

14<sup>th</sup> August 2009

### Price Performance

#### ACC (Rs849, BUY)

(%)	1M	3M	6M	12M
Absolute	7	38	55	35
Rel. to Sensex	(4)	7	(6)	32

#### Ambuja Cement (Rs104, ACCUM)

(%)	1M	3M	6M	12M
Absolute	3	36	40	18
Rel. to Sensex	(8)	6	(15)	15

#### Grasim (2671, HOLD)

(%)	1M	3M	6M	12M
Absolute	4	48	98	29
Rel. to Sensex	(7)	15	21	25

#### Ultratech (753, BUY)

(%)	1M	3M	6M	12M
Absolute	4	31	82	19
Rel. to Sensex	(7)	2	11	16

#### India Cements (Rs137, HOLD)

(%)	1M	3M	6M	12M
Absolute	1	24	30	(12)
Rel. to Sensex	(10)	(4)	(21)	(14)

#### Madras Cement (Rs106, ACCUM)

(%)	1M	3M	6M	12M
Absolute	5	30	62	(19)
Rel. to Sensex	(6)	0	(1)	(21)

#### Shree Cement (Rs1597, BUY)

(%)	1M	3M	6M	12M
Absolute	27	98	189	147
Rel. to Sensex	14	54	76	141

Source: Bloomberg

### Key points

- After the stellar earnings show (+30.5%yoy) in Q1FY10, the cement sector has clearly hogged the limelight. However, concerns over huge capacity addition plans by the industry, continue to daunt the street.
- In this note, we have valued cement stocks from a different perspective, modelled on 'build vs buy (the stock)' decision. Our analysis tells us that our cement universe trades at an average discount of 27% to the value, beyond which, a cement maker will decide to build a cement plant over buying the stock. Based on this analysis, our top picks in the sector are ACC, Ultratech, Shree Cement and Madras Cement. While we are not looking at strategic sale by a company, we are trying to build a scenario to determine the premium; a strategic buyer would be willing to pay for an existing facility. We have seen cement stocks enjoy similar valuations during the previous bull phase of 2005-2007.
- In our analysis, we have used assumed the time and capital cost, an entrepreneur would take to build a plant with capacity similar to the target company. To this end we have, therefore, assumed its replacement cost + the present value of its earnings over cost of capital (NOPAT (-) WACC), as the basis of valuation. If the stock price is below this value, he will choose to buy the stock, else he will build.
- Many market observers have argued about the impact of large capacities (coming up over the next few quarters) on cement prices and therefore, on sustenance of its profitability. Given the low gearing (virtually debt free status by FY11) of large cement producers like Birla group, ACC & Ambuja Cement, Shree Cement, etc, which control 47 % of industry capacity; we do not expect the players to sell cement at unremunerative prices. Hence the pricing discipline could be reasonably strong in the industry.
- We have built in a cement price of Rs228/bag (as compared to current prices of Rs253/bag), as this is the price at which, the new capacity will be able to recover its cost of capital (WACC 11.6%). We have built in current operating cost of Rs125/bag.
- We remain positive on the sector and believe that the strong demand momentum will ensure that correction in cement prices is moderate and that cement companies will continue to add significant return over cost of capital (ROCC) over the long term. We believe that the street is getting excessively bothered about a possible correction in cement prices and is ignoring the potential of earning ROCC of these cement companies. The sector valuation at 9.3X FY2011E earnings and USD 89.7 per tonne for FY2011 capacity looks fairly attractive. We reiterate ACC, Ultratech, Shree Cement and Madras Cement as our top picks in the sector.

### Valuations

	Target	PE (x)		P/BV (x)		EV/EBITDA (x)		EV/ton (USD)	
		FY10E	FY11E	FY10E	FY11E	FY10E	FY11E	FY10E	FY11E
ACC	930	10.1	12.2	2.6	2.3	6.0	6.9	105.4	93.3
Ambuja	105	12.4	12.8	2.4	2.2	7.3	6.8	119.8	112.1
Grasim	2,691	9.8	10.0	1.8	1.6	4.0	3.7	104.1	95.4
India Cem	139	7.5	6.8	1.3	1.1	5.3	5.0	84.3	86.9
Madras Cem	130	5.4	5.5	1.5	1.2	4.2	3.9	80.3	74.1
Shree Cem	1,650	8.5	8.6	3.2	2.4	4.0	3.8	96.7	83.5
Ultratech	832	8.0	9.4	2.0	1.7	4.8	5.2	92.3	88.9

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### Cement sector - Outstanding performer of Q1FY2010 earnings season

The cement sector has been an outstanding performer as far as earnings in Q1FY2010 are concerned. With full benefit of price hikes taken in late March and April 2009, aggregate topline grew at a healthy pace of 20.8% yoy. Pure cement topline growth was even better at 24% yoy, driven by volume growth of 13.8% and net realisation improvement of 9.2% yoy. Cost moderation, witnessed by cement companies in Q4FY2009, continued as the quarter reflected the full benefit of a fall in international coal prices and captive power plants installed by cement companies in late FY2009. Consequently, EBIDTA/ton at Rs1309, registered an improvement of 26.4% yoy and 19% qoq. Pure cement EBDITA registered a very impressive growth of 41.7% yoy. Net profit for the quarter grew 30.5% yoy while net profit growth, excluding Grasim & Orient Paper, was even higher at 45%.

### Looking at valuation from a 'build or buy' perspective

We acknowledge that the macro outlook for the cement sector is not encouraging, as a possible H2FY10-11 cement surplus scenario can weaken the recent pricing power of the sector. Hence, these levels of profitability and cash flows are not sustainable. In order to value cement companies on sustainable profitability levels, we are of the view that companies should be valued on the basis of their 'replacement cost + the present value of its earnings over cost of capital (NOPAT (-) WACC). This perspective essentially is modeled on 'build vs buy' decision. We believe that this method of valuing cement companies objectively captures the capital cost as well as the return over cost of capital (at sustainable cement price level) by an existing cement capacity over the time required for setting up a similar capacity.

### Assumption

In order to arrive at sustainable profitability on the back of significant capacity addition, we have assumed a fall in cement prices from the current Rs253/bag to Rs225/bag by September 2010 and a gradual rise thereafter. Our price assumptions are based on demand growth of 7% in FY2010 and 9% in FY2011. We estimate a total 43 mt and 21.2mt of new capacity to get added in FY2010 and FY2011 respectively. We have assumed cement cost to remain constant after FY2011.

### Cement Demand - Supply

mtpa	FY05	FY06	FY07	FY08	FY09	FY10E	FY11E	FY12E
<b>Installed Cement Capacity</b>	<b>153.6</b>	<b>158.1</b>	<b>166.7</b>	<b>175.7</b>	<b>205.3</b>	<b>248.1</b>	<b>269.3</b>	<b>273.8</b>
Defunct capacities	9.0	9.6	9.6	9.5	7.0	7.0	7.0	7.0
<b>Net Installed Capacity</b>	<b>56.7</b>	<b>148.5</b>	<b>157.1</b>	<b>166.2</b>	<b>198.3</b>	<b>241.1</b>	<b>262.3</b>	<b>266.8</b>
Effective Supply	56.7	146.3	152.8	161.6	177.6	199.9	228.7	239.4
<b>Cement Production</b>	<b>127.6</b>	<b>141.8</b>	<b>155.7</b>	<b>168.3</b>	<b>181.4</b>	<b>194.2</b>	<b>211.3</b>	<b>232.0</b>
<b>Cap Utilisation (on effective Capacity)</b>	<b>95.4%</b>	<b>95.5%</b>	<b>99.1%</b>	<b>101.3%</b>	<b>91.5%</b>	<b>80.5%</b>	<b>80.6%</b>	<b>87.0%</b>
<b>Total Cement Consumption</b>	<b>125.2</b>	<b>141.6</b>	<b>154.4</b>	<b>167.7</b>	<b>181.0</b>	<b>192.7</b>	<b>209.8</b>	<b>230.5</b>
Domestic Cement consumption	121.1	135.6	149.0	164.0	177.8	190.3	207.4	228.1
<b>Growth</b>	<b>6.4%</b>	<b>12.0%</b>	<b>9.9%</b>	<b>10.1%</b>	<b>8.4%</b>	<b>7.0%</b>	<b>9.0%</b>	<b>10.0%</b>
Cement Exports	4.1	6.0	5.4	3.7	3.2	2.4	2.4	2.4
<b>Growth</b>	<b>21.1%</b>	<b>47.7%</b>	<b>-9.8%</b>	<b>-32.7%</b>	<b>-12.3%</b>	<b>-25.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Surplus/(Deficit)</b>	<b>3.8</b>	<b>4.6</b>	<b>-1.6</b>	<b>-6.0</b>	<b>-3.5</b>	<b>7.2</b>	<b>19.0</b>	<b>8.9</b>
<b>Surplus as % of Demand</b>	<b>7.3%</b>	<b>3.3%</b>	<b>-1.0%</b>	<b>-3.6%</b>	<b>-1.9%</b>	<b>3.7%</b>	<b>9.0%</b>	<b>3.9%</b>

This gives us an average price of Rs241/bag for CY2009 and Rs229/bag for CY2010. The reason for these cement prices being sustainable in the long term is that- it is at this price that a new cement capacity set at 1:2 debt equity would generate returns equal to its cost of capital. See exhibit below.

## Break even cement price required for a new cement plant

	Rs/tonne	Rs/Bag	Comments
<b>Selling Price</b>	<b>4563</b>	<b>228</b>	<b>Price required to generate returns equal to WACC</b>
Less			
<b>Taxes &amp; duties per tonne</b>			
Excise duty	400	20	Assumed MRP of Rs250 and advalorem duty of 8%
Octroi	75	4	
Loading & unloading charges	60	3	
Dealer Margins	160	8	
Sales tax	507	25	VAT at 12.5%
<b>Taxes &amp; duties per tonne</b>	<b>1202</b>	<b>60</b>	
<b>Net realisations</b>	<b>3361</b>	<b>168</b>	
<b>Operating Cost</b>			
Fuel & Power cost	770	38.5	
Freight cost	590	29.5	
Raw material cost	385	19.25	Actual aggregate cost structure of 6 pure play cement companies tracked by us
Other operating cost	420	21	
Admin cost	180	9	
Employee cost	155	7.75	
<b>Operating Cost</b>	<b>2500</b>	<b>125</b>	
<b>EBIDTA</b>	<b>861</b>	<b>43</b>	
<b>EBIDTA (%)</b>	<b>25.6%</b>	<b>25.6%</b>	
Depreciation	240	12	Assumed 5% SLM rate
<b>EBIT</b>	<b>621</b>	<b>31</b>	
Interest	179	9	10% interest rate
<b>EBT</b>	<b>442</b>	<b>22</b>	
Tax	148	7	Full tax rate of 30% + 10% surcharge
<b>Net Profit</b>	<b>294</b>	<b>15</b>	
<b>Capital Employed</b>	<b>5376</b>	<b>269</b>	<b>USD 100/ton + 12% working capital</b>
<b>EBIT</b>	<b>621</b>	<b>31</b>	
<b>RoIC</b>	<b>11.6%</b>	<b>11.6%</b>	
<b>WACC</b>	<b>11.6%</b>		<b>Debt: Equity 1:2. Interest rate 10%, Cost of equity 14%</b>

(Source:Emkay Research, Industry)

## Stocks trading at discount to replacement cost + RoCC

Our analysis tells us that our cement universe trades at an average discount of 27% to the value, beyond which, a cement maker will decide to build a cement plant over buying the stock. Based on this analysis, our top picks in the sector are ACC, Ultratech, Shree Cement and Madras Cement. While we are not looking at strategic sale by a company, we are trying to build a scenario to determine the premium; a strategic buyer would be willing to pay for an existing facility. We have seen cement stocks enjoy similar valuations during the previous bull phase of 2005-2007.

## Emkay cement universe at 27% discount to value 'capital cost + ROCC'.

	CMP Rs/share	Ev/Ton (USD)	Fair Value at capital cost (Rs/share)	Fair Value at Capital cost + ROCC (Rs/share)	Discount to ROCC value (%)
<b>ACC</b>	873	97	904	1169	-28%
<b>Ambuja</b>	105	117	91	120	-13%
<b>Grasim</b>	2723	95	2835	3299	-19%
<b>Ultratech</b>	769	89	850	1196	-37%
<b>India Cement</b>	141	72	180	169	-19%
<b>Madras Cement</b>	110	74	165	186	-43%
<b>Shree Cement</b>	1709	84	1870	2360	-32%

### At what level of cement price will companies start destroying value?

We also believe that in order to factor in the worst possible scenario, it is critical to know the level of cement prices at which existing large cement players would start destroying value, i.e. their RoIC would be lower than the WACC. However, it is important to note that the RoIC is also a function of cost structure of a particular cement company. We note that the break even return level of cement prices for Emkay cement universe is Rs213/bag i.e. 16% lower than the current price of Rs253/bag. However, the average is severely skewed by two south based players. India Cement and Madras Cement have break even return cement prices at levels of Rs236/bag and Rs226/bag respectively. Excluding these two companies, the break even level works out to Rs206/bag, 20% below current cement prices.

### Break even cement prices for various companies

Rs/bag	Cement price (Rs/bag)
ACC	209
Ambuja Cement	211
Grasim Industries	208
Ultratech Cement	209
India Cement	236
Madras Cement	226
Shree Cement	193
<b>Average</b>	<b>213</b>
<b>Current cement prices</b>	<b>253</b>

### Can cement price sustain at Rs206/bag?

We believe that the above calculated break even return cement prices (excluding India Cement & Madras Cement) are not sustainable over long term as at those levels, new cement and a lot of inefficient players would start making losses.

### At Rs206/bag, new cement plants would make losses

	Rs/tonne	Rs/Bag
<b>Selling Price</b>	<b>4120</b>	<b>206</b>
<b>Taxes &amp; duties per tonne</b>	<b>1202</b>	<b>60</b>
<b>Net realisations</b>	<b>2918</b>	<b>146</b>
<b>Operating Cost</b>	<b>2500</b>	<b>125</b>
<b>EBIDTA</b>	<b>418</b>	<b>21</b>
<b>EBIDTA (%)</b>	<b>14.3%</b>	<b>14.3%</b>
Depreciation	240	12
<b>EBIT</b>	<b>178</b>	<b>9</b>
Interest	179	9
<b>EBT</b>	<b>-1</b>	<b>-1</b>

### Remain positive on the sector

We remain positive on the sector and believe that the strong demand momentum will ensure that correction in cement prices is moderate and that cement companies will continue to add significant ROCC over the long term. We believe that the street is getting excessively bothered about a possible correction in cement prices and is ignoring the potential of earning ROCC of these cement companies. The sector valuation at 9.3X FY2011E earnings and USD 89.7 per tonne for FY2011 capacity looks fairly attractive. We reiterate ACC, Ultratech, Shree Cement and Madras Cement as our top picks in the sector.

**Key Concern**

- As mentioned earlier we have assumed cement prices to fall 11% over next 12-18 months. Any demand shock which can lead to significant higher than expected surplus could negatively impact cement prices and is the critical risks to our call.
- Ant significant Shortfall in Monsoons in India is likely to impact cement demand in medium and long term.
- Coal and pet coke are the key fuel sources for cement. We have assumed stable coal and pet coke prices port FY2011 for the purpose of this note. Significant increase in price of these fuels also is a key risk to our call.

**Key financials**

	Sales (Rs mn)		PAT (Rs mn)		EPS (Rs)		BV / share (Rs)		ROCE (%)		ROE (%)	
	FY10E	FY11E	FY10E	FY11E	FY10E	FY11E	FY10E	FY11E	FY10E	FY11E	FY10E	FY11E
<b>ACC</b>	80,184	83,456	15,746	13,050	83.8	69.5	326.1	375.6	37.9	26.7	25.7	18.5
<b>Ambuja</b>	71,402	73,086	12,786	12,401	8.4	8.1	42.7	48.0	30.0	25.8	19.7	17.0
<b>Grasim</b>	174,548	183,944	25,033	24,507	273.1	267.3	1492.2	1722.4	22.6	19.2	18.3	15.5
<b>India Cement</b>	36,035	39,075	5,658	5,701	18.2	20.1	107.3	123.4	15.5	15.3	16.9	16.3
<b>Madras Cement</b>	29,273	30,768	4,689	4,645	19.7	19.5	1.6	1.2	22.3	20.6	27.9	22.1
<b>Shree Cement</b>	33,636	35,573	6,752	6,653	188.9	186.0	506.2	672.2	29.6	27.3	36.6	27.3
<b>Ultratech</b>	69,285	72,265	11,898	10,141	94.3	80.4	374.2	437.7	29.5	22.3	25.2	18.4

## Annexure

## ACC

Fair value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	<b>100</b>
Capacity (million tonnes per annum)	30.6
Replacement cost	146803
ROCC	55444
<b>Replacement Cost + ROCC</b>	<b>202247</b>
<b>Target EV/Tonne (USD)</b>	<b>137.8</b>
<b>ADD</b>	
<b>Value of investments</b>	6791
<b>Less:</b>	
Net Debt	-10075
<b>Target Mcap</b>	<b>219112</b>
Equity Shares in issue	187.5
<b>Fair Value (Rs/share)</b>	<b>1169</b>

## ROCC workings

Year	CY2011	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018
Capital cost	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less:								
NOPAT (%)	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%	19.4%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
ROCC/Ton (USD)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
ROCC/ton (Rs)	375.4	375.4	375.4	375.4	375.4	375.4	375.4	375.4
Sales (mtpa)	26.02	27.84	29.79	30.68	30.68	30.68	30.68	30.68
ROCC (Rs mn)	9767	10451	11182	11518	11518	11518	11518	11518
<b>PV of ROCC (Rs mn)</b>	<b>55444</b>							

## Ambuja Cement

Fair Value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	100
Capacity (million tonnes per annum)	25.0
Replacement cost	120000
ROCC	44845
<b>Replacement Cost + ROCC</b>	<b>164845</b>
<b>Target EV/Tonne (USD)</b>	<b>137.4</b>
<b>Add:</b>	
Investments	3324
<b>Total EV</b>	<b>168168</b>
<b>Less:</b>	
Debt	-14901
<b>Target Mcap</b>	<b>183069</b>
Equity Shares in issue	1522.6
<b>Fair Value (Rs/share)</b>	<b>120</b>

## ROCC working

Year	CY2011	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018
Capital cost	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less:								
NOPAT (%)	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
ROCC/Ton (USD)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
ROCC/ton (Rs)	360.0	360.0	360.0	360.0	360.0	360.0	360.0	360.0
Sales (mtpa)	22.74	24.33	25.30	25.30	25.30	25.30	25.30	25.30
ROCC (Rs mn)	8185	8757	9108	9108	9108	9108	9108	9108
<b>PV of ROCC (Rs mn)</b>	<b>44845</b>							

## Grasim Industries

	Rs mn	Rs / share
USD	48	
Cost of setting up a new cement plant	100	
Capacity (million tonnes)	25.7	
Replacement cost (Rs mn)	123120	
ROCC	40626	
<b>Replacement Cost + ROCC</b>	<b>163746</b>	
<b>Proportionate Replacement value of Ultratech Cement</b>	<b>83527</b>	
<b>Value of consolidated cement business</b>	<b>247273</b>	<b>2697</b>
<b>Target EV/Tonne</b>	<b>134</b>	
<b>ADD: Value of Non Cement Business</b>		
Viscose Staple Fibre	34644	378
Chemical	1342	15
Sponge	9064	99
Other	2821	31
<b>Total Value Of Non Cement Business</b>	<b>47871</b>	<b>522</b>
<b>Total value of Investments</b>	<b>34381</b>	<b>375</b>
<b>Total Enterprise value</b>	<b>329525</b>	<b>3595</b>
<b>Less:</b>		
Debt	27092	296
<b>Fair value</b>	<b>302433</b>	<b>3299</b>

## ROCC workings

Year	2012	2013	2014	2015	2016	2017	2018	2019
Capital cost	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less:								
NOPAT (%)	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%	18.3%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%
ROCC/Ton (USD)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
ROCC/ton (Rs)	323.1	323.1	323.1	323.1	323.1	323.1	323.1	323.1
Sales (mtpa)	22.51	24.08	25.77	25.77	25.77	25.77	25.77	25.77
ROCC (Rs mn)	7272	7781	8326	8326	8326	8326	8326	8326
<b>PV of ROCC (Rs mn)</b>	<b>40626</b>							



## Ultratech Cement

Fair value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	100
Capacity (million tonnes per annum)	23.1
Replacement cost	110880
ROCC	41598
<b>Replacement Cost + ROCC</b>	<b>152478</b>
<b>Target EV/Tonne (USD)</b>	<b>137.5</b>
<b>ADD</b>	
<b>Value of investments</b>	10348
<b>Less:</b>	
Net Debt	13956
<b>Target Mcap</b>	<b>148869</b>
Equity Shares in issue	124.5
<b>Fair Value (Rs/share)</b>	<b>1196</b>

## ROCC Workings

Year	2012	2013	2014	2015	2016	2017	2018	2019
Capital cost	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less:								
NOPAT (%)	18.9%	18.9%	18.9%	18.9%	18.9%	18.9%	18.9%	18.9%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%
ROCC/Ton (USD)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
ROCC/ton (Rs)	351.1	351.1	351.1	351.1	351.1	351.1	351.1	351.1
Sales (mtpa)	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48
ROCC (Rs mn)	8244	8244	8244	8244	8244	8244	8244	8244
<b>PV of ROCC (Rs mn)</b>	<b>41597.8</b>							

## India Cement

Fair value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	100
Capacity (million tonnes per annum)	14.0
Replacement cost	67200
ROCC	-746
<b>Replacement Cost + ROCC</b>	<b>66454</b>
<b>Target EV/Tonne (USD)</b>	<b>98.9</b>
<b>ADD:</b>	
<b>Less:</b>	
Net Debt	18681
<b>Target Mcap</b>	<b>47773</b>
Equity Shares in issue	281.9
<b>Fair Value (Rs/share)</b>	<b>169</b>

## ROCC workings

Year	2012	2013	2014	2015	2016
Capital cost	100.0	100.0	100.0	100.0	100.0
Less:					
NOPAT (%)	11.2%	11.2%	11.2%	11.2%	11.2%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
ROCC/Ton (USD)	-0.3	-0.3	-0.3	-0.3	-0.3
ROCC/ton (Rs)	-15.6	-15.6	-15.6	-15.6	-15.6
Sales (mtpa)	12.0	12.8	13.7	13.7	13.7
ROCC (Rs mn)	-187	-201	-215	-215	-215
<b>PV of ROCC (Rs mn)</b>	<b>-746.4</b>				

**Madras cement**

Fair value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	100
Capacity (million tonnes per annum)	11.0
Replacement cost	52800
ROCC	5133
<b>Replacement Cost + ROCC</b>	<b>57933</b>
<b>Target EV/Tonne (USD)</b>	<b>110</b>
<b>Less:</b>	
Debt	13982
<b>Target Mcap</b>	<b>43951</b>
Equity Shares in issue	238.0
<b>Fair Value (Rs/share)</b>	<b>185</b>

**ROCC Workings**

Year	2012	2013	2014	2015	2016
Capital cost	100.0	100.0	100.0	100.0	100.0
Less:					
NOPAT (%)	14.5%	14.5%	14.5%	14.5%	14.5%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	2.9%	2.9%	2.9%	2.9%	2.9%
ROCC/Ton (USD)	2.9	2.9	2.9	2.9	2.9
ROCC/ton (Rs)	140.8	140.8	140.8	140.8	140.8
Sales (mtpa)	8.9	9.6	10.2	10.9	10.9
ROCC (Rs mn)	1258	1346	1440	1541	1541
<b>PV of ROCC (Rs mn)</b>	<b>5133.2</b>				

## Shree Cement

Fair value	(Rs mn)
USD=INR	48
Cost of setting up a new cement plant (USD)	100
Capacity (million tonnes per annum)	12.0
Replacement cost	57600
ROCC	20070
<b>Replacement Cost + ROCC</b>	<b>77670</b>
<b>Target EV/Tonne (USD)</b>	<b>135</b>
<b>Less:</b>	
<b>Capex for line VIII</b>	3000
Debt	-7559
<b>Target Mcap</b>	<b>82229</b>
Equity Shares in issue	34.8
<b>Fair Value (Rs/share)</b>	<b>2360</b>

## ROCC workings

Year	2012	2013	2014	2015	2016
Capital cost	100.0	100.0	100.0	100.0	100.0
Less:					
NOPAT (%)	21.1%	21.1%	21.1%	21.1%	21.1%
Cost of Capital (%)	11.6%	11.6%	11.6%	11.6%	11.6%
ROCC	9.6%	9.6%	9.6%	9.6%	9.6%
ROCC/Ton (USD)	9.6	9.6	9.6	9.6	9.6
ROCC/ton (Rs)	459.9	459.9	459.9	459.9	459.9
Sales (mtpa)	11.4	12.2	12.2	12.2	12.2
ROCC (Rs mn)	5230	5597	5597	5597	5597
<b>PV of ROCC (Rs mn)</b>	<b>20069.6</b>				

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