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### Executive Summary

**Second largest cement market**
- Cement production capacity of around 455 million tonnes, as of 2017-18.
- India’s cement production capacity is expected to reach 550 million tonnes by 2020.
- India is the second largest cement producer in the world.

**Dominated by private players**
- Of the total capacity, 98 per cent lies with the private sector & the rest with public sector.
- The top 20 companies accounting for around 70 per cent of the total production.

**Higher share of large plants**
- 210 large cement plants account for a cumulative installed capacity of over 410 million tonnes, while over 350 mini cement plants have an estimated production capacity of nearly 11.10 million tonnes.

**Large concentration in south and west**
- Of the total 210 large cement plants in India, 77 are situated in the states of Andhra Pradesh, Rajasthan & Tamil Nadu.

*Source: Business Standard, Ministry of External Affairs, DIPP*
ADVANTAGE INDIA
Increased allocation to infrastructure projects in Union Budget 2018-19 to drive demand

Initiative to build 100 smart cities and boost to affordable housing projects to give a further stimulus

Cement demand is likely to boost up from the fourth quarter of 2017-18, this demand is positively impacted by the housing segment

The North-East, which is witnessing a construction boom, offers attractive investment opportunities.

Cement demand in India is on an upswing and is expected to witness robust growth. The growth will be driven by high cement demand from rural India and government’s focus on infrastructure.

Oligopoly market, where large players have partial pricing control

Low threat from substitutes

Robust investments are being made by the existing players to expand their capacity

FDI inflow in industry related to manufacturing of Cement & Gypsum products reached US$ 5.25 billion between April 2000 and December 2017

As of May 2018, Grasim Industries is going to incur capital expenditure worth Rs 5,900 crore (US$ 915.44 million) to modernise its existing plants and increase production capacity.

Source: Budget 2017-18, News Articles, Aranca Research, DIPP
MARKET OVERVIEW AND TRENDS
India - world’s 2nd largest cement market, both in production and consumption.

Supported by high level of activity going on in real estate and high government spending on smart cities and urban infrastructure.

Cement production capacity of 455 MTPA as of 2017-18. Capacity addition of 19-22 MTPA is expected in 2018-19, led by rising capacity in eastern region\(^\text{\textsuperscript{^a}}\).

**MARKET OVERVIEW**

### Top Cement Producers in 2017E (in MTPA)

- **China**: 2316.25 MTPA
- **India**: 285.68 MTPA
- **USA**: 85.90 MTPA
- **Vietnam**: 85.40 MTPA
- **Turkey**: 80.55 MTPA
- **Indonesia**: 66.00 MTPA
- **Saudi Arabia**: 63.00 MTPA
- **South Korea**: 59.00 MTPA
- **Egypt**: 58.00 MTPA

**Note:** E – Estimate, \(^\text{\textsuperscript{^a}}\)As per ICRA

**Source:** CARE Ratings, Cemnet, Office of the Economic Advisor, National Bureau of Statistics of China, USGS Mineral Commodities Summary 2018, Turkey Cement Association
MARKET OVERVIEW

- Industry to grow at 5-6 per cent CAGR between FY17 – FY20.
- Cement production is expected to grow to 316 million tonnes in 2018-19.
- Cement consumption is expected to grow by 4.5 per cent in FY19 supported by pick-up in the housing segment and higher infrastructure spending.

**Note:** #As per CRISIL, ^CAGR is up to FY18, F-Forecast, *up to May 2018

**Source:** Media sources, Aranca Research, CRISIL, CARE Ratings, Ultratech Cement
India’s exports of cement, clinker and asbestos cement increased at a CAGR of 10.37 per cent between FY12-FY18 to reach US$ 433.87 million. During the same period imports of cement, clinker and asbestos cement increased at a CAGR of 11.14 per cent to US$ 174.36 million in FY18.

The country’s top export destinations for cement, clinker and asbestos cement in FY18 were Nepal, Sri Lanka, USA, Maldives and UK.

The country’s top five import sources for cement, clinker and asbestos cement in FY18 were Pakistan, Bangladesh, Japan, Vietnam and Thailand.

Note: #Including Cement, Clinker and Asbestos Cement, ^CAGR is up to FY18, *up to May 2018
Source: DGCIS
INSTALLED CAPACITY AND KEY MARKETS IN EACH OF THE GEOGRAPHIC REGIONS

South (Tamil Nadu, Andhra Pradesh, Karnataka) 132.7 MTPA

North (Rajasthan, Punjab, Haryana) 85.6 MTPA

Central (Uttar Pradesh, Madhya Pradesh) 52.8 MTPA

East (West Bengal, Chhattisgarh, Odisha, Jharkhand) 49.4 MTPA

West (Gujarat, Maharashtra) 57.6 MTPA

Notes: mtpa - Million Tonnes Per Annum, E - Estimates
Source: Indian Minerals Year Book by Indian Bureau of Mines, TechSci Research
Cement

STRATEGIES ADOPTED
## RECENT STRATEGIES

### Increasing presence of cement players
- Presence of small & mid-size cement players across regions is increasing, which helps to diminish market concentration of industry leaders.
- A large number of foreign players have also entered the market owing to the profit margins, constant demand & right valuation.

### Tie – up with overseas
- India has joined hands with Switzerland to reduce energy consumption & develop newer methods in the country for more efficient cement production, which would help India meet its rising demand for cement in the infrastructure sector.

### Housing for All
- Under Union Budget 2018-19, allocation for affordable housing has been doubled to US$ 123.57 million.
- Housing and real estate sectors accounts for nearly 65 per cent of the total cement consumption in India.

### Adoption of cement instead of Bitumen and Ready Mix Concrete (RMC)
- The Government of India has decided to adopt cement instead of bitumen for the construction of all new road projects on the grounds that cement is more durable & cheaper to maintain than bitumen in the long run.
- Companies are trying to develop a niche market for RMC (Ready Mix Concrete).

### Mergers & Acquisitions
- As of June 2018, ACC is in discussions with Jaiprakash Associates to purchase the latter’s 5.5 MTPA cement business for a consideration of Rs 5,200 crore (US$ 775.66 million).
- In May 2018, Ultratech Cement decided to acquire the 13.4 MTPA capacity cement business of Century Textiles and Industries.

*Source: Union Budget 2018- 19, Union Budget 2017-18, Emkay Global Financial Services, News Articles*
## SUCCESSFUL USE OF ALTERNATE FUELS IN CEMENT PRODUCTION

<table>
<thead>
<tr>
<th>Company/Plant</th>
<th>Strategy</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madras Cement’s Alathiyur plant</td>
<td>Module Use bioenergy through burning of coffee husk &amp; cashew nut shells</td>
<td>Annual cost savings of US$ 1.7 million</td>
</tr>
<tr>
<td>India Cements Ltd’s Dalavoi plant</td>
<td>Use Low Sulphur Heavy Stock (LSHS) sludge as alternate fuel</td>
<td>Annual savings of US$ 6,500 approx</td>
</tr>
<tr>
<td>UltraTech’s Gujarat Cement Works</td>
<td>Use tyre chips &amp; rubber dust as alternate fuel</td>
<td>Reduction of about 30,000 tonnes of carbon emissions annually</td>
</tr>
<tr>
<td>Lafarge’s Arasmeta plant</td>
<td>Substitute 10 per cent of coal used in kilns with rice husk</td>
<td>Higher energy savings and lower carbon emissions</td>
</tr>
</tbody>
</table>

*Source: CMA*
GROWTH DRIVERS AND OPPORTUNITIES
GROWTH DRIVERS AND OPPORTUNITIES

Housing
- Forms the major portion of cement demand at around 67 per cent
- Real estate market to increase at 11.6 per cent CAGR in 2011-20.
- Government initiatives like Housing for all to push demand in the sector.

Infrastructure
- Strong focus of government
- 100 smart cities planned
- Projects like Dedicated Freight Corridors and ports under development.
- Metro rail projects already underway in most major cities.

Urbanisation
- Development of 500 cities with population of more than 100,000 under new Urban Development Mission

Percentage share of cement demand in FY18

- Housing and real estate: 65%
- Public Infrastructure: 20%
- Industrial Development: 15%

Source: Ministry of External Affairs (Investment and Technology Promotion Division), AT Kearney, CARE Ratings
Union Budget 2018-19

- The Union Budget has allocated US$ 92.22 billion for infrastructure development in 2018-19 as compared to US$ 76.31 billion in 2017-18 (RE). Government’s infrastructure push combined with housing for all, Smart Cities Mission and Swachh Bharat Abhiyan is going to boost cement demand in the country.

Affordable Housing Fund

- In Budget 2018-19, Government of India announced setting up of an Affordable Housing Fund of Rs 25,000 crore (US$ 3.86 billion) under the National Housing Bank (NHB) which will be utilised for easing credit to homebuyers. The move is expected to boost the demand of cement from the housing segment.

Pradhan Mantri Awaas Yojana - Gramin scheme

- An outlay of Rs 33,000 crore (US$ 5.097 billion) has been proposed for building 4.9 million houses under Pradhan Mantri Awas Yojana – Gramin in Union Budget 2018-19.

Auction of limestone block (Deora-Sitapuri-Udipyapura)

- In May 2018, Ultratech Cement emerged as the winning bidder in the auction for Deora-Sitapuri-Udipyapura limestone mining block in Madhya Pradesh. The block contains reserves of about 54 million tonnes and is spread over an area of 344.78 hectares. The company will be able to leverage this mining block to augment production capacity of its Dhar unit.

Note: RE – Revised Estimate
Source: Aranca Research. News Articles
## INVESTMENT SCENARIO

| Emami Cement | ▪ Emami Cement, a renowned brand of Emami Group, announced expansion plans with an investment of about US$ 74.7 million in 2016.  
▪ The company is aiming to increase its production capacity to 6 MTPA by 2018-19 and market share to 10 per cent by 2019.  
▪ The company plans to increase its capacity from existing 2.4 MT to 15-20 MT by 2021, with an investment of US$ 1.27 billion. |
| Shree Cement | ▪ The company has undertaken two greenfield projects in West Bengal and Odisha to increase its presence in eastern India. These projects will attract an investment of US$ 78 million and will be commissioned by late 2018. |
| Ambuja Cement | ▪ Lafarge Holcim, the parent company of Ambuja Cement, is planning to merge Ambuja Cement with ACC cement. The merger is expected to be completed in the next six months. (by FY18)  
▪ As of March 2018, the company is going to invest Rs 1,391 crore (US$ 214.86 million) for setting up a 1.7 MTPA greenfield clinker plant in Rajasthan which is expected to be operational by second half of 2020. A majority of land is already in possession of the company and the rest is in advanced stages of acquisition. |
| Ultratech Cement | ▪ During 2017-18, Ultratech commissioned a greenfield clinker plant with a capacity of 2.5 MTPA and a cement grinding facility with 1.75 MTPA capacity in Dhar, Madhya Pradesh. The company is expecting to complete a 1.75 MTPA cement grinding facility and a 13 MW waste heat recovery system by September 2018 at the same location.  
▪ The company is planning to build a US$ 287 million plant in Rajasthan. The plant will have a capacity of 3.5 million tonnes per annum and is expected to commence operations by June 2020.  
▪ The company has received approval for a US$ 9.04 million opencast limestone mine project in Gujarat. The project has a capacity of 2.07 MTPA* of limestone which will be used to support a proposed cement plant in Bhavnagar district. |

*Note: MTPA – Million Tonnes Per Annum  
Source: Aranca Research, News Articles*
## INVESTMENT SCENARIO

### ACC
- The subsidiary of Holcim, has plans for a US$ 500 million capacity expansion in India
- ACC will upgrade and expand its Jamul unit in Chattisgarh & its grinding unit in Jharkhand. This will increase ACC’s capacity to 38 mtpa from 30 mtpa in a phased manner by 2016 & 55 mtpa in 2020

### Heidelberg Cement
- Heidelberg Cement, a Germany-based cement manufacturer has commissioned Phase-I of its Jhansi grinding unit
- The company has undertaken an investment worth US$ 259.4 million for expanding its capacity to 2.9 MT
- Heidelberg aims to ramp up the operational capacity to 6 MT at its Damoh plant in Madhya Pradesh, striving to add an additional 9 MT by 2017

### Dalmia Cement
- Dalmia Bharat is planning to expand its capabilities in East India. The company already has a significant market share in the region, as of FY17.
- It is the preferred bidder for one block of Limestone (Kesla II) in Raipur, with reserves of 215 million tonnes. The deal is expected to generate cumulative revenues worth US$ 1.76 billion for the state government.

### JK Cement
- JK Cement is planning to invest Rs 1,500 crore (US$ 231.7 million) over the next 3 to 4 years (from September 2017) to increase its production capacity at its Mangrol plant from 10.5 MTPA to 14 MTPA.
- The company is aiming to further increase its production capacity to reach 18 MTPA by 2022.

### Amrit Cement
- Amrit Cement India Ltd (ACIL) has announced the launch of Amrit Cement in the North-Eastern market
- The company plans to achieve a production level of 5 million tonnes per annum by FY16, through capacity expansion in North-Eastern Bihar and Nepal

**Source:** Aranca Research, News Articles
KEY INDUSTRY ORGANISATIONS
<table>
<thead>
<tr>
<th>Industry Organisation</th>
<th>Address</th>
<th>Phone Numbers</th>
<th>Fax Numbers</th>
<th>Email Addresses</th>
<th>Website</th>
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<tr>
<td><strong>Cement Manufacturers’ Association (CMA)</strong></td>
<td>CMA Tower, A-2E, Sector 24 NOIDA – 201 301 Uttar Pradesh, India</td>
<td>Phone: 91-120-2411955, 2411957, 2411958</td>
<td>Fax: 91-120-2411956</td>
<td>E-mail: <a href="mailto:cmand@vsnl.com">cmand@vsnl.com</a></td>
<td>Website: <a href="http://www.cmaindia.org/index.html">www.cmaindia.org/index.html</a></td>
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<tr>
<td><strong>Indian Concrete Institute</strong></td>
<td>Ocean Crest 79, Third Main Road, Gandhi Nagar, Adyar, Chennai – 600 020</td>
<td>Phone: 91-44-24912602</td>
<td>Fax: 91-44-24455148</td>
<td>E-mail: <a href="mailto:ici3@vsnl.in">ici3@vsnl.in</a>, <a href="mailto:ici4@airtelmail.in">ici4@airtelmail.in</a>, <a href="mailto:vj6314@gmail.com">vj6314@gmail.com</a></td>
<td>Website: <a href="http://www.indianconcreteinstitute.org">www.indianconcreteinstitute.org</a></td>
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<tr>
<td><strong>National Council for Cement and Building Materials</strong></td>
<td>34th Milestone, Delhi-Mathura Road, Ballabgarh – 121 004 Haryana, India</td>
<td>Phone: 91-129-2242051/52/53/54/55/56; 4192222</td>
<td>Fax: 91-129-2242100; 2246175</td>
<td>E-mail: <a href="mailto:nccbm@vsnl.com">nccbm@vsnl.com</a>; <a href="mailto:info@ncbindia.com">info@ncbindia.com</a></td>
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USEFUL INFORMATION
GLOSSARY

- CMA: Cement Manufacturers’ Association
- GDP: Gross Domestic Product
- GoI: Government of India
- INR: Indian Rupee
- MTPA: Million Tonnes Per Annum
- NE India: North-East India
- FY: Indian Financial Year (April to March)
  (FY10 implies April 2009 to March 2010)
- US$: US Dollar
- Wherever applicable, numbers have been rounded off to the nearest whole number
## Exchange Rates

### Exchange Rates (Fiscal Year)

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<tr>
<th>Year (Fiscal)</th>
<th>INR Equivalent of one US$</th>
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<td>2004–05</td>
<td>44.95</td>
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<tr>
<td>2005–06</td>
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<tr>
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<td>2011–12</td>
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<td>2016–17</td>
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<td>2017–18</td>
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<td>Q1 2018-19</td>
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### Exchange Rates (Calendar Year)

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<td>2017</td>
<td>65.12</td>
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</tbody>
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*Source: Reserve Bank of India, Average for the year*
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