

# SEASONAL COMMODITY INSIGHT

16<sup>th</sup> January 2015

## Sugar

### Domestic Scenario

The Indian Sugar Industry is at a very interesting juncture at this point of time. The sugar cycle has been conventionally understood as following a 4-5 year cycle; 3 years of increasing trend followed by 2 years of declining trend. Higher sugarcane production results in falling sugar prices and non-payment of dues to farmers compelling them to switch to other crops thereby causing a shortage of sugarcane, consequently leading to an increase in sugarcane prices, resulting in an imminent switch back to sugarcane. Such a vicious circle is characteristic of the Indian sugar production. There is now evidence that this cycle is now becoming a 2-3 year cycle. Sugar still stands listed in several states under the purview of the Essential Commodities Act, 1955. Sugar is a politically sensitive commodity, with strong lobbies including the cane growers, sugar mills, gur and khandsari producers, consumers of subsidized sugar having a say in influencing the price. Pressures are often reflected at various central and state levels, which sometimes have independent interests. The government through pragmatic policies can remove or at least minimize the infamous sugar cycle and bring about long term healthy growth of the Indian Sugar Industry and its stake holders.

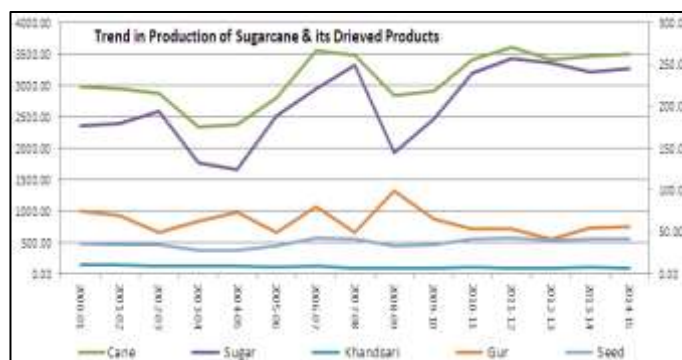
The Indian Sugar Industry, with an annual productive capacity of over 25 MMT, stands out to be the second largest in the world after Brazil, accounting for around 15 per cent of the global sugar production. The country consumes approximately 22 MT of sugar annually, with Maharashtra contributing over 60 per cent of it while the rest of the output come from states like Tamil Nadu, Karnataka, Uttar Pradesh and Madhya Pradesh. The sufficient and well distributed monsoon rains, rapid population growth and substantial increases in sugar production capacity have made India the largest consumer and second largest producer of sugar in the world. Highly fragmented with organized and unorganized players, the sector supports over 50 million farmers and their families, making significant contribution towards socio-economic development in the rural areas of the India.

#### Status of Sugarcane & Sugar production in India (Area - lakh Hectare, Productivity – MT /Ha Production - Lakh MT)

Years	Area	Yield	Production	Sugar	Khandsari	Gur	Seed
2000-01	43.20	69.35	2993.20	176.65	11.00	75.75	35.92
2001-02	44.10	67.09	2959.50	180.32	10.50	69.62	35.51
2002-03	45.20	63.58	2873.80	194.33	9.50	49.07	34.49
2003-04	39.40	59.39	2338.60	132.51	10.00	63.29	28.06
2004-05	36.60	64.74	2370.80	124.77	9.50	74.36	28.45
2005-06	42.00	66.93	2811.70	188.67	8.50	50.26	33.74
2006-07	51.50	69.03	3555.20	222.00	10.00	80.86	42.66
2007-08	50.60	68.81	3481.80	249.91	7.00	49.49	41.78
2008-09	44.40	64.19	2850.20	145.00	6.50	99.32	34.20
2009-10	41.80	70.01	2923.00	185.55	6.50	65.17	35.08
2010-11	48.90	70.09	3423.80	240.00	7.50	53.79	41.09
2011-12	50.40	71.66	3610.30	257.00	7.00	53.70	43.32
2012-13	50.60	67.38	3412.00	251.50	7.00	41.75	40.94
2013-14	51.20	67.74	3468.10	242.00	8.00	55.19	41.62
2014-15	50.30	69.80	3508.10	245.43	6.50	56.78	42.10

Source: Directorate of Economic and Statistics, Ministry of Agriculture & Indian Sugar Mills Association except 2013-14 and 2014-15

From the above table it is evident that over the years, the area under sugarcane cultivation has almost been steady and since 2001-02, the area has expanded by 16.44 per cent. The expansion in production of sugarcane is also on the same line and it has increased by 17.20 per cent since 2001-02. The main reason behind slow expansion in production is the lack of improvement in the productivity. In the last 15 years, the production has marginally improved by 0.65 per cent, which highlights the lack of focus on the High Yielding Varieties of sugarcane and research establishments for improving the production in a significant way. In spite of the stagnation in sugarcane production in sugarcane, the production has improved significantly by about 38.94 per cent owing to improved recovery percentage of sugar and decline in quantum of diversion of cane to Gur (25.04 per cent) and Khandsari (40.91 per cent).



**State wise Production of Sugarcane in India**

(Lakh MT)

STATES	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Uttar Pradesh	1127.54	1187.16	1254.70	1339.49	1246.65	1090.48	1171.40	1205.45	1288.19	1324.28
Maharashtra	256.68	204.75	388.53	785.68	884.37	606.48	641.59	818.96	867.33	696.48
Karnataka	160.15	142.76	182.67	286.70	262.40	233.28	304.43	396.57	388.08	357.32
Tamil Nadu	176.56	233.96	351.07	411.24	380.71	328.04	297.46	342.52	385.76	339.19
Andhra Pradesh	150.70	157.39	176.56	216.92	202.96	153.80	117.08	149.64	166.86	155.67
Gujarat	126.69	145.70	145.80	156.30	151.90	155.10	124.00	137.60	127.50	126.90
Bihar	42.86	41.12	43.38	59.56	38.55	49.60	50.33	127.64	112.89	127.41
Haryana	92.80	80.60	81.80	95.80	88.60	51.30	53.35	60.42	69.59	74.37
Uttaranchal	76.51	64.41	61.34	61.00	76.86	55.90	58.42	64.98	63.11	67.85
Punjab	66.20	51.70	48.60	60.20	66.90	46.70	37.00	41.70	56.53	59.19
Others	61.92	61.34	77.28	82.31	81.98	79.61	67.96	78.35	84.53	83.33
All India	2338.62	2370.88	2811.72	3555.20	3481.88	2850.29	2923.02	3423.82	3610.37	3412.00

Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation

Sugarcane output for the marketing year October–September declined in 2012–13 by 6.1 per cent over the production level in 2011–12. The decline occurred despite the higher Fair and Remunerative Price (FRP) set by the Commission on Agricultural Costs and Prices from Rs 140 per quintal in 2011–12 to Rs 170 per quintal in 2012–13. In 2013–14, the FRP for cane was hiked further to Rs 210 per quintal. The State Advised Cane Prices (SAP), effective for the produce in different states were also hiked in 2012–13 from their levels in earlier years. Besides the cyclical downturn that may have set in leading to a decline in crop output, deficient rainfall in some of the major sugarcane producing states of Maharashtra, Karnataka and Tamil Nadu has also been a contributing factor. Although, sugarcane is essentially an irrigated crop, significant deficiency of rains in the monsoon season can adversely affect planting and production.

Sugarcane area planted in Uttar Pradesh, which accounts for roughly 40 per cent of India’s total cane area, is likely to decline by over 10 per cent. Despite India’s overall decrease in sugarcane area, led by the decline in Uttar Pradesh, area planted in Maharashtra and Karnataka, which account for about 30 percent of India’s cane area, will marginally increase. Many traditional sugarcane farmers in Uttar Pradesh are likely to shift some acreage to profitable crops like paddy (aromatic and non-aromatic), vegetables, mint, and sorghum. Over the years, since 2003-04, the cane production in Uttar Pradesh has expanded by 17.45 per cent. Maximum growth in production

during the same period has been reported in Bihar (197.29 per cent) followed by Maharashtra (171.34 per cent) and Karnataka (123.11 per cent).

Sugar production in India grew at a trend rate of 3.8 per cent per annum between 2001–02 and 2012–13. In 2012–13, it declined from 26.34 million tonnes in 2011–12 to 25.10 million tonnes. From the table given below, it is evident that, Maharashtra continues to be the leading producer of sugar with 31.39 per cent followed closely by Uttar Pradesh (29.80 per cent), Karnataka (13.43 per cent) and Tamil Nadu (6.61 per cent).

**State wise Sugar Production in India (Lakh MT)**

State	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (P)
Maharashtra	32.00	21.90	51.70	90.10	90.80	46.00	70.40	90.70	88.80	78.80
Uttar Pradesh	46.10	49.00	54.60	83.50	73.20	41.50	51.70	57.60	68.80	74.80
Karnataka	11.60	10.80	19.70	25.40	28.40	16.80	25.10	36.40	38.70	33.70
Tamil Nadu	11.90	14.00	21.00	24.20	21.40	16.00	12.70	18.40	23.80	16.60
Gujarat	10.80	7.90	12.20	13.90	13.70	10.20	11.90	12.70	12.70	11.50
Andhra Pradesh	8.80	11.50	12.50	19.20	13.40	5.90	5.10	10.10	11.00	9.10
Bihar	2.80	2.60	4.10	4.80	3.40	2.20	2.60	3.90	4.50	5.10
Haryana	5.90	3.80	3.80	6.80	6.00	2.30	2.50	3.90	4.90	5.10
Punjab	3.90	3.20	3.80	5.50	5.30	2.40	1.80	3.00	3.90	4.40
Uttaranchal	3.90	3.20	4.10	5.30	4.00	2.20	2.90	3.10	3.30	3.40
Others	2.00	2.10	2.10	3.20	3.50	1.20	1.40	3.80	3.30	8.50
All India	139.60	130.00	189.60	282.00	263.00	146.80	188.00	243.50	263.60	251.00

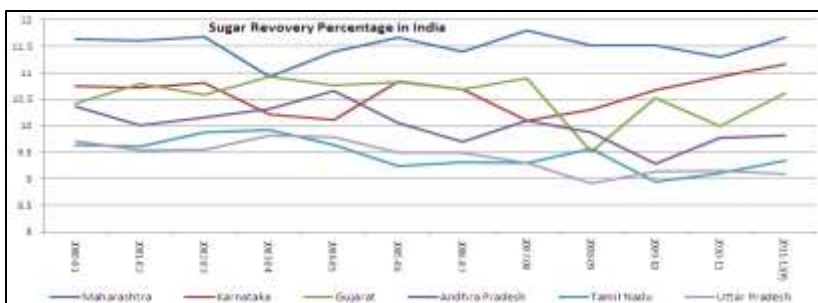
Source: Directorate of Sugar, Ministry of Consumer Affairs and Food and Public Distribution

In spite of Uttar Pradesh being the largest sugarcane producer, Maharashtra is the leading sugar producer owing to improved cane recovery percentage, which is the determining factor the sugar production. The state wise details of the cane recovery percentage can be seen the table below.

**State wise Sugar Recovery Levels in India**

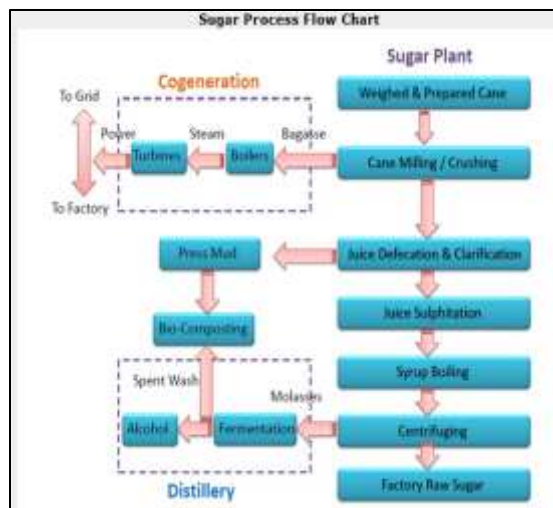
State	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12(P)
Maharashtra	11.68	10.93	11.39	11.66	11.39	11.8	11.52	11.51	11.3	11.67
Karnataka	10.8	10.21	10.11	10.83	10.69	10.1	10.3	10.67	10.92	11.16
Gujarat	10.58	10.93	10.76	10.82	10.68	10.9	9.5	10.52	9.99	10.61
Andhra Pradesh	10.15	10.32	10.65	10.05	9.69	10.1	9.88	9.28	9.77	9.81
Tamil Nadu	9.87	9.92	9.64	9.24	9.31	9.3	9.56	8.94	9.1	9.34
Bihar	9.05	9.33	9.58	9.48	8.67	9.2	9.3	9.49	9.3	9.28
Punjab	9.72	9.72	9.79	9.19	9.54	9.3	9.33	8.59	8.8	9.24
Uttaranchal	9.47	9.75	9.63	9.42	9.54	9.8	9.2	9.19	9.34	9.14
Haryana	10.13	10.47	10.16	9.78	9.74	9.9	9.05	9.37	9.02	9.14
Uttar Pradesh	9.54	9.82	9.79	9.49	9.49	9.3	8.91	9.13	9.15	9.09
All India	10.38	10.22	10.17	10.22	10.16	10.3	10.05	10.2	10.17	10.27

Source: Directorate of Sugar, Ministry of Consumer Affairs and Food and Public Distribution



From the above table it is clear the sugar recovery in Maharashtra is highest and the same in case of Uttar Pradesh stands at the lowest levels. The national recovery levels stands at 10.27 and only 3 states are recovering sugar above it. It is has been observed that barring Maharashtra, Karnataka, Gujarat and Bihar the sugar recovery is on continuous decline.

**Sugar Manufacturing Process**



Around 80 per cent of all sugar is derived from sugarcane – a tall bamboo - like grass that grows to a height of 6 m (20 ft) and is largely grown in tropical countries. The remaining 20% comes from sugar beet – a root crop resembling a large parsnip, grown mainly in the temperate zones in the North. In general, the costs of producing sugar from sugar cane are lower than for sugar beet.

Sugar cane is cultivated for its sucrose content and requires lots of sun and water. At the time of harvest, the stems are cut mechanically or by hand and are transported to sugar mills for processing. Processing involves crushing and grinding the stems to extract the cane juice, thickening it into syrup, and then boiling it. This produces sugar

crystals, which is dried before storage. The raw cane sugar is then refined, usually in the consuming country.

Refining is the process of turning the raw sugar into food-grade sugar, such as granulated white and brown sugar, sugar cubes and icing sugar. The largest world markets for sugar are confectionary, bakery products and soft drinks.

By-products derived from sugar cane include rum, molasses (which is used to produce syrups for the food industry), ethanol (motor fuel), bagasse (woody cane fiber used as biofuel for mills, pulp for paper industry and building materials) and filter cake (animal feed and fertilizer).



**Major Factors Affecting Indian Sugar Prices**

The major factors affecting the Indian sugar price are enlisted in the following table:

Factor	View	Impact on Price
Lower area under sugar cane cultivation	Drop in the cane cultivation area due to draught in Maharashtra and Karnataka has compelled farmers to shift to other crops	↑
Arrears in payments	Arrear in payments to the farmers results in diversion of cane growing areas to other crops resulting in less cane availability for crushing next season and lower production. For 2012-13 season, estimated cumulative cane arrear build up across the country stood at over `100 billion.	↑
Dependence on Monsoon	Being an agricultural commodity, sugar cane is been exposed to adverse weather conditions. Therefore, any significant change in production estimates due to poor monsoons can decrease inventory and increase sugar prices and vice versa.	↑
Increase in sugar consumption	Global sugar consumption is projected to increase at CAGR of 4.6 per cent and reach nearly \$97.2 billion by 2017. Consumption in India, which is major sugar producing nation, is expected to grow in same trajectory.	↑
Government Policy	Risk of government intervention to control the prices to curb inflation and stabilize the sugar prices in the domestic market	↑

Indian sugar consumption in MY 2014-15 is expected to rise to 27 million MT because of continued strong domestic demand. Forecasts from the Reserve Bank of India, the World Bank, and other private institutions predict that the Indian economy will grow at a rate between five to six percent in Indian fiscal year 2014-15 (April-March). Relatively steady economic and population growth (average rate of over 1.7 percent) suggests that sugar consumption will continue to increase. Bulk end users, like soft drink manufacturers, bakeries, hotels and restaurants, and confection manufacturers, account for nearly 65 percent of the total consumption. Most Khandsari sugar is consumed by local sweet and dessert shops. Gur is mostly consumed in rural areas as household consumption and feed use.

### International Scenario

In addition to the major domestic factors mentioned in the above discussions, the global cotton scenario also expected to affect the prices in a big way. To measure the exact impetus of the global factors, we can have a close watch at the global cotton balance over the last decade.

### Global Sugar Balance

(Million MT)

Marketing Year	Beginning Stocks	Production	Imports	Exports	Total Dom. Cons.	Ending Stocks
2000-01	37.43	130.76	40.37	38.32	130.09	39.86
2001-02	39.86	134.40	39.69	42.33	134.34	36.63
2002-03	36.63	148.55	41.70	47.21	138.03	40.59
2003-04	40.59	142.49	41.26	46.54	138.95	38.06
2004-05	38.06	140.73	45.48	46.95	141.65	34.74
2005-06	34.74	144.30	44.72	49.53	143.04	30.47
2006-07	30.47	164.46	44.05	50.76	149.45	36.74
2007-08	36.74	163.54	44.77	50.63	150.60	43.08
2008-09	43.08	144.01	42.33	44.96	154.03	29.84
2009-10	29.84	153.37	48.32	48.33	154.38	28.03
2010-11	28.03	161.94	49.28	53.86	155.47	29.28
2011-12	29.21	172.17	48.45	54.98	159.18	35.13
2012-13	35.12	177.49	50.99	55.29	164.51	42.50
2013-14	42.50	175.70	51.83	57.43	167.27	43.62
2014-15	43.62	172.45	51.76	53.69	170.99	42.21

Source: Foreign Agricultural Service

From the above table we can see that the global production over the years have shown gradual improvement. It showed an increase of about 31.88 per cent over 2000-01. Likewise, the import, consumption and export grew by 28.21 per cent, 31.43 per cent and 40.10 per cent respectively. The positive fact about the sugar is the steady growth in the consumption and production. If this slow rate of consumption (as compared to production) continues in the coming years, the prices are bound to maintain a steady bearish trend as the pressure would mount in the market over the increasing ending stock. The continued weather abnormalities in form of developing El Nino and prospects of declining production in major sugarcane producing countries is going to support the prices.

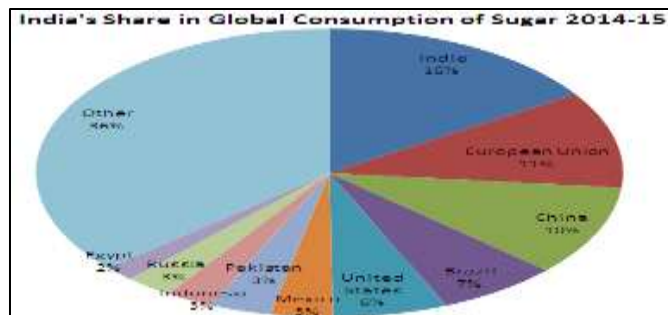
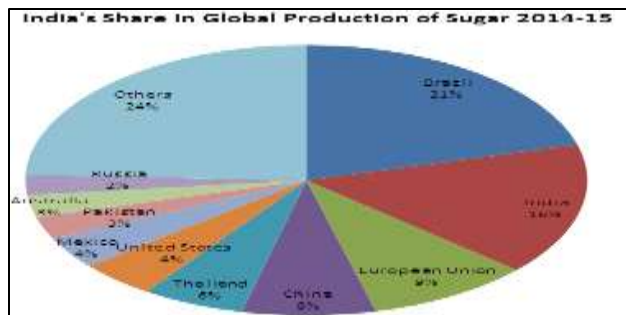
The country wise analysis of global supply and demand reveals that Brazil and India are the two major players in the global market producing about 36.56 per cent of global production. Other countries with significant production are China (7.71 per cent), Thailand (5.91 per cent), United States (4.45 per cent) and Mexico (3.77 per

cent). Though India ranks 2<sup>nd</sup> in terms of production, it is the largest consumer of sugar with global share of 15.79 per cent. Other major consumers of sugar are China (10.18 per cent), Brazil (6.73 per cent) and United States (6.29 per cent).

**World Production Domestic Consumption and Ending Stocks (Million MT)**

Country	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<b>Production</b>						
Brazil	36.40	38.35	36.15	38.60	37.80	35.80
India	20.64	26.57	28.62	27.34	27.05	27.25
European Union	16.90	15.94	18.32	16.66	16.10	16.30
China	11.43	11.20	12.34	14.00	14.35	13.30
Thailand	6.93	9.66	10.24	10.02	11.39	10.20
United States	7.22	7.10	7.70	8.15	7.69	7.68
Mexico	5.12	5.50	5.35	7.39	6.73	6.51
Pakistan	3.42	3.92	4.52	5.00	5.22	4.70
Australia	4.70	3.70	3.68	4.25	4.30	4.60
Russia	3.44	3.00	5.55	5.00	4.40	4.20
Others	37.17	37.00	39.70	41.08	40.68	41.92
<b>Total</b>	<b>153.37</b>	<b>161.94</b>	<b>172.17</b>	<b>177.49</b>	<b>175.70</b>	<b>172.46</b>
<b>Human Dom. Consumption</b>						
India	22.50	23.05	24.18	25.00	26.00	27.00
European Union	17.61	18.04	18.20	18.25	18.30	18.50
China	14.30	14.00	14.20	15.10	16.50	17.40
Brazil	11.80	12.00	11.50	11.20	11.26	11.50
United States	9.86	10.17	10.11	10.42	10.70	10.76
Indonesia	4.70	5.00	5.05	5.40	5.70	5.90
Russia	5.70	5.52	5.70	5.70	5.60	5.80
Mexico	4.62	4.14	4.29	4.54	4.34	4.45
Pakistan	4.10	4.25	4.30	4.40	4.45	4.50
Egypt	2.63	2.80	2.85	2.84	2.87	2.91
Other	56.57	56.49	58.81	61.65	61.56	62.28
<b>Total</b>	<b>154.38</b>	<b>155.47</b>	<b>159.18</b>	<b>164.51</b>	<b>167.28</b>	<b>171.00</b>
<b>Ending Stocks</b>						
India	6.22	6.30	7.16	9.37	8.02	7.77
China	2.36	1.62	4.14	6.79	8.83	8.49
Thailand	2.34	2.98	2.81	3.62	4.85	3.85
European Union	1.43	1.97	3.30	3.84	3.40	3.20
Indonesia	0.75	0.60	0.41	0.88	1.56	1.96
Pakistan	0.83	1.47	1.35	0.86	0.94	0.85
Mexico	0.97	0.81	1.02	1.55	0.88	0.98
United States	1.36	1.25	1.80	1.96	1.63	1.35
Philippines	0.73	0.93	0.93	0.94	0.93	0.93
Guatemala	0.38	0.13	0.26	0.37	0.50	0.64
Other	10.66	11.22	11.95	12.34	12.08	12.22
<b>Total</b>	<b>28.04</b>	<b>29.28</b>	<b>35.13</b>	<b>42.51</b>	<b>43.62</b>	<b>42.22</b>

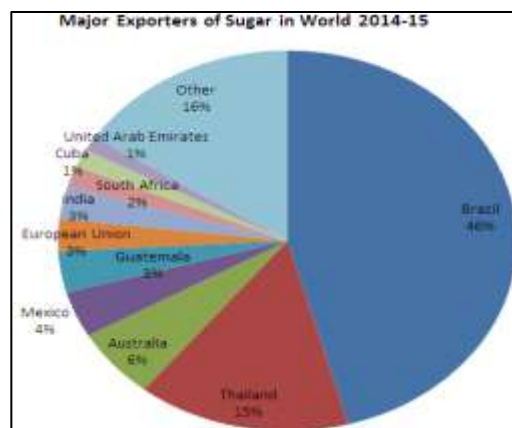
Source: Foreign Agricultural Service



The global sugar market is likely to end its surplus trend after three consecutive year of surplus in 2014. As per the International Sugar Organization, the global sugar production is likely to be reported at 5.06 million MT higher than consumption in the current marketing year, as dry weather during the last months of the crushing period in Brazil’s main cane cultivation areas caused production in the region to race ahead of market expectations. Meanwhile, production across India, Russia and Europe and Mexico are expected to see sluggishness due to fall in international sugar prices. Global production is likely to come in at 175.59 million MT in 2014-15 as farmers are cutting production after sugar futures tumbled ~39 per cent in the past two years as well as dry weather conditions in India, the world’s second-biggest producer, encouraged growers to choose crops that don't need as much water. Global output this year will decline marginally by 0.06 per cent after rising for more than 5 per cent a year in the past three years. Demand will also rise 1.82 per cent, while stockpiles at the end of 2014-15 will be 44.44 million MT, the most in five years. Going forward, growing demand for ethanol and incentives for ethanol production in Brazil is likely to bring in some stability in the sugar supply-and-demand equation.

**Highlights of Development in Major Countries**

**Brazil:** The production is estimated to ease 2.0 million tons to 35.8 million as drought conditions lower yield and a lower percentage of the sugarcane (estimated 45 percent) is diverted to sugar, compared to last year on better profitability for ethanol production. Consumption is expected to increase slightly reflecting population growth and expansion in the food processing sector. Exports are projected down 2.2 million tons to 24.0 million on lower exportable supplies.



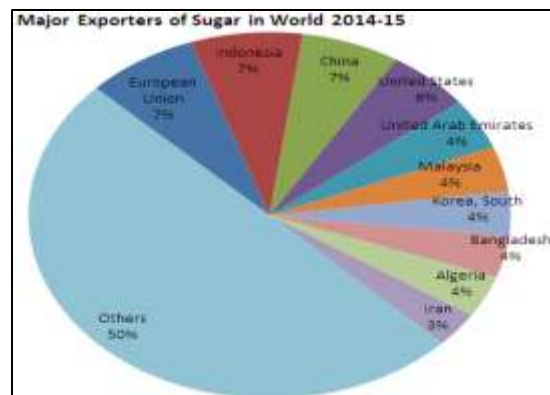
**Thailand:** The production is forecast to decline 1.1 million tons to 10.2 million as drought conditions lower yield. Exports are forecast to jump to a record 8.5 million tons as stocks are drawn down to meet high Asian demand, particularly from Indonesia and Cambodia. Consumption continues to trend higher, driven by rising industrial use.

**Australia:** The USDA projects Australian 2014-15, sugar production to be slightly higher at 4.4 million MTRV due to improved yields, better rainfall, higher dam-storage levels in sugarcane regions, and an easing of drought conditions. Australian sugar exports are projected at 3.1 million MTRV in 2014-15, slightly higher than in the previous 2 years. Access to Korea, Australia’s largest market, was increased under a free trade agreement in April 2014.

**Guatemala:** The USDA projects Guatemalan sugar production for 2014-15 at 2.9 million MTRV, the same as the record high in 2013-14. Total exports for 2014/15 are forecast at 2.0 million MTRV. The Guatemalan sugar industry continues to be one of the most efficient in productivity and port loading capacity (2,200 MT/hour). Guatemala has the largest storage capacity in the Central American region (431,000 MT).

**India:** The USDA forecasts sugar production to increase nearly 900,000 MTRV to 27.9 million MTRV due to higher yields. With consumption expected to continue its strong rise, exports are forecast to fall to 1.5 million MTRV to meet domestic demand.

**Pakistan:** The USDA forecasts 2014-15 sugar production at 4.86 million MT, a 7.0 per cent decrease from the current-year production estimate. Sugar consumption for 2014-15 is forecast at 4.5 million MTRV, slightly higher than last year’s estimate, and exports are forecast at 400,000 MTRV. Ending stocks are expected to increase to 1.14 million MTRV. The USDA revised the 2013-14 production estimate up 245,000 MTRV to a record 5.2 million MTRV, attributable to increased acreage, good rains, and an improvement in sugar recovery rate.



**European Union:** Production in the European Union is estimated at 16.3 million tons, up nearly 300,000 on both increased sugar beet area and yield. As consumption continues to trend higher, imports are projected to grow 200,000 tons to 3.5 million tons. Exports remain at 1.5 million tons, limited by the sugar export ceiling in the World Trade Organization.

**China:** The production is projected at 13.3 million tons, down nearly 1.0 million on lower yield. Rising consumption, which outpaces production, and lower imports are expected to draw down stocks.

**Russia:** The production is expected down 200,000 tons to 4.2 million as an increase in area is offset by reduced yield. Consumption is estimated to increase as imports swell to fill the gap of lower production.

**Mexico:** The production is estimated slightly higher at 6.5 million tons. Exports are projected down nearly 50 percent to 1.8 million tons on consumption and stock growth of 5 and 10 percent, respectively.

Global Trends in Sugar Trade (Million MT)						
Country	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<b>Exports</b>						
Brazil	24.30	25.80	24.65	27.65	26.20	24.00
Thailand	4.93	6.64	7.90	6.69	7.50	8.50
Australia	3.60	2.75	2.80	3.10	3.29	3.50
Mexico	0.75	1.56	0.99	2.09	2.64	1.78
Guatemala	1.82	1.54	1.62	1.91	1.95	1.95
European Union	2.65	1.11	2.34	1.66	1.45	1.50
India	0.23	3.90	3.76	0.96	2.81	1.50
South Africa	0.75	0.40	0.27	0.36	0.87	0.80
Cuba	0.54	0.58	0.83	0.79	0.85	0.85
UAE	0.67	1.23	0.94	0.57	0.68	0.70
Other	8.10	8.34	8.89	9.50	9.20	8.62
<b>Total</b>	<b>48.33</b>	<b>53.86</b>	<b>54.98</b>	<b>55.29</b>	<b>57.44</b>	<b>53.70</b>
<b>Imports</b>						
European Union	2.56	3.76	3.55	3.79	3.30	3.50
Indonesia	3.20	3.08	3.03	3.57	4.09	3.80
China	1.54	2.14	4.43	3.80	4.33	3.80
United States	3.01	3.39	3.29	2.93	3.36	3.15
UAE	2.10	1.97	2.15	2.58	2.14	2.35
Malaysia	1.53	1.81	1.72	1.97	1.90	1.93
Korea, South	1.62	1.69	1.67	1.81	1.91	1.95
Algeria	1.26	1.19	1.59	2.01	1.85	1.85
Bangladesh	1.36	1.54	1.70	1.55	2.07	1.90
Iran	1.64	1.29	1.08	1.55	1.63	1.60
Others	28.50	27.41	24.23	25.44	25.26	25.94
<b>Total</b>	<b>48.32</b>	<b>49.28</b>	<b>48.45</b>	<b>50.99</b>	<b>51.84</b>	<b>51.76</b>

Source: Foreign Agricultural Service

**Swaziland:** The USDA forecasts 2014-15 production at 725,000 MTRV, based on a 6.0 per cent increase in sugarcane production stemming from increases in area. Exports, mainly to the European Union, are expected to increase by about 3.0 per cent to 385,000 MTRV. In 2013-14, sugar production had increased by 3.0 percent from the previous year to an estimated 679,934 MTRV.



### India's Global Trade Scenario

In Marketing Year 2014-15, India is likely to be a net sugar exporter with about 1.5 MMT of exportable stocks. About 1.0 MMT of exports will consist of raw sugar, the vast majority of which will be shipped to African and Asian countries. These markets tend to prefer raw sugar as to support their own sugar refining industries. Despite higher production and stable stocks carried forward into MY 2014/15, India's total sugar supply is likely to remain close to current year levels. Imports in MY 2014/15 are forecast to be negligible, but with an upward bias.

During the first half of Marketing Year 2013-14, India exported about 1.4 MMT of sugar, aided by an uptick in international demand and the GOI's recent implementation of an export subsidy for raw sugar (for current and forecast year). The current pace of exports suggests that India will likely export another 400,000 MT through April and May 2014, with total MY exports reaching 1.8 MMT. The Indian media reported that through March 31, 2014, Indian sugar mills produced 1.54 MMT of raw sugar, of which 850,000 MT was exported. The intent of the export subsidy is to provide funds to cash-strapped sugar mills so they can pay debts to farmers, and to dispose of excess inventories on the world market. Southern and western state millers are better positioned to benefit from exports, given their lower production costs and better cane recovery compared to mills in north India. These millers will do especially well if the GOI continues its export subsidy. Imports in MY 2013/14 will be negligible. In MY 2012/13, India exported less than one million MT (mostly re-exported sugar under the Advance License Scheme) and imported 837,000 MT of mostly raw sugar.

### Trade Policy

**Imports:** On July 8, 2013, the GOI raised the import duties for raw and refined sugar from 10 percent to 15 percent in an effort to protect domestic sugar prices and to help millers clear their debts to farmers. The relevant notification is available through the following link: Customs Notification No. 34/2013. The local sugar industry association continues to push for additional, increased duties on sugar.

**Exports:** Currently, sugar exports are under the Open General License (OGL), subject to prior registration with the Directorate General of Foreign Trade.

In February, 2014, the GOI approved the aforementioned export subsidy of INR 3,300 (roughly \$54.00) per MT for raw sugar exports. The Indian Ministry of Consumer Affairs, Food and Public Distribution formally published the new export subsidy in the February 28, 2014, edition of The Gazette of India. The duration of the subsidy is for two years and would be reviewed every two months. Any changes in the rate of the subsidy would be based on international prices and the prevailing rupee-dollar exchange rate.

### State Advised Cane Price

(Rates – Rs. per Quintal)

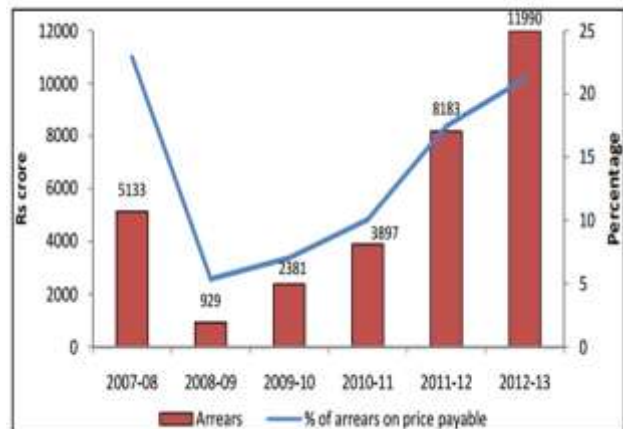
SI No.	States	2010-11	2011-12	2012-13	Remarks
1	Punjab	190	220 / 225/ 230	235/ 240/ 250	Late / General / Early
2	Haryana	210	221 / 226 / 231	266 / 271 / 276	Late / Mid / Early
3	Uttar Pradesh	205	235 / 240/ 250	275 / 280 / 290	Rejected/ General/ Early
4	Maharashtra	200	180/ 185/ 205	250 / 230 / 210	South MH / Central MH / North MH
5	Gujarat	250			
6	Tamil Nadu	225	220	190	Rs. 10/QtI T.C (linked to 9.5% recovery)
7	Karnataka	180		220 / 240	NW Karnataka / SI Karnataka
8	Bihar	205	225 / 235 / 210	255 / 265/ 245	General / Premium / Rejected
9	Uttrakhand	210 / 215	250 / 255	280 / 285 / 295	Rejected/ General/ Early
10	Andhra Pradesh	180 / 200	200	260 / 240 / 240	Telangana / Rayalaseema / Coastal Andhra + Rs.200 Subsidy

Source: Indian Sugar Mills Association (ISMA)

### Problem in Domestic Sugar Industry

Domestic sugar prices (ex-mill Maharashtra) have been on a downward trend after reaching a high of Rs. 33.8 per kg in August 2012. By end-Jan 2014, domestic prices had slipped to Rs 26 per kg on account of excess supply in the domestic market since SS 2012-13 coupled with no exports (due to relatively lower international prices). However, we believe that sugar prices have now bottomed out and will move up over the next few years. This is because we believe that the government’s decision to give subsidy of Rs 3.3 per kg on exports of 4 million

Cane Price Arrears during 2007-08 to 2012-13



Source: Directorate of Sugar, DFPD, The arrears are as on 15<sup>th</sup> April 2013 of the sugar season

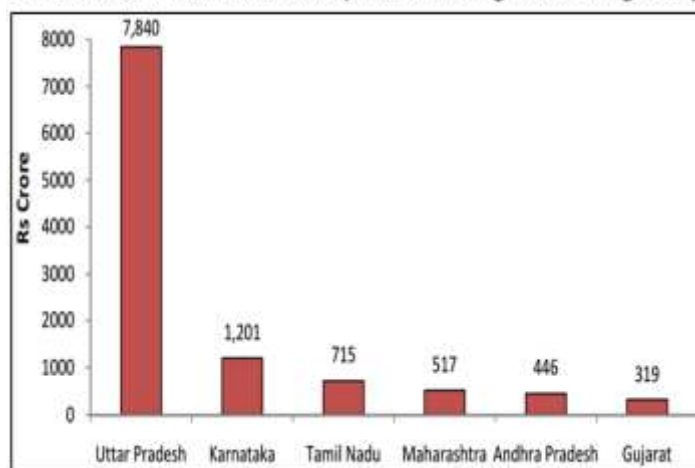
tonnes of raw sugar over the next 2 years will reverse the trend of falling domestic sugar prices and provide some respite to the industry. Aided also by lower output, ex-mill sugar prices are expected to increase by Rs 2-3 per kg to Rs 29 per kg by the end of SS 2013-14 from current levels of Rs 26 per kg. This upward momentum will be sustained in SS 2014-15 due to a continued decline in production led by the expected increase in arrears given the weak financial health of sugar mills.

Over the past few years, the increase in sugarcane prices has been consistently higher than the rise in sugar prices. During SS 2008-09 to SS 2012-13, for instance, sugar prices rose by 9 per cent CAGR but the increase in sugarcane prices was

higher in all states. Consequently, sugarcane cost as a percentage of sugar prices went above 80 per cent in all major sugar producing regions in SS 2012-13. In Uttar Pradesh, the largest sugarcane-growing region in the country, the ratio was as high as 97 per cent [as per the Rangarajan committee recommendations, the ratio should be close to 75 per cent]. Due to high raw material cost, sugar production has increasingly turned unviable in many regions.

The disparity between sugarcane and sugar prices has been the highest in Uttar Pradesh followed by Tamil Nadu. These two states – where the state advised price (SAP) is applicable – account for over 50 per cent of sugarcane production and about 40 per cent of domestic sugar output. Combined losses (Q3 and Q4 SS 2012-13) at net level for UP mills and TN mills stood at Rs 15 billion and Rs 2 billion, respectively. Payment ability of millers was significantly impacted due to disparity between sugarcane and sugar prices and high interest cost, resulting in arrears of Rs 30 billion to farmers at the end of SS 2012-13. With domestic prices declining further, arrears have risen to Rs 100 billion by Jan

Cumulative Cane Price Arrears in Major Cane Growing States during 2012-13



Source: Directorate of Sugar, DFPD, The arrears are as on 15<sup>th</sup> April 2013 of the sugar season

2014, significantly higher than previous year. The status of non-payment of farmers’ arrears is quite alarming eating deeply into the companies margin of operation and has seriously affected their sustainability.

**Latest Update:**

Till 15th January, 2015, 494 sugar mills which are in operation have produced 103 lac tons of sugar, as against 86.50 lac tons produced same period last year when 486 sugar mills were in operation. This is about 19% more than what was produced in the last sugar season till 15<sup>th</sup> January.

In Maharashtra, 173 sugar mills were in operation as on 15<sup>th</sup> January, 2015 and produced about 43 lac tons of sugar. Last year, as on 15<sup>th</sup> January, 2014, 154 sugar mills were in operation and produced 31 lac tons of sugar. Since crushing operations in all sugar mills are in full swing due to better availability of sugarcane, their production has become higher as compared to last year.

In U.P, 118 sugar mills have produced 25 lac tons of sugar till 15<sup>th</sup> January, 2015, as against 19.75 lac tons produced last year during the corresponding period by 119 sugar mills. This is about 2.50 lac tons less than what the State produced as on 15th January, 2013, in 2012-13 sugar season.

In Karnataka, 63 sugar mills, which were in operation as on 15th January 2015 have produced 17 lac tons of sugar, which is similar to that of last year’s production till 15th January.

In case of Tamil Nadu, only 20 sugar mills have so far started their crushing operations in 2014-15 season and they produced 1.10 lac tons of sugar till 15th January, 2015. Last year, 36 sugar mills were in operation and produced 2.80 lac tons of sugar. Only 8 private sugar mills have started their crushing operations in 2014-15 season and the remaining 12 are of cooperative sector. Private millers in the State have been asked by the State Government to clear off Rs. 300 per ton differential payment of cane price between FRP and the State declared price before start of crushing operations for 2014-15. This has stalled the operations of sugar mills in the State.

In Bihar, all 11 sugar mills which are in operation produced 2.40 lac tons of sugar upto 15th January, 2015 which is 0.80 lac tons more than what they produced last year same period.

In Andhra Pradesh and Telengana, 30 sugar mills produced 4 lac tons of sugar as compared to 3.70 lac tons produced by 34 sugar mills last year, same period.

Ex-mill sugar prices in all parts of the country remain depressed during the last fortnight substantially below the cost of production. Accumulation of sugar stock, without adequate demand from the market both from domestic and global, are the main factors for declining trend in sugar prices.

From 1st October to 31st December 2014, sugar mills in the country dispatched 58 lac tons of sugar in the domestic market, as against 59 lac tons dispatched during the same period last year.

Due to delay in announcement of continuation of incentive for production of and export of raw sugar, the sugar mills are not in a position to plan their raw sugar production. Since only 2-3 months left before the crushing operations are over, mills are eagerly waiting for the announcement from the Central Government so that they could plan accordingly.

ISMA feels that only solution in the short run to solve the depressed ex-mill sugar prices and ensure the mills are able to pay cane price to the farmers on time as also repay bank loans, 15-20 lac tons of sugar needs to be exported for which Government incentives for production of raw sugar and export thereof should be immediately announced. Otherwise, cane price arrears of farmers which had crossed Rs. 13,000 crore in March last year may be higher this season.

Sugar Season	SMP/FRP	Minimum Recovery %	Premium for every 0.1% Increase
2002-03	69.5 (SMP)	8.5	0.82
2003-04	73 (SMP)	8.5	0.84
2004-05	74.5 (SMP)	8.5	0.88
2005-06	79.5 (SMP)	9	0.88
2006-07	80.25 (SMP)	9	0.9
2007-08	81.18 (SMP)	9	0.9
2008-09	81.18 (SMP)	9	0.9
2009-10	107.76 (SMP)	9.5	1.13
2010-11	129.84 (FRP)	9.5	1.37
2011-12	139.12 (FRP)	9.5	1.46
2012-13	145 (FRP)	9.5	1.53
2013-14	170 (FRP)	9.5	1.79
2014-15	210 (FRP)	9.5	2.21
2014-15	220 (FRP)	9.5	2.32

\* The Government of India on October 22, 2009 amended the Sugarcane (Control) order, 1966 vide SO2665 (E)/Ess.com/ Sugarcane introducing Fair & Remuneration Price (FRP) for sugarcane vide SMP for the year 2009-10.

**Price Trend Analysis**

Looking at the seasonal trend in Indian sugar prices, prices tend to rise between Jul-Sep due to the start of the festive demand across India and lean production of sugar providing support to the market. Thereafter we can observe seasonal dip in prices during the months of Oct-Nov as the harvesting of the sugarcane commences across major growing regions, before turning up again during Dec-Jan as the peak festive season demand pushes up the prices. From the month of February prices start falling with sugarcane crushing entering into peak season months and tapering of demand after the culmination of festive season pressurizing the market. This weak trend in prices continues through the month of May-June, as production of Sugar remains high and demand remains low, thus building up of stocks.



Indian sugar prices remained volatile during the period from Nov'04-Nov'06, as the cyclical fall in domestic sugarcane production during 2003-04 and 2004-05 providing support to the sentiment. Although sugarcane production recovered during the year 2005-06, the return of export demand during the year kept the prices on extended positive tone until Nov'06 (prices @ INR 2020/Qtl in Apr'06). Prices have fallen thereafter, with surge in production during 2006/07 and sharply higher cane production in the subsequent year of 2007/08 kept Sugar market under weak tone during Nov'06-Aug'08 (prices @ INR 1370/Qtl in Apr'07). Thereafter, prices have resumed Bull Run, with the hint of sharp decline in Sugarcane production (285 million tonnes vs 348 million tonnes) during 2008/09, along with surge in domestic demand amid the growing economy and announcement of sugarcane bio-ethanol production provided further boost to market. This downtrend in sugarcane production

continued in subsequent year (2009/10), which has seen a 277 million MT of sugarcane production vs 285, 348 million MT in preceding two years. Also, the drought conditions in major sugarcane growing areas during 2009/10 initially led an estimated fall to 249 million MT (prices reached to INR 4000/Qtl by Jan'10) and was revised higher as late rains during the season helped in higher production later and pressured the market from Feb'10 onwards. The prices continue to remain in downtrend with sharp increase in acreage during 2010-11. Since then the



prices have corrected significantly and it had been hovering in the range of 2600 to 3300 for whole of 2014. The recent decontrol of sugar (removal of levy restrictions on mills) and grant of subsidy to the millers has again put the prices on the bull track. In the recent times the reports of failure of increased export avenues for millers is likely to keep the prices under pressure.

**Price Forecast: Technical Outlook (NCDEX)**



**Explanation:**

Marginal convergence is seen in the (Moving Average Convergence - Divergence) MACD curves for the duration of 12 month and 26 month. The lower 12-month moving has recently crossed the 26-month moving average, from below, which is denoting the underlying strength of Sugar prices. The Parabolic SAR refers to a price and time based trading system. SAR stands for "stop and reverse." SAR trails price as the trend extends over time. In the case of sugar, the SAR is below the price for the past couple of years, indicating at the underlying weakness in the prices.

**Technical Recommendation:**

The market is expected to find strong support at the levels of 2480 on the downside and is expected to continue trading range bound between 2550 - 3050. Thus, as per my analysis of sugar fundamentals, one should not be bullish in sugar for the short or medium term.

**Price Expectation**

Commodity	Units	Current Market (16.01.2015)	Market View	Technical Projections		
				Support	T1	T2
Sugar	Rs. / Quintal	2736	↔	2480	3050	3280

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