Carborundum Universal

BUY

INDUSTRY	CAPITAL GOODS
CMP *(as on 30 Dec 2014)*	**Rs 174**
Target Price	**Rs 225**
Nifty	8,248
Sensex	27,404
KEY STOCK DATA	
Bloomberg	CU IN
No. of Shares (mn)	188
MCap (Rs bn) / ($ mn)	33/515
6m avg traded value (Rs mn)	38

STOCK PERFORMANCE (%)

52 Week high / low	Rs 221/123		
	3M	6M	12M
Absolute (%)	(12.6)	0.6	19.7
Relative (%)	(15.5)	(7.2)	(9.9)

SHAREHOLDING PATTERN (%)

Promoters	42.13
FIs & Local MFs	15.13
FIIs	20.45
Public & Others	22.29

Source : BSE

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The grind is getting over

CUMI is a leading domestic manufacturer of abrasives, industrial ceramics and refractories. It also has manufacturing plants in Russia (Silicon Carbide) and South Africa (Zirconia and refractories). With an expected pick up in domestic industrial activity, demand for abrasives and industrial ceramics should recover, driving a sharp pickup in CUMI's domestic revenue growth. Aided by operating leverage and restructuring of its international operations, CUMI's margins and RoE are thus set to improve substantially.

We value the stock at 20x FY17E EPS to arrive at TP of Rs 225/sh. Our target multiple is at 30% premium to 10-yr average but is reasonable in our view given the high visibility of an industrial capex revival in India and company's creditable track record. CUMI has generated positive operating cash flow across cycles and has managed a nearly debt free balance sheet despite an asset intensive business, three acquisitions and a prolonged global slowdown. BUY for an immediate play on industrial recovery and a 32% EPS CAGR over FY14-17E.

- Within India, CUMI's products are used across a wide gamut of industries. Revenue growth is linked directly to pick up in industrial capacity utilisation (abrasives, electrominerals) and/or investments (ceramics and refractories). We expect manufacturing activity in India to recover from multi-year lows. Consequently revenue growth for domestic business (50% of total revenues) should pick up smartly.
- From being an India focused company, CUMI has successfully diversified globally (despite some hiccups, which the company is addressing now). It has managed to do so while facing multiple global and domestic economic crises and has (importantly) not overpaid for these acquisitions. Balance sheet remains strong and company is well poised to benefit from the domestic industrial recovery.
- With positive operating leverage, spare capacity (65% utilisation), favourable product mix movement in abrasives and reduction of overseas losses (restructuring of operations at Thukela and Foskor) we expect operating margins and RoEs to recover sharply from FY16 onwards. Thus earnings are set for 32% CAGR over FY14-17E.
- We believe that given its strong track record and leadership position in its target markets, CUMI will continue to trade at premium valuations. **Key risks** to our BUY call include (1) Delay in industrial revival in India (2) Sharp deterioration of Russian economy and (3) Inability to reduce losses at Thukela and Foskor.

FINANCIAL SUMMARY - CONSOLIDATED

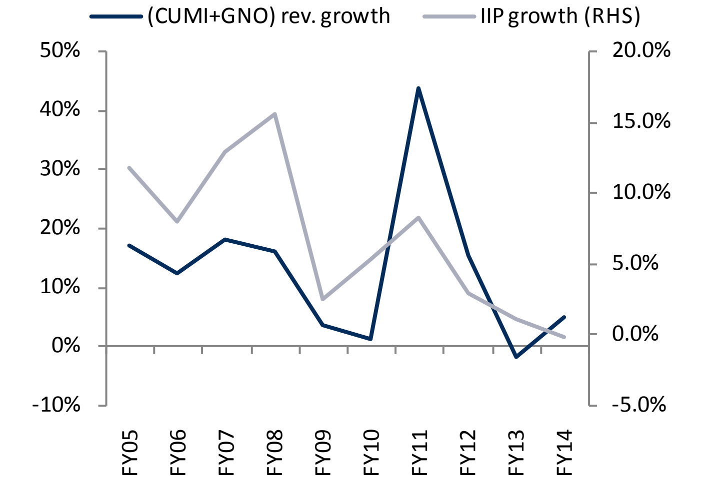
Rs mn	FY14	FY15E	FY16E	FY17E
Net Sales	21,253	21,381	23,100	26,980
EBITDA	2,515	2,464	3,150	4,365
APAT	914	813	1,286	2,078
Diluted EPS (Rs)	4.9	4.7	7.2	11.3
P/E(x)	35.7	37.1	24.3	15.4
P/B (x)	3.0	2.8	2.6	2.3
ROE (%)	8.8	7.5	10.8	15.5

Source : Company, HDFC sec Inst Research

WHAT MAKES US POSITIVE ON CUMI

High correlation between domestic abrasives (30% of overall sales) and IIP growth as abrasives are consumables where usage goes up with increase in capacity utilisation

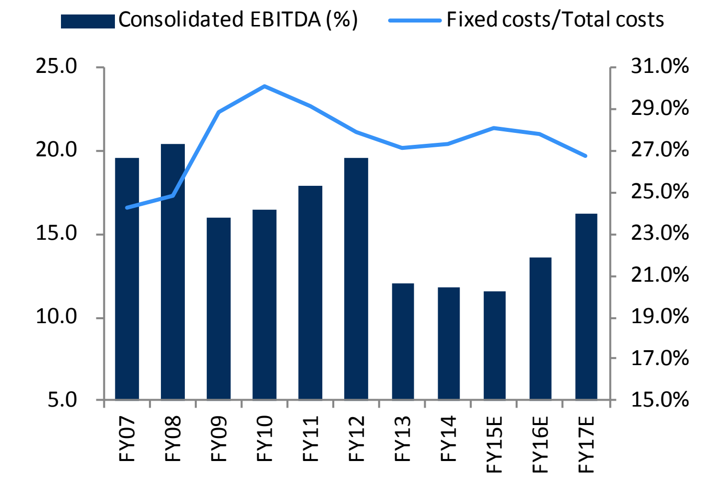
High correlation between abrasives and IIP growth



Source : Company, HDFC sec Inst Research

Fixed costs are 28% of total costs and increase in revenues will enable operating leverage to play out, especially as margins are at cyclical lows

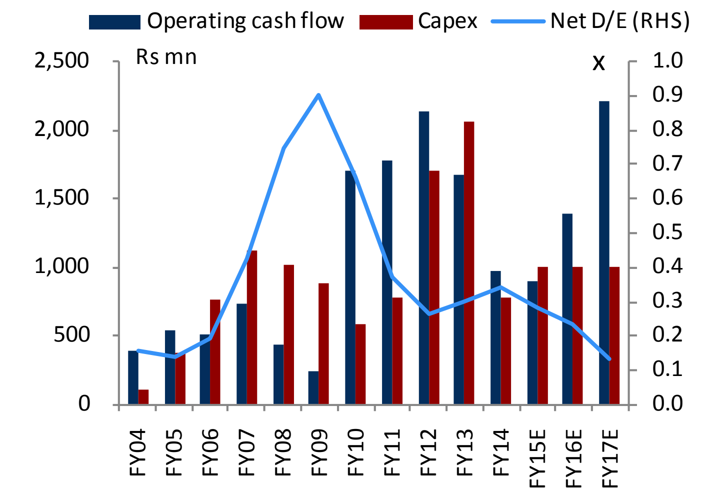
Operating leverage to aid margin pick up



Source : Company, HDFC sec Inst Research

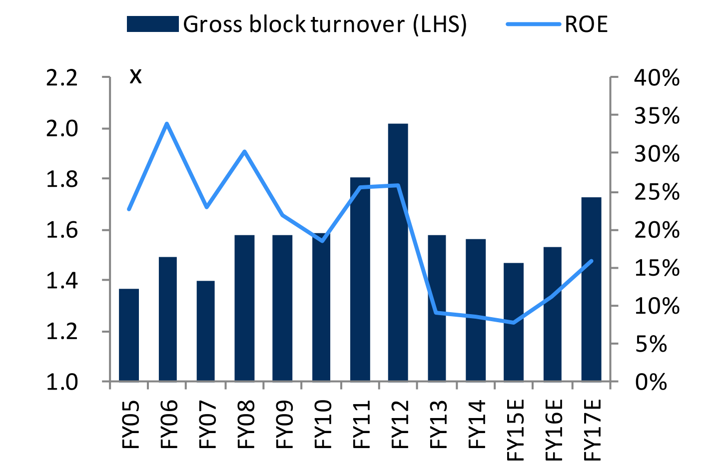
The company has a history of solid cash flow generation with prudent balance sheet management without sacrificing growth opportunities

Consistently positive operating cash flow and strong balance sheet



Source : Company, HDFC sec Inst Research

Pick up in margins and available spare capacity will ensure dramatic recovery in RoE



Source : Company, HDFC sec Inst Research

OUR STANCE, AT A GLANCE

We are very positive on the domestic pie as all three segments are linked to industrial growth and/or capex which we believe is set for a revival in the coming year

We are cautious on Russian business due to the ongoing turmoil, however we believe that in the medium term Ruble depreciation will be beneficial

South African businesses (Foskor and Thukela) are set to stop losing money as company restructures its business portfolio

	Share in FY14 consolidated revenue		
Entity	**Abrasives**	**Ceramics and refractories**	**Electrominerals**
Parent (11.5bn)	31%	14%	9%
VAW* (6.1bn)	6%	3%	20%
Foskor Zirconia* (1.1bn)			5%
Thukela Refractories* (0.5bn)			2%
CUMI Australia (0.7bn)		3%	
CUMI China (0.4bn)	2%		
Wendt** (0.5bn)	2%		
Ciria and MMTCL** (0.7bn)		3%	

Source : Company, HDFC sec Inst Research *Estimated revenue share **CUMI's share Figures in brackets are FY14 revenues

Negative view **Cautious view** **Positive view**

KEY ASSUMPTIONS, ESTIMATES AND RATIOS

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15E	FY16E	FY17E
Revenues	**9,661**	**12,223**	**12,827**	**16,075**	**19,950**	**19,714**	**21,253**	**21,381**	**23,100**	**26,980**
YoY (%)	*55.6*	*26.5*	*4.9*	*25.3*	*24.1*	*(1.2)*	*7.8*	*0.6*	*8.0*	*16.8*
Abrasives	4,538	4,816	5,198	6,897	8,304	8,092	8,594	9,007	9,908	11,890
YoY (%)	*12.5*	*6.1*	*7.9*	*32.7*	*20.4*	*(2.6)*	*6.2*	*4.8*	*10.0*	*20.0*
Ceramics	1,649	2,090	2,343	3,458	4,503	4,926	4,677	4,805	5,279	6,456
YoY (%)	*11.6*	*26.8*	*12.1*	*47.6*	*30.2*	*9.4*	*(5.0)*	*2.7*	*9.9*	*22.3*
Electrominerals	1,811	3,868	4,293	5,416	6,701	6,151	7,448	6,852	7,195	7,914
YoY (%)	*102.3*	*113.6*	*11.0*	*26.2*	*23.7*	*(8.2)*	*21.1*	*(8.0)*	*5.0*	*10.0*
EBITDA (%)	***20.4***	***16.0***	***16.5***	***17.9***	***19.5***	***12.0***	***11.8***	***11.5***	***13.6***	***16.2***
Operating cash flow	434	233	1,701	1,781	2,141	1,680	979	898	1,398	2,219
Capex	(1,025)	(884)	(590)	(771)	(1,713)	(2,070)	(775)	(1,000)	(1,000)	(1,000)
Gross block turnover (x)	1.6	1.6	1.6	1.8	2.0	1.6	1.6	1.5	1.5	1.7
RoE	30%	22%	19%	25%	26%	9%	8%	8%	11%	16%

Source : Company, HDFC sec Inst Research

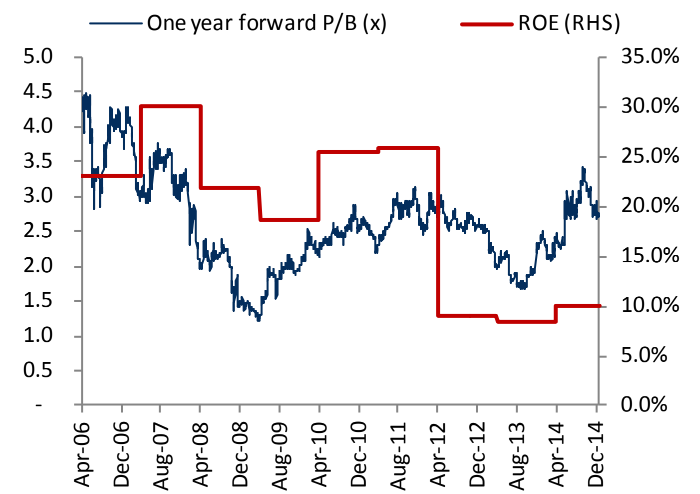
Depressed margins lead to an optically high P/E but P/B valuation is in line with historical average

We believe that CUMI's market leadership position in its target markets will enable it to benefit from an imminent industrial growth recovery in India

We initiate coverage on CUMI with a BUY and a Mar-16 TP of Rs 225/sh based on 20x FY17E EPS

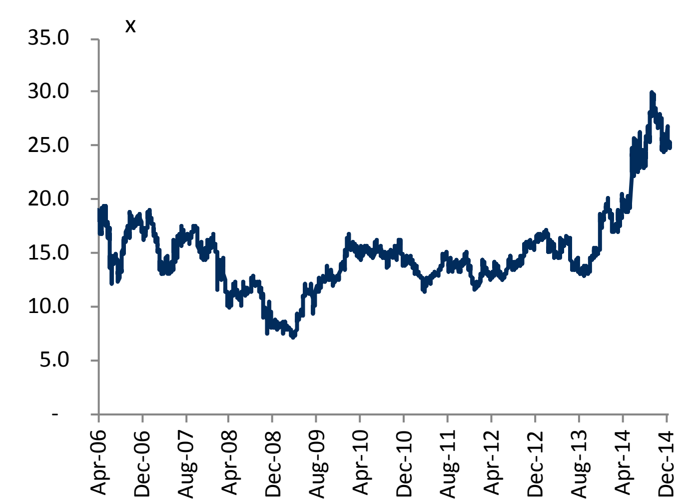
VALUATION IS REASONABLE, INITIATE WITH BUY

P/B valuation is in line with historical average



Source : Company, HDFC sec Inst Research

Depressed earnings lead to optically high one yr forward PE multiple



Source : Company, HDFC sec Inst Research

CUMI : THREE SEGMENTS, GLOBAL FOOTPRINT

Company segments it revenues/results into three main segments – Abrasives, Ceramics (incl. Refractories) and Electrominerals

- CUMI is a part of Chennai based conglomerate Murugappa group. The company is a marktet leader in domestic abrasives market. It also has a significant presence in the industrial ceramics and fused alumina refractories market in India. From being a primarily India oriented company till FY07, CUMI expanded its international presence from FY08 onwards.
- The company acquired Russia based VAW works in 2007. VAW manufactures crude Silicon Carbide (SiC) and SiC basesd abrasives and ceramics. CUMI also acquired Foskor Zirconia (South African Zirconia manufacturer) in 2008 and Thukela Refractories from RHI AG (South Africa based refractory manufacturer) in 2012.
- In addition to its core manufacturing business, the company also has an IT services subsidiary – Netaccess and a 5MW gas based plant housed in another sub - Southern Energy Development Corporation Limited ("SEDCO"). Contribution to consolidated sales and profits are not significant.

Over the years, share from subsidiaries and JVs has gone up as the company has done global acquisitions like VAW, Foskor and Thukela

CONSOLIDATED SEGMENT REVENUE BREAKUP

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Net sales (excl. other operating income)	**8,056**	**10,842**	**11,896**	**15,916**	**19,685**	**19,424**	**20,939**
YoY (%)	*22.7*	*34.6*	*9.7*	*33.8*	*23.7*	*(1.3)*	*7.8*
Abrasives	4,538	4,816	5,198	6,897	8,304	8,092	8,594
YoY (%)	*12.5*	*6.1*	*7.9*	*32.7*	*20.4*	*(2.6)*	*6.2*
Ceramics & refractories	1,649	2,090	2,343	3,458	4,503	4,926	4,677
YoY (%)	*11.6*	*26.8*	*12.1*	*47.6*	*30.2*	*9.4*	*(5.0)*
Electrominerals	1,811	3,868	4,293	5,416	6,701	6,151	7,448
YoY (%)	*102.3*	*113.6*	*11.0*	*26.2*	*23.7*	*(8.2)*	*21.1*
Others*	160	59	69	63	145	178	256

* Others include power (5MW gas based plant) and IT services company Netaccess   Source : Company, HDFC sec Inst Research

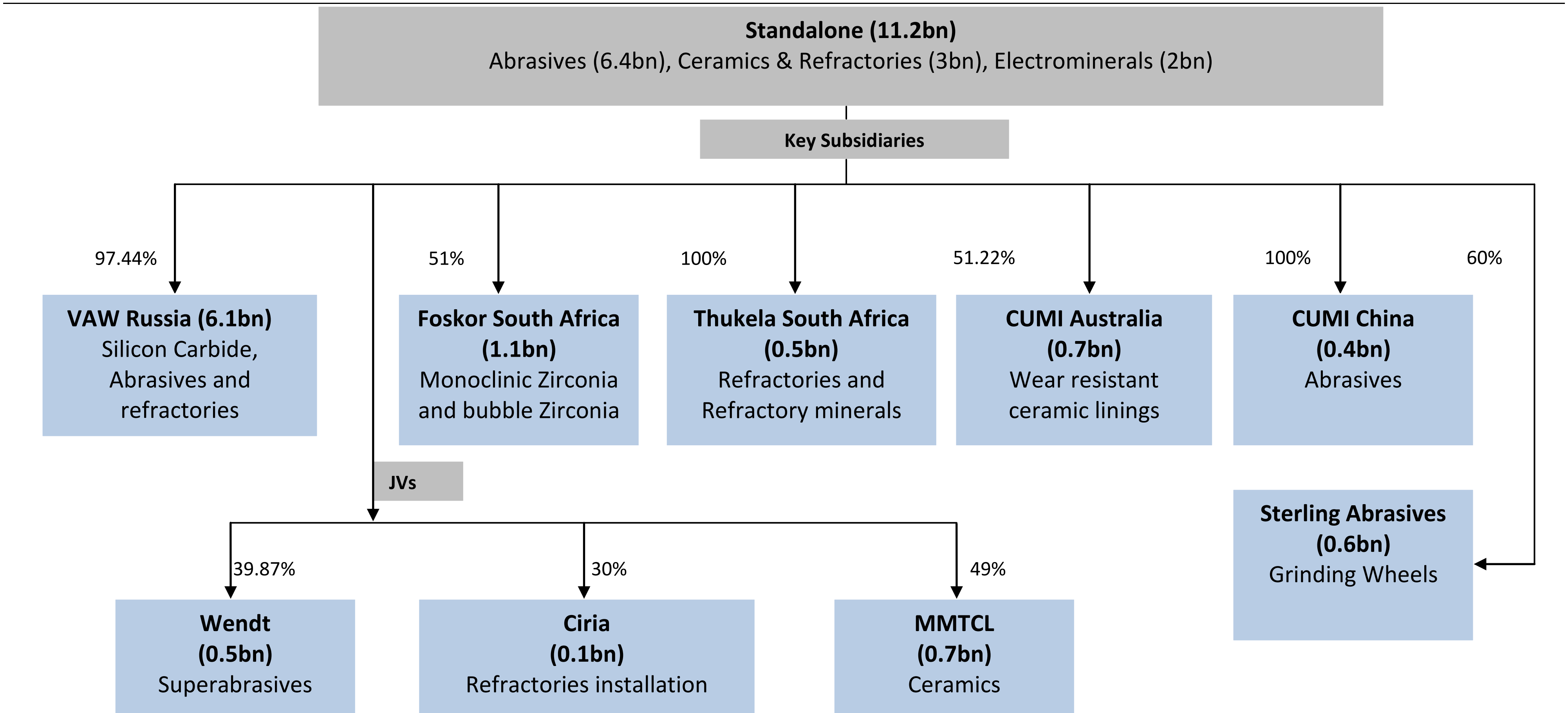
Apart from the ceramics sub segment where 65% of produce is exported, standalone entity primarily caters to the domestic market,

STANDALONE SEGMENT REVENUE BREAKUP

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Net sales (excl. other operating income)	**5,868**	**6,578**	**7,381**	**9,105**	**11,052**	**10,800**	**11,276**
YoY (%)	*11.4*	*12.1*	*12.2*	*23.4*	*21.4*	*(2.3)*	*4.4*
Abrasives	3,708	3,858	4,282	5,064	6,092	6,073	6,399
YoY (%)	*0.3*	*4.1*	*11.0*	*18.3*	*20.3*	*(0.3)*	*5.4*
Ceramics & refractories	1,446	1,729	1,978	2,453	3,170	3,224	3,039
YoY (%)	*41.2*	*19.6*	*14.4*	*24.0*	*29.2*	*1.7*	*(5.7)*
Electrominerals	715	990	1,121	1,589	1,790	1,503	1,838
YoY (%)	*(20.1)*	*38.5*	*13.2*	*41.7*	*12.6*	*(16.0)*	*22.2*

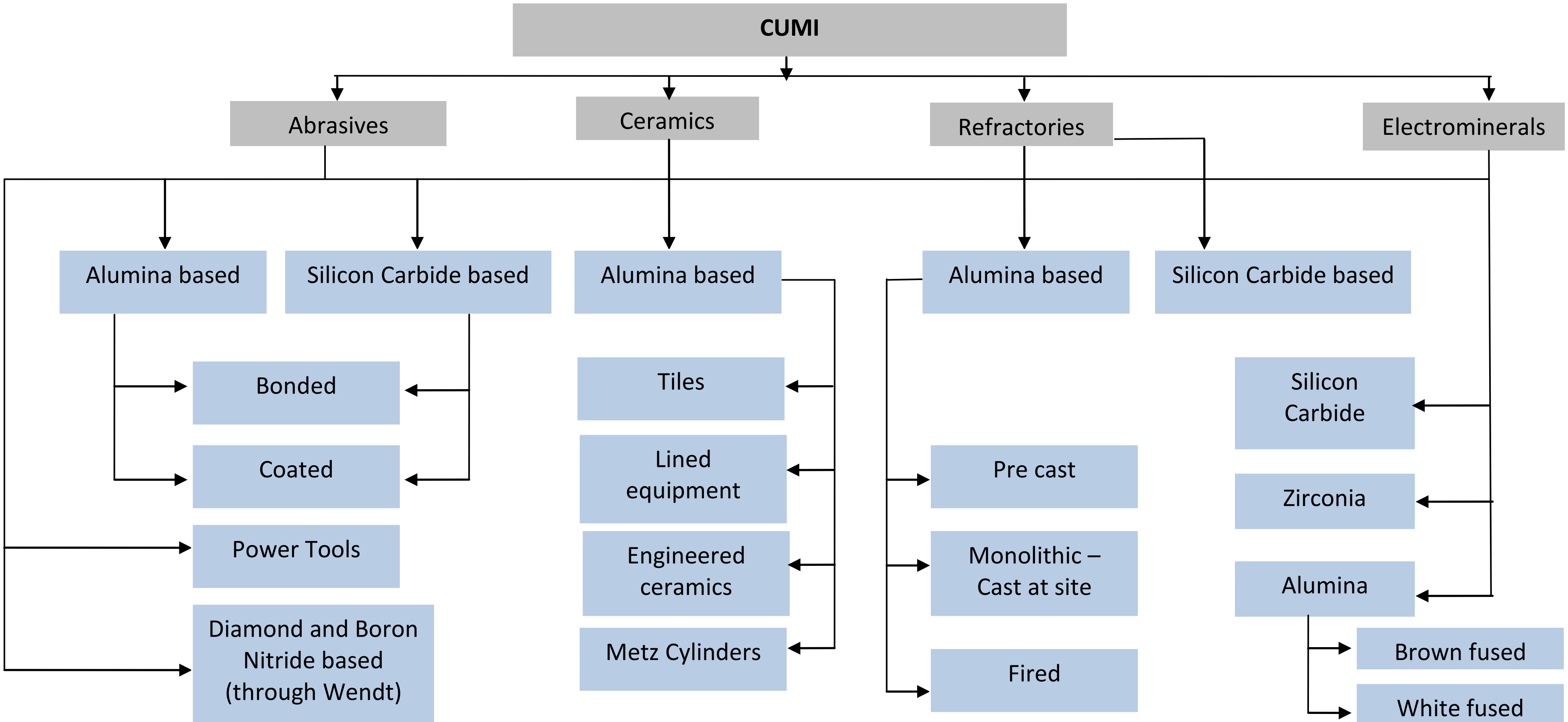
Source : Company, HDFC sec Inst Research

COMPANY OVERVIEW : KEY SUBSIDIARIES AND JVS



Source : Company *Figures in brackets are FY14 revenues The company also has subsidiaries in Middle East and US but they are distribution centres

COMPANY OVERVIEW : FOUR MAJOR PRODUCT LINES



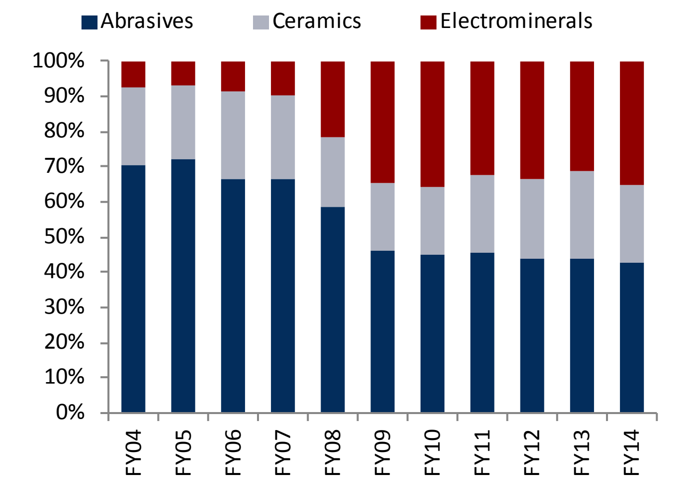
Source : Company

Electrominerals' share has increased in consolidated revenue and profits post the acquisition of Foskor and VAW

Abrasives continues to be the dominant segment for the standalone entity

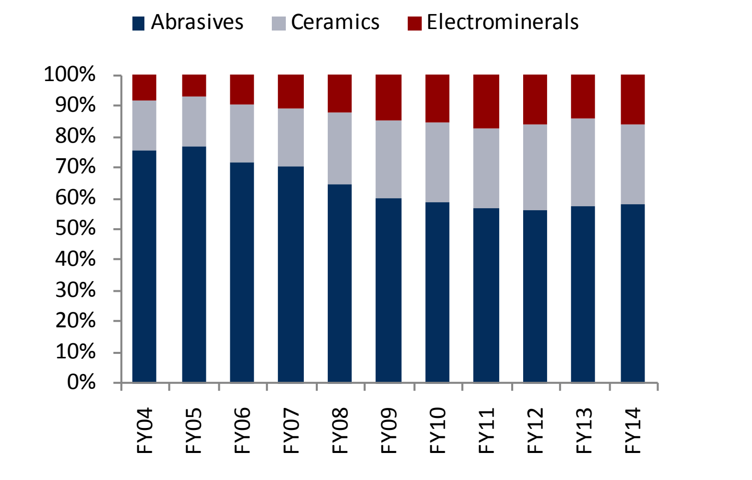
Margins for the electrominerals segment have been very volatile which is to be expected as electrominerals are commoditized products

Consolidated revenue share across segments



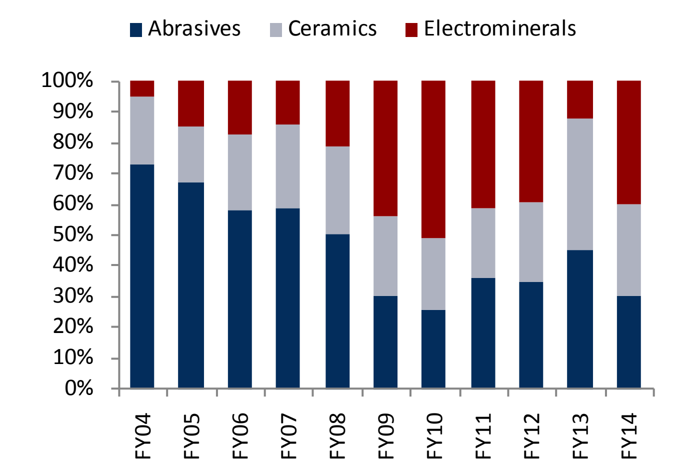
Source : Company, HDFC sec Inst Research

Standalone revenue share across segments



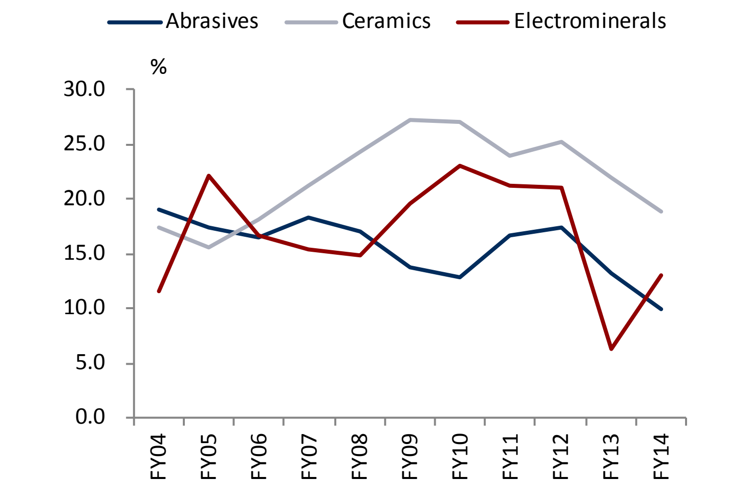
Source : Company, HDFC sec Inst Research

Consolidated EBIT share across segments



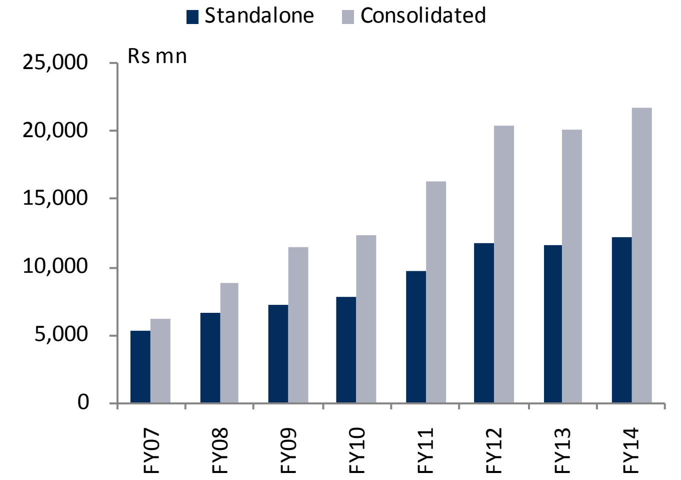
Source : Company, HDFC sec Inst Research

EBITDA Margin across segments – Multi year lows



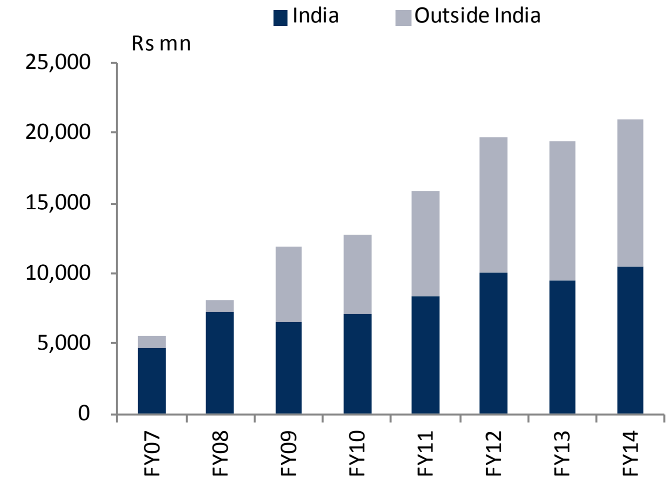
Source : Company, HDFC sec Inst Research

Due to global acquisitions...



Source : Company, HDFC sec Inst Research

Share of revenues from outside India has gone up



Source : Company, HDFC sec Inst Research

MAJOR INTERNATIONAL OPERATIONS

	Year acquired	Business overview	FY14		% to consolidated	
			Revenue	PBT	Revenue	PBT
VAW, Russia	FY08 for a consideration of Rs 1.5bn	Capacity - 75ktpa of SiC , 10ktpa of abrasives, 9.5ktpa of refractories	6,139	787	29%	51%
Foskor South Africa	FY09 for an estimated amount of Rs 0.4bn	5ktpa of Zirconia capacity and 5ktpa of bubble Zirconia capacity	1,089	(67)	5%	(4)%
Thukela Refractories	FY12 for an undisclosed amount	22ktpa of fusion capacity	497	(203)	2%	(13)%
CUMI Australia*		Wear resistant ceramic linings	729	104	3%	7%
CUMI China	Formed a JV with Jingri in FY07. Bought out abrasive portion from Jingri in FY10	3ktpa of abrasives capacity	415	(101)	2%	(7)%
CUMI Middle East, CUMI USA*		Abrasives	510	(58)	2%	(4)%

*Primarily distribution centres
Source : Company, HDFC sec Inst Research

Total Indian market size is nearly Rs 30bn with CUMI having a market share of 25% and a higher 40% share in the bonded abrasives segment

ABRASIVES : CUMI IS THE MARKET LEADER IN A 'LOCAL' BUSINESS

SEGMENT OVERVIEW

Products	Capacity	User industries	Competition	Plants
Bonded Abrasives	43,000 tpa (30,000 in India, 10,000 in Russia and 3,000 in China)	Auto ancillaries, Bearings, Metal tools, Fabrication, Stone cutting, Construction	Grindwell Norton, 3M, SAK Abrasives, Orient Abrasives, Bosch power tools, Imports, Specialised players	Chennai, Hosur, Roorkee, Russia and China
Coated abrasives	16 mn sq mt	Auto, Auto ancillaries, General engineering		
Super abrasives (Wendt, 40% JV)		Precision Grinding applications, Rotary tools, Cutting tools		Chennai
Grinding Wheels (Sterling Abrasives, 60% Sub)		Agriculture, Rice polishing, Dal polishing, etc		Ahmedabad

Source : Company, HDFC sec Inst Research

ABRASIVES : TYPES AND USAGE

Alumina Based	
White Fused Aluminum Oxide	High chemical purity (>99% Al2O3). Used for applications where high purity is important
White Calcined Aluminum Oxide	High purity aluminum oxide. Used in a variety of lapping, buffing and polishing applications.
Aluminum Oxide with Chrome	White Aluminum Oxide fused with Cr2O3 to enhance grinding. Used in grinding applications requiring slightly more toughness than White Fused Aluminum Oxide.
Brown Fused Aluminum Oxide	Abrasive with a content of 2-4% TiO2 to further enhance toughness; used in a wide variety of uses including Bonded, Coated, Refractory and Industrial markets; probably the most widely used abrasive.
Zirconia-Alumina	The toughest of the alumina based products; used in Bonded, Coated and Sandblasting applications requiring an extra tough abrasive

Silicon Carbide Based	
Green Silicon Carbide	The highest purity Silicon Carbide manufactured. Used in industrial applications requiring a high purity SiC.
Black Silicon Carbide	Lower purity. Generally used in Bonded, Coated, Refractory and Industrial markets for a wide variety of applications.

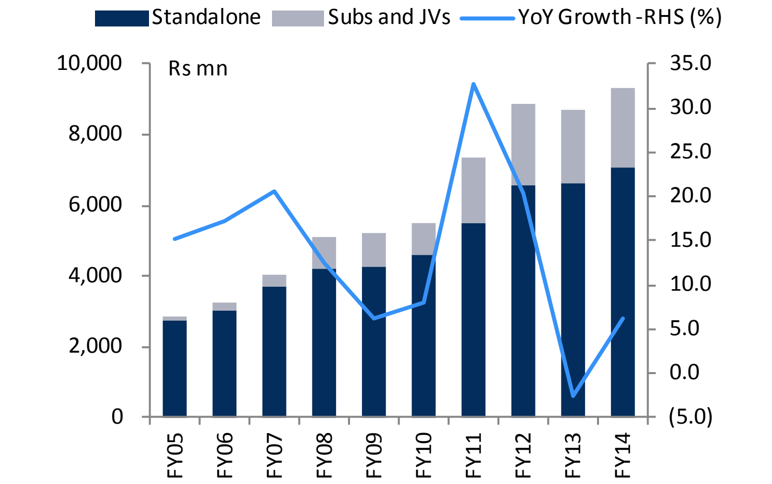
Source : Company, HDFC sec Inst Research

Since products are customized, abrasives is a local business, i.e. products are not exported and manufacturing presence is necessary to break into new geographies

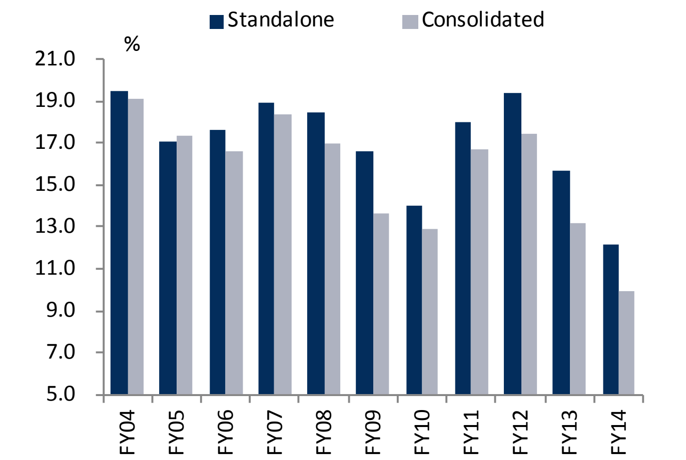
- CUMI is one of the two largest abrasives manufacturers in India, other being Grindwell Norton. CUMI manufactures both bonded and coated abrasives. Together both CUMI and GNO have more than 50% share of domestic abrasives market.
- Abrasives find usage across a wide spectrum of industries. Largest users are auto, auto ancillaries, bearings, metal working tools, stone cutting and construction industries. **No industry group constitutes more than 10% to CUMI's abrasive sales.**
- Abrasives are used in precision applications such as lapping, honing, super finishing, race grinding, thread grinding, fluting, surface grinding etc. They are also used in rough applications such as snagging, tool sharpening, burr removal, abrasive parting off, weld preparation etc.
- The domestic abrasives sector is characterised by large and varied end user industry base and relatively low entry barriers for small scale manufacturers.
- **Major competition** is in the form of Grindwell Norton (GNO) which is the subsidiary of French multinational Saint Gobain. Other international players have been testing waters in India but no one has yet set up manufacturing facility in India. Competition is expected to pick up as 3M is planning to set up a manufacturing base in India while Bosch acquired SIA abrasives, primarily to serve as base for its power tools business. Besides, there are smaller companies who have limited product and distribution range.
- Abrasives sell through both B2C and B2B routes. When sold through the retail channel, users are primarily retail users, construction contractors and small manufacturers while the institutional channel mostly comprises of large, organised manufacturers such as automobiles, and capital goods/engineering.

Margins have fallen as share of retail sales has increased from 40% in boom years to 60% which has led to higher price based competition

Revenues have stagnated due to domestic manufacturing slow down



EBITDA margins at 10 year lows



Source : Company, HDFC sec Inst Research

CUMI and Grindwell Norton (GNO) combine to form nearly 50% of domestic market

COMPARISON OF CUMI AND GNO DOMESTIC ABRASIVE SALES

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14
CUMI							
Revenues	3,708	3,858	4,282	5,064	6,092	6,073	6,399
YoY growth (%)	0.3	4.1	11.0	18.3	20.3	(0.3)	5.4
EBIT (%)	15	13	11	15	17	13	9
Grindwell Norton India							
Revenues	3,300	3,580	3,860	5,450	6,100	6,020	6,330
YoY growth (%)	15	8	8	41	12	(1)	5
EBIT (%)	18	15	16	16	16	15	12

Source : Company, HDFC sec Inst Research

ABRASIVES : MAJOR SUBSIDIARIES AND JVS

Wendt is CUMI's JV with Wendt GMBH and is engaged in the manufacture of superabrasives (boron nitride and diamond based) which are used for precision grinding applications

WENDT

CUMI's share (Rs mn)	FY11	FY12	FY13	FY14
Total Revenue	**372**	**449**	**410**	**446**
EBITDA	108	125	87	80
PBT	102	114	75	67

Source : Company, HDFC sec Inst Research

CUMI China is company's fully owned subsidiary with abrasive capacity of 3,000 tpa. It has been incurring losses due to high fixed costs and inability to break into the domestic market. Similar losses are expected to continue for the next two years

CUMI CHINA

Rs mn	FY11	FY12	FY13	FY14
Turnover	**157**	**217**	**341**	**415**
Profit before Tax	(102)	(112)	(107)	(101)
Profit after Tax	(102)	(112)	(107)	(101)

Source : Company, HDFC sec Inst Research

Sterling Abrasives is a 60% sub of CUMI and makes grinding wheels out of its facility in Ahmedabad

STERLING ABRASIVES

Rs mn	FY10	FY11	FY12	FY13	FY14
Turnover	322	418	482	527	556
Profit before Tax	84	97	102	94	90
Provision for Taxation	28	33	33	30	29
Profit after Tax	**55**	**64**	**69**	**64**	**61**
Proposed dividend	21	24	26	26	26

Source : Company, HDFC sec Inst Research

CERAMICS AND REFRACTORIES : NICHE PRODUCTS

This segment contributes 22% to total consolidated revenue of the company

SEGMENT OVERVIEW

Products	Capacity	User industries	Competition	Plant locations
Ceramic tiles	6,400 tpa	Power generation, coal mining, cement	Saint Gobain, Imerys, Local players	Hosur, Aurangabad, Ranipet, Jabalpur, Australia
Cylinders	1mn cylinders per annum	Electrical and electronics industry		
Refractories	9,500 tpa Fired capacity in India and Russia 32,000 tpa monolithic capacity in India 9,000 tpa in South Africa	Power generation, coal mining, cement, glass, steel	RHI, Vesuvius, IFGL, Small localized players	Ranipet, Jabalpur, Russia

Source : Company, HDFC sec Inst Research

CUMI has been moving up the value chain in the ceramic industry and leadership position in Metz cylinders is an example of that

CUMI IS PRESENT IN FOUR MAJOR CATEGORIES OF CERAMICS

Categories	Characteristics and user industries
Wear Resistant products (Tiles)	Industries where bulk material movement causes heavy wear of the equipment and thus these products are used to protect equipment from heavy abrasion and wear
Lined Equipment	These are fabricated steel lined with ceramics as per customers' requirement. They are also used in industries for Wear and corrosion resistance application
Engineered Ceramics	These come in different types: - Ceramic Seals, Customized Ceramics, Insulators & Ignitors, Textile components and Zirconia components.
Metz Cylinders and Devices	They are used in industries for Electrical resistivity application. CUMI is the second largest manufacturer of Metz cylinders in the world with a capacity of 1mn pieces p.a.

Source : Company, HDFC sec Inst Research

Refractories are also classified by their temperature range and/or by their shapes, i.e pre cast or monolithic

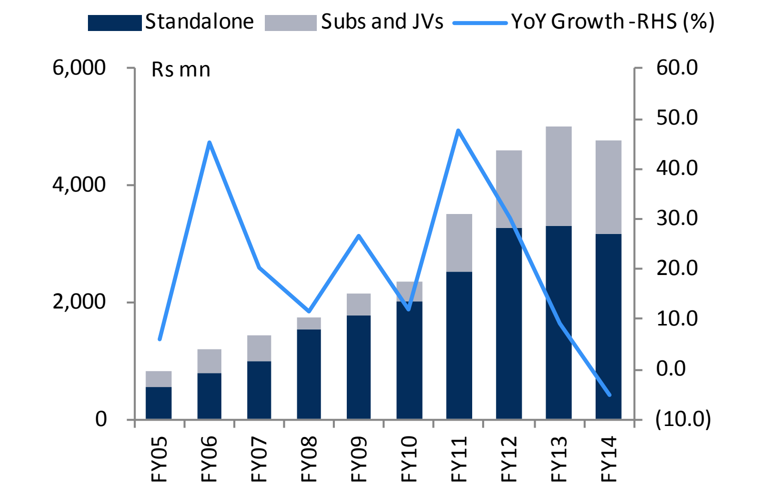
REFRACTORIES : TYPES AND USAGE

By Chemical composition	Usage	Raw material	User industries
Acidic refractories	Used in acidic environment	Alumina, Silica	Used widely by steel, cement, glass and non-ferrous metals industry as heat resistant linings. Steel industry accounts for 60% of global demand.
Neutral refractories	Used in areas where slags and atmosphere are either acidic or basic and are chemically stable to both acids and bases	Alumina, Crome	
Basic Refractories	Used in areas where slags and atmosphere are basic	Magnesia	

Source : Company, HDFC sec Inst Research

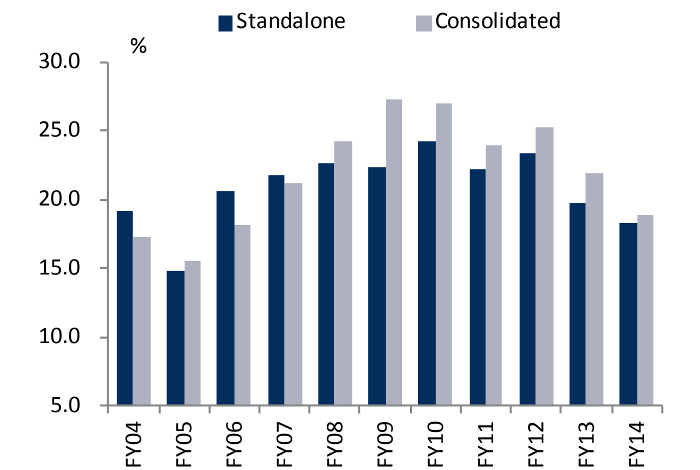
- CUMI manufactures industrial ceramics made out of fused alumina. **The business is global in nature and 65% of production from India is also exported.**
- Industrial Ceramics are used for their wear resistance and thermal and electrical insulation properties. Key user industries are – Power generation, Coal Mining, Power T&D and Iron and steel.
- Out of the total US$ 13+ billion market, Alumina based Ceramics material is around 5 billion. CUMI's share in the metallized ceramics market is around 18%. In wear Resistant application, global market for its range of wear resistant products is around US$ 200 million and its market share is 14%. **Major competition is from Saint Gobain and Imerys.**
- In the refractories sub-segment, CUMI is a niche player and produces **alumina based** refractories for high temperature range (more than 1,100 degree C).
- CUMI's addressable market size in India is Rs. 6bn out of total Indian market size of Rs 45bn. **Refractory industry in India is highly competitive** with MNCs like Vesuvius and RHI competing with various local players. Most of the local players are concentrated near the steel manufacturing belt of Eastern India.
- Alumina based refractories demand is driven by new projects and maintenance cycles. **Replacement cycle is 2-10 years.**

Sales have increased over the years due to acquisitions



Source : Company, HDFC sec Inst Research

But margins have fallen due to domestic slowdown



Source : Company, HDFC sec Inst Research

CERAMICS & REFRACTORIES : KEY SUBSIDIARIES AND JVS

CUMI Australia supplies lined equipments (made by tiles imported from India) to coal washeries. Fall in coal prices led to a dip in profitability in FY14 but operations have stabilized

CUMI AUSTRALIA – 51% Subsidiary

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Turnover	245	562	568	656	794	892	729
PBT	64	171	161	159	202	215	104
Provision for Taxation	19	51	48	48	61	65	32
PAT	**44**	**120**	**113**	**111**	**141**	**150**	**72**

Source : Company, HDFC sec Inst Research

MMTCL and Ciria cater to Refractory fibre and refractory design and installation businesses respectively

MURUGAPPA MORGAN THERMAL CERAMICS - 49% JV

Share of CUMI (Rs mn)	FY11	FY12	FY13	FY14
Revenue from operations	530	601	626	660
EBITDA	**144**	**188**	**197**	**204**
Depreciation and amortization expense	20	23	29	29
PBT	**90**	**128**	**132**	**135**

Source : Company, HDFC sec Inst Research

CIRIA REFRACTORIES - 30% JV

Share of CUMI (Rs mn)	FY11	FY12	FY13	FY14
Revenue from operations	364	444	403	439
EBITDA	**108**	**125**	**87**	**80**
Depreciation and amortization expense	14	16	19	21
PBT	**108**	**125**	**87**	**80**

Source : Company, HDFC sec Inst Research

ELECTROMINERALS : GLOBAL PLAY

CUMI is the second largest Silicon Carbide manufacturer r in the world

- CUMI has a presence in the SiC, Fused Alumina and Zirconia grains market through its facilities in Russia, India and South Africa. The company is second largest producer of Zirconia and third largest manufacturer of SiC globally. **75% of the segment sales are from outside India.**
- CUMI acquired VAW in FY08 for Rs 1.5bn. VAW has 75,000 tonnes of SiC manufacturing capacity in Russia. VAW also manufactures SiC based abrasives and refractories. **Nearly 70% of VAW revenues come from crude Silicon Carbide sales.**Foskor Zirconia is CUMI's South African subsidiary which manufactures Fused Zirconia grains.
- The company purchased Thukela Refractories from RHI in 2012. Thukela has 22ktpa of electro mineral (Zirconia, alumina and mullite) fusion capacity. User industries of SiC, Alumina and Zirconia are abrasives, refractories, solar PV and ceramics.**Electrominerals markets are commoditized markets** and pricing fluctuates like any other commodity, thus securing access to raw materials, fuel and cheap power costs are key success factors.
- Presence in Russia and South Africa is an advantage for CUMI as these countries have relatively cheap and reliable grid power along with local access to raw materials.

Pricing trends are determined by global industrial growth and supply side dynamics from China as it has significant share of capacities in SiC, Alumina and Zirconia

SEGMENT OVERVIEW

Products	Capacity	User industries	Key inputs	Plant locations
Brown Fused Alumina White Fused Alumina	24,000 tonnes per annum	Abrasives, Refractories Electrical and electronics industry	Bauxite, pet coke and power	Kochi
Silicon Carbide	75,000 tonnes in VAW Russia and 5,400 tpa in India	Silicon wafer slicing, abrasives, refractories particulate filters, semiconductors, etc	Silica, power and pet coke	Kochi and Russia
Zirconia	10,000 tpa in Foskor South Africa	Steel refractories, Brake Lining, pigments, etc	Zircon and power	South Africa
Mullite, Zircon Mullite, White fused alumina	22,000 tpa in Thukela South Africa	Refractories, Fused minerals	Zirconia, Bauxite	South Africa

Source : Company, HDFC sec Inst Research

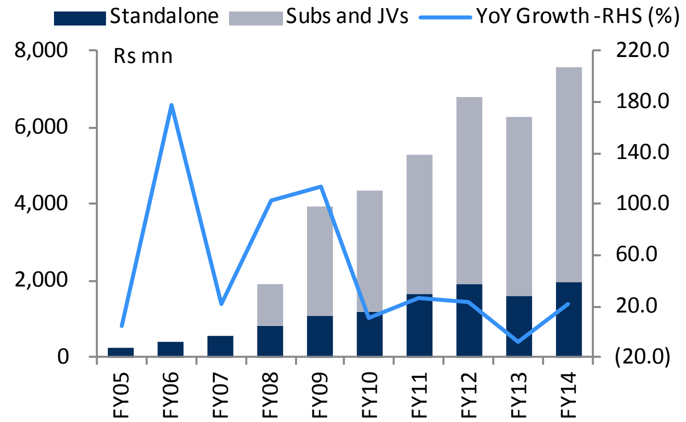
GLOBAL CAPACITY AND KEY COMPETITION

Products	Global Capacity (tpa)	CUMI's Capacity (tpa)	Other major players
Alumina	2,200,000	24,000	US Minerals, Washington Mills, Saint Gobain, Imerys, Bosai Minerals (China)
Silicon Carbide	2,000,000	80,000	Saint Gobain, Washington Mills, Chinese players with fragmented capacity
Zirconia	75,000	10,000	Saint Gobain, Imerys and Chinese players

Source : Company, HDFC sec Inst Research

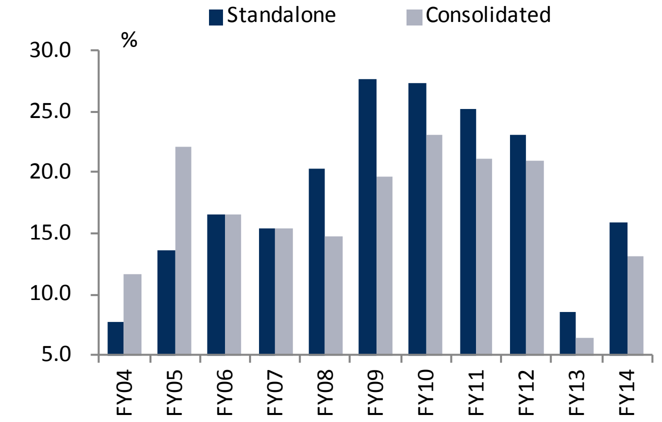
Margins of the segment have come off from highs of FY10 due to higher power cost in Russia and collapse of the Solar PV wafering market which has led to fall in prices of Silicon Carbide

Subsidiary sales are major contributors to revenue



Source : Company, HDFC sec Inst Research

Margins have come off



Source : Company, HDFC sec Inst Research

VAW has been consistently profitable and is operating at near full capacity utilisation

Concerns about Russian economic health can have a short term impact but since 40% of SiC produced from Russia is exported depreciation of Ruble can be a positive in the medium term

KEY FINANCIALS OF EM SEGMENT

Rs mn	FY08	FY09	FY10	FY11	FY12	FY13	FY14
VAW (97.44% subsidiary)							
Turnover	2,774	3,283	3,252	4,634	5,826	5,998	6,139
Profit before Tax	216	366	626	705	988	786	787
Provision for Taxation	71	114	169	155	241	189	181
Profit after Tax	145	253	457	550	747	597	606
Foskor (51% sub)							
Turnover			813	1,061	1,344	916	1,089
Profit before Tax			(6)	84	89	(252)	(67)
Provision for Taxation			(3)	24	27	(70)	(17)
Profit after Tax			(4)	60	62	(182)	(50)
Domestic EM business							
Revenue	715	990	1,121	1,589	1,790	1,503	1,838
EBIT	160	314	372	443	440	73	286
EBITDA	202	364	428	531	532	167	382
EBITDA (%)	20.3	27.6	27.3	25.2	23.1	8.5	15.9
Thukela Refractories (100% sub)							
Turnover						566	497
Profit before Tax						(208)	(203)
Provision for Taxation							
Profit after Tax						(208)	(203)

Source : Company, HDFC sec Inst Research

WHY WE ARE POSITIVE ON CUMI

CUMI is a market leader in the bonded abrasives market in India while it also has a dominant position in coated abrasives segment

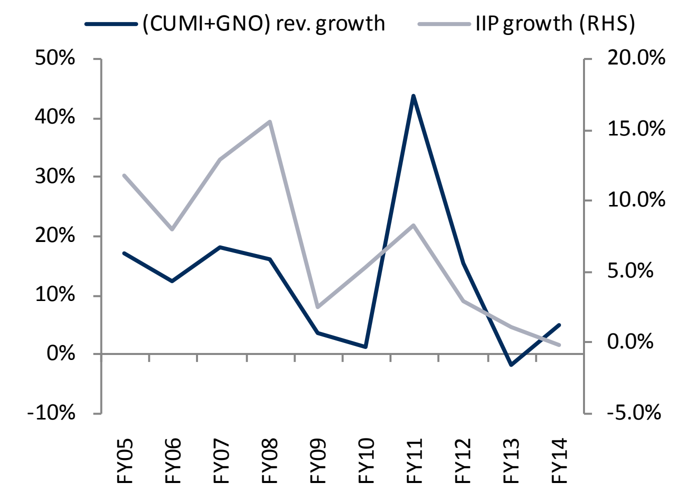
Abrasives are industrial consumables and hence will be among the first to benefit from an industrial revival

Despite overseas diversification, 50% of revenues still come from India and these revenues are linked directly to industrial capacity utilisation and new capex

Revenue growth poised to ride domestic industrial recovery

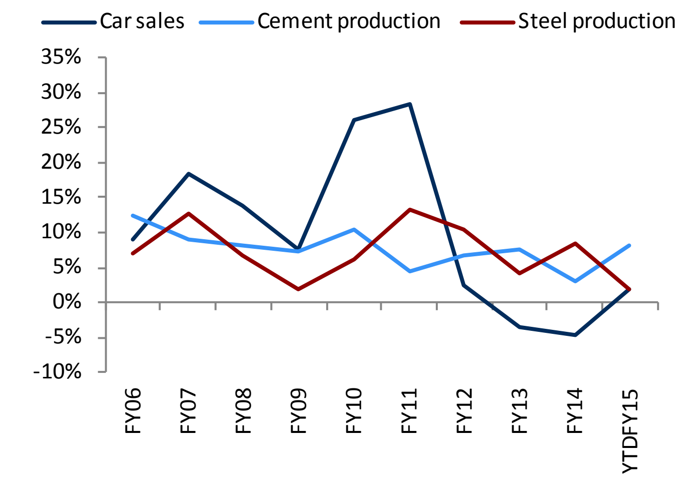
- CUMI derives 50% of its revenues from India. It is one of the two largest organized players (other being Grindwell Norton) in the abrasives market in India. It also has a presence in refractories and industrial ceramics markets.
- Abrasives are consumables and find usage across a wide spectrum of industries like auto, bearings, construction and metal working tools. Therefore, demand for abrasives has a very strong correlation with IIP growth.
- As can be seen in the chart below, **abrasives sector revenue growth has a very high correlation (0.6) with IIP growth.** We have taken domestic revenue of the abrasive segment of CUMI and GNO as being indicative of the Indian abrasive market, as they constitute 50%+ of domestic abrasives market. With IIP growth set to rebound from multi-year lows, we expect Abrasives revenue growth to pick up.
- CUMI is also present in Ceramics and Refractories. In this segment, demand is primarily driven by new investments in cement, steel, power and non ferrous sectors. We expect capex cycle to pick up which would lead to pick up in revenue growth for the ceramic and refractories segment also.
- We expect global electrominerals business to remain subdued as the company restructures its South African operations and sharp depreciation in Russian Ruble leads to translation loss. Further, commodity nature of the business makes the margins volatile and difficult to predict.

High correlation between abrasives and IIP growth



Source : Company, HDFC sec Inst Research

Auto sales and cement demand growth have started to pick up indicating pick up in industrial growth



Source : Company, HDFC sec Inst Research

Overseas business : drag to come down

VAW has 75,000 tpa manufacturing capacity of Silicon Carbide with 40% production exported

- CUMI has a significant manufacturing presence in Russia and South Africa. It is the second largest manufacturer of Silicon Carbide after Saint Gobain through its Russian subsidiary (VAW).
- VAW has been consistently profitable but the same cannot be said of the South African operations. Both Foskor (Zirconia manufacturer) and Thukela (Refractories) have had their share of problems.
- Foskor has 5,000 tpa conventional Zirconia capacity which is getting optimally utilised but the new 5,000 tpa bubble Zirconia facility has not been able to ramp up utilisation. Company has attributed this to labour, cultural and local leadership issues in South Africa. CUMI has now decided to move the bubble Zirconia plant to India.
- Management is mulling various options to make FZL back on track and improve market acceptance of the products. **That also includes shifting part of the facility in India.** Clarity of those initiatives will arise within the next couple of quarters.
- Thukela (22,000 tpa fusion capacity) was acquired by the company in 2012 with firm commitments of business from minority partner RHI. RHI (world's second largest refractory manufacturer) has not been able to maintain its commitments due to its reduced requirement and consequently Thukela has been incurring losses. **CUMI has decided to shut down/restructure the operations so that losses do not recur from FY16 onwards.**
- CUMI incurred a cost of Rs 80mn in 2QFY15 towards restructuring of Thukela and believes that no more restructuring costs will be required.
- We note that Foskor reported loss before tax of Rs 67mn in FY14 vs a PBT of Rs 89mn in FY12 due to under utilisation of its facilities. Thukela's loss (Rs 200mn in FY13/14 each) would also not recur in FY16 as the company will either be shut down/restructured or sold. **These initiatives should lead to an improvement in profitability.**

Profitability of international operations has been hampered by poor performance of Foskor and Thukela

Rs mn	FY10	FY11	FY12	FY13	FY14
Combined financials of international entities					
Turnover	4,783	6,737	8,428	8,940	9,226
Profit before Tax	742	815	1,135	361	450
Profit after Tax	529	588	806	187	267
Foskor Zirconia					
Turnover	813	1,061	1,344	916	1,089
Profit before Tax	(6)	84	89	(252)	(67)
Profit after Tax	(4)	60	62	(182)	(50)
Thukela Refractories					
Turnover				566	497
Profit before Tax				(208)	(203)
Profit after Tax				(208)	(203)

Source : Company, HDFC sec Inst Research

Margins set for a turnaround

We expect positive operating leverage to play out once revenue growth recovers

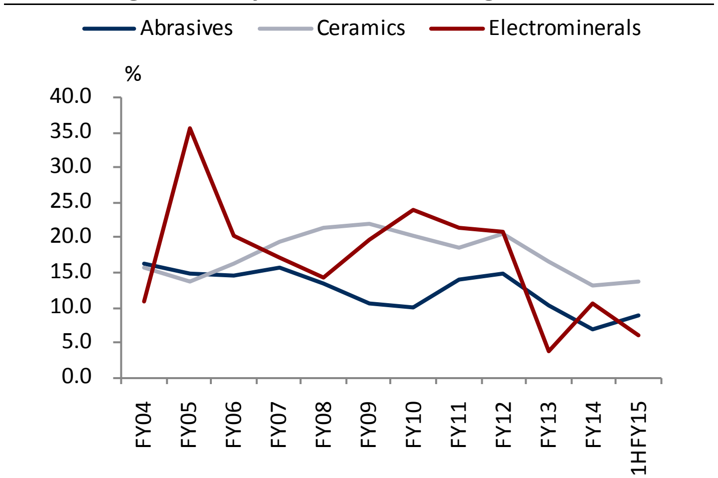
- Stagnation/reduction of demand, higher competition and overseas drag has impacted margins. Abrasive segment margins, have been hit particularly hard as the market mix has moved towards retail channel sales as compared to institutional sales earlier. **Retail sales have higher price based competition which impacts margins**.

Availability of spare capacity will enable the benefit of increased margins to flow directly to the bottom line

- With industrial recovery expected from FY16 onwards and company's efforts to turn around/shut down low margin international businesses, margins are poised for a smart turn around. Since products for institutional clients are customized (primarily for abrasives), they carry higher margins. With an expected industrial recovery, we believe the product mix will once again shift towards institutional channel, aiding price realisations and hence margins.
- Raw materials are – Bauxite, Pet Coke, Zircon Sand, Silica Sand, Cloth, resins, other polymers, etc. Electrominerals are power intensive industries and hence power cost is also an important variable. The company relies primarily on grid power for its power needs across India and overseas. It does have a 12MW hydro power plant which supplies power to its electrominerals plants in Kerala but hydro generation is seasonal and hence the dependence on grid power.
- We expect gross margins to improve only gradually as industrial growth picks up leading to higher contribution of higher margin institutional sales and return of pricing power.
- However, with improved utilisation, operating leverage will assist margins, even if gross margins do not improve. **We estimate that 28% of total pre EBITDA expenses are fixed in nature.**
- **We note that 1HFY15 has seen an uptick in margins** in both the abrasives and ceramics segments. Electrominerals margins were impacted by one-off costs (Rs 80mn) related to Thukela restructuring.

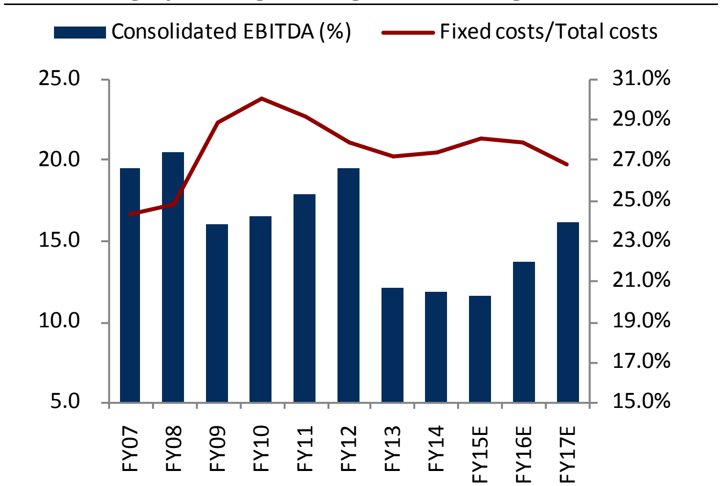
28% of total expenses are fixed in nature and hence the scope for high operating leverage

EBIT margins at 10 year lows across segments



Source : Company, HDFC sec Inst Research

Increasing operating leverage to aid margins



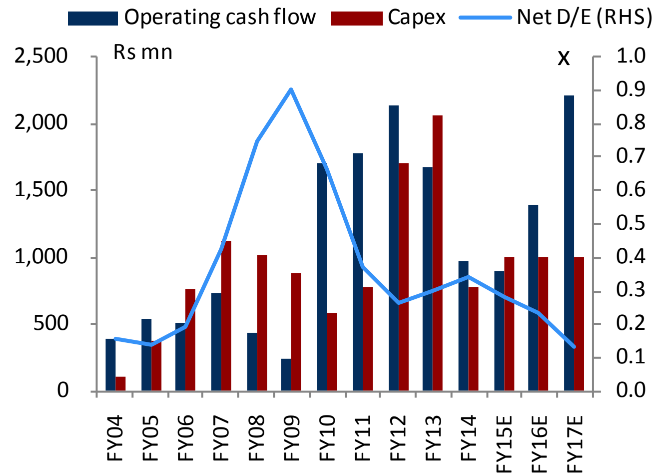
Source : Company, HDFC sec Inst Research

Cash flows and balance sheet strong, ROE to trend back up

Capex has been funded primarily through internal accruals

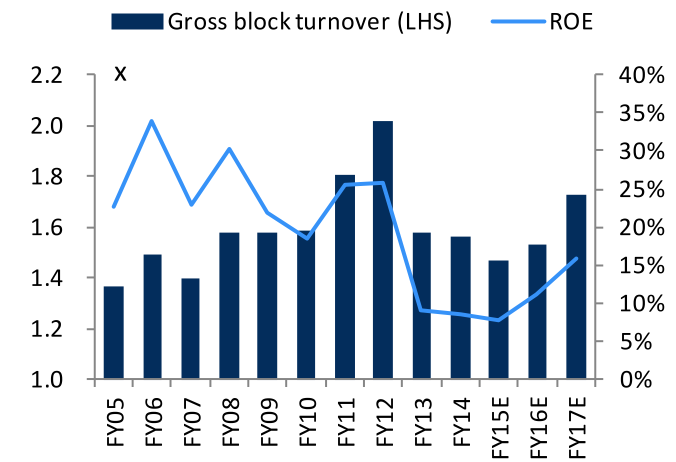
- Despite suffering from a massive global slowdown, CUMI has managed to retain a strong balance sheet with strong cash flow generation across cycles. We expect strong cash flow generation to continue going forward.
- Unlike other capital goods companies in our coverage, CUMI is an asset intensive business. Therefore, it is admirable that the company has been able to manage a strong balance sheet, all the while incurring capex for growth and also after making three global acquisitions.
- The company is operating at 65-70% capacity utilisation across segments and therefore has spare capacity available. With no significant incremental investments required, RoE and RoCE are set for a revival from cyclical lows.

Consistently positive operating cash flow



Source : Company, HDFC sec Inst Research

Increasing capacity utilisation to aid margins



Source : Company, HDFC sec Inst Research

CUMI's business is more fixed asset based than other capital goods companies under our coverage

CUM IS A FIXED CAPITAL INTENSIVE BUSINESS

Sales/Gross block (x)	FY08	FY09	FY10	FY11	FY12	FY13	FY14
CUMI	**1.6**	**1.6**	**1.6**	**1.8**	**2.0**	**1.6**	**1.6**
Thermax	5.1	5.2	4.7	4.3	6.0	6.0	4.6
Cummins	3.6	4.5	3.9	4.8	4.2	4.4	2.6
BHEL	4.3	5.0	5.0	5.2	4.9	4.4	3.5
Crompton Greaves	2.9	3.3	3.5	3.3	3.1	2.9	2.8
Voltas	10.1	10.9	12.2	11.7	12.3	12.2	11.4

Source : Company, HDFC sec Inst Research

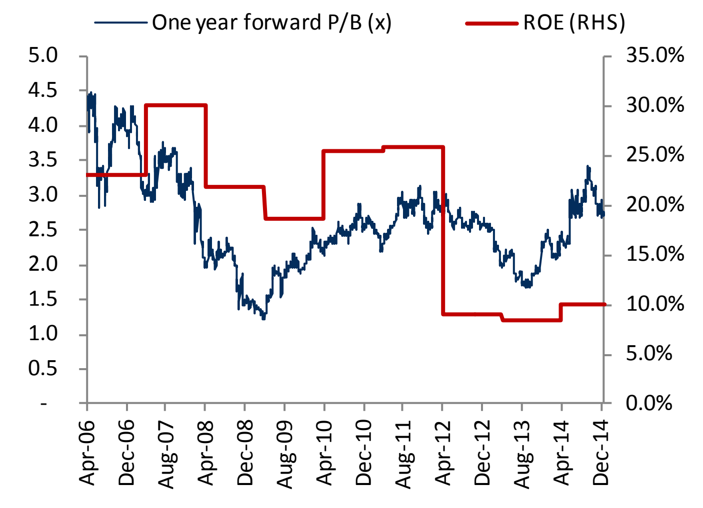
We believe that CUMI is a high quality company with capable management and has market leadership position across most of its segments

The company is taking the right steps to reduce losses in the international business while domestic business is poised to recover with recovery in industrial activity

Valuations are reasonable, initiate coverage with BUY

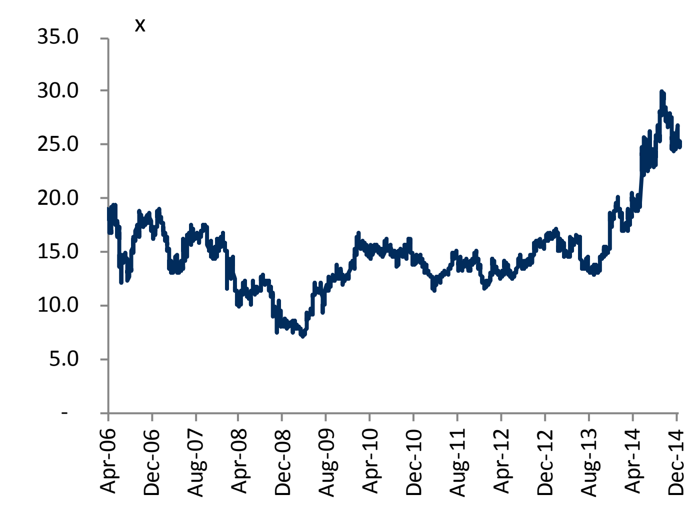
- While valuations do look high from a historical perspective, we note that earnings have been depressed due to massive domestic slow down and negative contribution from some of the international ventures.
- With the company taking steps to improve international performance and domestic business revival, we expect a sharp uptick in earnings, especially as the company is working at 65-70% utilisation across most of its businesses.
- With valuations already on the higher side, upsides will be driven by earning upgrades/growth, in our view. We are building in EPS CAGR of 32% over FY14-17E without building in aggressive assumptions on revenue growth. We initiate coverage on CUMI with a BUY recommendation and a Mar-16 TP of Rs 225/sh based on 20x FY17E EPS.
- Our target multiple is at a 30% premium to 10yr average one year forward PE of 15x due to strong visibility of a turnaround in the industrial capex cycle and company's efficient allocation of capital, without sacrificing on growth.

P/B valuation is in line with historical average



Source : HDFC sec Inst Research

Depressed earnings lead to optically high one yr forward PE multiple



Source : HDFC sec Inst Research

PEER VALUATION

Company	TP (Rs)	CMP (Rs)	Rating	Market Cap		P/E (x)			P/B (x)			ROE (%)		
				Rs bn	US$bn	FY15E	FY16E	FY17E	FY15E	FY16E	FY17E	FY15E	FY16E	FY17E
L&T	1,722	1,498	BUY	1,376	22.6	21.3	18.2	15.1	3.8	3.4	3.1	14.1	15.0	16.4
BHEL	189	258	SELL	631	10.4	29.7	24.4	21.9	1.8	1.8	1.7	6.3	7.4	7.9
Cummins India	876	867	BUY	240	3.9	35.0	29.4	24.7	8.3	7.6	7.0	25.1	27.0	29.5
Thermax	951	1,064	NEU	127	2.1	36.8	27.2	22.4	5.6	4.9	4.2	16.1	19.2	20.1
Crompton Greaves	230	186	BUY	119	2.0	26.4	18.6	13.8	3.0	2.7	2.4	11.9	15.3	18.4
Voltas	222	240	SELL	79	1.3	27.6	21.5	17.3	4.0	3.5	3.1	15.0	17.4	19.2
CUMI	**225**	**174**	**BUY**	**33**	**0.5**	**37.1**	**24.3**	**15.4**	**2.8**	**2.6**	**2.3**	**7.8**	**11.1**	**15.8**

Source : HDFC sec Inst Research

INCOME STATEMENT

(Rs mn)	FY13	FY14	FY15E	FY16E	FY17E
Revenue	**19,714**	**21,253**	**21,381**	**23,100**	**26,980**
Growth %	***(1.2)***	***7.8***	***0.6***	***8.0***	***16.8***
Raw material costs	7,127	7,451	7,377	7,854	9,173
Employee expenditure	2,627	2,900	3,045	3,197	3,517
Other expenses	7,588	8,388	8,496	8,899	9,925
EBITDA	**2,372**	**2,515**	**2,464**	**3,150**	**4,365**
EBITDA %	***12.0***	***11.8***	***11.5***	***13.6***	***16.2***
EBITDA Growth %	***(39.1)***	***6.0***	***(2.1)***	***27.9***	***38.6***
Other Income	130	220	220	220	220
Depreciation	712	912	985	1,084	1,192
EBIT	1,791	1,824	1,699	2,287	3,393
Interest	272	282	283	284	285
PBT	**1,518**	**1,542**	**1,416**	**2,003**	**3,109**
Tax	619	592	566	681	995
PAT	**899**	**950**	**850**	**1,322**	**2,114**
Minority interest	2	36	36	36	36
PAT after minority interest	897	914	813	1,286	2,078
APAT	**897**	**914**	**813**	**1,286**	**2,078**
APAT growth %	***(58.6)***	***1.9***	***(11.0)***	***58.1***	***61.6***
EPS	**4.8**	**4.9**	**4.7**	**7.2**	**11.3**
EPS growth %	***(59.1)***	***1.8***	***(3.6)***	***52.5***	***57.5***

Source: Company, HDFC sec Inst Research

BALANCE SHEET

(Rs mn)	FY13	FY14	FY15E	FY16E	FY17E
SOURCES OF FUNDS					
Share Capital	187	188	188	188	188
Reserves	10,404	10,872	11,495	12,538	14,309
TOTAL SHAREHOLDERS FUNDS	**10,592**	**11,060**	**11,683**	**12,726**	**14,497**
Minority interest	738	699	663	627	591
Long Term Debt	1,975	1,873	1,873	1,873	1,873
Short Term Debt	2,367	2,683	2,051	2,051	2,051
TOTAL DEBT	**4,342**	**4,556**	**3,924**	**3,924**	**3,924**
Deferred tax liabilities	503	500	500	500	500
Other non current liabilities	40	53	53	53	53
TOTAL SOURCES OF FUNDS	**16,214**	**16,867**	**16,822**	**17,829**	**19,564**
APPLICATION OF FUNDS					
Gross Block	12,602	13,829	14,829	15,329	15,829
Net Block	7,435	7,863	7,878	7,294	6,602
CWIP	838	397	397	897	1,397
Goodwill	1,002	1,105	1,105	1,105	1,105
Non Current Investments	256	373	373	373	373
LT Loans and advances	237	247	272	299	329
CURRENT ASSETS					
Inventories	4,026	4,340	4,774	5,251	5,777
Trade receivables	3,601	4,167	4,583	5,041	5,546
Cash & equivalents	855	754	610	913	1,974
ST Loans & Advances	781	610	671	739	812
TOTAL CURRENT ASSETS	**9,264**	**9,871**	**10,639**	**11,944**	**14,108**
CURRENT LIABILITIES					
Trade Payables	1,760	2,006	2,206	2,427	2,670
Other Current Liabilities	791	787	1,419	1,419	1,419
Provisions	265	196	216	237	261
TOTAL CURRENT LIABILITIES	**2,816**	**2,989**	**3,841**	**4,083**	**4,350**
NET CURRENT ASSETS	**6,448**	**6,882**	**6,798**	**7,861**	**9,759**
TOTAL APPLICATION OF FUNDS	**16,215**	**16,867**	**16,822**	**17,829**	**19,565**

Source: Company, HDFC sec Inst Research

CASH FLOW

(Rs mn)	FY13	FY14	FY15E	FY16E	FY17E
PAT from operations	766	694	593	1,066	1,858
Finance costs	272	282	283	284	285
Depreciation	711	911	985	1,084	1,192
Working capital change	49	(774)	(716)	(788)	(867)
Others	154	149	36	36	36
OPERATING CASH FLOW	**1,952**	**1,261**	**1,181**	**1,681**	**2,504**
Capex	(2,095)	(924)	(1,000)	(1,000)	(1,000)
FCFF	**(143)**	**337**	**181**	**681**	**1,504**
Change in investments	6	(66)	0	0	0
Other income	43	44	220	220	220
INVESTING CASH FLOW	**(2,046)**	**(946)**	**(780)**	**(780)**	**(780)**
Capital issuance	7	26	0	0	0
Debt issuance (net)	357	213	0	0	0
Interest	(271)	(284)	(283)	(284)	(285)
Free cash flow to equity (FCFE)	(1)	271	118	618	1,439
Dividend	(386)	(326)	(263)	(315)	(378)
Others					
FINANCING CASH FLOW	**(293)**	**(372)**	**(545)**	**(599)**	**(663)**
NET CASH FLOW	**(387)**	**(57)**	**(144)**	**303**	**1,061**
Closing cash	855	754	610	913	1,974

Source: Company, HDFC sec Inst Research

KEY RATIOS

	FY13	FY14	FY15E	FY16E	FY17E
PROFITABILITY %					
EBITDA margin	12.0	11.8	11.5	13.6	16.2
EBIT margin	9.1	8.6	7.9	9.9	12.6
APAT margin	4.5	4.3	3.8	5.6	7.7
RoE	9.0	8.8	7.5	10.8	15.5
RoIC	8.3	7.3	6.5	8.9	13.2
RoCE	7.7	7.4	6.8	8.8	12.2
Tax rate %	40.8	38.4	40.0	34.0	32.0
EFFICIENCY					
Asset turnover (x)	1.2	1.3	1.3	1.3	1.4
Inventory (days)	74.5	74.5	81.5	83.0	78.1
Debtor (days)	66.7	71.6	78.2	79.7	75.0
Payables (days)	24.7	26.9	29.9	30.9	29.1
Cash conversion cycle (days)	116.5	119.2	129.8	131.7	124.1
Debt/EBITDA (x)	1.8	1.8	1.6	1.2	0.9
Net D/E	0.3	0.3	0.3	0.2	0.1
Interest coverage	8.7	8.9	8.7	11.1	15.3
VALUATION					
EPS (Rs/sh)	4.8	4.9	4.7	7.2	11.3
BV (Rs/sh)	56.5	58.9	61.9	67.1	76.0
DPS	1.2	1.2	1.2	1.5	1.8
P/E	36.4	35.7	37.1	24.3	15.4
P/BV	3.1	3.0	2.8	2.6	2.3
EV/EBITDA	15.2	14.5	14.6	11.3	7.9
EV/Revenues	1.8	1.7	1.7	1.5	1.3
FCFF/EV (%)	(0.4)	0.9	0.5	1.9	4.3
FCFE/MCAP (%)	(0.0)	0.8	0.4	1.9	4.4
Dividend yield (%)	0.7	0.7	0.7	0.9	1.0

Source: Company, HDFC sec Inst Research

Rating Definitions

BUY	:	Where the stock is expected to deliver more than 10% returns over the next 12 month period
NEUTRAL	:	Where the stock is expected to deliver (-)10% to 10% returns over the next 12 month period
SELL	:	Where the stock is expected to deliver less than (-)10% returns over the next 12 month period

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