CEMENT INDUSTRY

Overview

Current Scenario of the Indian Cement Industry

Historical Production and Growth

Indian cement production commenced in 1914, growing slowly over the next 65 years with a production of only 27 million MT of capacity through the period. Severe competition from imported cement combined with various governmental price and distribution controls contributed to the slow growth. The industry was partially decontrolled in the 1980s, resulting in a substantial increase in capacity and production – nearly 30 million MT of capacity was added during the 11 years from 1980 to 1990. In 1989, the Government freed the industry from price and distribution controls and delicensed it in 1991, which led to a significant increase in cement production capacities. Between 1991 and June, 2012 approximately 265 million MT (installed) of fresh capacity was added. Since 1980, save for recent years during which demand exceeded supply, cement capacity in India has steadily outpaced demand.

According to CRISIL Research, as of 31 March 2012, India is the second-largest producer of cement in the world with an installed capacity of approximately 317 million MT and production at 224 million MT.

As of 31 March 2012, the Indian cement industry comprised over 41 cement producers, operating 144 large cement plants with an average installed capacity of 1.68 million MT over the year. Over the years, the cement industry has made significant progress upgrading and assimilating the latest technology. Source: CMA March 12 Executive Summary (CMA data is excluding Holcem & Acc group data).

Actual cement production in the fiscal year ended 31 March 2012 was at 179.88 million MT as against 168.29 million MT in the previous fiscal year, registering a CAGR of 6.89%. Source CMA March 12 Executive Summary (CMA data is excluding Holcem & Acc group data).

In 2011, global cement consumption was reported at 3.6 billion tonnes, with China accounting for nearly half of the total output. India was the second largest producer with approximately 6.18% of the total output, closely followed by the United States at approximately 2.01%. Global cement consumption has increased significantly during the fiscal year ended 31 March 2012. During the same time, the Indian cement industry recorded a CAGR in cement production of 6.8%, principally due to improved economic conditions and increased construction activity. Despite this comparatively high growth rate, enjoyed by the Indian cement industry, India’s per capita cement consumption of 156 kgs per annum is amongst the lowest in the world, with other developing nations like Egypt, Thailand and Vietnam having per capita consumption of cement of more than 200 kgs per annum. One of the defining features of the Indian cement industry is its highly clustered nature, as
Cement units are concentrated in close proximity to limestone deposits. As a result, cement units tend to be located close to both limestone deposits, as well as the markets those units service. This is one of the key factors which has resulted in the Indian market being more regional and fragmented in nature.

**Cement demand**

Propelled by a strong growth in the residential real estate sector and the Indian government’s commitment towards improving the infrastructure in the country, the demand for cement grew at a rate of 8.1% CAGR between fiscal year ended 31 March 2007 to 31 March 2012. While the demand for cement between the fiscal year ended 31 March 2007 to 31 March 2010 grew at a rate of 9.9% CAGR, fiscal year ended 2011 experienced a decrease in growth in comparison to the same period in the previous year to 4.0% CAGR due to extended monsoons slowing down the construction and housing activity. The demand for cement for the fiscal year ended 31 March 2012, gained traction due to the revival of constructions activity during the January-March quarter of 2012, leading to an overall demand growth of 6.8% CAGR (Source: CRISIL Research)

**India’s Cement Demand Review**

![India’s Cement Demand Review](image)

Source: CRISIL Research

**Cement Supply**

Cement production grew at a rate of 7.6% CAGR between the fiscal period ended 31 March 2007 and 31 March 2012. However, in comparison to fiscal year ended 2010 growth slowed down to 4.8% due to low construction demand as a result of prolonged monsoons during the fiscal year ended 2011. (Source: CRISIL Research)

**India’s Cement Supply Review**

![India’s Cement Supply Review](image)

Source: Crisil Research
**Capacity additions**

Between the fiscal year ended 2007 to 2012, approximately 150 MT of additional cement capacity was added, which accounted for approximately 47% of the total cement capacity as on March 2012. The large capacity additions were in anticipation of significant demand arising from Government, infrastructure plans and housing development projects. *(Source: CRISIL Research)*

![Cement Capacity Addition (2006-07 to 2011-12)](image-url)

*Source: CRISIL Research*

**Industry Characteristics**

**Units concentrated in proximity to raw material sources or markets**

Since cement is a bulk commodity, the transportation costs contribute significantly to its overall cost. In order to minimise these costs, most cement manufacturing units are either located near limestone reserves or markets or both. As a result, cement manufacturing and sale is largely regional in nature with manufacturing units concentrated in specific locations called “clusters”. The twelve states of Madhya Pradesh, Uttar Pradesh (Central region), Rajasthan, Himachal Pradesh (Northern region), Chhattisgarh, West Bengal, Orissa (Eastern region), Gujarat, Maharashtra (Western region), Karnataka, Tamil Nadu and Andhra Pradesh (Southern region) account for a slight increases in production capacity as of compared to 31 March 2011. The concentration of capacity in these regions is largely due to the presence of limestone deposits.

**Energy-intensive**

Coal and power costs constitute a major share of total cement production costs, depending on the manufacturing process, with the wet process more energy-intensive than the dry process. Coal is used to fire kilns, and as a source of fuel for the captive power plants set up by the cement manufacturers.

To economise on costs, companies are increasingly using high-quality imported coal because of its high calorific content as compared to domestic coal. At the same time they are also shifting to captive power to avoid the high power tariffs and frequent power cuts in certain regions associated with locally supplied grid power. As a result of these initiatives average energy consumption in the industry has been declining, resulting in reduced energy costs.

**High freight costs**

Due to the bulky nature of cement, outward freight costs account for a high proportion of total cost. As a result, companies prefer to be close not only to the limestone quarries, but also to the markets.

Regional variations and volatility in prices and margins of cement vary across regions due to the variation in the supply-demand balance, the level of concentration and demand growth. Historically, prices in the Southern region have generally been the highest in India. Due to a significant increase in production capacity in 2001 to 2003, prices were subject to intense pressure. In recent years, the demand-supply imbalance has corrected leading to cement prices increasing throughout India.
Market Share

The key players in the industry as of 31 March 2012 accounted for approximately 96 to 97% of the total installed capacity, and can be broadly classified into three segments namely Pan-India players, regional players, and standalone players.

**Breakup of Installed capacity (2011-2012)**

![Image of a pie chart showing the breakdown of installed capacity.]

*Source: CRISIL Research*

**Pan India players**

Pan-India players include the Associated Cement Companies, Ambuja Cement, Grasim Industries, Century Textiles and UltraTech Cement Companies, and accounted for approximately 33% of the total installed capacity as of 31 March 2012. *(Source: CRISIL Research)*

**Regional players**

Regional players are restricted geographically to one or two local regions they operate in and usually dominate sales within their particular regions. Regional players accounted for approximately 52% of the total installed capacity in the country as of 31 March 2012. Some key regional players include Jai Prakash Associates (North and Central), Lafarge (concentrated in the East), India Cements (South), Shree Cement (North), Binani Cement (North), Kesoram Cement (South), OCL (East), Chettinad Cement (South), Dalmia Cement (South) and Madras Cement (South). *(Source: CRISIL Research)*

**Standalone players**

Standalone players such as Panyam Cement and Penna Cement are concentrated and operate only in one region. Standalone players account for approximately 15% of the total installed capacity, as of 31 March 2012. *(Source: CRISIL Research)*

**Industry status**

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<tbody>
<tr>
<td>Pan India Players</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>33%</td>
<td>45%</td>
<td>42%</td>
<td>32%</td>
<td>33%</td>
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<tr>
<td>Regional Players</td>
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<td>12</td>
<td>14</td>
<td>19</td>
<td>19</td>
<td>23%</td>
<td>31%</td>
<td>37%</td>
<td>45%</td>
<td>52%</td>
</tr>
<tr>
<td>Standalone Players</td>
<td>41</td>
<td>34</td>
<td>35</td>
<td>32</td>
<td>32</td>
<td>44%</td>
<td>24%</td>
<td>21%</td>
<td>23%</td>
<td>15%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>57</strong></td>
<td><strong>50</strong></td>
<td><strong>51</strong></td>
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*Source: CRISIL Research*
While regional players have more than doubled their share in total capacity level from 23% in 1997 to 52% as of 31 March 2012, share of standalone players has reduced significantly from 44% to 15% during the same period. *(Source: CRISIL Research)*

**Key Demand Drivers of the Indian Cement Industry**

**Housing**

As per CRISIL Research, the housing sector accounts for about two-thirds of the overall demand for cement. Due to India’s growing urban population and the government’s expansive housing policies, such as tax incentives and higher plan allocations, housing activity remained buoyant over the past few years. Demand for private housing rose significantly between fiscal year ended 2006 to 2008 in comparison to the period for fiscal year ended 2001 to 2005, bolstered by employment opportunities created by the information technology (IT)/information technology enabled services (ITeS) industry, growing population, urbanisation, rising incomes and increasing trend of nuclear families. The 2008 global economic downturn weakened the demand for luxury housing, however, a substantial market for affordable housing remained buoyant. An anticipated revival in the demand for housing is expected to drive the demand for cement demand is expected over the next five years, according to CRISIL Research.

**Housing Industry Phases**

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<thead>
<tr>
<th>Phase</th>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>Phase I</td>
<td>2001-2005</td>
<td>Initial growth phase</td>
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<tr>
<td>Phase II</td>
<td>2006-2008</td>
<td>High growth phase</td>
</tr>
<tr>
<td>Phase III</td>
<td>2009-2011</td>
<td>Declining demand phase</td>
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<tr>
<td>Phase IV</td>
<td>2012-2016</td>
<td>Consolidation phase</td>
</tr>
</tbody>
</table>

*(Source: CRISIL Research)*

**Infrastructure**

The Government’s increased focus and spending on infrastructure in order to sustain country’s gross domestic product growth rate, and is likely to boost the demand for cement. In the 2010 Budget, the Government indicated a strong commitment towards developing infrastructure in India, by earmarking an investment of about ₹ 1,730 billion, which is expected to further boost the demand for cement.

**Infrastructure spending in India**

![Graph showing infrastructure spending in India](image)

*Note: 2010-11 are estimated figures*

*(Source: CRISIL Research)*

**Commercial Construction**

The four broad segments of the commercial construction sector, retail, office space, hotels, and civil structures such as hospitals and schools have been experiencing strong growth and driving cement demand. From fiscal year ended 31 March to 2007 through to 2012, the organised retail grew at a rate of approximately 20% largely due to huge under-penetration, focus of existing retailers expanding their businesses and entrance of newcomers. The industry is expected to grow at a healthy rate of 24% over the next five years. *(Source: CRISIL Research)*
Additionally, large global companies are setting up facilities throughout the country. Construction of commercial complexes and office spaces have increased in large cities, such as Mumbai, the National Capital Region (NCR), Chennai, Bengaluru, Pune and Hyderabad. In the IT and IT enabled services (ITeS) space as well, domestic and global IT companies have made huge investments, which contributes to the growth in construction activity and also increasing cement demand. (Source: CRISIL Research)

**General Industrial Growth**

The Indian economy has witnessed strong growth over the past few years, resulting in rising operating rates within various industries such as steel, aluminium, textiles and petrochemicals. Hence, many players in these industries have announced expansion projects. Most of these projects are at advanced stages of implementation, leading to higher intake of cement. (Source: CRISIL Research)

**Domestic Demand – Supply Scenario**

One of the defining features of the Indian cement industry is its highly clustered nature, as cement units are concentrated in close proximity to limestone deposits. As a result, cement units tend to be located close to both limestone deposits, as well as the markets those units service. This is one of the key factors which has resulted in the Indian market being more regional and fragmented in nature.

On account of its regional nature, the Indian cement market is broken down into the key markets of Northern, Southern, Eastern, Central and Western India for purposes of understanding regional dynamics. Cost factors, consumption, and production differences contribute to the various demand and supply balances of each regio