

Developmental Issues in Cement Industry

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The boom in the real estate and construction industry in India showed a sudden and sharp increase in the price of cement, to the extent of a price increment as high as 17 percent in a single month. This study demonstrates that the sudden surge in the price of the cement is neither due to the demand-supply mismatch of the cement nor a sudden increment in the cost of producing cement. Parameters studied include the firm concentration index, region-wise production and consumption, capacity utilization, and cost to sales ratio. Cement is the preferred building material and is used in household and industrial construction. Earlier, government sector used to consume over 50 percent of the total cement sold in India, but in the last decade, its share has come down to 35 percent. The real driver of cement demand is creation of infrastructure, so cement demand in emerging economies, is much higher than developed countries. In India too, the demand for cement will be affected by spending on infrastructure.

The boom in the real estate and construction industry in India saw a sudden and sharp increase in the price of cement, to the extent of a price increment as high as 17 percent in a single month. Our analysis clearly demonstrates that the sudden surge in the price of the cement is neither due to the demand-supply mismatch of the cement nor a sudden increment in the cost of producing cement. With the boost given by the government to various infrastructure projects, road network and housing facilities,

growth in the cement consumption is anticipated in the coming years. The favourable housing finance environment is expected to fulfill the vast housing requirements, both in rural and urban areas. The reduction in import duties is not likely to affect the industry as the cement produced is at par with the international standards and the prices are lower than those prevailing in international markets.

Parameters studied also include the firm concentration index, region



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wise production and consumption, capacity utilization, cost to sales ratio, etc. Cement is the preferred building material and is used extensively in household and industrial construction. Earlier, government sector used to consume over 50 percent of the total cement sold in India, but in the last decade, its share has come down to 35 percent. Rural areas consume less than 23 percent of the total cement. Availability of cheaper building materials for non-permanent structures affects the rural demand. The real driver of cement demand is creation of infrastructure; hence cement demand in emerging economies is much higher than developed countries where the demand has reached a plateau. In India too, the demand for cement will be affected by spending on infrastructure. The following are the key areas that are going cover in emerging developmental issues in Indian Cement Industry.

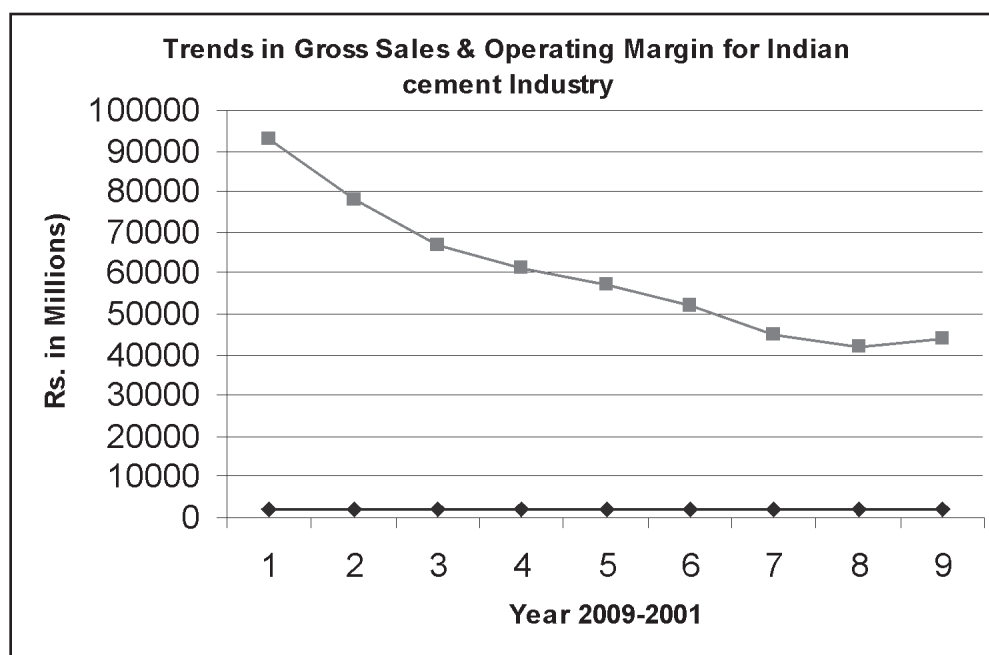
- § Indian Cement Industry – Current Scenario
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Indian Cement Industry – Current Scenario

Since the stock market boom in 2003-2007, there has been hectic activity in the cement industry in terms of capacity addition. After the boom, when cement prices began to scale new highs, investors rushed-in, to set up new capacities. In the period from 2003-04 to 2006-07, cement capacity increased by over 35 percent, with an annual addition of 16.3MT. The annual compounded growth in capacity at 20.54 percent outpaced the consumption growth of 14.8 percent. This resulted in capacity being created far in excess of requirement, especially in the northern region of India. The north was the worst affected as most of the cement capacity addition took place in the limestone rich Madhya Pradesh. Gujarat and Maharashtra also took the heat with large capacities being set up by *Gujarat Ambuja* and *Larsen and Turbo*.

Emerging Developmental Issues in Indian Cement Industry



Note: Predicted for the year 2009*

Both these states suffered not only because of excess capacities within the states, but more so due to the surpluses in neighbouring states. The flow of surplus cement from Madhya Pradesh and Rajasthan made matters worse in Maharashtra and Gujarat, respectively. Towards the end of the boom and bust cycle, cement prices fall taking down with it the cement companies' profitability. The profitability of cement companies suffered and the

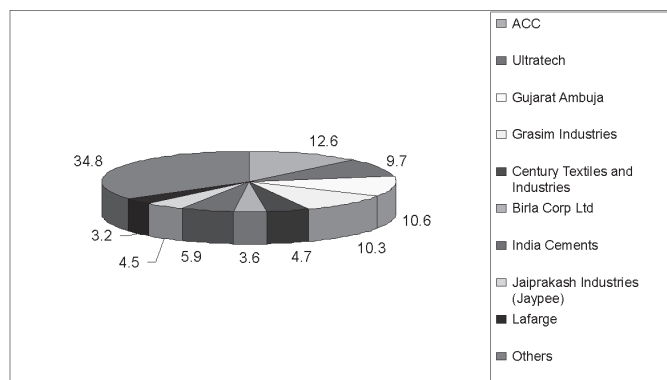
scrips took a beating on the stock markets. But the good part is that the glut in the industry and the resulting crunch in profitability deterred many entrepreneurs from entering the sector. As it requires at least two years for a cement plant to commence production from the time orders for plant and machinery are placed and another six months to stabilize production, major capacity creation is restricted.

New Capacities

Companies	Year (Output in Million Tonnes)		
	2005-06	2006-07	2007-08
Madras Cement	2.00	2.13	2.20
Grasim-Dharani	2.00	1.92	2.11
ACC	1.00	1.23	1.25
Sanghi Cement	0.50	0.54	0.67
Saurashtra Cement	0.50	0.56	0.52
GACL	0.20	0.24	0.27
Zuari	0.30	0.33	0.35
Raasi Cements	0.12	0.15	0.19
Sri Vishnu Cements	0.10	0.12	0.16
Visaka Cements	0.13	0.17	0.20
India Cements	0.17	0.21	0.28

Source: ICRA

Indian Cement Industry - Major Players in 2008



Types of Cement in India

The types of cement in India have increased over the years with the advancement in research, development, and technology. The Indian cement industry is witnessing a boom as a result of which the production

of different kinds of cement in India has also increased. By a fair estimate, there are around 11 different types of cement that are being produced in India. The production of all these cement varieties is according to the specifications of the BIS. Some of the various types of cement produced in India are:

§ Clinker Cement	§ Portland Blast Furnace Slag Cement
§ Ordinary Portland Cement	§ Portland Pozzolana Cement
§ Rapid Hardening Portland Cement	§ Oil Well Cement
§ White Cement	§ Sulphate Resisting Portland Cement

Current news on Cement

Venezuelan troops seize cement plant, March, 2008

Venezuelan troops seized a cement plant owned by Mexico's Cemex SAB after a deal to nationalize the firm failed. Troops occupied the Maracaibo Cemex plant in the western state of Zulia Monday night, but plan to take control of all four Cemex plants in Venezuela Tuesday.

Chavez Orders Nationalization of Venezuelan Cement Makers, April, 2008

Caracas/Mexico City, April 4 - Venezuelan President Hugo Chavez ordered the nationalization of his country's cement industry, a sector led by the Mexican company Cemex. Cemex's stock fell Friday and the Mexican Foreign Ministry said it had contacted the Venezuelan government 'to find out the extent and the nature of the comments' of Chavez, which were made late Thursday.

Pakistan starts exporting cement to India, Islamabad, Jan., 2008

Bilateral trade between India and Pakistan has taken a significant step forward with at least five Pakistani companies approved by the Bureau of Indian Standards - starting to export cement to India while five more manufacturers have applied for certification. A total of 11 cement companies have been cleared by the BIS and four more have applied to get approval for export.

Aditya Birla Group eyes Jaffna Cement Plant, Colombo, Jan., 23, 2008

Undeterred by the deteriorating security situation in northern Sri Lanka, a leading Indian company is hoping to revive a disused but large cement plant in Jaffna district.

The *Aditya Birla Group* had sent us a proposal to revive and run the state-owned cement plant at Kankesanthurai.

Karunanidhi threatens to Nationalise Cement Industry, Jan., 2008

Chennai, Jan 2 - Tamil Nadu Chief Minister M.Karunanidhi threatened Wednesday to nationalise all cement factories in the state unless manufacturers drastically reduced prices. Karunanidhi revealed his government was all set to import 100,000 tonnes of the product through the joint auspices of the government owned entity Tancem and Centre's Minerals and Metals Trading Corporation.

Pakistan, India 'cementing' ties, Karachi, Aug., 30, 2008

Pakistan's largest cement producer, Lucky Cement, will dispatch its first export consignment to India next week to bridge the neighbour's current shortfall. The beginning is being made after clearing hurdles over the quality of the cement. The company has a certificate from The Bureau of Indian Standards which is authorized to determine the quality of cement both domestic and international.

Indian firm rapped by Nepal corruption watchdog, Kathmandu, July, 2008

The highest anti-corruption body of Nepal has rapped Ace Refractory, a producer of refractory products in India, saying that it caused losses to a Nepali company by supplying inferior goods and now should pay compensation. The Commission for Investigation of Abuse of Authority conducting a probe into the dealings of *Udaypur Cement Industry Ltd.*, the biggest cement factory.

Finance Bill gets Lok Sabha nod after minor amendments, New Delhi, May, 2008

The Lok Sabha Thursday passed the Finance Bill for the current fiscal after Finance Minister P. Chidambaram's reply

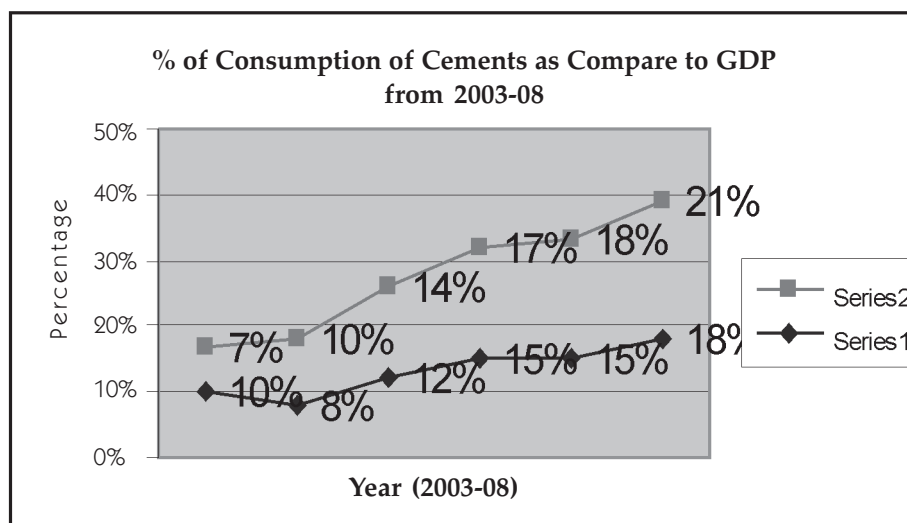
to the debate on the union budget during which he brought some amendments in the tax proposals, but said exemptions would be phased out eventually. Chidambaram also said that proposed recast of tax brackets may be linked to inflation and sought to increase the tax.

Demand Supply Scenario turning Favourable

§ The dynamics of Indian cement industry is undergoing a gradual shift. From an oversupply

situation not so long ago, we are now witnessing a scenario where demand growth is outstripping increase in supply.

§ Country's total cement capacity is around 151 mtpa (million tonnes per annum). Capacity additions by players like ACC, Shree Cement, Grasim, Japee and Kesoram Industries and Greenfield expansions will see a compounded growth rate of 7.5 percent in capacity over the next three years.



Note: Series 1 refers - % of GDP, Series 2 refers - % Consumption Growth of Cement

§ Whereas domestic consumption, now at 125 million tonnes, should increase at around eight percent per annum in the same period. Higher consumption in coming years will be driven by strong demand growth owing to continued investments in the housing and infrastructure sectors. A boom in the housing sector, increased focus on infrastructure, and a buoyant industry—together, they spell good news for cement producers.

§ Overall cement demand which has grown at a compounded annual growth rate of eight percent over the last ten years and is expected to grow by 9-10 percent annually. The expectation is also based on high co-relation which industry bears with overall GDP growth. Thus, since Indian economy itself is expected to grow by more than eight percent, going forward the demand for cement would also rise at a rate which is higher than this rate.

Regional-wise Capacity



Capacity Utilization Installed Capacity

India is the world's second largest cement producing country after China. The industry is characterized by a high degree of fragmentation that has created intense competitive pressure on price realizations. Spread across the length and breadth of the country, there are 130 large plants belonging to 66 companies with an installed capacity of around 155mn tons as on March 2008.

The Indian cement industry has to be viewed in terms of five regions:-

- § **North** (Punjab, Delhi, Haryana, Himachal Pradesh, Rajasthan, Chandigarh, J&K and Uttranchal);
- § **West** (Maharashtra and Gujarat);
- § **South** (Tamil Nadu, Andhra Pradesh, Karnataka, Kerala, Pondicherry, Andaman & Nicobar and Goa);
- § **East** (Bihar, Orissa, West Bengal, Assam, Meghalaya, Jharkhand and Chhattisgarh); and
- § **Central** (Uttar Pradesh and Madhya Pradesh).

33.03 percent of cement production capacity of the country, with Andra Pradesh accounting for 15.27 percent of the total production capacity of India. It has an installed capacity of around 20mn tons of cement and ranks first in the country, followed by Tamil Nadu with 9.94 percent of the total production capacity. North accounts for 18.02 percent of the total production capacity, with Rajasthan at 12.55 percent of the total production capacity of the country. West accounts for 16.85 percent of the total production capacity. Maharashtra and Gujarat have production capacity of 6.89 percent and 9.96 percent respectively. East and Central Regions account for 16.33 percent and 15.77percent of the total production capacity of the country respectively. Trade between these regions is on a very low scale mainly because of the transportation bottlenecks and uncompetitive cost of transportation. This apart, there are other factors that determine the location of a cement plant. Proximity to limestone deposits, availability of coal and power and the markets the plants cater to, are some of the critical factors that determine the viability of a cement plant.

Capacity Utilization in India

Year	Installed Capacity	Production	Capacity Utilization (%)
1950-51	3.28	2.95	90
1960-61	9.30	7.97	86
1970-71	17.61	14.36	82
1980-81	27.92	18.66	67
1990-91	65.00	53.00	81
2000-01	119.30	98.00	86
2010-11*	150.65	136.80	90
2020-21*	186.00	165.77	96

Source: CMA, Cement Statistics, New Delhi, 2008, Note: Prediction by Statistical Analysis

The above table shows that commencing with a capacity of 3.28 million tones in 1950-51; cement industry progressed to a capacity of 119.30 million tones in 2000-01. Similarly, production increased from 2.95 million tones to 98 million tones during the same period up to 2000-01. Capacity utilization, which was 90 percent during 1950-51, gradually decreased to 67 percent in 1980-81. It, however, took a reverse turn in the eighties and started increasing slowly. The eighth Five-Year Plan

estimates projected the utilization of capacity with an increase to 86 percent in 2000-01. The statistics corroborates this as shown in the above table where with installation capacity of 119.30 million tones, 98 produced and hence utilization of capacity was 82 percent. And in connection to these predictions made by the researcher in that for the year 2010-11 the capacity utilization is 90 percent and in the same manner for the year 2020-21 is 96 percent.

Export of Indian Cement

The export of Indian cement has increased over the years, giving a boost to the Indian cement industry. The demand for cement in the foreign countries is a derived demand, for it depends on industrial activity, real estate, and construction activity. Since growth is taking place all over

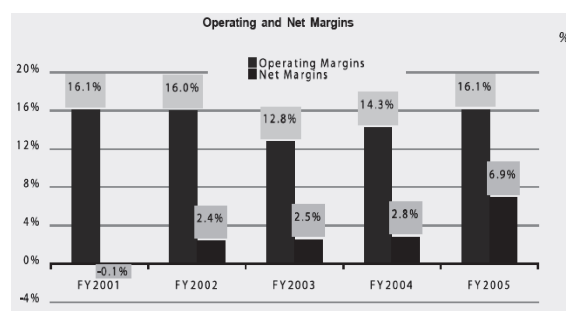


the world in these sectors, Indian export of cement is also increasing. The cement industry in India has around 300 mini cement plants and 130 large cement plants. The total production capacity of these plants is around 167.36 million tons. The India cement industry is technologically very advanced, as a result of which the quality of Indian cement is now considered the second best in the world. This has given a major boost to the Indian export of cement. The production of cement in India is not only able to meet the domestic demand, but large amounts are also exported. A fair amount of clinker and cement by-products are also exported by India. As the quality of Indian cement is very good, its demand in the international market is always high. In 2001-2002, 3.38 million tons of cement was exported from India. That figure stood at 3.47 million tons in 2002-03, and 3.36 million tons in 2003-04. In 2001-2002, 1.76 million tons of clinker was exported from India. In 2002-2003 clinker exports amounted to 3.45 million tons, and in 2003-2004 the figure stood at 5.64 million tons. This shows that the export of Indian cement has been increasing at a steady pace over the years. Export of India cement has been mostly to the West Asian countries. The major companies exporting Indian cement are:

- § Gujarat Ambuja
- § Ultra Tech Cement
- § L&T Limited
- § Aditya Cement

Export of Indian cement has registered growth a fair amount of growth, giving a boost to the Indian economy. That it continues to rise, more efforts must be made by the cement industry in India and the government of India.

Margin over the Years



Source: ICRA

Global Players

- § Rapid urbanization and the booming infrastructure have led to an increase in construction and development across India, attracting even the global players. The recent years have witnessed a surge of foreign direct investment in the cement sector. International players like France's Lafarge, Holcim from Switzerland, Italy's Italcementi and Germany's Heidelberg Cements together hold more than a quarter of the total capacity.
- § Holcim, one of the world's leading suppliers of cement, has 24 plants in the country and enjoys a market share of about 23–25 percent. It will further invest about US\$ 2.49 billion in the next five years to set up plants and raise capacity by 25 MT in the country. Holcim has a global sale worth about US\$ 20 billion, where India contributes US\$ 2 billion–2.5 billion.
- § Italcementi Group, which acquired full stake in the *K K Birla* promoted *Zuari Industries' cement*, for US\$ 126.62 million in 2006 plans to invest US\$ 174 million over the next two years in various Greenfield and acquisition projects.
- § The French cement major, Lafarge which acquired the cement plants of *Raymond* and *Tisco* with an installed capacity of 6 MTPA a few years back plans to double its capacity to 12 MT over the next five years by adopting the Greenfield expansion route.

- § German major Heidelberg Cement has merged Mysore Cement, in which it owns around 54 percent stake, Indorama, (where it acquired 100 percent stake in 2008) and its 100 percent Indian subsidiary, Heidelberg Cement India.

Mergers and Acquisitions (M&As)

- § A growing and robust economy was noteworthy in terms of the total number of mergers and acquisitions (M&A) in India 2007, with the cement sector contributing to seven percent to the total deal value. Increased activity in infrastructure and a booming real estate market have seen foreign firms vying to acquire a share of the pie.
- § Holcim strengthened its position in India by increasing its holding in Ambuja Cement from 22 percent to 56 percent through various open market transactions with an open offer for a total investment of US\$ 1.8 billion. Moreover, it also increased its stake in ACC Cement with US\$ 486 million, being the single largest acquirer in the cement sector.
- § Leading foreign funds like Fidelity, ABN Amro, HSBC, Nomura Asset Management Fund and Emerging Market Fund have together bought around 7.5 percent in India's third-largest cement firm, India Cements (ICL), for US\$ 124.91 million.
- § Cimpor, the Portuguese cement maker, paid US\$ 68.10 million for Grasim Industries' 53.63 percent stake in Shree Digvijay Cement.

Government Initiatives

- § Government initiatives in the infrastructure sector, coupled with the housing sector boom and urban development, continue being the main drivers of growth for the Indian cement industry.
- § Increased infrastructure spending has been a key focus area over the last five years indicating good times ahead for cement manufacturers.
- § The government has increased budgetary allocation

for roads under National Highways Development Project (NHDP). This coupled with government's initiatives on the infrastructure and housing sector fronts would continue to remain the key drivers.

- § Appointing a coal regulator is looked upon as a positive move as it will facilitate timely and proper allocation of coal (a key raw material) blocks to the core sectors, cement being one of them.
- § Other budget measures such as cut in import duty from 12.5 percent to nil, removal of 16 percent countervailing duty, four percent additional customs duty on Portland cement and differential excise duty are all intended to cut costs and boost availability.

Key Findings

- § Domestic demand for cement has been increasing at a fast pace in India and it has surpassed the economic growth rate of the country.
- § Cement consumption in India is forecasted to grow by over 22 percent by 2009-10 from 2007-08.
- § Among the states, Maharashtra has the highest share in consumption at 12.18 percent, followed by Uttar Pradesh.
- § In production terms, Andhra Pradesh is leading with 14.72 percent of total production followed by Rajasthan.
- § Housing sector is expected to remain the largest cement consumer in coming years.

Recommendations on Cement Industry

For the development of the cement industry 'Working Group on Cement Industry' was constituted by the Planning Commission for the formulation of X Five Year Plan. The Working Group has projected a growth rate of ten percent for the cement industry during the plan period and has projected creation of additional capacity of 40-62 million tonnes mainly through expansion of existing plants.

- § The Working Group has identified following thrust areas for improving demand for cement
- § Further push to housing development programmes
- § Promotion of concrete Highways and roads and
- § Use of ready-mix concrete in large infrastructure projects

Further, in order to improve global competitiveness of the Indian Cement Industry, the Department of Industrial Policy and Promotion commissioned a study on the global competitiveness of the Indian Industry through an organization of international repute, viz. KPMG Consultancy Pvt. Ltd. The report submitted by the organization has made several recommendations for making the Indian Cement Industry more competitive in the international market.

Future Outlook

- § The future outlook for the cement industry looks more promising and optimistic than ever before. This is because the cement industry grew by 8.5 percent in FY05, while the economy grew by around seven percent. The future could be a lot better. We believe that cement demand in the country in FY06 will outpace the long-term average growth rate with buoyant economy.
- § Demand-supply situation is now more or less in equilibrium and prices could move up further as the demand growth will be much faster than the supply growth. There are good reasons for their optimism. Housing, which accounts for 55-60 percent of the demand, remains the consistent driving force behind sector growth.
- § Besides, demand from infrastructure projects and industrial/commercial ventures account for 20 percent each. An incremental demand of two million tonnes is expected per year from infrastructure projects in the country. So, even as the Golden Quadrilateral project nears completion, demand in the port and airport segments may pick up, keeping demand buoyant.
- § While demand side looks bright, there won't be any

large capacity additions in near future, even as India would need eight–nine million tonnes additional capacity every year till FY08 to meet the incremental demand.

- § Moreover, growing momentum in consolidation amongst the players is expected to bring rationality in capacity addition. This would keep the cement prices favourable for the companies.

Conclusion

Naturally, cement industry is the part and parcel of constructional activities. Without this industry's share, the economic growth of the country cannot be too good, because it is the second largest industry after iron and steel. The Indian cement industry has an increased capacity of over five times in the last two decades, thereby supporting a three-fold growth in per capita consumption, with the satisfactory available capacity which is more than the demand. Buoyant state of the economy has created positive spin offs on the business scenario for the entire cement industry. Not only major players are reaping the benefits but even other players are also benefiting from the uptrend. Also industry is undergoing a consolidation phase. The wave of consolidation has turned in to cyclone which entailed to *Gujarat Ambuja* and *ACC's* acquisition by *Holcim*. Irrespective of consolidation momentum, the cement sector growth story would remain strong on back of increasing demand in housing, infrastructure and commercial construction sectors. Thus Indian cement industry is poised for concrete growth with robust demand scenario, lack of substantial capacity addition in next 2-3 years and firm cement prices in place.

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