

Ambuja Cements

BSE SENSEX	S&P CNX
39,298	11,662
Bloomberg	ACEM IN
Equity Shares (m)	1,986
M.Cap.(INRb)/(USDb)	412.3 / 5.8
52-Week Range (INR)	244 / 184
1, 6, 12 Rel. Per (%)	-1/-12/-18
12M Avg Val (INR M)	736
Free float (%)	36.9

Financials & Valuations (INR b)

Y/E Dec	2018	2019E	2020E
Sales	113.6	114.5	119.0
EBITDA	18.9	21.4	21.4
NP	12.1	14.2	14.2
Adj. EPS (INR)	6.1	7.2	7.1
EPS Gr. (%)	-3.2	17.8	-0.3
BV/Sh. (INR)	105.8	111.3	116.9
RoE (%)	5.9	6.6	6.3
RoCE (%)	6.5	6.9	6.5
P/E (x)*	22.5	19.1	19.1
P/BV (x)*	1.3	1.2	1.2
EV/EBITDA (x)*	12.1	10.1	9.5
EV/Ton (USD)*	107	102	96

*Adjusting for 50% of stake in ACC

Estimate change

TP change

Rating change

CMP: INR208
TP: INR220 (+6%)
Neutral

Earnings miss as costs rise; cut estimates by 6-14%

- **Volumes decline but realizations improve:** Volumes declined 5% YoY to 5.23mt in 3QCY19, as demand was impacted by heavy rain and floods in various states. Realizations increased 6% YoY, but were down 2% QoQ to INR4,887/t due to price roll back post May'19 in core markets. Revenues grew 1% YoY to INR26.3b, vs our estimate of INR25.3b.
- **EBITDA/t impacted by higher costs:** Cost/t increased 2% YoY to INR4,180 (our estimate: INR3,963) due to higher other expenses/t and power & fuel cost/t. EBITDA/t came in at INR841 (+29% YoY). EBITDA grew 23% YoY to INR4.4b (our estimate: INR5.0b), translating into a margin of 16.7% (+3pp YoY, -6.7pp QoQ). PAT stood at INR2.3b (+31% YoY; our estimate: INR2.8b).
- **Key highlights from management presentation:** (1) The board approved the amalgamation of Dirk India Pvt Ltd, a wholly owned subsidiary, with effect from 1st Jan'20, subject to regulatory approvals. (2) Premium product sales increased 17% YoY.
- **9MCY19 performance:** Volumes declined 4% YoY, while sales/EBITDA/PAT were up 0%/8%/13% YoY. For 4QCY19, we expect volumes to decline 3% YoY, but sales/EBITDA/PAT to increase 2%/34%/35% YoY.
- **Valuation view:** We cut our EBITDA estimate by 6% for CY19 to factor in higher reported costs. Consequently, our PAT growth estimate for the year is down by 6%. Alongside, we cut our EBITDA/PAT estimate by 12%/14% for CY20. The stock trades at 10x/9.5x CY19/20E EV/EBITDA. We value ACEM at 10x Jun'21E EBITDA, while the company's stake in ACC is valued at a holding company discount of 10% to arrive at a TP of INR220. Maintain **Neutral**.

Quarterly Performance (S/A)

Y/E December	CY18				CY19				CY18	CY19E	(INR Million)	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			Est. 3QE	Var. (%)
Sales Volume (m ton)*	6.25	6.39	5.49	6.13	6.37	5.82	5.23	5.94	24.26	23.36	5.11	2
YoY Change (%)	3.5	5.3	8.9	4.4	1.9	-8.9	-4.7	-3.0	5.6	-3.7	-7.0	
Realization (INR/ton)	4,421	4,581	4,594	4,511	4,469	5,003	4,887	4,810	4,525	4,783	4,833	1
YoY Change (%)	5.4	-1.5	1.5	1.4	1.1	9.2	6.4	6.6	1.4	5.7	5.2	
QoQ Change (%)	-0.7	3.6	0.3	-1.8	-0.9	11.9	-2.3	-1.6			-3.4	
Net Sales	28,626	30,169	26,139	28,633	29,276	29,783	26,261	29,196	1,13,568	1,14,516	25,289	4
YoY Change (%)	11.7	5.4	12.7	5.6	2.3	-1.3	0.5	2.0	8.6	0.8	-3.3	
Total Expenditure	-23,555	-23,946	-22,558	-24,595	-24,644	-22,799	-21,863	-23,785	-94,653	-93,090	-20,234	8
EBITDA	5,071	6,223	3,582	4,039	4,633	6,984	4,398	5,411	18,915	21,426	5,055	-13
Margins (%)	17.7	20.6	13.7	14.1	15.8	23.4	16.7	18.5	16.7	18.7	20.0	
Depreciation	1,393	1,364	1,360	1,365	1,314	1,309	1,329	1,314	5,481	5,265	1,315	
Interest	257	192	192	182	175	208	216	198	823	796	200	
Other Income	507	1,911	482	491	2,402	580	628	532	3,391	4,142	580	
PBT before EO Item	3,928	6,578	2,512	2,983	5,546	6,047	3,481	4,432	16,002	19,506	4,120	-16
Extraordinary Inc/(Exp)	0	0	0	2,779	0	0	0	0	2,779	0	0	
PBT after EO Exp/(Inc)	3,928	6,578	2,512	5,762	5,546	6,047	3,481	4,432	18,781	19,506	4,120	-16
Tax	1,211	1,586	726	388	1,276	1,926	1,135	929	3,911	5,266	1,236	
Rate (%)	30.8	24.1	28.9	6.7	23.0	31.9	32.6	21.0	20.8	27.0	30.0	
Reported Profit	2,718	4,993	1,786	5,374	4,270	4,121	2,346	3,503	14,870	14,239	2,884	-19
Adj PAT	2,718	4,993	1,786	2,594	4,270	4,121	2,346	3,503	12,091	14,239	2,884	-19
YoY Change (%)	10.2	27.3	-34.4	-23.3	57.1	-17.5	31.4	35.0	-3.2	17.8	61.5	

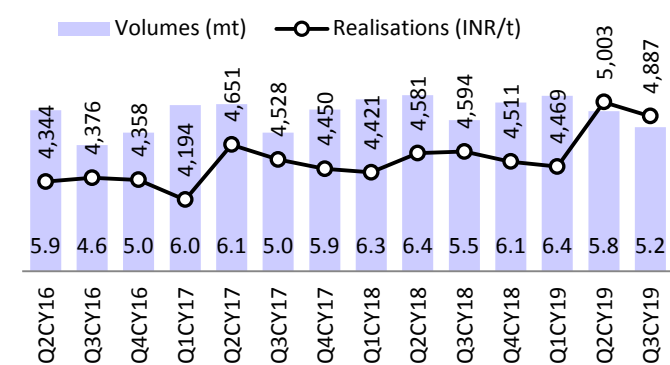
E: MOFSL Estimates

Amit Murarka - Research analyst (Amit.Murarka@motilaloswal.com) +91 22 7199 2309

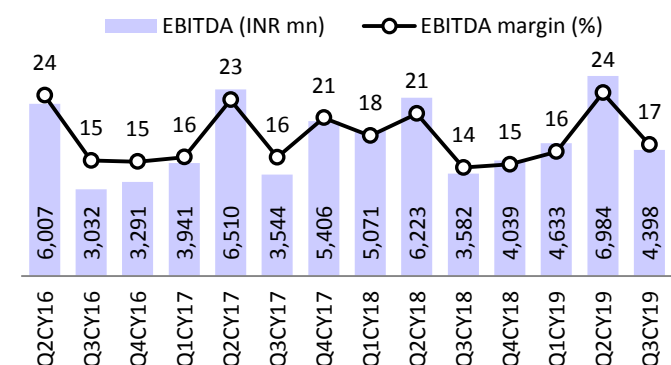
Pradnya Ganar - Research analyst (Pradnya.Ganar@motilaloswal.com); +91 22 6129 1537

Investors are advised to refer through important disclosures made at the last page of the Research Report.

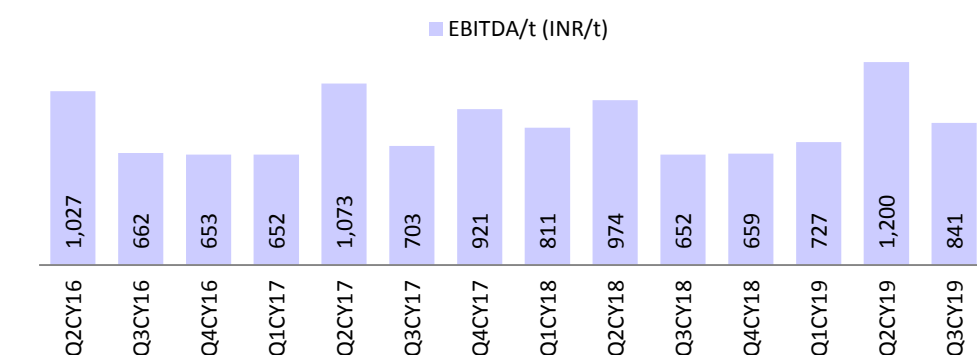
Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Exhibit 1: Volume down 5% YoY, but realizations up 6% YoY in 3QCY19

Source: Company, MOFSL

Exhibit 2: QoQ margins contracted 6.7ppQoQ

Source: Company, MOFSL

Exhibit 3: Trend in EBITDA/t

Source: MOFSL, Company

Exhibit 4: Income statement (INR/ton)

	3QCY19	3QCY18	YoY (%)	2QCY19	QoQ (%)
Net Realization	5021	4761	5%	5117	-2%
Raw Material	409	561	-27%	501	-18%
Staff Cost	321	298	8%	290	11%
Power & Fuel	1145	1002	14%	1046	10%
Freight	1299	1332	-2%	1272	2%
Other exp	1007	917	10%	808	25%
Total Cost	4180	4109	2%	3917	7%
EBITDA	841	652	29%	1200	-30%

Source: Company, MOFSL

Key highlights from management presentation

- The board approved the amalgamation of Dirk India Pvt Ltd, a wholly owned subsidiary, with the company with effect from 1st Jan'20 subject to regulatory approvals.
- Dirk India Pvt Ltd is in the business of processing of Fly ash into 'Pozzocrete.' It is also engaged in a job work for Ambuja Cement by manufacturing cement at its Nasik facility.
- Rationale for the merger:
 - The nature of business carried out by DIRK is complimentary to Ambuja's business.
 - The merger will help simplify management structure, leading to better administration and reduction in cost.
 - Pooling of resources (including manpower, management and administration and marketing resource) of both the companies should result in savings in costs.
- Premium product sales increased 17% YoY in the quarter.

Valuation and view

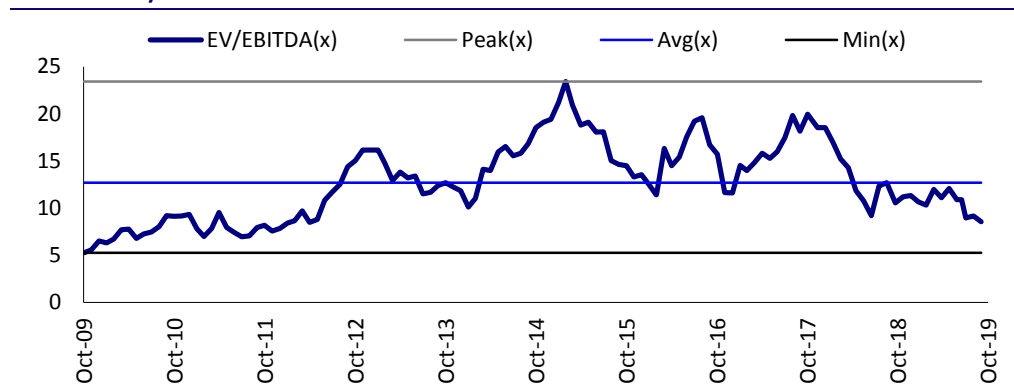
- We cut our EBITDA estimate by 6% for CY19 to factor in higher reported costs. Consequently, our PAT growth estimate for the year is down by 6%. Alongside, we cut our EBITDA/PAT estimate by 12%/14% for CY20. The stock trades at 10x/9.5x CY19/20E EV/EBITDA. We value ACEM at 10x Jun'21E EBITDA, while the company's stake in ACC is valued at a holding company discount of 10% to arrive at a TP of INR220. Maintain **Neutral**.

Exhibit 5: Revision in estimates

(INR b)	CY19E			CY20E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)
Net Sales	114.5	113.2	1.2	119.0	119.3	-0.3
EBITDA	21	23	-5.9	21	24	-12.4
Net Profit	14	15	-6.4	14	16	-13.6
EPS (INR)	7.2	7.7	-6.4	7.1	8.3	-13.6

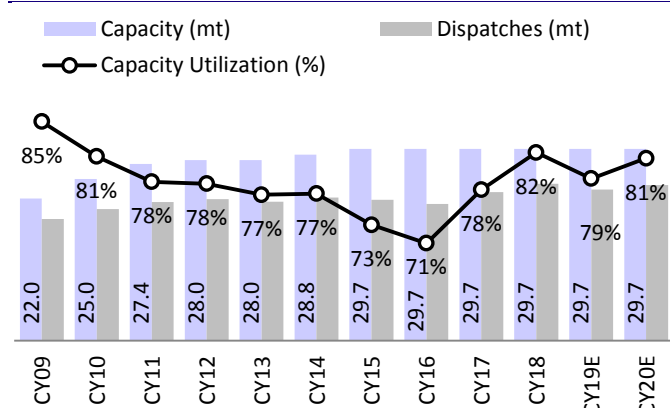
Source: MOFSL, Company

Exhibit 6: EV/EBITDA chart

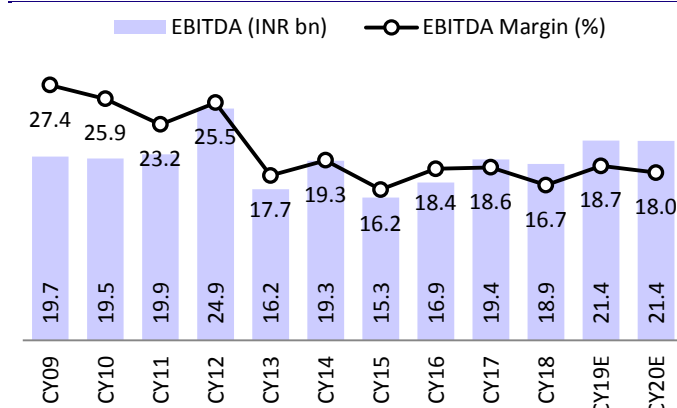


Source: MOFSL, Company

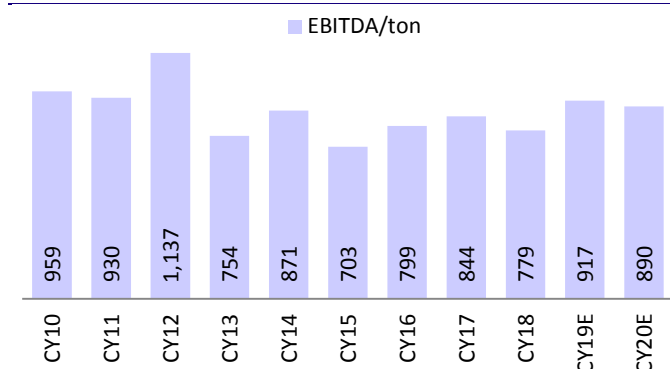
Story in charts

Exhibit 7: Utilizations to reach 81% in CY20


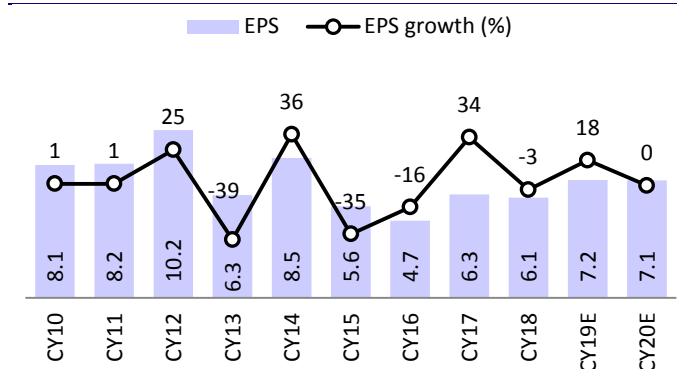
Source: Company, MOFSL

Exhibit 8: Trend in EBITDA margin


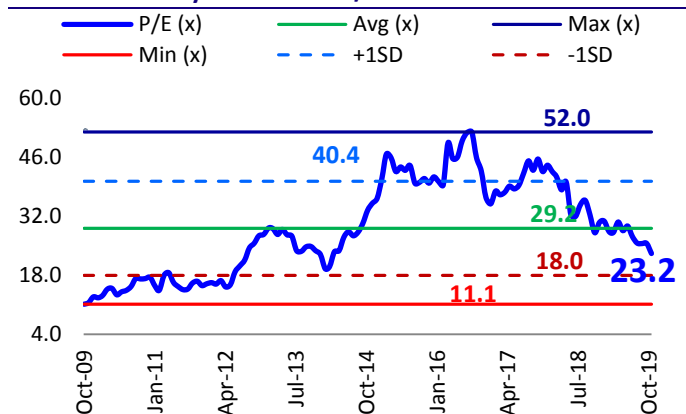
Source: Company, MOFSL

Exhibit 9: Trend in EBITDA/ton (INR)


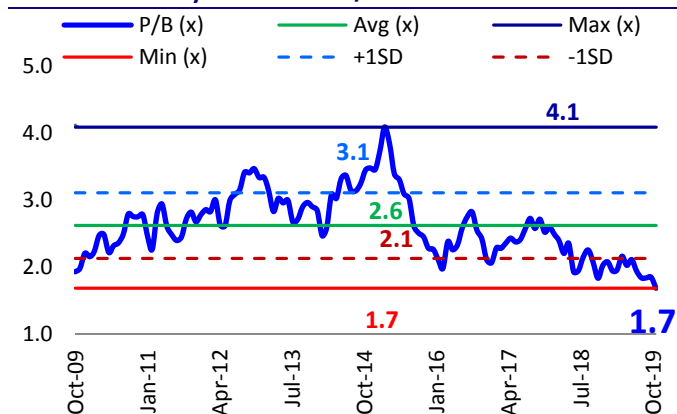
Source: Company, MOFSL

Exhibit 10: Trend in EPS (INR)


Source: Company, MOFSL

Exhibit 11: One-year forward P/E


Source: MOFSL, Company

Exhibit 12: One-year forward P/BV


Source: MOFSL, Company

Financials and Valuations (Standalone)

Income Statement						(INR Million)	
Y/E December	2014	2015	2016	2017	2018	2019E	2020E
Gross Sales	1,12,456	1,07,681	1,05,008	1,12,251	1,13,568	1,14,516	1,18,990
Less: Excise Duty	12,594	13,026	13,042	7,680	0	0	0
Net Sales	99,862	94,655	91,966	1,04,571	1,13,568	1,14,516	1,18,990
Change (%)	8.9	-5.2	-2.8	13.7	8.6	0.8	3.9
Total Expenditure	80,577	79,340	75,043	85,170	94,653	93,090	97,583
% of Sales	80.7	83.8	81.6	81.4	83.3	81.3	82.0
EBITDA	19,284	15,315	16,924	19,401	18,915	21,426	21,407
Change (%)	18.9	-20.6	10.5	14.6	-2.5	13.3	-0.1
Margin (%)	19.3	16.2	18.4	18.6	16.7	18.7	18.0
Depreciation	5,095	6,257	8,489	5,729	5,481	5,265	5,475
EBIT	14,189	9,058	8,435	13,672	13,434	16,160	15,932
Interest	645	918	742	1,072	823	796	815
Other Income - Rec.	4,290	3,582	5,102	3,591	3,391	4,142	4,329
PBT before EO Exp.	17,834	11,722	12,795	16,191	16,002	19,506	19,447
EO Exp/(Inc)	-1,757	556	0	0	-2,779	0	0
PBT after EO Exp.	19,591	11,166	12,795	16,191	18,781	19,506	19,447
Current Tax	4,780	3,340	4,392	4,107	4,780	5,266	5,251
Deferred Tax	-153	-249	-920	-411	-869	0	0
Tax Rate (%)	23.6	27.7	27.1	22.8	20.8	27.0	27.0
Reported PAT	14,964	8,076	9,322	12,496	14,870	14,239	14,196
PAT Adj for EO Items	13,207	8,631	9,322	12,496	12,091	14,239	14,196
Change (%)	36.5	-34.6	8.0	34.0	-3.2	17.8	-0.3
Margin (%)	13.2	9.1	10.1	11.9	10.6	12.4	11.9

Balance Sheet						(INR Million)	
Y/E December	2014	2015	2016	2017	2018	2019E	2020E
Equity Share Capital	3,100	3,104	3,971	3,971	3,971	3,971	3,971
Total Reserves	97,841	99,965	1,89,597	1,95,761	2,06,154	2,17,109	2,28,071
Net Worth	1,01,033	1,03,069	1,93,569	1,99,732	2,10,125	2,21,081	2,32,042
Def. Liabilities	5,890	5,649	4,973	4,583	3,722	3,722	3,722
Total Loans	384	387	157	241	397	397	397
Capital Employed	1,07,307	1,09,105	1,98,699	2,04,557	2,14,244	2,25,199	2,36,160
Gross Block	1,14,291	1,20,127	65,532	69,035	73,721	76,721	79,721
Less: Accum. Depn.	52,020	59,206	6,116	11,816	17,085	22,350	27,826
Net Fixed Assets	62,271	60,920	59,416	57,220	56,636	54,371	51,895
Capital WIP	9,301	7,865	6,501	8,625	9,996	19,396	27,621
Investments in subsidiaries	761	773	1,18,151	1,18,151	1,18,138	1,18,138	1,18,138
Investments-Trade	20,966	21,488	10,951	15,128	2,305	2,305	2,305
Curr. Assets	45,709	50,573	38,509	47,144	64,792	68,468	74,206
Inventory	8,884	8,955	9,375	10,525	12,778	13,007	13,598
Debtors	2,280	2,864	3,958	3,080	4,703	4,787	5,004
Cash & Bank Bal	24,581	28,714	15,602	20,189	31,045	33,113	38,033
Others	9,964	10,041	9,574	13,351	16,267	17,561	17,571
Curr. Liability & Prov.	31,701	32,514	34,829	41,712	37,623	37,478	38,005
Creditors	19,613	21,317	33,516	40,488	36,327	36,144	36,671
Provisions	12,088	11,197	1,314	1,223	1,296	1,334	1,334
Net Current Assets	14,008	18,059	3,680	5,433	27,169	30,989	36,201
Appl. of Funds	1,07,307	1,09,105	1,98,699	2,04,557	2,14,244	2,25,199	2,36,160

E: MOFSL Estimates

Financials and Valuations (Standalone)

Ratios

Y/E December	2014	2015	2016	2017	2018	2019E	2020E
Basic (INR)							
EPS	8.5	5.6	4.7	6.3	6.1	7.2	7.1
Cash EPS	11.8	9.6	9.0	9.2	8.8	9.8	9.9
BV/Share	65.1	66.4	97.5	100.6	105.8	111.3	116.9
DPS	5.0	2.8	2.8	3.6	1.5	1.4	1.4
Payout (%)	61.6	64.8	68.5	64.9	22.3	23.1	22.8

Valuation (x)

P/E					22.5	19.1	19.1
Cash P/E					15.4	13.9	13.8
P/BV					1.3	1.2	1.2
EV/Sales					2.0	1.9	1.7
EV/EBITDA					12.1	10.1	9.5
EV/Ton (Cap) - US\$					107	102	96
Dividend Yield (%)					1	0.7	0.7

Return Ratios (%)

RoE	13.5	8.5	6.3	6.4	5.9	6.6	6.3
RoCE	14.4	8.9	6.6	6.8	6.5	6.9	6.5
RoIC	15.4	9.1	9.4	18.2	18.9	21.5	21.8

Working Capital Ratios

Asset Turnover (x)	0.9	0.9	0.5	0.5	0.5	0.5	0.5
Debtor (Days)	8	11.0	15.7	10.7	15.1	15.3	15.4
Inventory (Days)	32	35	37	37	41	41	42
Work Cap (Days)	51	69.6	14.6	19.0	87.3	98.8	111.0

Leverage Ratio (x)

Current Ratio	1.4	1.6	1.1	1.1	1.7	1.8	2.0
Debt/Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cash Flow Statement

(INR Million)

Y/E December	2014	2015	2016	2017	2018	2019E	2020E
OP/(Loss) before Tax	19,591	11,166	12,795	16,191	15,061	19,506	19,447
Depreciation	4,383	7,186	8,489	5,729	5,481	5,265	5,475
Interest & Finance Charges	-2,025	-1,072	-1,247	-58	-709	0	0
Direct Taxes Paid	-4,380	-3,332	-3,187	-3,101	-6,251	-5,266	-5,251
(Inc)/Dec in WC	1,187	82	325	2,136	-5,922	-1,753	-291
CF from Operations	18,756	14,031	17,173	20,898	7,659	17,752	19,380
Others	-2,003	1,497	-3,015	-2,356	-1,697	0	0
CF from Operating incl EO	16,753	15,528	14,158	18,541	5,962	17,752	19,380
(Inc)/Dec in FA	-8,202	-6,169	-3,832	-5,427	-5,936	-12,400	-11,225
Free Cash Flow	8,551	9,360	10,327	13,115	26	5,352	8,155
(Pur)/Sale of Investments	3,601	5,339	-30,859	3,468	3,393	0	0
Others	-3,810	-1,597	14,253	-4,509	12,476		
CF from Investments	-8,411	-2,426	-20,438	-6,468	9,933	-12,400	-11,225
Issue of Shares	-82	-88	868	0	0	0	0
Inc/(Dec) in Debt	-1,106	-1,392	-957	-793	-311	0	0
Interest Paid	-318	-389	-360	-1,143	-745	0	0
Dividend Paid	-6,173	-7,444	-5,516	-5,550	-3,983	-3,284	-3,235
Others	508	344	-868	0	0	0	0
CF from Fin. Activity	-7,171	-8,969	-6,833	-7,487	-5,039	-3,284	-3,235
Inc/Dec of Cash	1,170	4,133	-13,112	4,587	10,856	2,068	4,920
Opening Balance	23,411	24,581	28,714	15,602	20,189	31,045	33,113
Closing Balance	24,581	28,714	15,603	20,189	31,045	33,113	38,033

Corporate profile

Company description

Ambuja Cements Ltd, a part of the global conglomerate Lafarge Holcim, is one of the leading cement companies in India with total capacity of 29.6mt under its control. It is one of the lowest cost producers of cement, with focus on structurally sound markets of North, West and East. It is also the largest exporter of cement from India.

Exhibit 1: Sensex rebased

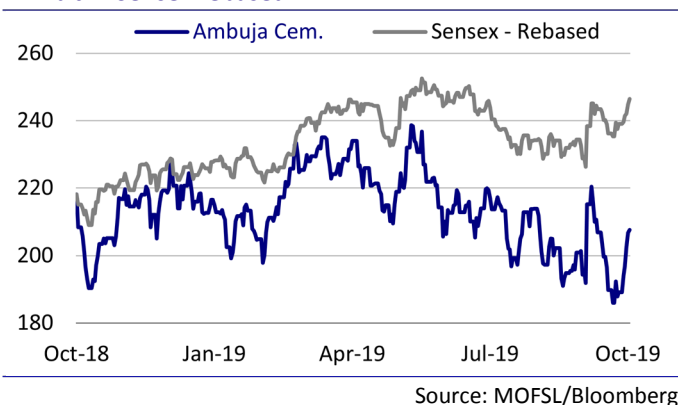


Exhibit 2: Shareholding pattern (%)

	Sep-19	Jun-19	Sep-18
Promoter	63.1	63.1	63.1
DII	12.8	11.2	11.7
FII	17.5	18.1	17.8
Others	6.7	7.6	7.4

Note: FII Includes depository receipts

Source: Capitaline

Exhibit 3: Top holders

Holder Name	% Holding
Life Insurance Corporation Of India	4.9
Government Of Singapore	2.1
Nomura India Investment Fund Mother Fund	1.2
SBI MAGNUM TAXGAIN SCHEME	1.1

Source: Capitaline

Exhibit 4: Top management

Name	Designation
N S Sekhsaria	Chairman
Jan Jenisch	Vice Chairman
Bimlendra Jha	Managing Director
Rajiv Gandhi	Company Secretary

Source: Capitaline

Exhibit 5: Directors

Name	Name
Christof Haessig	Shailesh Haribhakti*
Martin Kriegner	Shikha Sharma*
Roland Kolher	Mahendra Kumar Sharma
Nasser Munjee*	Praveen Kumar Molri
Omkar Goswami*	Ranjit Shahani
Rajendra P Chitale*	Then Hwee Tan

*Independent

Exhibit 6: Auditors

Name	Type
Deloitte Haskins & Sells LLP	Statutory
P M Nanabhoy & Co	Cost Auditor
Rathi & Associates	Secretarial Audit

Source: Capitaline

Exhibit 7: MOFSL forecast v/s consensus

EPS (INR)	MOFSL forecast	Consensus forecast	Variation (%)
CY19	7.20	7.24	-0.58
CY20	7.10	8.12	-12.53

Source: Bloomberg

NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd., (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOFSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at

<http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at

<https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act") and together with the 1934 Act, the "Acts", and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months

- other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com. CIN no.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai-400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOFSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.