decline in area under sugarcane for SS 2013-14, the steep decline in production is attributed to various factors like:

- higher diversion of sugarcane to alternate sweetener manufacturers
- lower sugarcane yields, and
- delay in the starting of crush by sugar mills because of the uncertainty on the sugarcane pricing

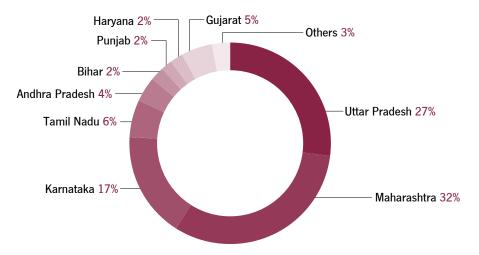
Note : Unless otherwise mentioned, please consider years as sugar season periods





Source: ISMA and Grant Thornton research

State-wise production split (2013-14)



Demand and supply – UP, highest demand generator by virtue of population

There are around 702 installed sugar mills in India with a total operational sugarcane crushing capacity of around 21 lakh TCD (2013-14). Out of these around 507 are operational. The total sugarcane crushed by sugar mills in the year 2013-14 was around 2371.7 lakh tons. The private sector contributes to around 63% of the total sugar production in the country and rest by co-operatives.

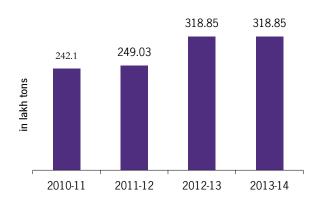
Sugar production which was 127 lakhs MT's in the year 2004-05, has increased to 243 lakh MT's in the year 2013-14 showing a growth of more than 90%. India witnessed its highest production in the year 2006-07 of 284 lakh MT's. Production of sugar is generally affected by the cyclical nature of the industry.

The gap between production and consumption is decreasing owing to lower production and consistently increasing consumption.

There have been years when current year production was not able to meet out our consumption, leading to usage of sugar stock.

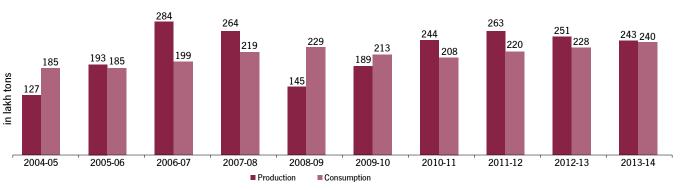
Out of around 65 lakh ton (2013-14) produced by UP sugar producers, only half is sold within the UP market and the rest has to be sold outside UP, largely in Kolkata and north eastern market.

Annual installed production capacity of sugar



Source: ISMA and Grant Thornton research

Sugar production & consumption in India



Source: ISMA and Grant Thornton research

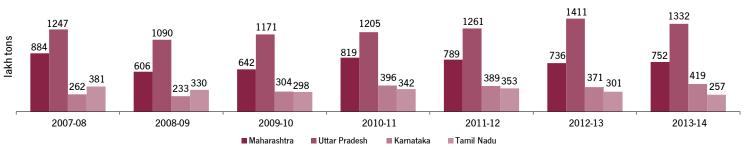
Top 6 sugar producing states in the country



Sugar and sugarcane production – UP, one of the leading producers

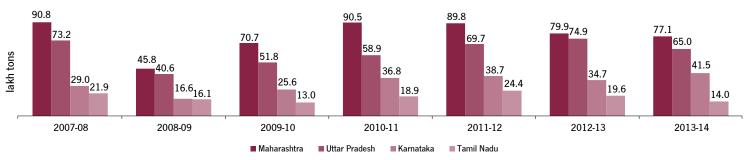
The major sugar producing states of India are Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu and Andhra Pradesh. These 6 states collectively contribute to more than 85% of India's sugar production. UP and Maharashtra together contribute to close to around 60% of India's sugar production. Maharashtra currently constitutes about 32% of the production, followed by Uttar Pradesh at 27% and Karnataka & Tamil Nadu at 17% and 6% respectively. Uttar Pradesh is the leading sugarcane producer of the country which is the prime raw material for production of sugar in India. UP constitute around 39% to the total sugarcane production of the country, followed by Maharashtra at 21% (2013-14).

Sugarcane - State-wise production in India



Source: ISMA and Grant Thornton research

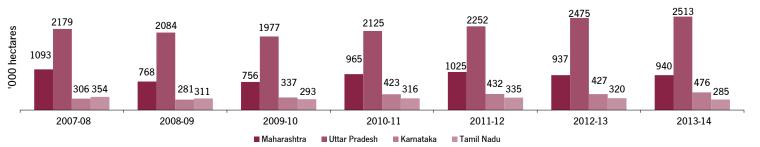
Sugar – State-wise production in India



Area and yield of sugarcane – UP losing out on yield despite highest acreage

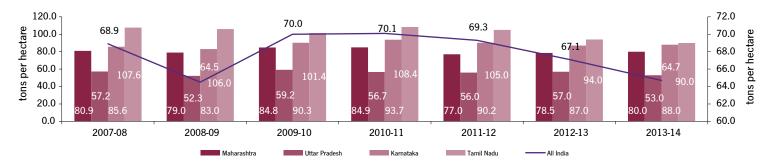
Currently, India's total area under sugarcane production is 53.41 lakh hectares. Out of this around 47% comes under UP area followed by Maharashtra at 18% to the total acreage. As compared to the year 2007-08, currently there has been increase in the area under cultivation primarily in the state of Karnataka and Uttar Pradesh, otherwise for all other states there has been a decrease in the area under sugarcane production. Tamil Nadu has the highest yield per hectare of sugarcane followed by Karnataka and Maharashtra. In-spite of having highest area under production, Uttar Pradesh has the least yield at 53 tons per hectare (2013-14) which is even below the country's average of 64.7 tons per hectare.

State-wise sugarcane area under production in India



Source: ISMA and Grant Thornton research

State-wise yield of sugarcane in India



Note: Till year 2010-11 information has been extracted from ISMA - handbook of sugar statistics 2012-13. For year 2011-12 and onwards, data has been extracted from ISMA satellite mapping details



Key financial indices - Indian sugar industry

(Lakh tons, percentage as appropriate)

		2010-11	2011-12	2012-13	2013-14 (E)
1	Opening Stock as on 1st Oct.	49.80	58.54	66.01	92.98
2	Production during the Season*	243.94	263.42	251.40	243.00
3	Imports	-	-	6.76	1.00
4	Total Availability	293.74	321.96	324.17	336.98
5	Off-take				
	Internal Consumption	207.69	226.03	227.71	240.00
	Exports	26.00	29.92	3.48	22.00
	Total off take	233.69	255.95	231.19	262.00
6	Closing Stock as on 30th Sept.	60.05	66.01	92.98	74.98
7	Stock as % of Off take	28.9	29.2	40.80	31.20

Source: ISMA and Grant Thornton research

Note: Source: ISMA

**Production/Imports/Exports figures include both White & Raw sugar Opening stock has been taken from "Directorate of Sugar, Department of Food"

The domestic supply of sugar has outpaced the total demand resulting in higher closing inventory for season 2013-14. Based on the demand, the country's stock to use ratio was 40.3% and 31.2% respectively for the SS 2012-13 and 2013-14, which is higher than the deficit years of 2008-09 and 2009-10. During the SS of 2013-14, the ex-mill prices of sugar (India average) declined to INR 2,988/ quintal from INR 3,140/ quintal (a difference of INR 151 per quintal). This decline can be attributed to higher opening stock and 243 lakh tons of sugar production during the season.

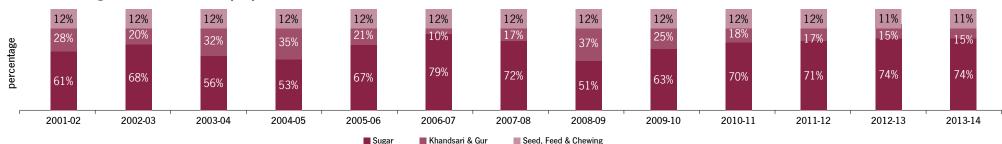
Poor utilisation of sugarcane and highest SAP for UP

Sugarcane in India is utilised for not only processing of sugar but also for production of Khandsari, Gur and for the purposes of feed, seed and chewing. However on an average for last 10 years, around 66% of the sugarcane produced in the country is utilised by sugar mills for production of sugar. This percentage was around 74% in 2013-14. On an average around 22% of the sugarcane is utilised for production of Gur and Khandsari and rest for seed/feed and chewing. The Sugar production since 2001-02 have increased with a CAGR of 2%, however that of Gur/ khandsari has declined with a CAGR of -5%.

Sugarcane prices in India are controlled at the central level as well as the state level. Year on year the central government fixes a Fair and Remunerative Price (FRP) to be paid to sugarcane farmers for procurement of sugarcane by sugar mills. Above this various states also fix up a State Advised Price (SAP). The SAP is one of the highest in the state of Uttar Pradesh when compared to other states of India.However, it is highest amongst the leading sugarcane producing states. Cane prices paid to farmers at mill gate, values in INR/ Quintal

State	Recovery rate (%)	2013-14	2012-13	2011-12	2010-11
Punjab	9.43%	280	240	225	190
Haryana	9.44%	295	271	226	210
Uttar Pradesh	9.26%	280	280	240	205
Maharashtra	11.40%	255	275	210	200
Gujarat	11.09%	240	260	-	-
Tamil Nadu	9%	240	240	200	190
Karnataka	11%	250	275	196	180
Bihar	8.97%	255	255	225	205
Uttarakhand	8.90%	285	285	250	210
Andhra Pradesh	9.98%	251	246	200	190

Source: ISMA and Grant Thornton research



Utilisation of sugarcane for different purposes - India



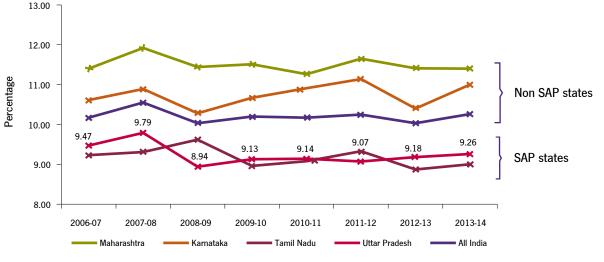
Sugarcane & sugar prices – UP losing out in competition with other states

The SAP has been substantially higher than the FRP fixed by the central government to support the farmers for the state of Uttar Pradesh. UP's SAP increased 1.36 times since 2010-11 to reach a difference of INR 70 per quintal between SAP and FRP which is highest among the cane price difference of other leading producers.

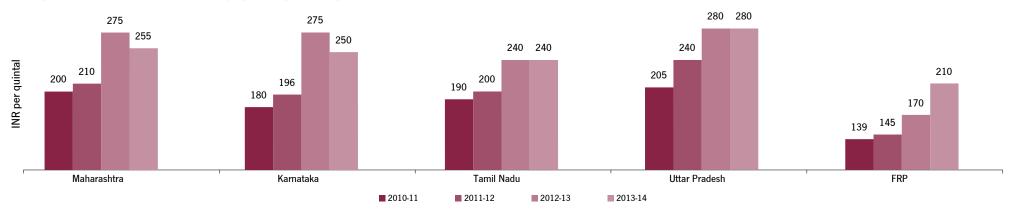
The rise in sugarcane prices is visibly higher for the states following SAP. Uttar Pradesh has highest SAP of INR280/ quintal and very low recovery rates (9.26%) as compared to Maharashtra (11.4%) and Karnataka (11%) and even Indian average (10.26%) for sugar. The combined effect of high SAP and low recovery rates has increased the raw material cost and hence the cost of production for UP millers.

Tamil Nadu's SAP has also increased comparable to that of UP, however the absolute SAP is much lower than UP's which compensates for the growth. Although Karnataka's cane prices grew at a CAGR of 12%, however, it has high recovery rates and also the absolute SAP value is much lower than that of Uttar Pradesh

State-wise average recovery of sugar in India



Source: ISMA and Grant Thornton research



Cane prices for different states INR/ quintal (ex-gate)



..... 57% from

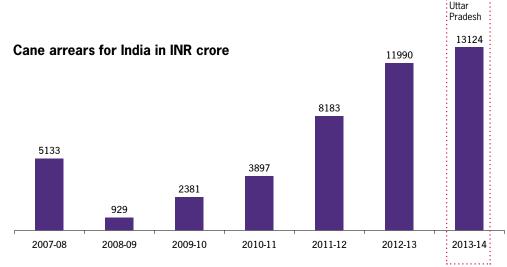
100%

96%

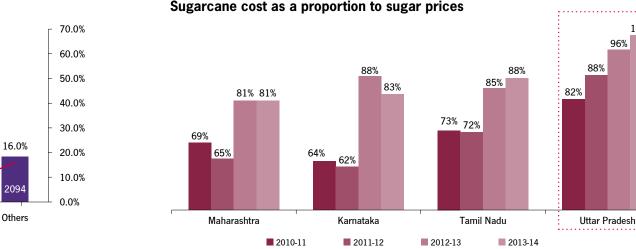
Sugarcane arrears – UP worst hit

The cane arrears for the sugar industry has touched a record figure in the year 2012-13 mounting to around INR11,990 crore which grew at a CAGR of 18.5% in last 5 years. However, cane arrears for SS 2013-14 stood at INR 13,124 crore as on 31st March 2014. This is resultant of non alignment between the input cost (primarily sugarcane procurement cost) and the output prices (sugar prices). The largest producer of sugarcane, the state of Uttar Pradesh is the worst hit by mounting arrears where it constitute around 57% (INR 7,500 crore) of the total arrears as on 31st March 2014. While SAP is at a much higher level than the FRP fixed by the central government making sugar operations unaffordable and unviable for millers considering the given sugar prices in the country. If this situation persists, it is likely that many sugar factories will close down due to continuous losses being reported. In addition to the input/ output prices, poor sugar recovery is also adding to losses of the state which has the least recovery at 9.2% (average 2006-07 to 2013-14)

All the leading sugar producing states have witnessed a rise in the sugarcane to sugar price ratio, however the rise for UP is much steep reaching up to 99.8% in SS 2013-14. This ratio is much higher for the states following State Advised Prices like UP and Tamil Nadu.



Source: ISMA and Grant Thornton research



State-wise cane arrears in India - 2013-14

5.2%

680

Tamil Nadu

5.0%

650

Maharashtra

% share of total

as on 31st Mar 2014 Source: ISMA and Grant Thornton research

7500

Uttar Pradesh

57.1%

6.8%

2200

Karnataka

Arrears in INR crores

8000

7000

6000

5000

4000

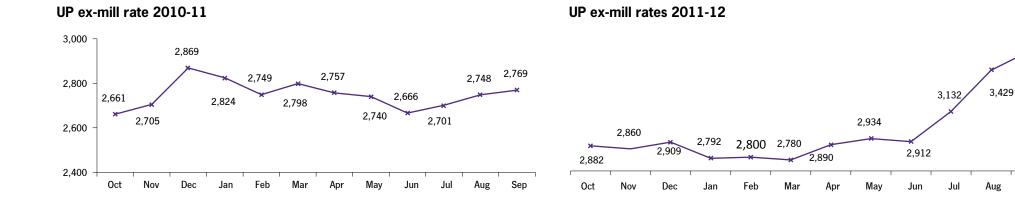
3000

2000

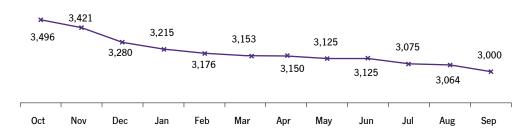
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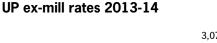
NR crore

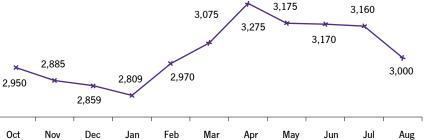
Cost of sugar production higher in UP as compared to ex-mill prices leading to net loss at each quintal sold



UP ex-mill rates 2012-13







3.575

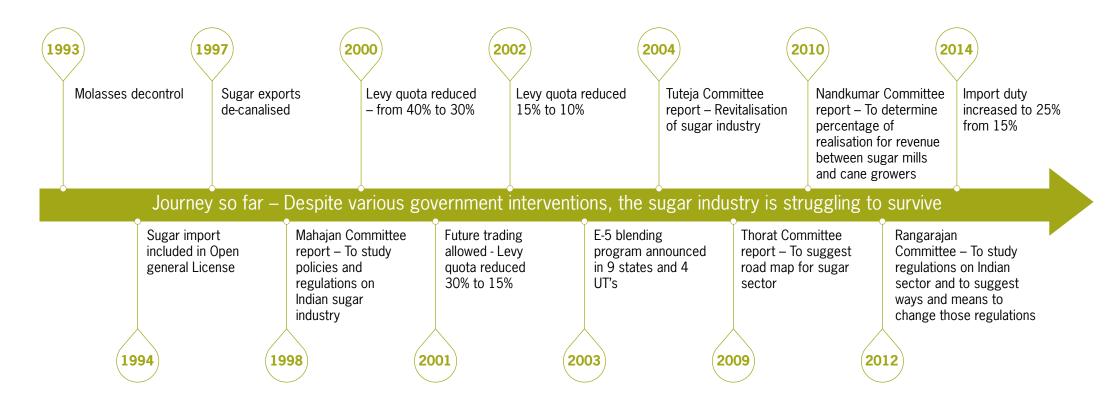
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Period	Average ex-mill Price	Average cost of production of Sugar	Net profit/(loss) on per quintal of sugar sold
2010-11	2749	2750	(1)
2011-12	2991	3200	(209)
2012-13	3190	3500	(310)
2013-14	3030	3599	(569)



Indian sugar industry – regulatory road map

To support the struggling sugar industry, various measures were taken by the government as listed below:



Recommendations of Rangarajan Committee Report - excerpts

Rangarajan Committee in 2012 recommended various measures to be taken to revise the sugar industry which are as listed below:

- Removal of SAP and adoption of linkage formula The Rangarajan Committee has recommended for revising the existing arrangement of declaration of SAP(State Advised Price). It emphasised on paying farmers on the basis of uniform FRP (Fair and Remunerative Price) as first installment and revenue sharing formula to determine final cane prices. (Karnataka and Maharashtra have adopted this recommendation, while Tamil Nadu and Uttar Pradesh still continue to announce SAP over and above the FRP).
- Doing away from Levy Sugar The Committee has also recommended for removing the mandatory surrender of 10% of its production to the Central Government at a price which is lower than the prevailing market price. States would now have to procure directly from the market.
- Release of non Levy Sugar The Committee also recommended for removing the restrictions imposed on regulation of Non levy Sugar.Currently the Central Government allows the release in the market on a periodic basis by giving orders on Quarterly basis.
- Better trade policy Currently there are restrictions on the trade of sugar, which the Committee has recommended to forego and convert them into tariffs. Appropriate Tariff in the form of moderate duty on Imports and Exports to be applied not exceeding 5-10%. Tariffs to be changed basis world prices fluctuations.

- Phase out Cane Reservation Area and Bonding It Emphasised on development of market –based long term contractual agreements, and phase out the practice of cane reservation area and bonding.
- **Review of Minimum Distance Criterion** In order to increase competition and ensure a better price for farmers, the Committee recommended that distance norm of minimum radial distance of 15 km between ant two sugar mills to be reviewed.
- **Removal of restriction on by-products** Currently some restrictions have been placed on sale of by-products such as molasses and bagasse. The Committee has recommended to let go these restrictions and accordingly determine the rates as per the market.
- Other issues The Jute Packaging Materials Act, 1987 (JPMA) mandates that sugar be packed only in Jute bags. The Sugar Industry estimates that this leads to an increase in cost by about 40 paisa per kg of Sugar besides adversely impacting quality. The Committee recommended removing the sugar industry from the purview of the JPMA. (Government of India in its recent order dated 31st Jan 2014 has declared that only 20% of the production of sugar factory is mandatory to be packed in jute bags. Moreover sugar packets of less than 25 kg and More than 100 kg also does not fall under the provisions of JPMA. Sugar meant for export is also not required to be packed in jute bags).





Uttar Pradesh sugar industry – status





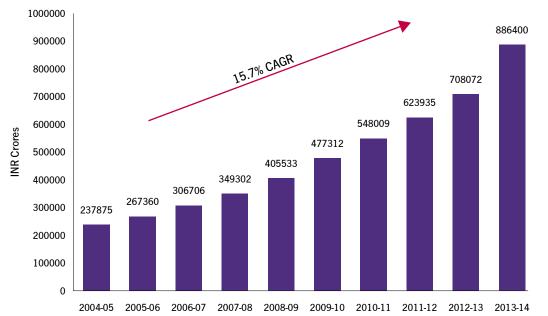
Uttar Pradesh - Profile

Introduction

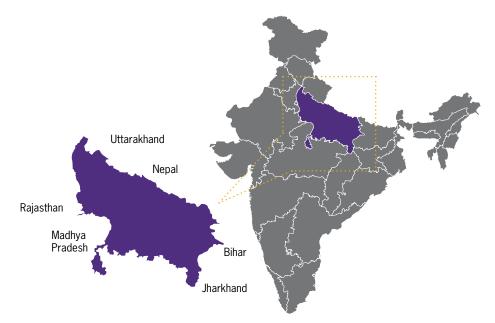
Uttar Pradesh is one of the largest states of the country, accounting for around 7.3% of the country's total area. The population of the state is 19.9 crore (census 2011) which is 16.5% of the country's total population. The decadal population growth rate of the state is 20.09% (India's average: 17.7%) making the state one of the most populous state of the country with a density of around 828 (persons per sq km) (Census 2011).

In 2013-14, at current prices, the GSDP (Gross State Domestic Product) was about INR 886,400 Crore. GSDP grew at a CAGR of 15.7% per cent between 2004-05 and 2013-14.

Gross State Domestic Product (GSDP)

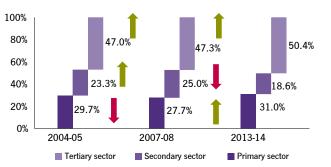


Uttar Pradesh is one of leading state in the country with regards to agriculture production. It accounts for around 32.8% of country's wheat production. It is also the largest producer of sugarcane and vegetables in the country



The tertiary sector contributed around 50.4% to Uttar Pradesh's GSDP in 2013-14 (at current prices). This is followed by primary sector at 31% during the same period.

Percentage share in GSDP





Sugar production

Key statistics UP sugar industry

S. No	Particulars	Unit	2009-10	2010-11	2011-12	2012-13	2013-14
1	Area under Sugarcane	Lakh hect	19.77	21.25	22.52	24.75	25.13
2	Average yield	Ton/ hect	59.20	56.70	56.0	57.0	53.0
3	Sugarcane Production	Lakh Ton	1171	1205	1261	1411	1332
4	Cane crushed	Lakh Ton	567.33	643.81	768.55	815.06	701.40
5	Sugar Production	Lakh Ton	51.79	58.87	69.74	74.85	65.00
6	Average recovery	%	9.13	9.14	9.07	9.18	9.26
7	Utilised Cane	%	53.97	54.38	57.54	59	52
8	Average working period	Days	95	107	128	135	94
9	Daily Sugarcane crushing capacity	Lakh TCD	7.72	7.67	7.68	7.68	7.50
10	Total Number of Sugar Mills	No.	128	125	124	124	119
11	Total Unit of Khandsari	No.	1068	1070	1070	1070	1070
12	Sugarcane Price FRP	INR/ quintal	129.84	139.12	145.00	170.00	210.00
13	Sugarcane Price SAP (early/ general/ late)	INR/ quintal	170/165/162.5	210/205/200	250/240/ 235	290/ 280/275	290/280/275
14	Sugarcane Purchase Tax	INR/ quintal	2.0	2.0	2.0	2.0	
15	Transport deduction from purchase centers	INR/ quintal	5.75	5.75	5.75	8.75	8.75
16	Society Commission	% on FRP	3%	3%	3%	3%	3%

Note : Till year 2010-11 information has been extracted from ISMA - handbook of sugar statistics 2012-13. For year 2011-12 and onwards, data has been extracted from ISMA satellite mapping details for serial number 1,2 and 3.

25.13

2013-14

24.75

2012-13

Sugarcane production, area and yield - highest production, yield even below India average

Uttar Pradesh is the leading producer of sugarcane in the country contributing around 39% to the country total sugarcane production (2013-14). It falls under the sub-tropical sugarcane zone of the country (along with Bihar, Haryana and Punjab contributing around 55% to the total cane production of the country) It also has the highest area under production of sugarcane, however the yield is around 53 tons/ ha which is considerably less as compared to the states of Tamil Nadu (90 ton/ ha), Karnataka (88 ton/ ha) and Maharashtra (80 ton/ha). Sugarcane is the major cash crop for the state that provides

livelihood opportunities to large segment of the population directly and indirectly. It is important to note that sugarcane production used to have a cyclical behavior causing uncertainty to farmers as well as the sugar producing millers, however the production cycle for last four years had shown upswing. Unlike the decade of 1990's the production cycle now has three years upswing and two or three years downswing. However during last 4 years and also expected next year (2014-15), sugarcane production is showing increasing trend and possibly a change in cycle.

21.25

2010-11

20.84

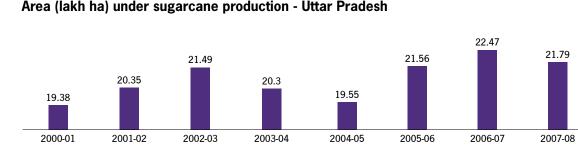
2008-09

19.77

2009-10

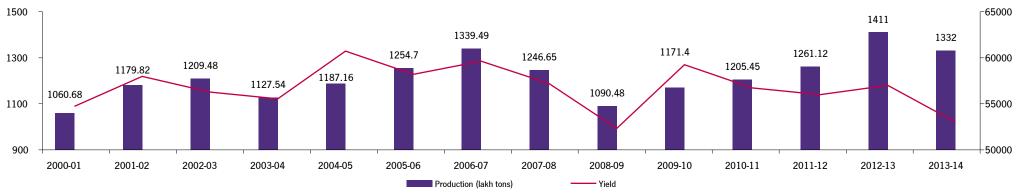
22.52

2011-12



Source: ISMA and Grant Thornton research

Production (lakh tons) and yield (kg/ ha) of sugarcane - Uttar Pradesh



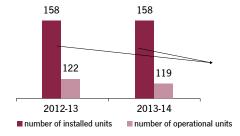
Sugar mills closing down due to unviability of operations

Uttar Pradesh has around 158 installed sugar mills out of which 119 are operational (2013-14), which accounts for 75%. Around 40 lakh farmers directly dependent on UP's sugar mills for their livelihood. These mills are operated by around 50 companies.

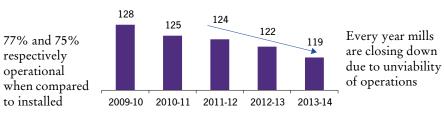
With regard to number of mills, UP West has greater number of mills as compared to the other two regions. Muzzafarnagar in UP West has the highest number of mills (11) in the state. The total sugarcane crushed by the mills in UP is around 701.40 lakh tons.(2013-14)

The total installed capacity of the sugar mills in Uttar Pradesh is 94.6 lakh tons with an operational capacity of 85 lakh tons (89% operational efficiency). The maximum operational capacity falling under the private sector to the tune of 81%. The private sector contribution to the total production in 2013-14 is around 59.3 lakh tons which constitute around 91.3% of the total production.

Installed and operational sugar mills



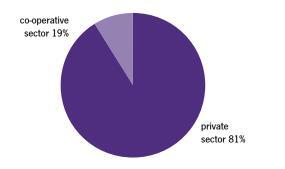
Number of operational units



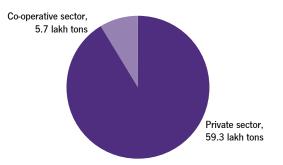
Geographical spread - number of sugar mills



Sector-wise operational capacity in 2013-14



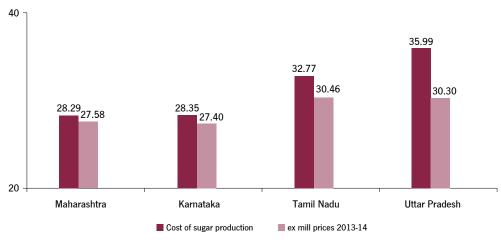
Sector-wise production (in lakh tons) 2013-14



Cane arrears - a result of high cost of production of sugar

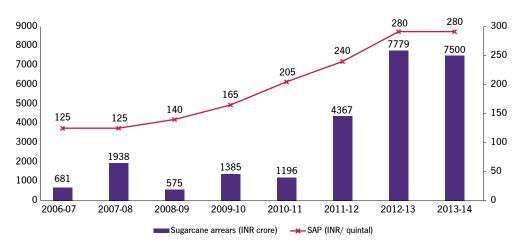
Another important fact that is crucial for UP's sugar millers is that the cost of production of sugar is highest in the state as compared to other key states of the country producing sugar. The cost of production of sugar in Uttar Pradesh was INR 35.99 per kg, followed by Tamil Nadu with INR 32.77 per kg and then Maharashtra and Karnataka with INR 28.29 and INR 28.35 respectively.

Cost of sugar production and ex-mill prices of sugar in INR/ kg - 2013-14



Source: ISMA and Grant Thornton research

Due to the high cost of production, high SAP (input cost), low ex-mill prices for sugar, the millers are not making any margins hence resulting into their inability to pay the farmers for sugarcane they procure. This in-turn results into mounting of cane arrears year on year. Since 2006-07 the cane arrears have increased from INR 681 crore to INR 7,500 crore as on 31st March 2014, an increase by 11 times.

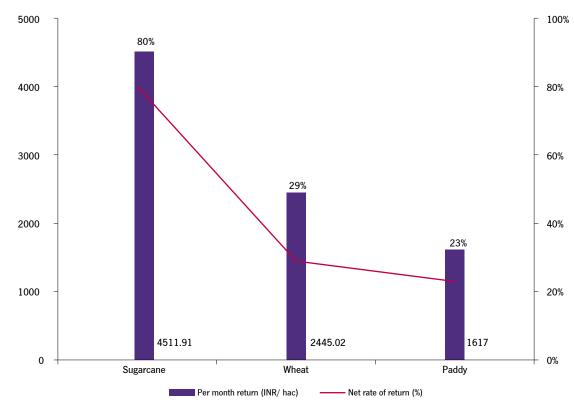




Sugarcane – the most profitable crop when compared in combination of wheat and paddy

Despite the challenges faced by the farmers and millers, sugarcane production still remains the most profitable crop in the state of Uttar Pradesh

Returns from various crops in Uttar Pradesh – A comparison (Average between 2008-09 to 2010-11)



The average per month return (INR/ ha) is highest for sugarcane when compared to other crops like wheat and paddy in combination. (considering sugarcane is a completely irrigated crop, hence it is compared with paddy and wheat cultivated as fully irrigated crops). However it is important to note that sugarcane bears a longer risk cycle as compared to wheat and paddy due to its duration of around 9-10 months in the state as compared to 3-4 months for the latter. The per month return of sugarcane in Uttar Pradesh was INR 4,511 per hectare which was more than the combined per month return of wheat and paddy. The net rate of return(%) is 80% in sugarcane crop, whereas it is only 29% for wheat and 23% for paddy.

A new trend has been witnessed in the alternate crop production, that inspite of having cane arrears and lower productivity the farmers don't go for the production of alternate crops. The reason behind such a trend is that the alternate crops are less profitable as compared to sugarcane. Sugarcane being the most profitable crop of all the other crops, farmers prefer sugarcane over others.



Inter-crop parity – highest return from sugarcane

Farmer's choice - crop rotation for cultivation on per hectare (yearly)

Crop rotation	Total income (INR/ ha)	Unit (INR∕ ha)
Wheat + paddy combination	1,31,500	43,500
Sugarcane – sole crop (52% plant + 48% ratoon)	1,60.160	71,200

Sugarcane is the most profitable crop in the state in comparison with wheat and paddy combination, the time period then being the same. The net profits from sugarcane are 1.6 times the net profits of wheat and paddy combination.

Returns from various crops in Uttar Pradesh – a comparison (Average between 2008-09 to 2010-11)

State	Per month return (INR/ ha)	Net rate of return (%)	Yield (tons/ ha)	Duration of crop (months)
All India	4,295.1	66%	68	
Uttar Pradesh	4,511.9	80%	56	9
Maharashtra	3,852.9	47%	83	13

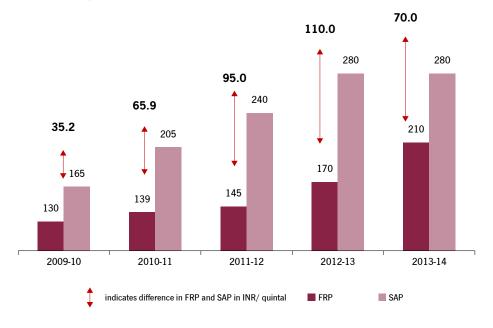
When compared with other leading sugarcane producing states like Maharashtra, the per month return on production of sugarcane is higher than Maharashtra and all India average.

The sugarcane production in UP is highly profitable both in comparison to other competing crops and other states, however sugar production is becoming unviable year on year due to increased input prices and decreased output prices. There is an urgent need to support the sugar industry and implement corrective measure along with that recommended in the Rangarajan Committee report to revive the industry

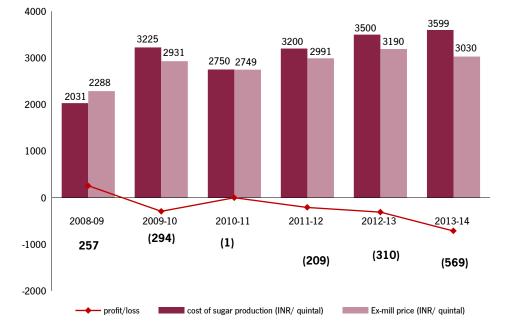
Sugarcane / sugar prices – Increased production cost due to sharp rise in SAP

The widening gap between the FRP and SAP is a major concern. Four years back the difference between FRP and SAP was around INR 35.2/ quintal, however this has gone up to INR 70/ quintal with this difference increasing with a CAGR of 19%. It is also important to note that in the last 5-6 years, in majority of the cases the cost of production of sugar has exceeded the ex-mill prices of sugar, leading to non-viability for sugar mills to produce sugar.

Sugarcane prices in Uttar Pradesh



Ex-mill sugar prices and cost of sugar production



Source: ISMA and Grant Thornton research

Source: ISMA and Grant Thornton research

Gross loss – INR 925/ quintal Revenue from by products – INR356/ quintal Net loss – INR 569/ quintal

UP losing out in competition with other leading sugar producers

- Poor sugar recovery rate as compared to other leading sugar producing states like Maharashtra and Karnataka
- Low yield as compared to other leading sugarcane producing states
- Highest SAP/Cane price payable to farmers among the leading sugar producers

- The cost of production of sugar in UP is around 35.99 per kg
- In states like Maharashtra the cost of production of sugar comes out to be around 28.29
- Even if Maharashtra transports sugar to the traditional markets of UP like Delhi and Kolkata, still it would be able to do so at lesser than costs of production of UP, considering INR 2 per kg as transportation costs

Low sugar realisation

Rejected varieties

Highest Cost of production

Other states capturing UP market

- Only UP declares price on rejected varieties
- Last year the % of rejected varieties in UP was around 40% (including CoS 92423 variety of sugarcane)
- The price difference between rejected variety and others are of only INR 5 per quintal
- This has encouraged farmers to grow rejected varieties also year on year

- UP millers have to sell half of their sugar production outside market and compete with sugar produced from relatively low cost producers like Maharashtra and Karnataka
- Next year the situation seems to be more challenging
- Maharashtra sugar production for the year 2014-15 is estimated to increase by 14-15 lakh tons
- Whereas, for UP the sugar production is estimated to decline by 5-7 lakh tons
- Maharashtra and NW Karnataka with its low cost and surplus production will be in a position to cater the UP's traditional market i.e. the northern and the eastern part of India



Cost of production of sugar in Uttar Pradesh

INR 35.99

Cost of production of sugar in Maharashtra

INR 28.29

Cost of transportation from Maharashtra to UP market areas

INR 2 per Kg

Even after including the transportation cost to the cost of production of sugar in Maharashtra, the costs of production of sugar in Uttar Pradesh still is on the higher side



Crop duration – lower for UP as compared to Maharashtra

Age of Crop

- The average sugarcane crop age for UP is 9.60 months
- Whereas for Maharashtra it is around 12.85 months
- In UP, they have time for growing alternate crops such as wheat and paddy

Less water intake

- UP requires half the water for production of sugarcane as compared to Maharashtra
- The number of standard irrigation in UP is around 8 as compared to 25 irrigations in Maharashtra
- Therefore, the cost of irrigation for producing sugarcane is lower in the state of UP
- However, UP millers still end up paying more cane prices as compared to other states

Return from alternate crops

- UP can produce sugarcane and other alternate crops within the same time span of sugarcane produce in Maharashtra
- The combined return of produces in UP and Maharashtra shall be considered for drawing a comparison
- The net rate of return from produces in UP is around INR 6,956 per hectare as compared to INR 3,852 in Maharashtra
- Farmers are also getting mid season income through inter cultural crop. This practice is very prominent with UP farmers



Government regulations for sugar industry – roadblocks or support system?

Sugar industry plays a vital role in the rural economy and is second largest agro-based industry. However, in light of the analysis in the previous sections it is important to understand the critical situation of the industry. Due to being regulated on the sugarcane side, the industry is grappling with very limited scope to successfully function in the free market especially when the market rates are being determined by the market forces. The key aspects of the regulations are as below:

Regulation	Requirements	Impact
Prices of sugarcane	 The central government fixes a minimum price for sugarcane procurement from farmers - the fair and remunerative price (FRP) In addition the states fix a State Advised Price (SAP) to strengthen the interest of farmers, though without any laid down criteria 	 SAP is substantially higher than FRP The sugar prices generally do not increase as per the increase in the SAP In case, the sugar prices decline, this adversely affects the returns for sugar mills
Regulations relating to by-products	• State government fixes quotas and restricts the movement of by-products of sugar such as molasses particularly interstate	• These restrictions results in loss of revenue for the mills from by-products and reduces economic efficiency of the sector
Trade policy for sugar	• On account of domestic demand, supply and prices, government set control on both export and import of sugar	 India's sugar trade at the global level is small It contributes around 17% of the total production of sugar at the global level however, in terms of exports India exports only around 4% of total trade where UP's contribution is almost negligible
Minimum distance criteria	• As per the Sugarcane Control Order, the central government prescribed a minimum radial distance of 15 km between any two sugar mills ensuring minimum availability of cane for all mills	Restricts competition along with entry and investments by the entrepreneurs
Cane reservation area	 It is obligatory for every designated mill to purchase from cane farmers within the cane reservation area Cane farmers are also bound to sell to these designated mills Revised/fixed every year 	 Ensures minimum supply of sugarcane to the mills Ensuring the mill owners procure at the set minimum price Reduces the bargaining power of the farmers and well as mills Farmers sell to the same mills despite of cane arrears Mills struggle with supply and quality in case of shortfall within the cane reservation area Unsure of area next year
Packaging of sugar	• The Jute Packaging Materials Act, 1987 (JPMA) mandates 20% sugar to be packed in jute bags only	Increases the input cost for sugar mills and hampers the quality of sugar

In-spite of various recommendation on the above regulations and concerns by the Rangarajan Committee, Uttar Pradesh sugar mills are struggling to survive despite all odds.



By-products for Uttar Pradesh sugar industry

Year	Particulars	2010-11	2011-12	2012-13	2013-14
Cane Crushed (tons)		6,43,81,000	7,68,55,000	8,15,06,000	7,01,40,000
Production of Molasses	5% of cane crushed	32,19,050	38,42,750	40,75,300	35,07,000
Captive Consumption	55%	17,70,478	21,13,513	22,41,415	19,28,850
Available for sale	45%	14,48,573	17,29,238	18,33,885	15,78,150

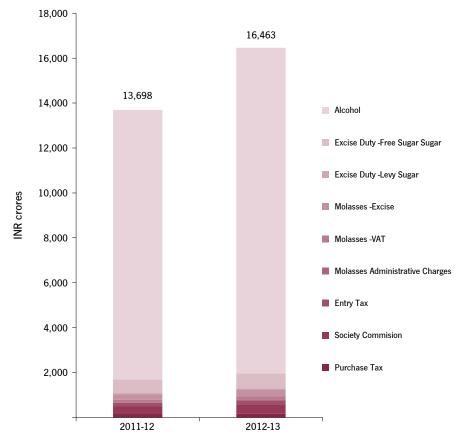
Year	Particulars	2010-11	2011-12	2012-13	2013-14
Cane Crushed (tons)		6,43,81,000	7,68,55,000	8,15,06,000	7,01,40,000
Production of Bagasse	30% of cane crushed	1,93,14,300	2,30,56,500	2,44,51,800	2,10,42,000
Captive Consumption	70%	1,35,20,010	1,61,39,550	1,71,16,260	1,47,29,400
Available for sale	30%	57,94,290	69,16,950	73,35,540	63,12,600



Exchequer contribution

The Uttar Pradesh sugar mills contribution to exchequer was around 13,698 crore in 2011-12 which rose to 16,463 crore in 2012-13

Exchequer contribution



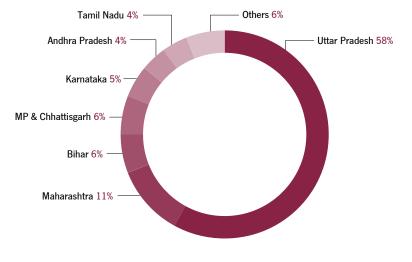
S. No	Particulars	Details
1	Purchase Tax	INR 20 per ton on Sugarcane Crushed
2	Society Commission	3% of FRP of Cane crushed
3	Entry Tax	2% on 40% value of Sugar Value
4	Molasses Administrative Charges	INR 110 per ton on 60% of Molasses produced
5	Molasses -VAT	14% on 60% of Molasses Value
6	Molasses- Excise	INR 770 per ton of Molasses produced
7	Excise Duty -Levy Sugar	INR 620 per ton of sugar produced +3% Ed Cess
8	Excise Duty -Free Sugar	INR 950 per ton of sugar produced +3% Ed Cess



Gur vs sugar industry – alternate sweeteners

Gur is a natural, traditional sweetener made by the concentration of sugarcane juice. Used mostly by the rural population in India it is a natural mixture of sugar and molasses. On the other hand Khandsari (sugar produced from unrefined cane juice) is a semi white centrifugal sugar. Out of total 40,000 Gur units in the country around 23,000 operates in Uttar Pradesh which accounts for approximately 58%. There are around 45 Khandsari units (30% of the country) operational in Uttar Pradesh. Uttar Pradesh contributes around 40% of the total gur production of the country (70-100 lakh tons per annum).

State wise gur units in India (2013-14)

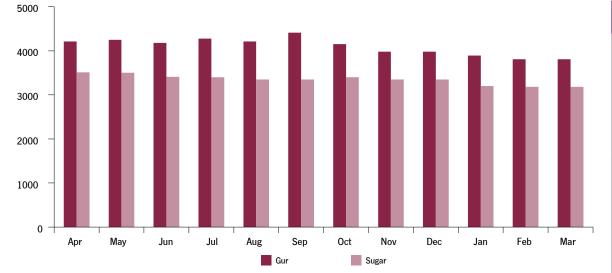


Sugarcane usage for different purposes (2013-14)

Particulars	Cane crushed - Lakh tons (Uttar Pradesh)	Uttar Pradesh - % of total sugarcane production requirement	India average - % of total sugarcane production requirement
For sugar mills	813 - 826	61-62%	73.9%
For Gur units	413 - 426	31-32%	14.8%
For Khandsari units	13 – 26	1-2%	14.0%
For feed/ chew/ seed etc.	69 – 87	5.2-6.5%	11.3%
Total sugarcane production	1332	100%	100%

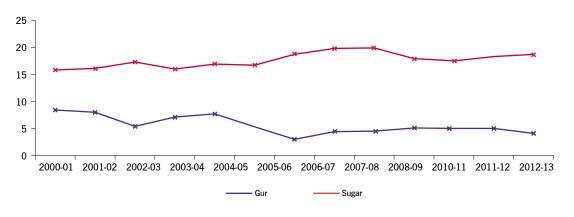
There is a reverse relationship between production of sugar and gur/ khandsari as well as molasses and gur/ khandsari. The sugar industry is competing with the gur/ khandsari industry, but is handicapped as the latter is totally free from any government control. It is not controlled, right from procuring the sugarcane at any price and selling the finished product at any price. This adversely affects the sugar industry. The above table also reveals that around 31-34% of the sugarcane is utilised by gur/ khansari industry in Uttar Pradesh which is much higher as compared to all India average of around 14.8%. However, the recovery rate for gur is only 5%, thereby wasting a lot of sucrose/sugar due to poor efficiencies. Also if 10 tons sugar is produced from 100 tons of sugarcane, then only 7 tons in case of Khandsari, again due to inefficiencies.

Consumption patterns - gur/ khandsari vs sugar industry



Month end whole sale prices of sugar and gur (2013-14), INR/ quintal

Per capita consumption pattern of sugar and gur (2012-13), kgs/ annum



Gur vs sugar - social and economic factors

Gur	Sugar
Nutritive value – alternative sweeteners	Source of sucrose, sweetening agent
Harvest sugarcane at will to produce gur	Harvest would depend on demand from sugar mills
Decentralised and decontrolled	Centralised and controlled
Semi-skilled persons and village artisans can manage the operations	Highly skilled and trained persons are required for processing
Cost of production comparatively low	Cost of production is high
Raw material procurement not controlled with regards to quantum and price	Raw material procurement controlled with regards to quantum and price
Recovery around 5%	Recovery around 9-11.5%
Average prices depend on raw material cost	No linkage with raw material for average prices

The per capita consumption of sugar is increasing as compared to that of Gur. However, Gur industry is not controlled by SAP/ FRP of sugarcane as well as output prices like in the case for sugar. However, despite the increase in production and consumption levels, the sugar industry is prone to losses.

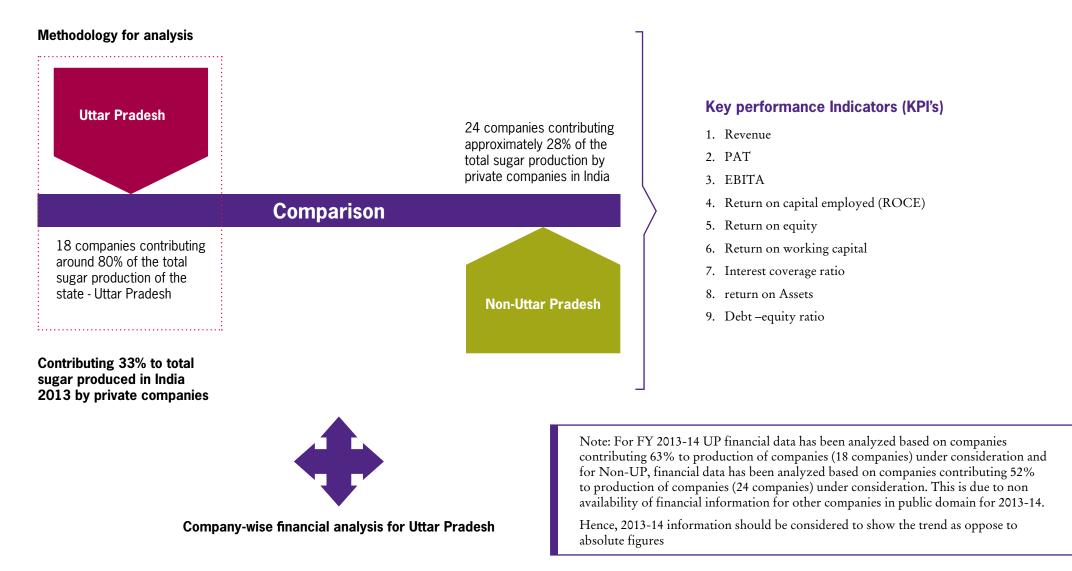


Financial health of UP sugar industry and mills

37



Financial health – UP's sugar industry



Financial health – UP's sugar industry (contd.)

List of companies and production details

S.No	Name of Company (UP)	Sugar Production (000'tons) (2013-14)	Sugar Production (000'tons) (2012-13)
1	Bajaj Hindustan	1,051	1,305
2	Balrampur Chini Mill	742	823
3	Triveni Engg.	433	522
4	Dhampur Sugar	376	439
5	Dwarikesh	213	238
6	Dalmia Chini	224	253
7	Uttam Sugar	134	171
8	DSCL	318	384
9	Oudh Sugar	246	271
10	Rana Sugar	93	95
11	Sir Shadi Lal	123	125
12	Simbhaoli Sugar	206	224
13	Upper Ganges Sugar	121	146
14	Mawana Sugar	232	305
15	SBEC Sugar	91	91
16	Seksaria	87	87
17	L.H.Sugar	83	83
18	Daurala	140	140

S.No	Name of Company (Non UP) (2012-13)	Sugar Production (000' tons)
1	Bannari Amman Sugar	432
2	Dharani Sugar and Chemicals	205
3	Eid Parry	881
4	Empee Sugar and Chemicals	25
5	Gayatri sugars	62
6	KCP Sugars	98
7	Kothari	94
8	Naraingarh	37
9	Ponni Sugar	65
10	Prudential	29
11	Rajshree	259
12	Ravalgaon	12
13	Sadashiva	65
14	Thiru Arooran	84
15	Trident Sugar	40
16	Ugar Sugar works	120
17	Upper Ganges	229
18	Vishnu Sugar Milla	40
19	Parry Sugar	121
20	Shree Renuka	1440
21	Indian Sugars and Refineries Ltd	79
22	Saraswati	127
23	Godavri Biorefinieries	182
24	Gem Sugars	74

UP based sugar companies face huge losses

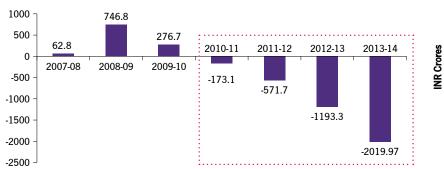
Production (2013-14)	Particulars
No. of mills (operational)	119
Sugarcane crushed (in lakh tons)	701.40
Sugar produced (in lakh tons)	64.95
Recovery	9.26%

By- Products Produced (2013-14)	Particulars
Molasses (in lakh tons)	35
Bagasse (lakh tons)	210

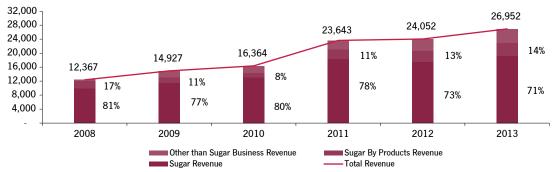
The losses for UP sugar mill s for the year 2013-14 was around 2019 crore. The production of sugar is becoming unviable for the industry due to the year on year losses coupled with cane arrears.

PAT (INR crore)

Particulars	2012-13	2013-14
Total Revenue	26,952	16,735
Total PAT	(1,193) (-4%)	(2,020) (-12%)
EBITDA	3,070.84 (11%)	1,002.81 (6%)
EBIT	858.38 (3%)	163.47 (1%)
Finance Costs	726.82	1,601.46
Capital Employed	14,467.69	11,942.38
Total Assets	21,225.16	25,745.93
Working Capital	4,765.37	351.99
Debt	6,504.50	6,057.33
Equity	7,620.76	7,026.91
Current Assets	11,865.27	13,013.98
Current Liabilities	7,099.90	12,661.99

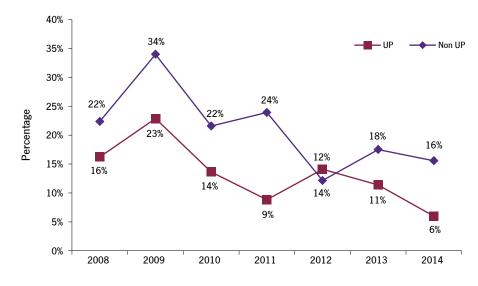


Revenue composition (INR crore)

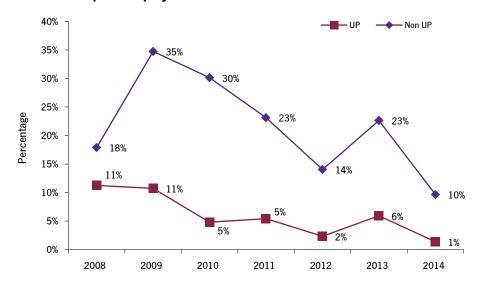


EBITA margin and ROCE reflecting non-viability of operations

EBITDA margin ratio



Return on capital employed



EBITDA margin ratio – **EBITDA**/ revenue

The EBITDA Margin Ratio (Earnings before interest, taxes, depreciation and amortisation/ Revenue) for UP based sugar companies is much less than that of Non –UP based companies. It is also falling year on year. The by-product industry like distilleries and power generation through co-generation system is helping the industry survive and adding to the revenues which contribute around 14% to the total revenue. If these revenues are removed the EBITDA margins would be much lower.

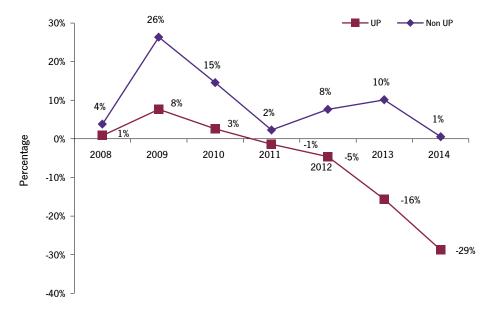
ROCE – EBIT/ capital employed

The Return on capital employed by UP based sugar companies is much lower than that of Non-UP based companies. It revels that on an average the UP based mills are (average 2008-2014) not even making INR 6 per capital employed at EBIT level. If the revenues from by-products are removed and PAT is considered, the companies are making huge losses. Though the downfall is visible in Non-UP based mills as well, however, the fall in UP is much higher.

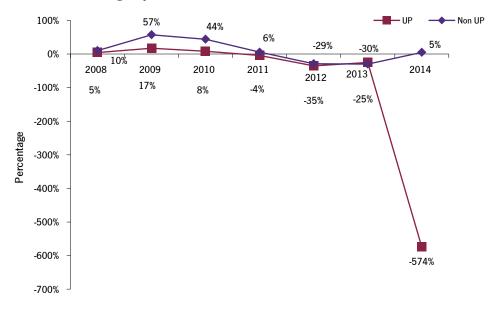
The impact of Rangarajan Committee recommendations can be seen in the non UP states like Maharashtra and Karnataka post 2012

Financial performance showing negative results – net worth eroded

Return on equity



Return on working capital



Return on equity – PAT/ equity

The return on equity for UP based sugar mills is negative. The Indian sugar industry is struggling, however the situation of UP is worse. It is unviable to invest in the industry as every unit of equity sugar mills put in, there shall be no return or profit, on the other had they would make huge losses. The situation of Non-UP based industry is however, not as bad as the UP based industry to some extent.

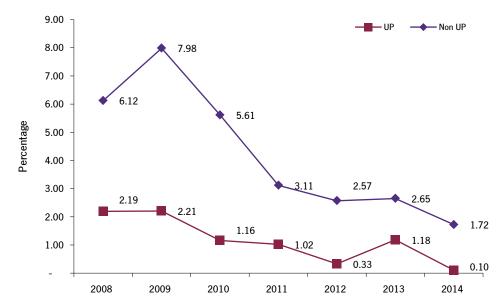
Return on working capital – PAT/ working capital

There is an urgent need for the entire sugar industry for higher working capital to pay cane arrears. Due to recurring losses the industry (UP and Non-UP both) is struggling for working capital and margin money. The situation of the industry has deteriorated more since 2011. Prior to this Non-UP based companies were better off than the UP based companies.



UP based companies struggling even to service interest

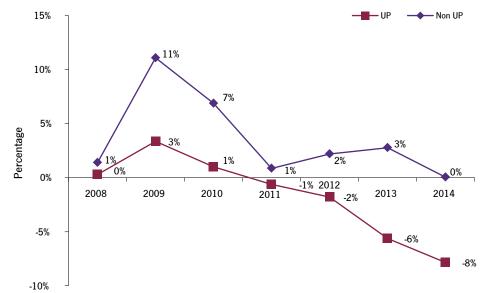
Interest coverage ratio



Interest Coverage Ratio – EBIT/ Interest Expense

The interest coverage ratio for UP based companies is close to 1, however most of the companies are not making enough profit to service interests. The over all situation is not positive and not many companies have profits at EBIT level. The Non-UP companies were better placed till 2010, however the decline for these companies is also quite visible.

Return on assets

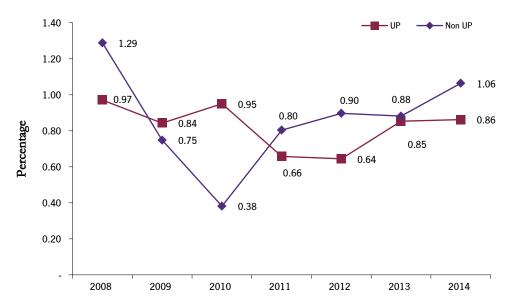


Return on Assets – PAT/ total assets

Return on assets for UP based companies is negative. It is declining sharply since 2010. High leverage levels, interest expenses, decreasing profitability and greater need of working capital coupled together is making the UP sugar industry a loss making venture.

High debt and year-on-year losses making operations un-sustainable for UP based companies

Debt – equity ratio



Debt-Equity Ratio – Debt/Equity

The debt position of UP and non-UP companies is not very favorable. The debt-equity ratio of UP is currently at a level of 0.86, which is higher than the ideal ratio of 0.5. The ratio is adverse for UP industry due to increasing cane arrears.





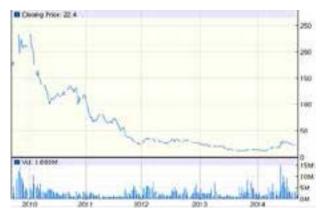
Issues / challenges faced by the sugar industry in the state

- 1. Competition from other states In case UP millers are not supported by pro-industry policies, the industry is on the verge of closing down. Hence, resulting in more penetration of non UP millers in the existing market of UP millers.
- 2. High prices of sugarcane Highest SAP in the country.
- 3. Low yield of sugarcane and recovery rates Low yield as compared to other states and country average. Resultant in uneconomic nature of production of sugar due to low yield, high cane prices, short crushing season and prices of output.
- 4. Competition from alternate sweeteners like gur / khandsari Around 31-32% of sugarcane diverted to production of alternate sweeteners which are not controlled by the government either with regards to purchase price of sugarcane nor on the selling price. Non level playing field.
- 5. High cost of production of sugar and ex-mill prices Cost of production of sugar is highest in the country.
- 6. Mounting cane arrears Highest in the country and contribute around 57.1% of the total arrears of the country.

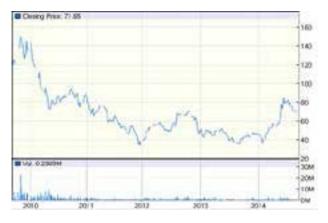
- 7. Government policies High SAP, levy sugar, annual revision of cane reservation area and depressed output prices.
- 8. Competition from cheaper imports and world sugar prices The price of Indian sugar is currently higher as compared to current export prices of Brazil. Also with regard to internal competition, states that have adopted Rangarajan Committee recommendations have become more competitive as compared to UP.
- 9. The industry is facing net losses and hence the EBITA margin ratio and ROCE are much lower and showing downward trend.
- 10. The PAT for the industry is negative for the last four consecutive years. The working capital requirements have increased and due to net losses, mounting cane arrears, the industry is struggling for its survival.
- 11. Selling prices of by-products is also a matter of concern.

Investors losing confidence, visible through the falling share prices of sugar companies in Uttar Pradesh

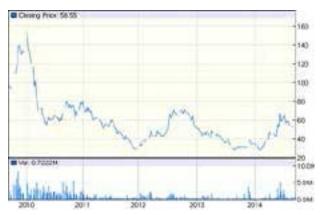
Bajaj Hindustan Limited



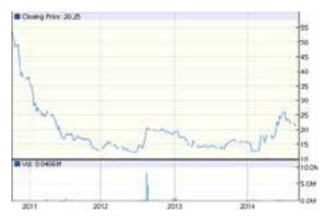
Balrampur Chini Mills



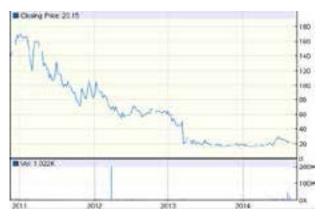
Dhampur Sugar Mills



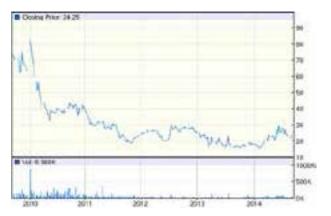
Dalmia Bharat and Sugars Ltd



Parry Sugar

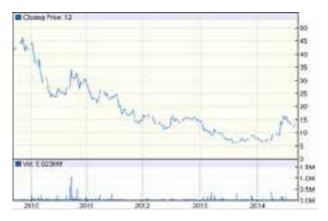


Oudh Sugar Mills

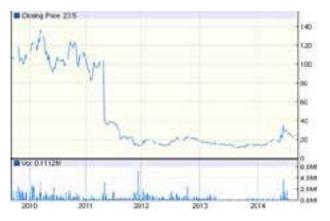


Investors losing confidence, visible through the falling share prices of sugar companies in Uttar Pradesh (contd.)

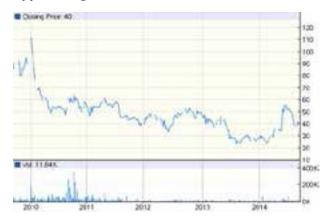
Mawana



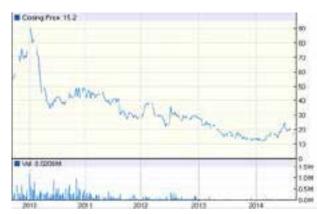
Triveni Engg



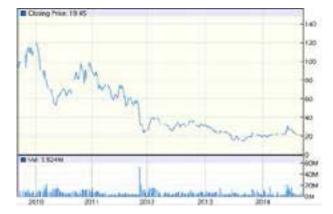
Upper Ganges and Industries



Simbhaoli

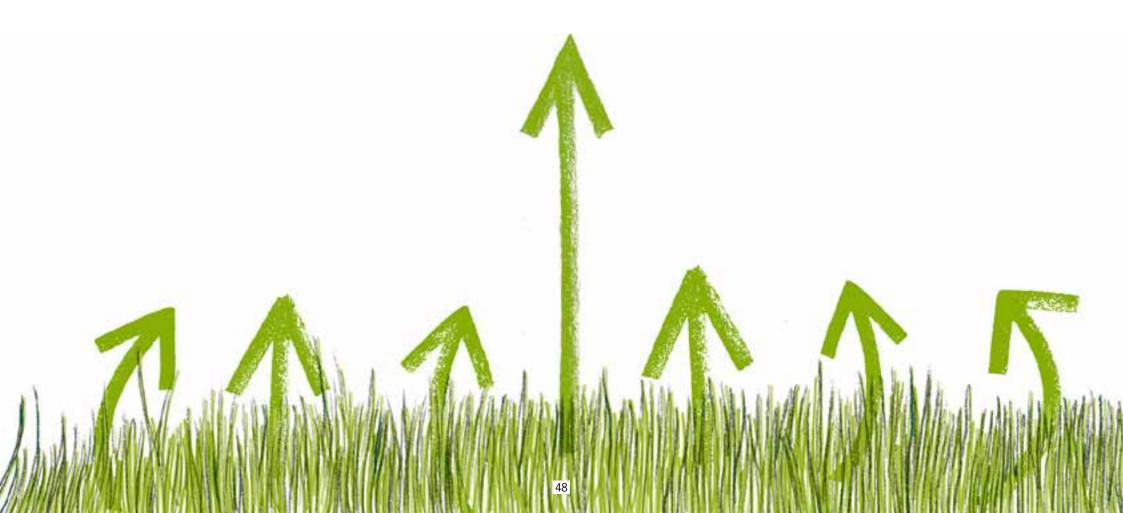


Shree renuka Sugars





Positive impact



Corporate Social Responsibility (CSR) initiatives

Name Of Company	CSR Initiatives
Bajaj Hindustan	 'Bajaj public School', a non profit organisation, obtained CBSE affiliation for Class X Running "Charkha" –Spinning Wheel to boost women empowerment General Medical/Eye checkup campaigns Hepatitis B vaccination camps Woolen clothes and blanket distribution in underprivileged class Blood Donation camps Distribution of organic manure to farmers at subsidised rates Received FICCI Water Awards 2012 –This award recognises the company's efforts towards water conservation and rain harvesting HIV/AIDS education and prevention programme in collaboration with international labour organisation Yoga Programme under the guidance of Swami Om ji from Patanjali yogpeeth Food packet distribution
Balrampur Chini Mills	 The Board in its meeting on 6 February 2014 has constituted a CSR Committee Running ' Balram Institutional of Vocational Aid '(BIVA) – A registered public and charitable trust providing vocational training to the underprivileged to alleviate poverty and enhance self reliance Recognises and affiliated with many central and state Government agencies Courses offered –Electric house wiring, motor winding, vehicle repairing, motor driving, computer application, beautician, tailoring etc In 2013-14 it trained about 440 aspirants Balram Foundation, a public charitable trust funded mainly by Balrampur Chini Mills Initiatives in the field of healthcare, education, sports and social and cultural activities
Dhampur Sugar Mills	 Providing employment to rural folk Extensive plantation, encouraging locals for the same Use of renewable fuels – currently has cogeneration facilities producing 54 MW of power from renewable resources Promotion of sports at rural level Co-sponsoring North India Squash Championship for the last 5 years Allahbad Gymnastics Association founded Sponsorship in cricket, badminton and swimming also Has education facilities at all its units. Also has a school named Pushp Niketan School –set up with the help of iDiscovery Education Pvt Ltd



Corporate Social Responsibility (CSR) initiatives (contd.)

Name Of Company	CSR Initiatives
Triveni Engineering	 A CSR Committee has been constituted w.e.f. 16th April, 2014 Focus on Education, healthcare, environment, community enhancement, Sports and recreation Education Runs school at 3 of its major sugar units Established Lala Puran Chand Sawhney Inter College -Set up in the year 1970 Company supports Pratham Organisation -a school foe age group of 3-5 years Healthcare Provides financial and Management support to one of the Delhi's oldest and most reputed hospital ' Tirath Ram Shah Charitable hospital ' –runs free OPD serving 250-300 patients daily Supports ROSHNI (Rehabilitation Opportunities, Services and Health for the Neurologically Impaired) Sponsors 'Aksaya Patra Programme' of ISKON which offers free nutritious free day meal to the underprivileged Organises inter unit sports activities for the employees as well as the adjoining villages Distribution of blankets Tree plantation campaigns throughout the year CII –Triveni Water Institute in the world where Government, industry and civil society have come together to solve the water related issues in a holistic manner Achieved water saving of about 40 billion liters Reduction in waste water generations through recycle and regeneration mechanisms Provided inputs to National Water Policy 2012
Simbhaoli Sugars Limited	 Carrying out initiatives through Simbhaoli India Foundation A non profitable institution which helps in raising funds for health based activities such as blood donation camps, service ambulance etc Also takes initiatives for encouraging education, cleaner surroundings and making people learn the value of good hygiene and sanitation
Dwarikesh Limited	 Has in place a Bio-Methanation which results in removing BOD/COD from its spent wash Also generates energy enabling longer working duration of distillery operation

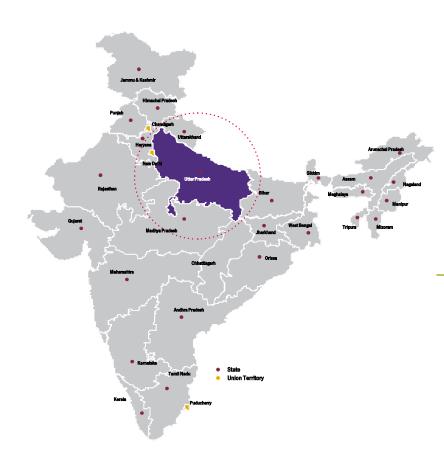


Employment generation

Year	Particulars	2010-11	2011-12	2012-13	2013-14
Cane Crushed (tons)		6,43,81,000	7,68,55,000	8,15,06,000	7,01,40,000
Crushing Season (days)		107	128	135	94
Per day		6,01,692	6,00,430	6,03,748	7,46,170
For every 5000 tons cane crushed					
Permanent	550	66,186	66,047	66,412	82,079
Contractual	1000	1,20,338	1,20,086	1,20,750	1,49,234
Sub total (A)		1,86,524	1,86,133	1,87,162	2,31,313
Distillery (B)	3% of A	5,596	5,584	5,615	6,939
Co-generation (C)	10% of A	18,652	18,613	18,716	23,131
Total Employment (D)	A+B+C	2,10,773	2,10,331	2,11,493	2,61,383

Around 40 lakh farmers are directly dependent on UP's sugar mills for their livelihood. The UP's sugar industry which is worth more than INR 30,000 crore employ's around 2.6 lakh workers directly and indirectly.

If government polices favour, UP sugar industry may find many opportunities



Catchment area – Northern India

- The catchment area of UP surplus sugar production is the whole of North of India
- Primarily being New Delhi, Haryana, Chandigarh, Punjab, Rajasthan and H.P
- These states are low/no sugar producing states
- with a combined population of 14.63 crore, with a demand of 267.8 lakh qts

Surplus of 331.70 lakh qts

- Total production of UP is 697.4 lakh qts
- Population being 19.98 crore
- With a per capita consumption of 18.3kg, leading to total consumption of only 365.4 lakh qts
- Surplus left for distribution is 331.70 lakh qts

Water availability

- Lesser water intake as compared to Maharashtra
- for producing 1kg of sugar water requirement in UP is almost half of that of Maharashtra
- Maharashtra and Karnataka facing drought problems for 2 consecutive years, whereas UP has plenty of rivers and enjoys good rain.

Other benefits

- Low Cost of Transportation as compared to other surplus sugar states such as Maharashtra, Karnataka and Tamil Nadu
- Crop duration season is shorter in UP as compared to Maharashtra. It is 9.6 months in UP whereas 12.85 months in Maharashtra
- Scope to increase cane yields and sugar recovery rate –at present amongst the lowest in the country



Revenue sharing arrangement - international cases

Sugarcane Pricing System				
Country	Cane Payment System	Industry revenue to be shared	Grower's Revenue share	
Brazil	Revenue Share (Variable)	Sugar and Ethanol	56-61 %	
Thailand	Revenue Share (Fixed)	Sugar and by-products	70% +	
India	Fixed Price (SAP)	Varies by States	Fixed Price	

• India is the only country amongst major cane producing countries, where fixed price system is prevalent for cane pricing

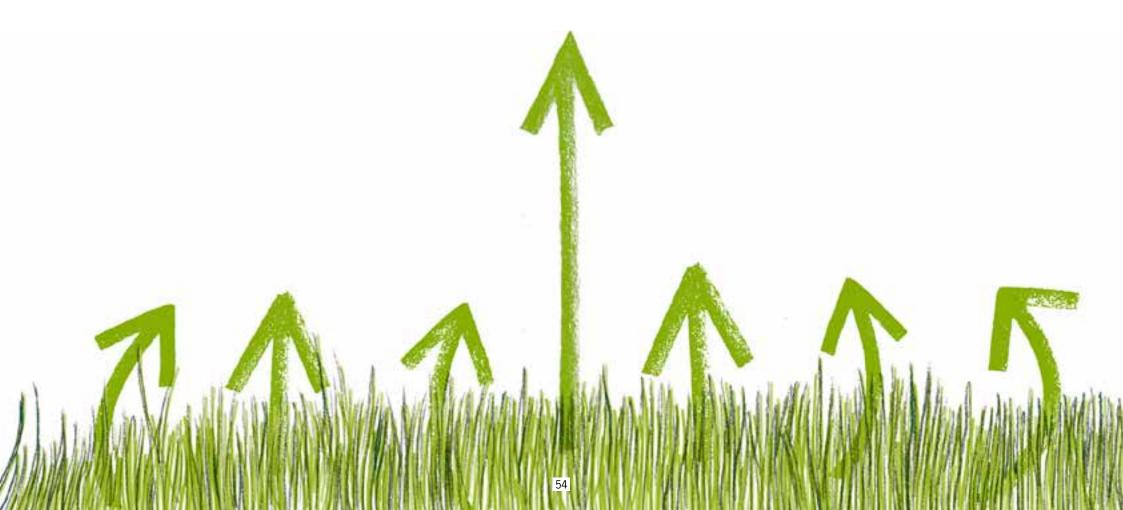
• This system has led to increased litigations in court, as farmers feel FRP is on the lower side and millers feel they are not able to pay the so high SAP

• The current price mechanism has serious shortcomings, as it has resulted in mounting arrears and widening trust deficit between the main stakeholders

• Thailand, for instance which is close to India's Sugarcane conditions, give 70% plus of the value of sugar and its by products to farmers as cane price

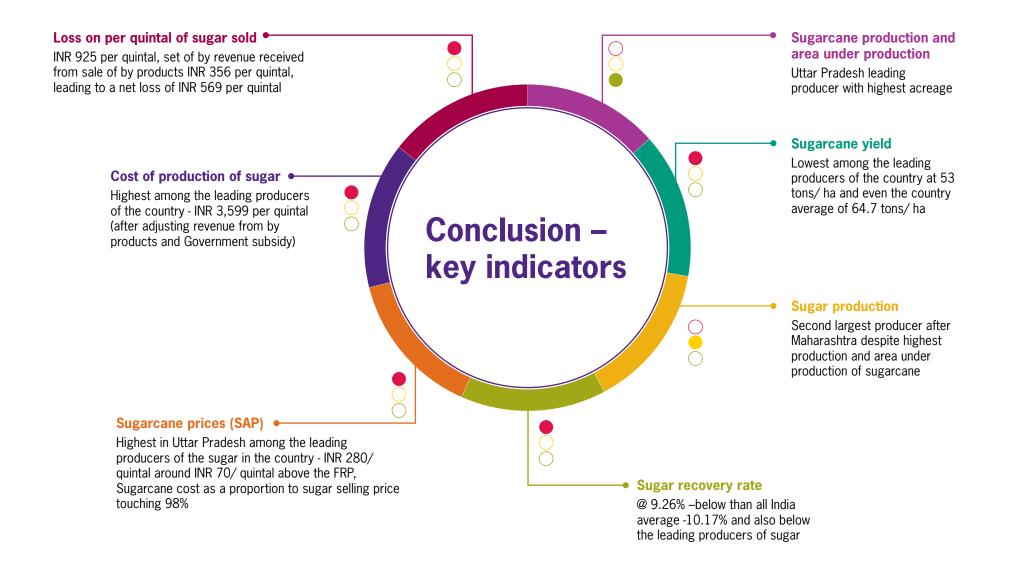


Conclusion and way forward



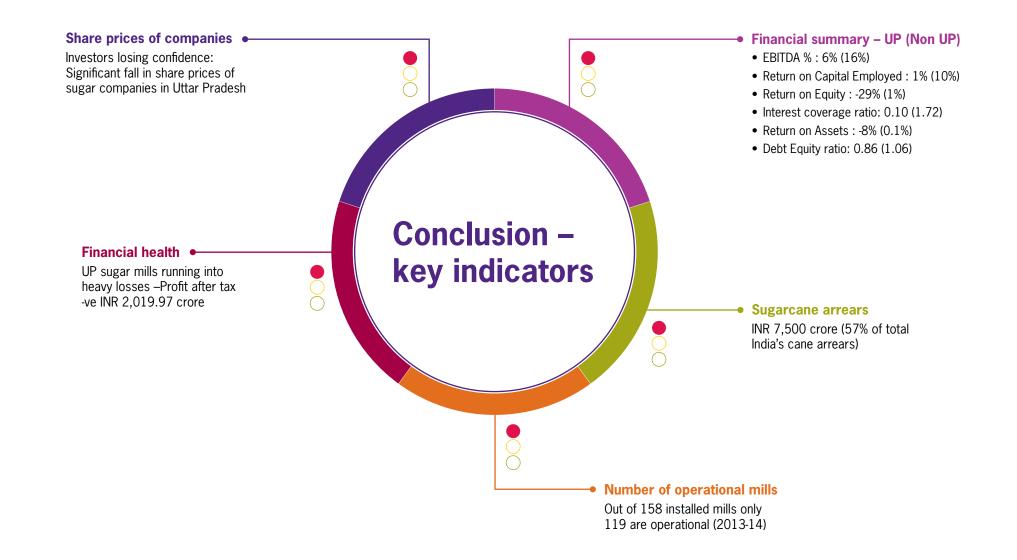


Conclusion – key indicators





Conclusion – key indicators (contd.)

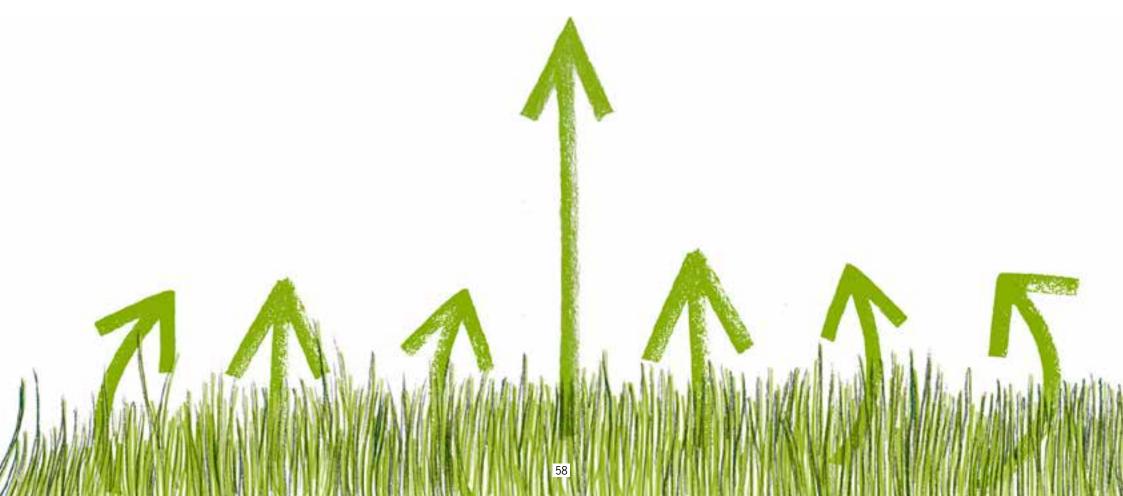


Way forward for Uttar Pradesh sugar industry

Adoption of recommendations of Rangarajan committee	Improvement in sugar recovery rates	Control over gur & khandsari industry	Other recommendations
 Removal of SAP and adoption of linkage formula Phase out Cane reservation area and Bonding Review of minimum distance criterion Introduction of better trade policies 	 Sugar recovery rate for UP is 9.26% as compared to Maharashtra with 11.4% Replacement of old machinery Modernisation of production technique Improvement in productivity of sugarcane with use of better quality of seeds, manure and pesticides 	 Currently there is no Government control over the Gur industry Hence, there is diversion of sugarcane for producing gur over sugar When prices of Gur increases there is a direct impact on the production of sugar As a result sugar industries are working under capacity due to low availability of sugarcane A policy to be adopted for control over Gur so as to mitigate the irregular supply of sugarcane 	 Revival of Sick units –Sick units should be merged with other healthy units and accordingly healthy units be given some financial concessions so as to encourage such mergers Increase in import duty –Currently the international prices are less than the domestic prices leading to increase in imports Encourage exports – Export duty exemptions and tax waivers should be provided which will help in finishing our surplus stock



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Annexure I Financial analysis for individual companies



Bajaj Hindustan Ltd.

Production (FY 2012-14)	Particulars
No. of mills	14
Total crushing capacity (in TCD)	1,36,000
Sugar produced (in MT)	22,73,088
Sugarcane crushed (in lakh MT)	248.38
Recovery	9.20%

By- Products Produced (2012-14)	Particulars
Alcohol (in KL)	2,45,764
Molasses (in MT)	12,65,184
Electricity (co-generation only - in MW)	16,15,638

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	-0.42%
ROCE	-10.58%
Interest Coverage Ratio	-0.59
Return on Working Capital	70%
Debt-Equity Ratio	1.07

The company information has been taken from the financials of the respective companies available in public domain (ROC, websites etc.)

Financial Analysis (2012-14) INR crore	
PBT	-1508.06
PAT	-1533.12
Depreciation & Amortisation	531.72
EBITDA	-27.77
EBIT	-559.49
Excise	214
IT (Company level)	25.06
Total Assets	12528.41
Capital Expenditure	4234.45
Total Liabilities	9969.88
Current liabilities	7238.84
Shareholder's Equity	2558.53
Loan	2731.04
Interest	948.57
Net worth	5289.57
Working capital	-2198.43

The above financial details are for 18 month period



Balrampur Chini Mills Ltd.

Production (FY 2012-13)	Particulars
No. of mills	11
Total crushing capacity (in TCD)	79,000
Sugar produced (in MT)	772,000
Sugarcane crushed (in lakh MT)	81.1
Recovery	9.52%

By- Products Produced (2012-13)	Particulars
Molasses (in MT)	1,26,135
Electricity (co-generation only - in MW)	7488.69

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	14%
ROCE	12%
Interest Coverage Ratio	2.46
Return on Working Capital	-1251%
Debt-Equity Ratio	0.17

Financial Analysis (2012-13) INR crore	
PBT	210.55
PAT	162.02
Depreciation & Amortisation	108.25
EBITDA	462.66
EBIT	354.41
Excise	109.19
IT (Company level)	48.53
Total Assets	4,226.21
Capital Expenditure	-
Total Liabilities	2903.17
Current liabilities	2432.41
Shareholder's Equity	1323.04
Loan	226.39
Interest	143.86
Net worth	1793.80
Working capital	-12.95



Triveni Engg. & Industries Ltd.

Production (SS 2012-13)	Particulars
No. of mills	7
Total crushing capacity (in TCD)	61,000
Sugar produced (in MT)	5,20,000
Sugarcane crushed (in lakh MT)	56.3
Recovery	9.28%

By- Products Produced (2012-13)	Particulars
Molasses (in MT)	2,96,837

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	4.29%
ROCE	0.82%
Interest Coverage Ratio	0.10
Return on Working Capital	-444%
Debt-Equity Ratio	0.52

The company information has been taken from the financials of the respective companies available in public domain (ROC, websites etc.)

Financial Analysis (2012-14) INR crore	
PBT	-167.37
PAT	-152.78
Depreciation & Amortisation	118.78
EBITDA	136.63
EBIT	17.85
Excise	103.57
IT (Company level)	-14.59
Total Assets	2988.57
Capital Expenditure	1728.68
Total Liabilities	2180.21
Current liabilities	1694.28
Shareholder's Equity	808.36
Loan	422.13
Interest	185.22
Networth	1294.29
Working capital	34.40

The above financial details are for 18 month period



Dhampur Sugar Mills Ltd.

Production (FY 2012-13)	Particulars
No. of mills	5
Total crushing capacity (in TCD)	44,500
Sugar produced (in MT)	4,20,000
Sugarcane crushed (in lakh MT)	45.1
Recovery	9.34%

By- Products Produced	Particulars
Molasses (in MT)	79,272
Electricity (co-generation only - in MW)	5,74,853

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	18.55%
ROCE	7.00%
Interest Coverage Ratio	1.35
Return on Working Capital	-11%
Debt-Equity Ratio	0.80

Financial Analysis (2012-13) INR crore	
PBT	39.23
PAT	22.71
Depreciation & Amortisation	76.76
EBITDA	228.66
EBIT	151.90
Taxes paid	16.52
Excise	51.65
IT (Company level)	
Total Assets	2656.88
Capital Expenditure	36.04
Total Liabilities	2169.82
Current liabilities	1749.54
Shareholder's Equity	487.06
Loan	391.22
Interest	112.67
Networth	907.34
Working capital	-211.07



The Oudh Sugar Mills Ltd

Production (FY 2012-13)	Particulars
No. of mills	4
Total crushing capacity (in TCD)	28,700
Sugar produced (in MT)	3,54,700
Sugarcane crushed (in lakh MT)	38.5
Recovery	9.21%

By- Products Produced	Particulars
Alcohol (in KL)	29,512
Molasses (in MT)	85317.20

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	16.56%
ROCE	8.27%
Interest Coverage Ratio	1.50
Return on Working Capital	-11%
Debt-Equity Ratio	6.05

Financial Analysis (2012-13) INR crore	
PBT	43.01
PAT	29.08
Depreciation & Amortisation	31.85
EBITDA	160.14
EBIT	128.29
Excise	23.66
IT (Company level)	13.93
Total Assets	1606.99
Capital Expenditure	743.81
Total Liabilities	1551.21
Current liabilities	1200.44
Shareholder's Equity	55.78
Loan	337.49
Interest	85.28
Networth	406.55
Working capital	-254.51

Mawana Sugars Ltd

Production (FY 2012-13)	Particulars
No. of mills	3
Total crushing capacity (in TCD)	29.500
Sugar produced (in MT)	3,07,000
Sugarcane crushed (in lakh MT)	34.06
Recovery	8.96%

By- Products Produced	Particulars
Molasses (in MT)	81004.40

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	-10.84%
ROCE	-18.05%
Interest Coverage Ratio	-2.19
Return on Working Capital	47%
Debt-Equity Ratio	-1.11

Financial Analysis (2012-13) INR crore	
РВТ	-287.62
PAT	-287.8
Depreciation & Amortisation	50.40
EBITDA	-147.02
EBIT	-197.42
Excise	68.80
Total Assets	891.50
Total Liabilities	1094.30
Current liabilities	923.50
Shareholder's Equity	-202.80
Loan	224.30
Interest	90.20
Networth	-32
Working capital	-612.10



Simbhaoli Sugars Ltd

Production (FY 2012-13)	Particulars
No. of mills	3
Total crushing capacity (in TCD)	19,500
Sugar produced (in MT)	2,14,000
Sugarcane crushed (in lakh MT)	22.20
Recovery	8.99%

By- Products Produced	Particulars
Molasses (in MT)	33757.2

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	14.99%
ROCE	6.18%
Interest Coverage Ratio	8.43
Return on Working Capital	-7%
Debt-Equity Ratio	17.84

Financial Analysis (2012-13) INR crore	
РВТ	88.93
РАТ	39.46
Depreciation & Amortisation	35.91
EBITDA	136.81
EBIT	100.9
Excise	27.62
IT (Company level)	49.47
Total Assets	1640.33
Capital Expenditure	29.15
Total Liabilities	1632.32
Shareholder's Equity	8.01
Loan	142.91
Interest	154.14
Networth	153.57
Working capital	-578.28



DSCL

Production (SS 2012-13)	Particulars
No. of mills	4
Total crushing capacity (in TCD)	33,000
Sugar produced (in MT)	3,85,000
Sugarcane crushed (in lakh MT)	41.2
Recovery	9.30%

By- Products Produced	Particulars
Molasses (in MT)	51,182.90

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	9.07%
ROCE	11.19%
Interest Coverage Ratio	2.34
Return on Working Capital	29%
Debt-Equity Ratio	0.47

Financial Analysis (2012-13) INR crore	
РВТ	203.99
РАТ	190.5
Depreciation & Amortisation	143.82
EBITDA	500.46
EBIT	356.44
IT (Company level)	13.45
Total Assets	4588
Total Liabilities	3188
Current liabilities	2200
Shareholder's Equity	1400
Loan	660.42
Interest	152.65
Networth	2368
Working capital	654



Upper Ganges Sugar and ings. Ltd.

Production (SS 2012-13)	Particulars
No. of mills	3
Total crushing capacity (in TCD)	18,000
Sugar produced (in MT)	2,28,900
Sugarcane crushed (in lakh MT)	24.43
Recovery	9.35%

By- Products Produced	Particulars
Molasses (in MT)	77,369.40

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	20.51%
ROCE	7.12%
Interest Coverage Ratio	1.49
Return on Working Capital	-7%
Debt-Equity Ratio	1.71

Financial Analysis (2012-13) INR crore	
РВТ	22.53
РАТ	12.64
Depreciation & Amortisation	19.98
EBITDA	88.07
EBIT	68.09
Taxes paid	9.89
Excise	14.73
Total Assets	1031.7
Total Liabilities	956.39
Current liabilities	815.07
Shareholder's Equity	75.31
Loan	129.05
Interest	45.56
Networth	216.63
Working capital	-184.78



The Seksaria Biswan Sugar Factory Ltd.

Production (2012-13)	Particulars
No. of mills	1
Total crushing capacity (in TCD)	7,500
Sugar produced (in MT)	99,037
Sugarcane crushed (in lakh MT)	0.9
Recovery	9.78%

By- Products Produced	Particulars
Molasses (in MT)	48549.20

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	9.30%
ROCE	13.69%
Interest Coverage Ratio	4.08
Return on Working Capital	-8%
Debt-Equity Ratio	0.06

Financial Analysis (2012-13) INR crore	
РВТ	22.86
PAT	14.76
Depreciation & Amortisation	5.1
EBITDA	35.38
EBIT	30.28
IT (Company level)	8.10
Total Assets	326.19
Total Liabilities	221.26
Current liabilities	213.66
Shareholder's Equity	104.93
Loan	6.80
Interest	7.42
Networth	112.53
Working capital	-185.92



Dalmia Bharat Sugar and Industries Ltd.

Production (SS 2012-13)	Particulars
No. of mills	4
Total crushing capacity (in TCD)	27,300
Sugar produced (in MT)	2,77,000
Sugarcane crushed (in lakh MT)	27.9
Recovery	9.9%

By- Products Produced	Particulars
Alcohol (in KL)	20,684
Molasses (in MT)	52,671
Electricity (co-generation only - in MW)	3644

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	15.52%
ROCE	6.98%
Interest Coverage Ratio	1.29
Return on Working Capital	20%
Debt-Equity Ratio	0.75

Financial Analysis (2012-13) INR crore	
РВТ	18.97
РАТ	18.35
Depreciation & Amortisation	72.80
EBITDA	157.32
EBIT	84.52
Taxes paid	0.62
Excise	33.62
Total Assets	1668.56
Capital Expenditure	
Total Liabilities	1210.77
Current liabilities	782.28
Shareholder's Equity	457.79
Loan	343.04
Interest	65.55
Networth	886.28
Working capital	92.29



Dwarikesh Sugar Inds. Ltd.

Production (2012-13)	Particulars
No. of mills	3
Total crushing capacity (in TCD)	21,500
Sugar produced (in MT)	2,38,100
Sugarcane crushed (in lakh MT)	24.2
Recovery	9.81%

By- Products Produced	Particulars
Alcohol (in KL)	3431.17
Molasses (in MT)	1,16,808

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	14.58%
ROCE	19%
Interest Coverage Ratio	1.45
Return on Working Capital	-11%
Debt-Equity Ratio	1.30

Financial Analysis (2012-13) INR crore	
PBT	32.01
PAT	19.36
Depreciation & Amortisation	33.18
EBITDA	135.75
EBIT	102.57
IT (Company level)	12.65
Total Assets	660.46
Total Liabilities	539.86
Current liabilities	370.77
Shareholder's Equity	120.6
Loan	156.71
Interest	70.56
Networth	289.69
Working capital	-172.40



Uttam Sugar Mills. Ltd.

Production (2012-13)	Particulars
No. of mills	4
Total crushing capacity (in TCD)	22,750
Sugar produced (in MT)	1,70,503
Sugarcane crushed (in lakh MT)	17.9
Recovery	9.60%

By- Products Produced	Particulars
Alcohol (in KL)	3,747.00
Molasses (in MT)	88,015.90
Electricity (co-generation only - in MW)	81

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	17.35%
ROCE	22.48%
Interest Coverage Ratio	1.18
Return on Working Capital	-3%
Debt-Equity Ratio	1.56

Financial Analysis (2012-13) INR crore	
PBT	12.37
PAT	5.46
Depreciation & Amortisation	30.12
EBITDA	111.19
EBIT	81.87
Excise	18.69
IT (Company level)	6.91
Total Assets	1257.07
Capital Expenditure	7.05
Total Liabilities	1114.96
Current liabilities	892.9
Shareholder's Equity	142.11
Loan	222.06
Interest	69.50
Networth	364.17
Working capital	-174.37



Rana Sugars Ltd.

Production (2012-13)	Particulars
No. of mills	3
Total crushing capacity (in TCD)	15,000
Sugar produced (in MT)	94,512.50
Sugarcane crushed (in lakh MT)	11.5
Recovery	8.58%

By- Products Produced	Particulars
Alcohol (in KL)	1347
Molasses (in MT)	57817.70

Ratios (2012-13)	Particulars
EBITDA Margin Ratio	15.44%
ROCE	15.07%
Interest Coverage Ratio	1.08
Return on Working Capital	-206%
Debt-Equity Ratio	0.92

Financial Analysis (2012-13) INR crore	
PBT	5.44
PAT	5.40
Depreciation & Amortisation	32.92
EBITDA	108.66
EBIT	75.74
Excise	20.92
IT (Company level)	0.04
Total Assets	1249.08
Capital Expenditure	8.09
Total Liabilities	987.62
Current liabilities	746.57
Shareholder's Equity	261.46
Loan	241.05
Interest	70.30
Networth	502.51
Working capital	-2.62



Annexure II Policies governing sugar industry

Government support for the sugar industry

- Financial support In January 2014, Central Government announced interest free loan schemes to the mills under "Scheme for Extending Financial Assistance to Sugar Undertakings (SEFASU) 2014 (Scheme)" to support sugar mills to clear cane price arrears of previous sugar seasons and timely settlement of cane price of current sugar season. The terms of the Scheme stated that the loan would be extended through normal banking channels for an amount equivalent to excise duty paid by an eligible sugar mill in the preceding three seasons and the Interest subvention up to 12% was specified. The total duration of the loan would be for 5 years including 2 years of moratorium. The quantum of the package announced by the central government amounted to INR 6,600 crore.
- Raw sugar exports subsidy In order to reduce the overhang of inventory in the country and to arrest the falling prices of domestic sugar, the Central Government announced an export subsidy of 3,300/million ton for February and March 2014 for raw sugar exports with a cap of 4 million tons to be produced and exported during SS 2013-14 and SS 2014-15. This incentive is to be revised and notified after every two months based on dollar exchange rate.
- UP government support to sugar industry Even though the Government of UP fixed the SAP at the same level as last year at INR280 per quintal, it as allowed the mills to make this payment in two installments. The first installment of INR 260 per quintal, as per the terms, is to be paid during the crushing period while the second installment of INR 20 to be paid after crushing season. The UP Government formed a committee under the chief secretary to be recommend rationalised can pricing policy.



Glossary

AAS	Advanced Authorisation Scheme	МТ	Metric Tonnes	
ALS	Advance License Scheme	MW	Mega Watt	
CACP	Commission for Agriculture Costs and Prices	OGL	Open General License	
CAGR	Compound Annual Growth Rate	PAT	Profit after tax	
CSR	Company Social Responsibility	PBT	Profit before tax	
EBITA	Earning before interest tax depreciation and amortisation	Qtl	Quintal	
FRP	Fair and Remunerative Price	ROCE	Return on Capital employed	
FY	Financial Year	Rs	Rupees	
GSDP	Gross State Domestic Product	SAP	State Advised Price	
ha	Hectare	SMP	Statutory Minimum Price	
INR	Indian Rupees	SS	Sugar Season	
ISMA	Indian Sugar Mills Association	TCD	Tonnes Crushed per Day	
π	Income Tax	UP	Uttar Pradesh	
KW	Kilo Watt	USA	SA United States of America	
ltrs	Litres	USDA	United States Department of Agriculture	
Max	Million	1		

Mn Million

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