

**VICEM BIM SON CEMENT JSC (HNX: BCC)**

<b>TOT BUI VAN</b>	Current price:	<b>13.700</b>					
Senior analyst	Target price:	<b>19.000</b>	-18%	-7%	0%	+7%	+18%
Email: <a href="mailto:totbv@fpts.com.vn">totbv@fpts.com.vn</a>	% +/-:	<b>38,7%</b>	<b>Sell</b>	<b>Reduce</b>	<b>Neutral</b>	<b>Add</b>	<b>Buy</b>
Phone: (84) - 86290 8686 - Ext: 7593	Dividend yield:	<b>0%</b>	<b>BUY</b>				

### BCC's rate of return



## Trading information

Current price	13.700
52-week high (VND/share)	15.200
52-week low (VND/share)	5.500
Listed shares (million share)	95,7
Outstanding shares (million share)	95,7
3-month average trading volume (share/session)	351.566
Foreign ownership	2,14%
Charter capital (VND billion)	956,6
Market cap (VND billion)	1.310

## Company at a glance

Name	VICEM Bim Son Cement JSC.
Address	Bim Son, Thanh Hoa
Core revenue	Cement
Core expenses	Coal, electricity
Competitive advantage	Strong brand
Key risks	Competition, exchange rate fluctuation, EUR loan

## Shareholder structure

VICEM	73,2
Others	26,8

## FLOURISHING BUSINESS PERFORMANCE

We conducted initial valuation for VICEM Bim Son Cement JSC (BCC – HNX), forecasted net revenue and NPAT at, respectively, **VND 4,277bn** (+14.7% YoY) and **VND 134bn**, translating to **VND 1,400** per share 2014 forward EPS. The intrinsic value of BCC share in next 12 months followed FCFF method is calculated at VND **19,000** per share, up **38.7%** vs. current price. As such, we recommend **BUYing** BCC share for mid and long-term investment horizon. The reference price using EV/EBITDA method with selective group of peers in emerging markets brings about the price of **VND 21,400 per share**.

As the 2<sup>nd</sup> largest and 4<sup>th</sup> largest entity of VICEM and Vietnam in terms of consumption volume, BCC has 35-year operation and stable position in Thanh Hoa, Ha Tinh, Nam Dinh and Ha Noi City. The lower-than-expected business result in the past few years due solely to: 1) stagnant construction and real estate industry; 2) annual accumulated exchange loss allocation; 3) significant amount of EUR loan leads to exchange loss and notably high interest expense.

We forecast that cement consumption output of BCC in FY2015 pose a growth rate of 5.4% and that of 2016-2020 period will stand at 3.6-4.8% per year based on Vietnam cement consumption forecast of BMI. From 2021 onwards, output volume growth is estimated at 1.94% per year according to cement industry development plan of Construction Ministry.

## Investment prospects

- National cement consumption volume reverts back to its increasing trend after diminishing period (2010-2013) given that Government has boosted investment in infrastructure, FDI flow edges up and macroeconomic environment remains stable. National cement volume consumption accelerated at 11% YoY in the first 10 months of FY2014.
- The allocation of VND 349bn FX loss in the construction period of the 3<sup>rd</sup> production line will be completed this year. This expense remarkably affects the business result in 2009-2014

period, mathematically EBT is taken away approx. VND 58bn per year on average.

- EUR/VND exchange rate significantly decreases in 2014 and is forecasted to hardly recover in next 2 years amid sluggish European economy. Given total EUR loan of BCC was VND 1,865bn by 30<sup>th</sup> June 2014, we conservatively forecast that company will recognize VND 131bn EUR/VND FX gain in 2014.
- With 500,000 tonnes p.a. production capacity, yet Dai Viet (Quang Ngai) cement grinding plant was run at just 20% designed capacity in 2013. It is for certain that running at full capacity will enable company to level up market share in Central area in the years to come.
- BCC is paying EUR loan as scheduled. Interest-bearing debt gradually decreases coupled with low interest rate base are likely to drag down interest expense in upcoming years. Interest expense makes up a large portion of total company expense. In FY2013, the ratio of interest expense in net revenue is 7.4%. Total loan of BCC is estimated to climb down approx. VND 270bn per year that leads to the deduction of VND 13.7bn interest expense per year.

### Investment risks

- Cement supply in Northern is currently abundant, as such cement production companies have to partially consume in Southern market and export to other countries via VICEM. Nevertheless, these activities are not economically efficient due to non-competitive selling price and high transportation cost.
- Circular 06/VBHN-BGTVT regulating on load and road-size creates many difficulties for cement businesses since transportation cost climbs up. Selling expense of BCC in the first 9 months of FY2014 was VND 191bn, up VND 77bn with respect to the same period last year.
- Current financial leverage of BCC stands at high level (4.3x), leading to low liquidity ratios (quick ratio and current ratio are 0.25x and 0.43x respectively) and high principal plus interest expense payment pressure. Interest expense amounted at VND 173bn in the first 9 months of FY2014.
- EUR loan of BCC is fairly large at the moment and will be gradually paid until FY2018, thus, company has to bear the risk of exchange rate fluctuation. As of 30<sup>th</sup> June 2014, EUR loan of BCC totaled at VND 1,865bn, equivalent to EUR 64.6mil.

**Forecasted statistics for 2014-2020F**

Items	Unit	2013	2014F	2015F	2016F	2017F	2018F	2019F	2020F
Net revenue	bn	3,729	4,277	4,591	4,854	5,055	5,286	5,487	5,685
Gross profit	bn	709	885	1,002	1,093	1,139	1,191	1,236	1,281
NPAT	bn	(21.6)	134	254	303	324	377	414	452
EPS	VND	(226)	1,402	2,659	3,170	3,384	3,941	4,324	4,724
DPS	VND	0	0	0	500	1,000	1,000	1,500	1,500
DPS/EPS	%	n/a	0%	0%	15.8%	29.6%	25.4%	34.7%	31.8%
Revenue growth	%	6.0%	14.7%	7.3%	5.7%	4.1%	4.6%	3.8%	3.6%
Gross profit growth	%	(11.4%)	24.8%	13.3%	9.1%	4.2%	4.6%	3.8%	3.6%
Net profit growth	%	n/a	720.4%	89.7%	19.2%	6.8%	16.5%	9.7%	8.8%
Gross profit margin	%	19.0%	20.7%	21.8%	22.5%	22.5%	22.5%	22.5%	22.5%
Net profit margin	%	(0.6%)	3.1%	5.5%	6.2%	6.4%	7.1%	7.5%	7.9%
ROE	%	n/a	10.5%	16.4%	16.8%	15.9%	16.5%	16.2%	15.9%
ROA	%	n/a	2.3%	4.4%	5.4%	5.8%	6.9%	7.5%	7.8%
P/E (current price)	Time	n/a	9.8	5.2	4.4	4.1	3.5	3.2	2.9
P/B (current price)	Time	1.2	0.9	0.8	0.7	0.6	0.5	0.5	0.4

Source: FPTs

**FCFF valuation**

Assumptions	Value	Items	Unit	Value
WACC	9.6%	Estimated period	year	7
Cost of debt	7.7%	Total present value of cash flow	VND bn	4,888
Cost of equity	16.2%	(+) Cash and short-term investment	VND bn	210
Risk-free rate*	6.9%	(-) Short and long-term debts	VND bn	3,514
Market risk premium	5.0%	Equity value including minority interest	VND bn	1,585
Beta	1.0	Minority interest	VND bn	26.5
CAGR 2014-2020	4.9%	Investment in subsidiaries and affiliates	VND bn	0
Long-term growth	1.94%	Total equity value	VND bn	1,558
Long-term tax rate	20.0%	Outstanding share	VND mil	95.7
* 10-year Government bond yield		<b>12-month target price</b>	<b>VND/share</b>	<b>19.000</b>

Source: FPTs

We conservatively estimate growth rate of BCC in coming years, CAGR of 2014-2020 stands at 4.9% and long-term growth rate is 1.94% per year. As FCFF valuation, target price for FY2015 of BCC is VND **19.000** per share, up **38.7%** compared to current market price. As such, we recommend **BUY**ing for BCC share for medium and long-term investment horizon.

### EV/EBITDA Valuation

NAME	TICKER	COUNTRY	MARKET CAP (VND MIL)	REVENUE (VND MIL)	ROE (%)	EV/EBITDA T12M
<b>BIM SON CEMENT JSC</b>	<b>BCC VN Equity</b>	<b>Vietnam</b>	<b>1,310,561</b>	<b>3,728,692</b>	<b>n/a</b>	
TOKYO CEMENT CO LANKA PLC	TKYO SL Equity	SriLanka	3,135,330	4,681,898	26.2	3.6
SANGHI INDUSTRIES LTD	SNIG IN Equity	India	3,414,139	3,598,523	5.7	6.2
SAURASHTRA CEMENT LTD	SRC IN Equity	India	858,872	1,854,024	13.2	2.9
MANGALAM CEMENT LTD	MGC IN Equity	India	2,858,684	2,433,039	5.9	11.7
SAGAR CEMENTS LTD	SGC IN Equity	India	1,927,109	1,839,183	9.8	5.5
KCP LTD	KCPL IN Equity	India	2,618,262	3,637,311	6.5	8.6
RAMCO INDUSTRIES LTD	RAMCO IN Equity	India	2,403,450	2,843,834	n/a	11.4
MEGHNA CEMENT MILLS LTD	MEGHNA BD Equity	Bangladesh	789,301	1,686,194	19.7	8.9
CONFIDENCE CEMENT LTD	CONFID BD Equity	Bangladesh	1,343,511	937,039	13.3	9.5
M.I. CEMENT FACTORY LTD	MICM BD Equity	Bangladesh	3,104,365	1,784,489	12.1	13.6
GPH ISPAT LTD	GPH BD Equity	Bangladesh	1,655,063	1,394,783	14.4	8.1
PIONEER CEMENT LTD	PIOC PA Equity	Pakistan	3,359,499	1,649,054	29.4	4.1
DEWAN CEMENT LTD	DCL PA Equity	Pakistan	574,923	1,184,549	2.6	10.0
CHERAT CEMENT CO LTD	CHCC PA Equity	Pakistan	2,185,040	1,325,718	29.1	3.0
MAPLE LEAF CEMENT FACTORY	MLCF PA Equity	Pakistan	3,718,666	3,897,947	20.5	3.0
GHARIBWAL CEMENT LTD	GWLC PA Equity	Pakistan	1,422,408	1,756,422	16.6	3.9
ATTOCK CEMENT PAKISTAN LTD	ACPL PA Equity	Pakistan	4,122,382	2,578,401	27.4	5.9
DIAMOND BUILDING PRODUCTS PC	DRT TB Equity	Thailand	3,474,152	3,013,561	16.3	9.3
CHONBURI CONCRETE PRODUCT PC	CCP TB Equity	Thailand	2,328,540	1,775,341	43.8	9.3
QUALITY CONSTRUCTION PRODUCT	QCON TB Equity	Thailand	2,366,117	1,550,600	12.0	9.2
DCON PRODUCTS PCL	DCON TB Equity	Thailand	2,403,701	897,699	27.4	10.2
SEMEN BATURAJA PERSERO TBK P	SMBR IJ Equity	Indonesia	6,729,215	2,369,719	18.3	3.6
OKA CORP BHD	OKAC MK Equity	Malaysia	832,087	957,251	9.6	3.4
DONGWU CEMENT INTERNATIONAL	695 HK Equity	China	1,843,051	1,227,236	5.1	8.6
BUT SON CEMENT JSC	BTS VN Equity	Vietnam	763,393	2,870,362	n/a	6.1
HATIEN 1 CEMENT JSC	HT1 VN Equity	Vietnam	5,341,594	6,368,748	6.1	8.0
QUANG NINH CONSTRUCTION & CE	QNC VN Equity	Vietnam	147,065	1,258,904	3.5	7.5
VICEM HOANG MAI CEMENT JSC	HOM VN Equity	Vietnam	553,829	1,561,806	3.7	6.1
<b>AVERAGE EV/EBITDA</b>						<b>7.2</b>
EBITDA 2014 BCC (VND mil)						774,747
EV (VND mil)						5,564,942
Interest-bearing loans (VND mil)						3,513,517
Outstanding shares (mil share)						95.7
<b>PRICE (VND/share)</b>						<b>21,400</b>

Sources: Bloomberg, FPTs

Assessing the sample group of listed companies that have equivalent scale with BCC in terms of revenue and market capitalization, average EV/EBITDA is 7.2x. Therefore, **with EBITDA in FY2014 estimated at VND 774,7bn, reasonable price at year-end FY2014 followed EV/EBITDA method is VND 21.400 per share.** According to the valuation, market price has not fully and properly reflected fair value of BCC share.

## BUSINESS ACTIVITIES

### 35-year operation

4<sup>th</sup> March 1980, wet-technology Bim Son cement factory was founded with design capacity of 1.2 mil tonnes p.a.

22<sup>th</sup> December 1981, No. 1 line of the plant was put into operation, the very first P400 cement bags labeled "**elephant**" was officially commenced production.

08<sup>th</sup> December 1993, No.4 business supplies company merged with Bim Son Cement Plant, renamed to Bim Son Cement Company, the Company under the State Cement Corporation of Vietnam.

13<sup>th</sup> January 2001, starting the renovation project to modernize No.2 line of Bim Son Cement Plant, **transferring wet technology to dry technology**, increasing the capacity of the No. 2 furnace from 1,750 tonnes of clinker per day to 3,500 tonnes of clinker per day.

01<sup>st</sup> May 2006, Bim Son Cement company renamed to VICEM Bim Son Cement JSC.

24<sup>th</sup> November 2006, company was listed at Hanoi Stock Exchange.

January 2007, No.3 clinker kiln project with dry technology commenced construction with investment of VND 4,366bn worth. The furnace was put into operation in 2010.

### CRC – the only subsidiary starts earning profit in FY2014

BCC has one subsidiary named CRC Central cement JSC (BCC holds 76.8% ownership) with cement production and trading is the core activity. CRC is located in Dung Quat Economic Zone, Quang Ngai, owning Dai Viet mill with designed capacity of 500,000 tonnes p.a. Acquiring CRC is aligned with Central and Highlands market development strategy. After the construction period, on 05<sup>th</sup> January 2013, CRC officially transitioned to production business. CRC has achieved the following results in FY2013:

- Production volume: 103,962 tonnes
- Consumption volume: 101,775 tonnes
- Market share in Quang Ngai: 34-35%
- Coverage of Quang Ngai market: 76-80%

**CRC holds a great ambition for sales volume target in 2014 with 350,000 tonnes.** According to the consolidated financial statements of BCC in the first 9 months of 2014, minority interest value reached VND 335mil, thus, estimated profit of CRC in the first 9 months of 2014 reached VND 1.4bn.



#### CRC business performance

Items	FY2013 (VND mil)
Total asset	335,665
Net revenue	27,197
Operating profit	(26,555)
EBT	(26,320)
NPAT	(26,320)

Source: BCC annual report

*Market share edges down in the North whilst edges up in the Central*

### **The 2<sup>nd</sup> largest entity of VICEM in terms of consumption output**

BCC has consumption output ranked 2<sup>nd</sup> in VICEM, right after HT1 and 4<sup>th</sup> nationwide (accounted for 6.3% market share domestically), after HT1, Holcim and Nghi Son.

**Market share in Northern region is declining.** The company sales made up approx. 10% market share in Northern region, after Chinfon, But Son and Hoang Thach. First 9 months of 2014, company's share in this area down to about 8%. We believe that the market share in this market edged down mainly due to a decrease in Hanoi market resulting from Circular 06/VBHN-BGTVT regulated on load and road-size that leads to the increase of transportation cost (distance from the BCC mill to Hanoi is about 130km).

**Top 3 leading companies in Central area.** Bim Son, Nghi Son and Hoang Mai are now 3 leading companies in terms of market share in Central area. BCC accounts for approx. 11% market share and sales volume reached about 110,000 - 120,000 tonnes per month, ranked 2<sup>nd</sup> after Hoang Mai Cement.

Consumption volume in Southern market is negligible.

### **High quality material sources**

*Limestone of BCC has high quality and sufficient reserve for more than 50-year production.*

Regarding limestone, BCC currently owns Yen Duyen limestone quarry, located in the territory of Ha Trung district, 2.6 km away from company's plants. Bim Son holds mining right of 83.7 ha area (this mine has reserves of 3,000mil tonnes with an area of 1,000 ha).

In regards to clay, BCC currently owns Tam Dien mine with 240mil tonnes of reserve, mining area of 200 ha and Co Dam mine with reserves of 60mil tonnes and area of 200 ha.

Just like other members of VICEM, BCC buy coal from VICEM Materials Transport Cement JSC (VTV) with current price of about VND 2.5mil per tonne. The prevalent-used types are 4A, 4B and 3C with energy consumption of about 830 Kcl per tonne of clinker.

Average price of electricity is around VND 1,300 – 1,400 per kwh with electricity consumption of 63 kwh per tonne of clinker. As such, the cost of electricity to produce one tonne of clinker is approx. VND 85,000.

### **Capacity of clinker tanks and cement grinding**

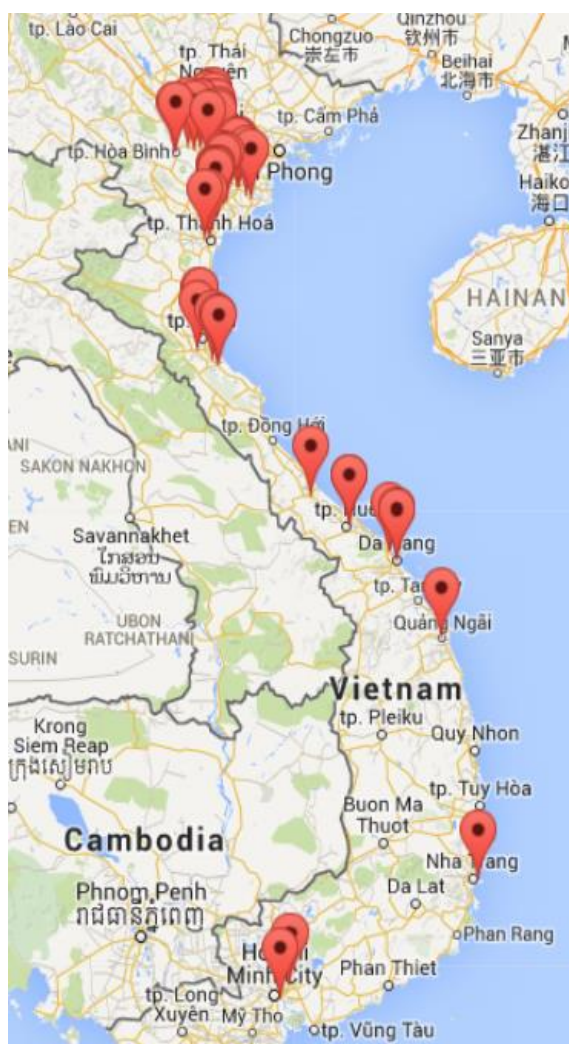
In March 1994, the renovation project to modernize No.2 line of Bim Son Cement Factory was approved, switching wet technology into modern dry technology. The project was started on 13<sup>th</sup> January 2001 by the Japanese company named IHI, increasing the capacity of the No. 2 furnace from 1,750 tonnes of clinker per day to 3,500



tonnes of clinker per day (equivalent to 1.1mil tonnes p.a.). Additionally, BCC also owns 3 furnaces with the capacity of about 2.0mil tonnes of clinker p.a. The project was started in January 2007 and commenced operation in 2010 with investment worth VND 4,366bn. **Total clinker production capacity of BCC reaches 3.1mil tonnes p.a.**

Capacity of cement grinding in Thanh Hoa plant was about 3.25mil tonnes p.a. In 2013, with the acquisition of Central cement company, BCC possesses and operates Dai Viet grinding plant that was seen at determinant of the Central and Highlands market expansion plan. Cement grinding capacity of Dai Viet plant is 500,000 tonnes p.a. Furthermore, BCC also owns cement grinding plant in Quang Tri with capacity of 250,000 tonnes p.a., in charge of supplying for Quang Tri, Quang Binh and Hue areas. As such, **Total cement grinding capacity of BCC totaled about 4.0mil tonnes p.a.**

**Distributor map**



### Consumption market shifts to Central area

Regarding domestic market, major areas are Thanh Hoa, Ha Tinh, Ha Noi, Nam Dinh and Nghe An; in which, **Thanh Hoa is the largest market of BCC**. Cement sales volume in this market in 2013 amounted to 916.6 thousand tonnes, making up 30.6% of total consumption. The main competitors of BCC in Thanh Hoa are Nghi Son and The Vissai Ninh Binh. Important characteristic of cement consumption is localization given the high transportation cost and partly because of the division of VICEM. The cement businesses mainly consume in their local and neighboring provinces. According to data of the Department of Statistics in 2013, Thanh Hoa province was the 3<sup>rd</sup> largest entity in terms of population of Vietnam; so this is a great opportunity for BCC, the leading cement producers in this market. Ha Tinh and Nghe An are 2 markets with highest growth rate. This reflects the shift towards consumer markets in the Central area of the company.

According to our estimates, the market size of Quang Ngai and Quang Nam in accordance with population are about 600,000 tonnes p.a. and 700,000 tonnes p.a. respectively. Sales volume of company in Quang Ngai in 2013 totaled at 91,500 tonnes. Given this is the first year Dai Viet plant was put into operation, therefore, we expect sales volume of the company in these two markets will increase notably starting from 2014 because current market share of the company in Quang Ngai is only 15% and BCC almost not consumed in Quang Nam.

**Sales volume by market**

Market	Sales volume BCC 2012 (tonnes)	Sales volume BCC 2013 (tonnes)	+/- YoY	Market share BCC 2013	Population 2013 (mil people)	Estimated consumption (thousand tonnes)
<b>Total</b>					<b>89.709</b>	<b>46.045</b>
Ha Noi	471.203	464.767	-1,4%	23%*	6.937	3.561
Nam Dinh	377.357	398.915	5,7%	41%	1.840	0.944
<b>Thanh Hoa</b>	<b>784.837</b>	<b>916.591</b>	<b>16,8%</b>	<b>50%</b>	<b>3.477</b>	<b>1.785</b>
Nghe An	116.453	226.870	94,8%	15%*	2.979	1.529
Ha Tinh	242.083	482.123	99,2%	13%	1.243	0.638
Quang Binh	48.072	94.326	96,2%	27%	863	0.443
Quang Tri	130.943	139.893	6,8%	48%	613	0.315
Hue	48.311	49.173	1,8%	15%	1.124	0.577
Quang Ngai		91.598		15%*	1.236	0.634

(\*): Adjusted number by FPTs

Sources: BCC 2013 annual report, FPTs

**PCB30 price by market (VND billion/tonne)**

Brand	Thanh Hoa	Ha Noi	Nam Dinh	Thai Binh	Ninh Binh	Nghe An	Da Nang
<b>Bim Son</b>	<b>1,330</b>	<b>1,380</b>	<b>1,300</b>	<b>1,320</b>	<b>1,220</b>	<b>1,350</b>	<b>1,554*</b>
VLXD Bim Son	<b>1,070</b>	n/a	n/a	n/a	n/a	n/a	n/a
Nghi Son	<b>1,340*</b>	<b>1,430*</b>	n/a	n/a	n/a	n/a	<b>1,540</b>
Hoang Mai	<b>1,280</b>	n/a	n/a	n/a	n/a	<b>1,360*</b>	<b>1,490*</b>
Tam Diep	<b>1,250</b>	<b>1,350</b>	n/a	n/a	<b>1,250</b>	n/a	n/a
Chinfon	n/a	<b>1,350</b>	<b>1,310</b>	<b>1,300</b>	n/a	n/a	<b>1,425</b>
Phuc Son	n/a	<b>1,290</b>	<b>1,240</b>	<b>1,250</b>	n/a	n/a	<b>1,385</b>
Hoang Thach	n/a	<b>1,500</b>	<b>1,380</b>	n/a	n/a	n/a	<b>1,550*</b>
But Son	n/a	<b>1,360</b>	<b>1,280</b>	<b>1,300</b>	n/a	n/a	n/a
Cam Pha	n/a	<b>1,300</b>	<b>1,250</b>	<b>1,280</b>	n/a	n/a	n/a
Thang Long	n/a	<b>1,350*</b>	n/a	<b>1,300</b>	n/a	n/a	n/a
He Duong	n/a	n/a	n/a	n/a	<b>970</b>	n/a	n/a
Cau Yen	n/a	n/a	n/a	n/a	<b>900</b>	n/a	n/a
Kien Khe	n/a	n/a	n/a	n/a	<b>950</b>	n/a	n/a
12/9	n/a	n/a	n/a	n/a	n/a	<b>900</b>	n/a
Cau Duoc	n/a	n/a	n/a	n/a	n/a	<b>850</b>	n/a
Hai Van	n/a	n/a	n/a	n/a	n/a	n/a	<b>1,300</b>
Luks VN	n/a	n/a	n/a	n/a	n/a	n/a	<b>1,400*</b>

\* PCB40 price

Source: VNCA

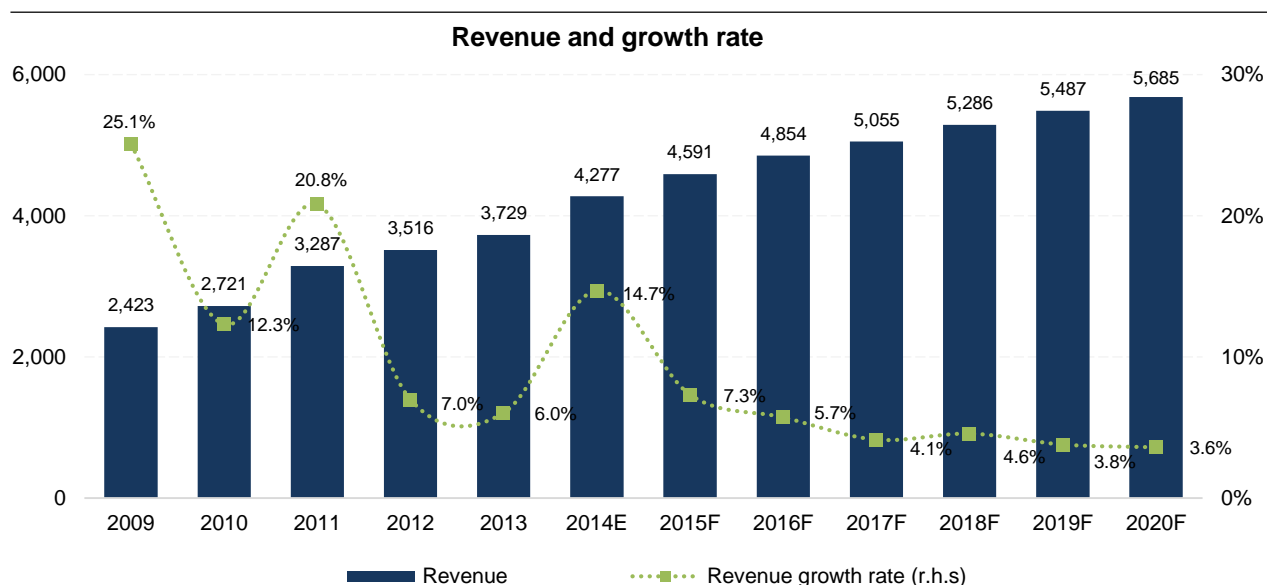


### BCC cement prices higher than the average level

Listed retail prices of Bim Son cement is usually higher than other businesses given its strong brand. According to our statistics, the listed retail price of Bim Son unchanged in the past 2 years. Nevertheless, the selling price at factory in the first 15 days of October 2014 rose VND 20,000-50,000 per tonne (including 10% VAT) along with market price increase. Based on data from the annual financial statements, the average selling price of cement at BCC factory is approx. VND 1,300,000 per tonne in 2012 and VND 990,000 per tonne in 2013 respectively.

## FINANCIAL ANALYSIS AND FORECAST

### Forecasted growth rate is humble



Source: FPTs

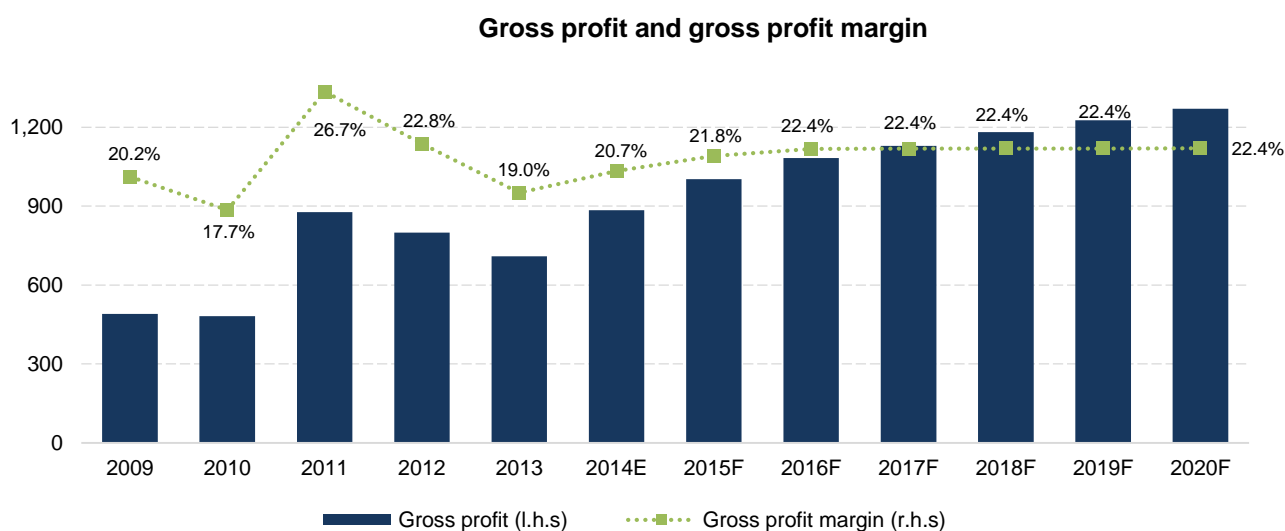
Revenue in 2014 increased over the same period due to the weighty increase in sales volume given easing public investment policy of the government and the improved real estate market. In October 2013, selling price edged up also helps drive sales and gross profit margin. We cautiously project BCC revenue growth in the coming years. In FY2015, the growth rate of sales volume is projected at 5.4%. In October 2014, selling price rose VND 20,000-50,000 per tonne of cement to partially offset the increased cost of transportation; therefore, in 2015, we project revenue growth of 7.3%. Over the period of 2016-2020, the growth rate of cement consumption is estimated at 3.6-4.8% per year based on BMI forecasts (compared data against other entities such as the Ministry of Construction, FICEM).

From 2021 onwards, BCC cement consumption is forecasted to increase by 1.94% per year based on cement industry development plan of Construction Ministry (compared against forecasts about Vietnam construction value growth of BMI).

Entity	Items	2014E	2015F	2016F	2017F	2018F	2019F	2020F
BMI	Vietnam cement consumption	5,7%	5,4%	4,8%	4,2%	4,6%	3,8%	3,6%
Ministry of Construction	CAGR of cement demand	8,5%	4,5%	4,5%	4,5%	4,5%	4,5%	4,5%
FICEM	Global cement consumption	4,8%	3,7%	3,6%	3,0%			
	Cement consumption of developed countries	2,2%	3,2%	2,7%	2,8%			
	China	4,5%	3,0%	3,0%	2,0%			
	Emerging markets (exclude China)	6,2%	5,1%	5,0%	4,9%			

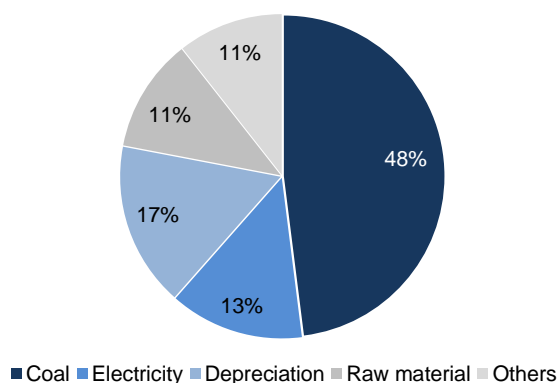
Source: FPTPS

### Gross profit margin fluctuated widely over the past years and is staying at low level



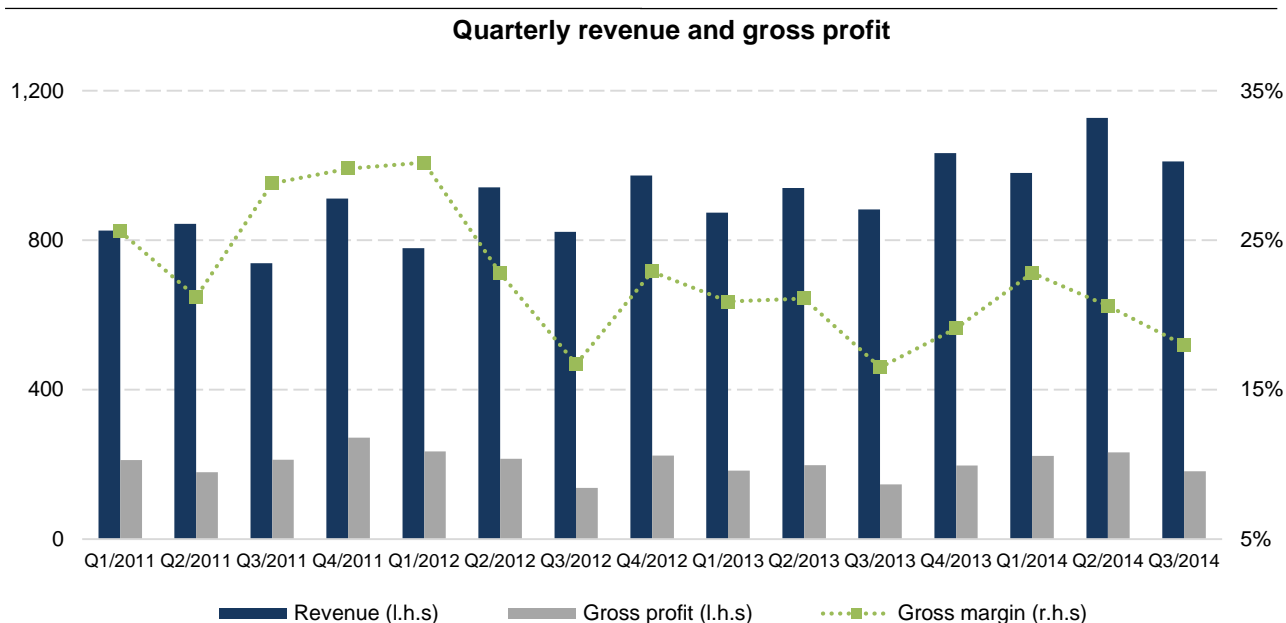
Source: FPTPS

### Clinker production cost structure



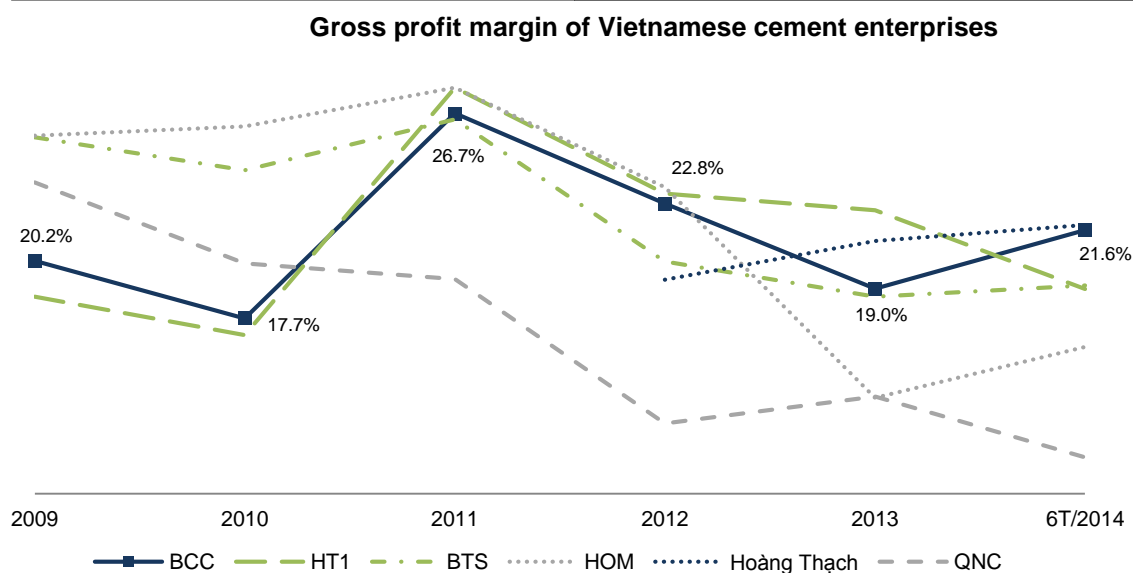
Source: FPTPS

In clinker cost structure of BCC, the percentage of coal, electricity, depreciation and materials are 48%, 13.5%, 16.5 and 11.4% respectively. Regarding depreciation, during projection period of 2014 – 2020, No.2 and No.3 clinker kilns have not been fully depreciated yet, therefore, depreciation has not been reduced in this period. However, as volume increases, depreciation per unit will decrease correspondingly. Since the rate of change on coal price and electricity price (the most important cost in clinker production) is not clearly defined and cement companies are more likely to propose increasing price to offset increased initial costs, we assume gross profit margin remained unchanged and forecasted at 22.4%.



Source: BCTC BCC

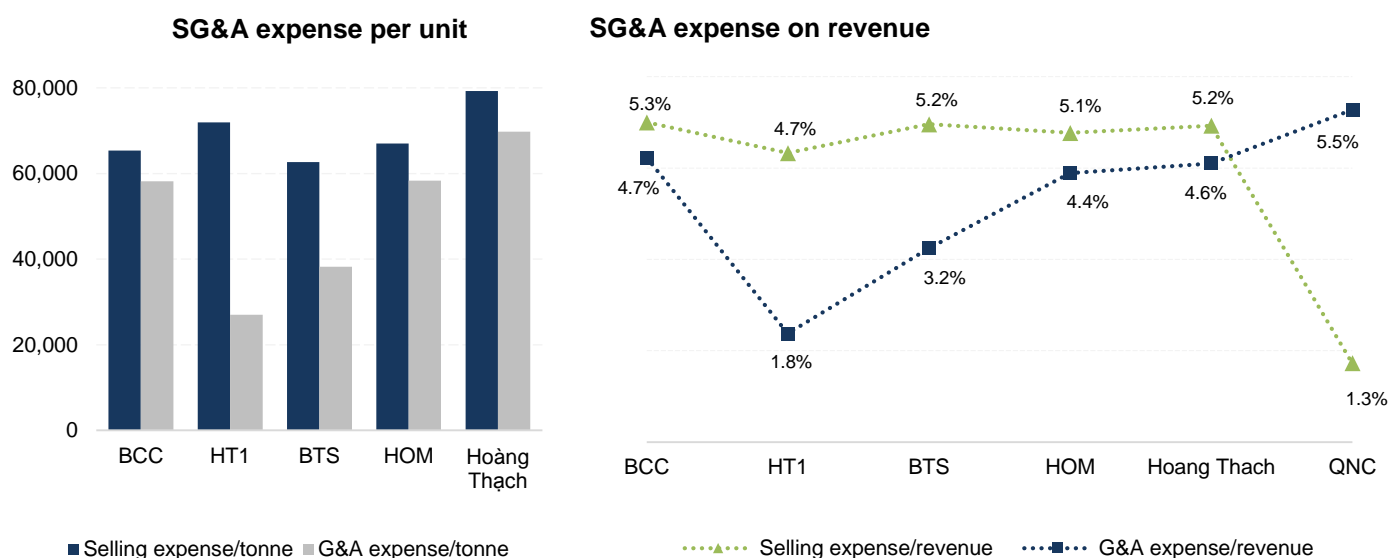
Cement consumption has seasonal characteristics due to reliance on construction industry demand. Quarter 2 and quarter 4 yearly are peak time of construction activities given that it is not rainy season, **cement consumption in these two quarters is usually higher than that in quarter 1 and quarter 3**. Every year, gross profit margin in quarter 3 usually stays at the lowest level because in this off-peak period, cement companies have to use discount to accelerate their product's flux. Besides, clinker kilns will be stopped for maintenance from 1 to 2 times annually. Quarter 3 is the off-peak season, thus cement companies usually choose this time for maintenance. Since repair and maintenance expenses are recurring costs, followed by accounting principles, recognizing these costs as COGS reduces gross margin in quarter 3.



Source: FPT S

Gross profit margin of cement companies reached a very high level in 2011 and then fell down in 2012 and 2013 due to the difficulties of real-estate market. This leads to the diminishing of construction activities and drags to the low demand for cement consumption (in 2012, total cement consumption reduced 8.0% compared with the one in 2011). In 2014, there is likelihood that gross profit margin of companies will revert back. Since **gross profit margin is positive correlated to volume of production**, those companies with larger production volume such as HT1, BCC, Hoang Thach are more likely to gain higher gross profit margin, compared with those companies with smaller production volume such as HOM, QNC. Gross profit margin of BCC in first 9 months of 2014 is 20.4%, marking an increase compared with 19.6% in 2013. In 2014, gross profit margin is estimated at 20.7%.

### Relatively high selling expenses ratio and administrative expenses ratio



Source: FPTs

Selling expense on revenue ratio of Bim Son in 2013 is 5.3%, slightly higher than other businesses within industry. Selling expenses per 1 tonne of product are about VND 65,000 which is relatively lower than other cement businesses. In 2014, we forecast selling expenses ratio at 5.72% (+0.5% YoY) due to the rise of transportation costs. Projection over 2015 – 2016 is conservatively suggested at 5.97%.

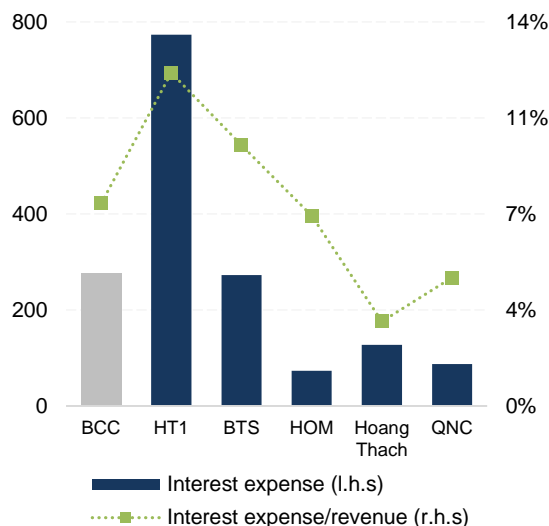
Administrative expense on revenue ratio and administrative per tonne of product are both higher than industry average. During period of 2014 – 2020, we forecast administrative expense on revenue ratio at 4.1%, equivalent to average figure over the past 4 years.

## Finance expenses reduce dramatically in coming years

BCC financial expenses are incurred in 3 main areas: Interest expenses, annual foreign exchange gain/loss, and annual accumulated exchange loss allocation in construction period of the No.3 production line.

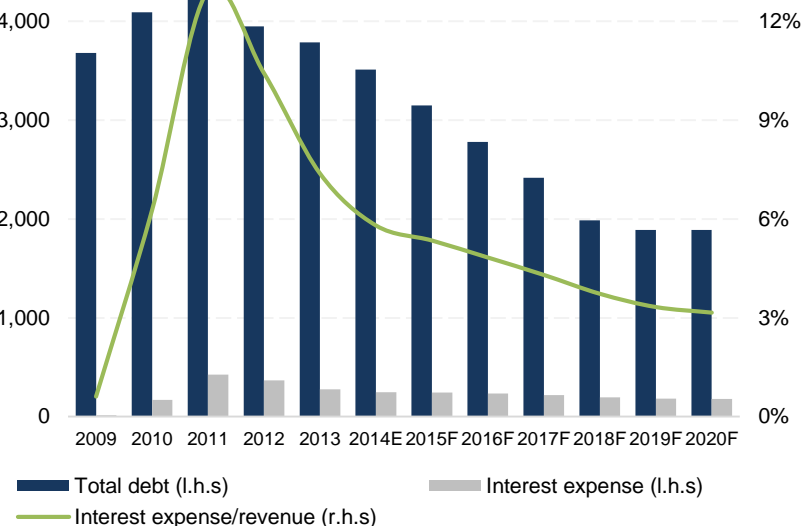
### 1) Interest expense

Interest expense of cement companies



Source: FPTs compiles

Interest expense of BCC, 2009-2020F



Source: FPTs forecasts

**There has been decreased trend in companies' interest expense since 2011.** In first 9 months of FY2014, interest expense was VND 174.4bn, making a fall of VND 32.8bn year over year. Because of large debt nature, BCC business achievement as well as other Vietnamese cement companies' is strongly affected by exchange rate movement. Different companies have different interest coverage ratio, the one of BCC is about industry average. In 2014, the company's interest expense was estimated at VND 248bn, with correspondent estimated interest coverage ratio of 5.8%. BCC has high debt level, as of June 20<sup>th</sup> 2014, total liabilities (both short term and long term) are VND 3613bn, in which foreign currency liabilities are VND 1865bn. As our calculation, interest rate for VND short-term loan is 9.8% per annum and the one for VND long-term loan and EUR long-term loan are 10.6% and 3.7% per annum respectively.

### 2) Annual foreign exchange gain/loss

Annual foreign exchange gain/loss comes from long-term debt at Vietinbank. As of June 30<sup>th</sup> 2014, EUR long-term debt and matured EUR long-term debt were VND 1,345bn and VND 516bn, respectively, translating to EUR 46.6mil and EUR 18mil. Principal

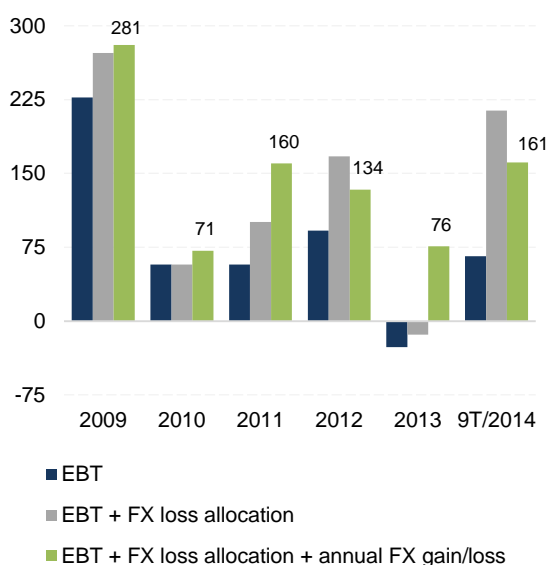


debt has been paid by 17 consecutive semi-annually equal payment on original payment due date and interest has been paid quarterly. Thus, as estimated, in coming years, BCC will have to pay around EUR 12mil annually and complete debt repayment in 2018. During period of 2009 – 2013, since EUR/VND rate increased continuously, each year, the company recognized FX loss (both realized and unrealized) to finance expenses, making EBT decreased VND 27.5bn per year on average.

**As estimated, in 2014, BCC got a foreign exchange gain of VND 131bn (both realized and unrealized) given that EUR/VND rate decreases at 7.5%.** According to forecasts from Credit Suisse, Standard Chartered and JP Morgan, EUR/VND will slightly fluctuate in coming years since European Economy need time to recover.

### 3) Accumulated exchange loss allocation

During the construction of No.3 production line in Bim Son Cement Factory, the company incurred a loss of accumulated exchange differences, the amount counted to completion date of construction is VND 348.8bn. This loss has been allocated to finance expenses from 2009 to present.



Source: FPTS

Allocation to financial expense	Value (VND mil)
2009	45,000
2011	43,371
2012	75,600
2013	12,596
First 9 months of 2014	147,846
<b>Retained value allocate into next periods</b>	<b>24,366</b>

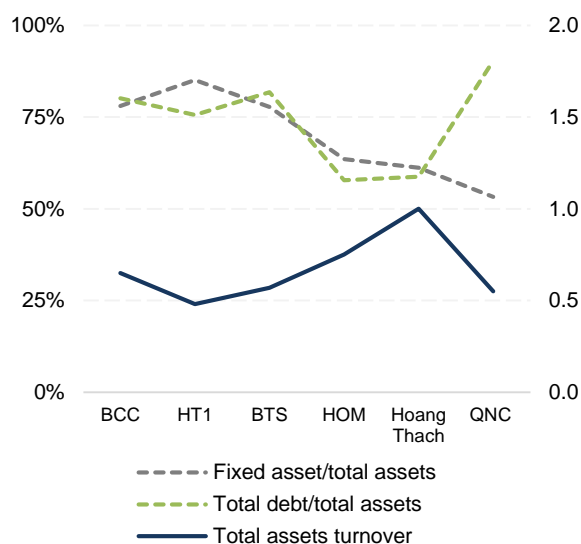
During first 9 months of 2014, Bim Son allocated VND 147.8bn. Therefore, as of September 09th 2014, the company still has VND 24.4bn left of loss of exchange differences which is needed to allocate to following financial period. This is one objective reason why company profit has been affected over the past 5 years. It is alleged that the company will allocate the remaining loss of VND 24.4bn to quarter 4 this year, following that, allocation to upcoming years will be stopped. This is why business performance in next few years will considerably increase.

### Capital structure with the tendency of liabilities proportion reduces

**Cement industry possesses the properties of large asset (mainly non-current asset) and high debt ratio.** BCC is a typical

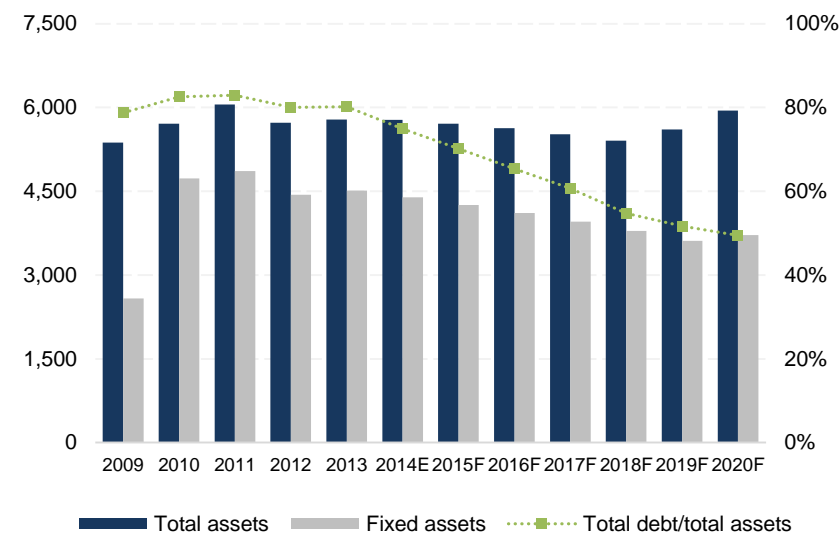
representative for this feature. In 2013, asset turnover only reached 0.65 (1 currency unit of asset generate 1 currency unit of revenues). Non-current asset accounts for up to 78% total asset. Clinker kiln construction cost is usually big, thus, non-current asset value takes a big proportion in total asset structure. For instance, the cost of building clinker with capacity of 6,000 ton per day is about VND 4,000 - 4,500bn. BCC has high debt ratio of 80%. This creates burden on interest expenses and EUR debt accounting for 45.5% total liabilities, resulting to risks about foreign exchange loss when VND is depreciated against EUR.

### Capital structure of cement companies



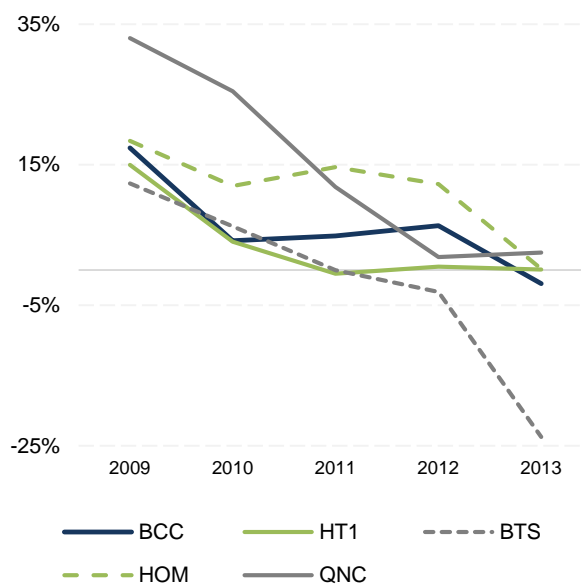
Source: FPTs compiles

### Capital structure of BCC



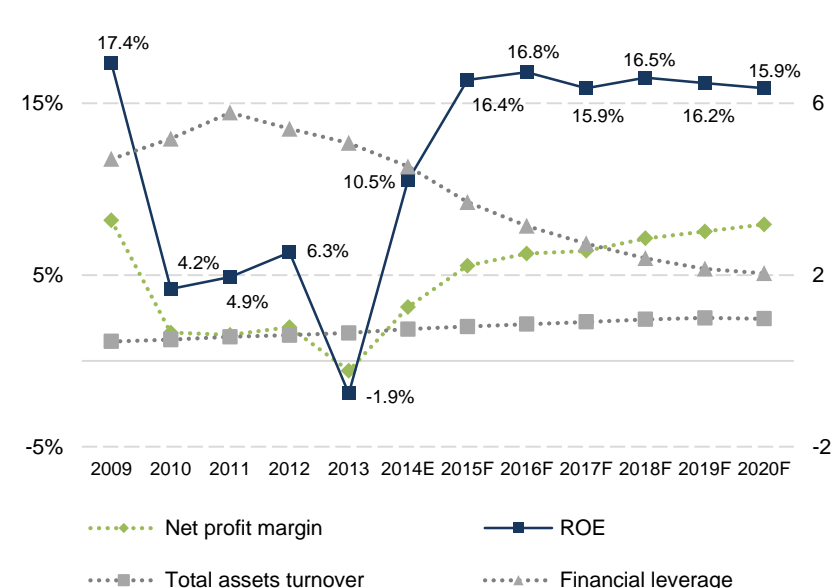
Source: FPTs forecasts

### ROE of cement companies



Source: FPTs

### ROE DUPONT BCC, 2009 – 2020F

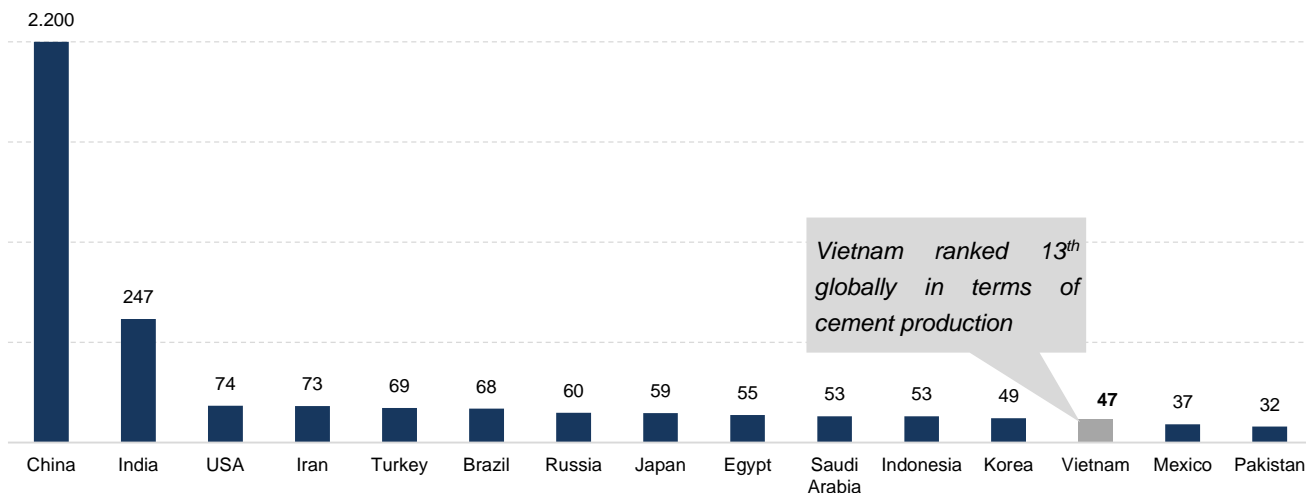


Source: FPTs

## VIETNAM AND GLOBAL CEMENT INDUSTRY

### China plays a vital role in global cement industry

#### Top cement producers (million tonnes)

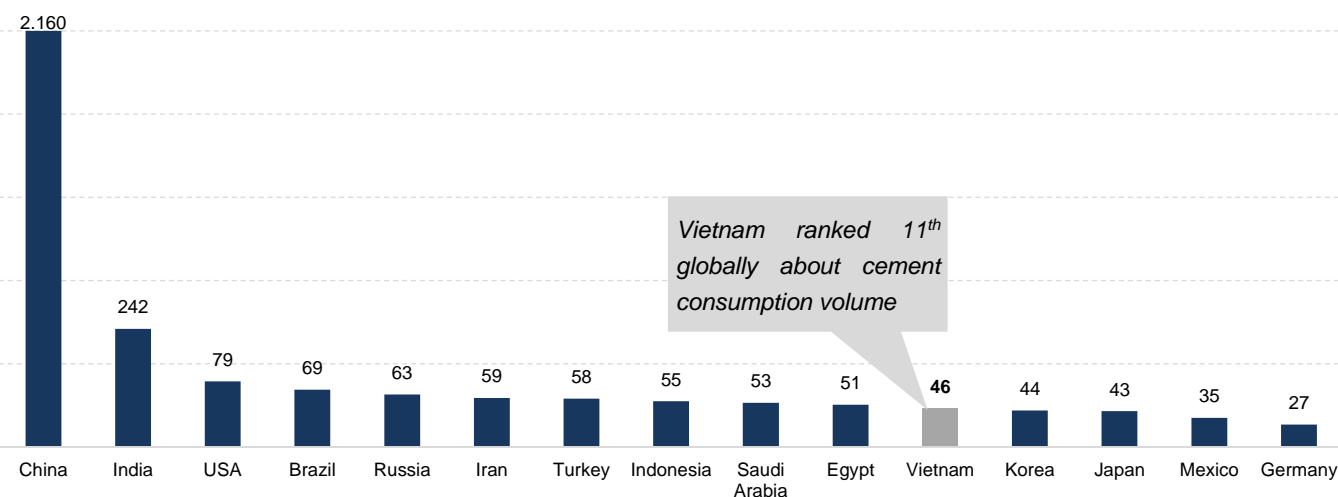


Sources: FICEM, FPTIS

Worldwide cement industry is dominated entirely by China, the country has huge production difference compared with the rest of the world. Annually, production output of China reach 2,200mil tonnes, 9 times higher than the next follower which is India and 45 times higher than Vietnam's. Vietnam cement production ranked 13<sup>th</sup> in the world with result of 49mil tonnes in 2013. Indonesia is the biggest cement producers in South East Asia.

### China accounts for 58% cement consumption globally

#### Top cement consumers (million tonnes)



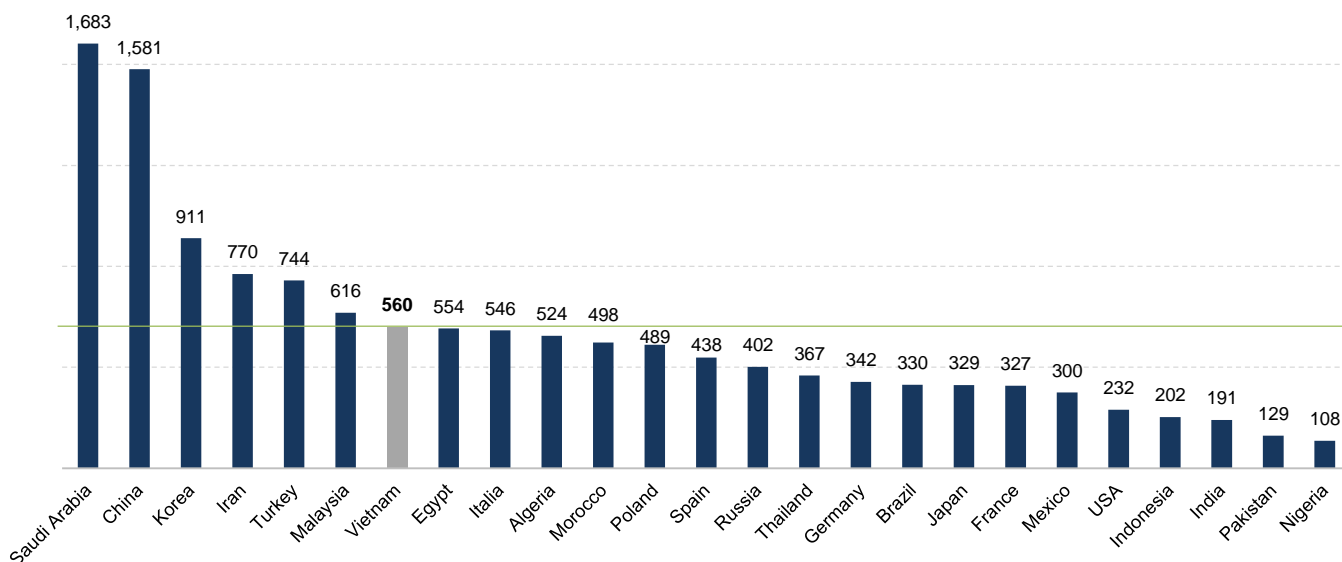
Sources: FICEM, FPTIS

China leads all other nations in cement consumption, accounting for 58% globally. In 2002, Vietnam ranked 18<sup>th</sup> in the list of global cement consuming countries, till 2012, Vietnam move to 11<sup>th</sup>

position. This proves faster growth rate of Vietnam in terms of cement consumption compared with many other countries over the past 10 years. According to VNCA statistics, Vietnam cement consumption amounted to 46mil tonnes in 2013.

### **Vietnam has relatively high cement consumption per capita compared with other countries**

**Cement consumption per capita (kg)**

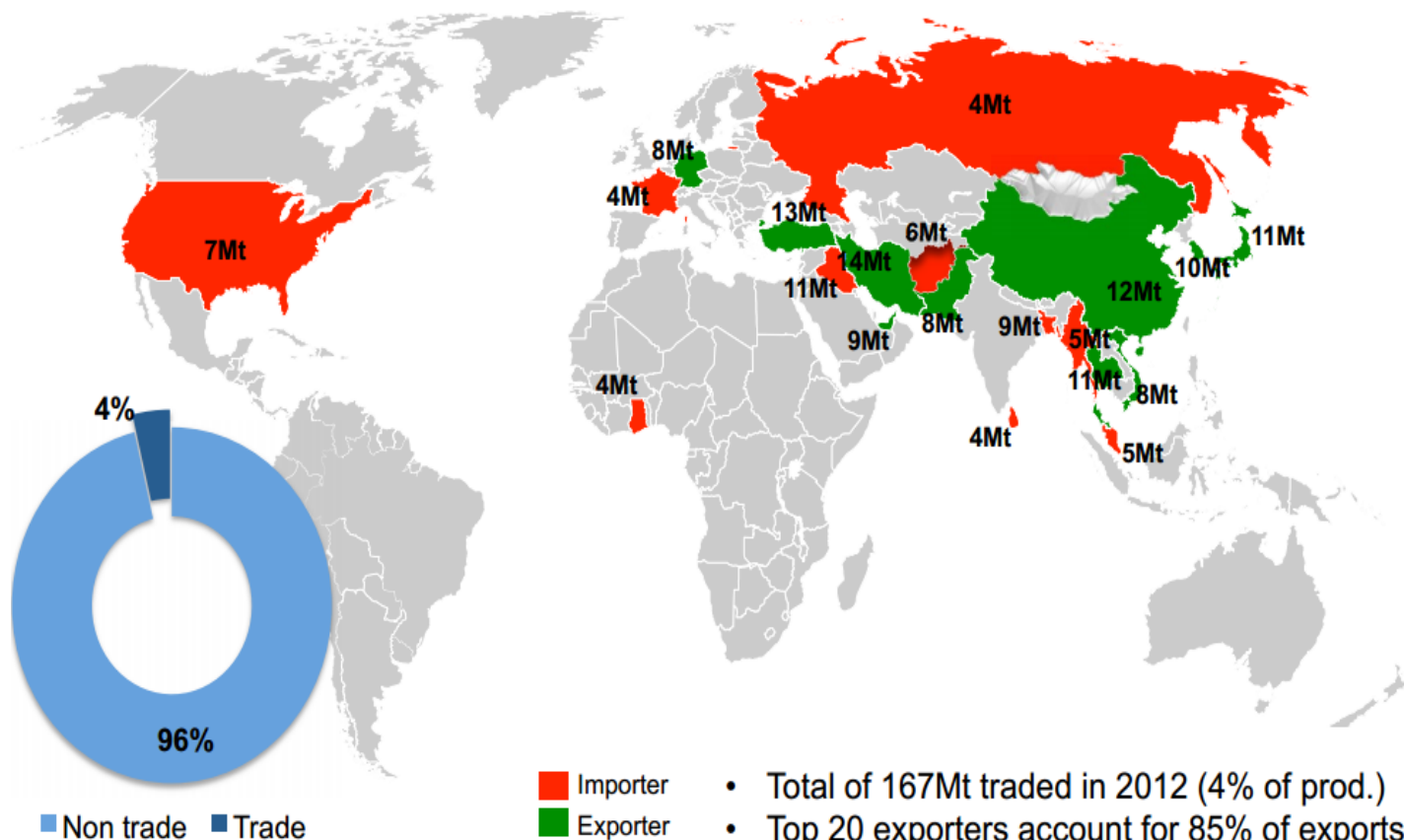


Sources: FICEM, FPTS

Vietnam has cement consumption per capita rating number 7 in the world with 560 kg per annum. Compared with other countries within SEA region, Vietnam's ranking is lower than Malaysia's and much higher than the remaining countries'. Saudi Arabia is the country with highest cement consumption per capita in the world, around 3 times the one of Vietnam.

### **Small commercial value of cement among nations**

Another characteristic of cement industry is not-so-high commercial values between countries due to high transportation cost compared with production cost. Therefore, countries are more likely to produce cement to meet domestic demand, only. In the market where direction and planning are not good as Vietnam, continuous operation of factories (only two breaks annually for maintenance) leads to oversupply for domestic demand and then creates pressure for export.

**Top 10 exporters and importers (2012)**


Sources: FICEM, FPTs

**Cement consumption of 3 groups is not much different**

Vietnam cement market has three main groups of players, VICEM, joint venture and other private and associate producers.

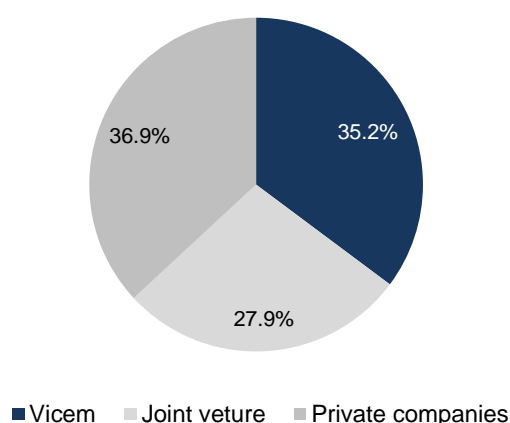
Entities	2012	2013	9M/2014
<b>Cement consumption in domestic market</b>	<b>45,158,472</b>	<b>46,045,451</b>	<b>37,032,598</b>
<b>A VICEM</b>	<b>15,252,000</b>	<b>16,267,667</b>	<b>13,019,970</b>
1 Hai Phong	1,197,000	1,187,648	844,035
2 Bim Son	2,455,000	2,994,411	2,307,325
3 Hoang Thach	2,782,000	2,711,634	1,895,291
4 But Son	2,073,000	2,390,194	1,596,390
5 Ha Tien	3,968,000	4,200,114	3,267,485
6 Hoang Mai	1,329,000	1,183,097	1,222,071
7 Tam Diep	943,000	909,450	587,644
<b>B Joint venture</b>	<b>13,262,020</b>	<b>12,667,284</b>	<b>10,327,628</b>
1 Nghi Son	3,692,871	3,790,011	2,786,276
2 Chinfon	2,814,422	2,774,618	2,017,403
3 Holcim	3,195,000	3,083,000	4,466,000
4 Luks(Vietnam)	1,224,652	1,173,912	950,509



5	Lafarge	519,489	555,160	408,560
6	Phuc Son	1,815,586	1,290,583	962,032
<b>C</b>	<b>Private companies</b>	<b>16,860,020</b>	<b>17,110,500</b>	<b>13,685,000</b>
<b>Export</b>			<b>15,136,599</b>	<b>15,403,000</b>
	Cement		5,327,558	
	Clinker		9,809,041	

Source: VNCA

### Sales volume of 3 business categories



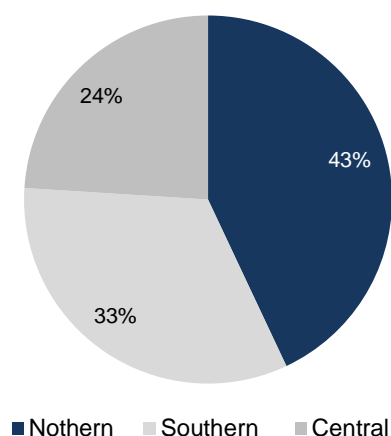
Source: FPT S

VICEM has totally 8 members: Hai Phong, Hoang Mai, Ha Tien, Bim Son, Hoang Thach, But Son, Hai Van and Tam Diep. Five members have finished equitization and start to operate under model of joint stock companies. As planned, parent company VICEM and 3 remaining ones will be equitized in quarter 4, 2015. **Companies in VICEM group account for about 35.2% cement consumption in Vietnam.**

### Surplus supply in the North and shortage supply in the South

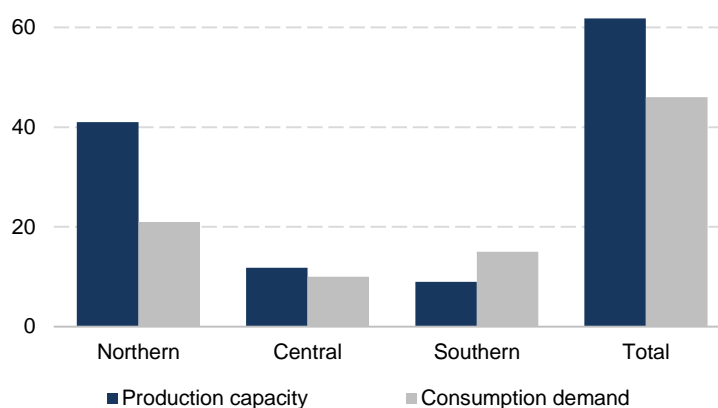
Cement is consumed the most in the North (from Thanh Hoa to the North), accounting for 43% national cement consumption. **Almost clinker kiln locate in the North at which, there are many limestone mines and clays. This creates surplus supply in the North and shortage of supply in the South.** An amount of clinker is then required to move from the North to the South, leading to the rise of price. This is the important reason accelerating selling price in the South.

### Cement consumption of 3 regions



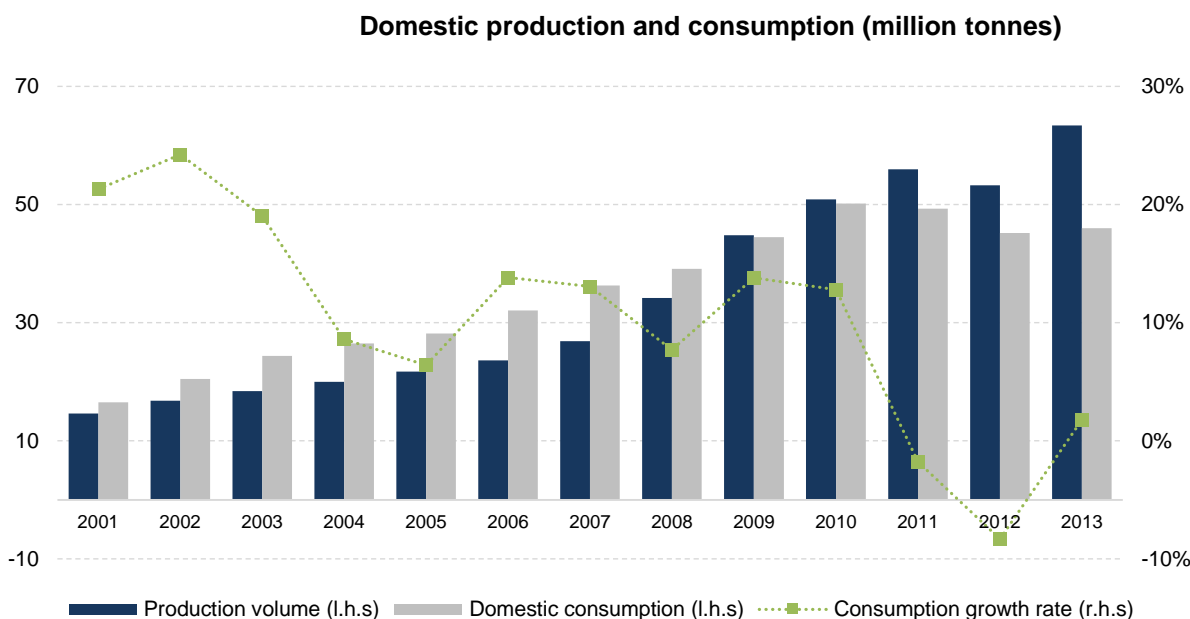
Source: FPT S compiles

### Production and consumption of 3 regions (mil tonnes)



Source: FPT S estimates

## Cement consumption has reverted back to increasing trend after stagnation period of 2010-2013



*Source: FPTTS*

Inconsistency between continuously increasing cement producing capacity and consumption growth rate over the years leads to surplus supply of cement at the moment. Before 2009, supply still did not meet demand. However, **from 2009, cement supply started to exceed the demand since many new projects were built and put into operation**. Besides, the diminishing of real-estate and construction market from 2011 lowered cement demand. This ultimately widens the gap between supply and demand. Currently, quantities supplied are more than quantities demanded at about 15mil tonnes, therefore, companies have to export an amount of clinker and cement to foreign market. This activity is economically inefficiency due to low export price and high transportation cost compared with producing cost.

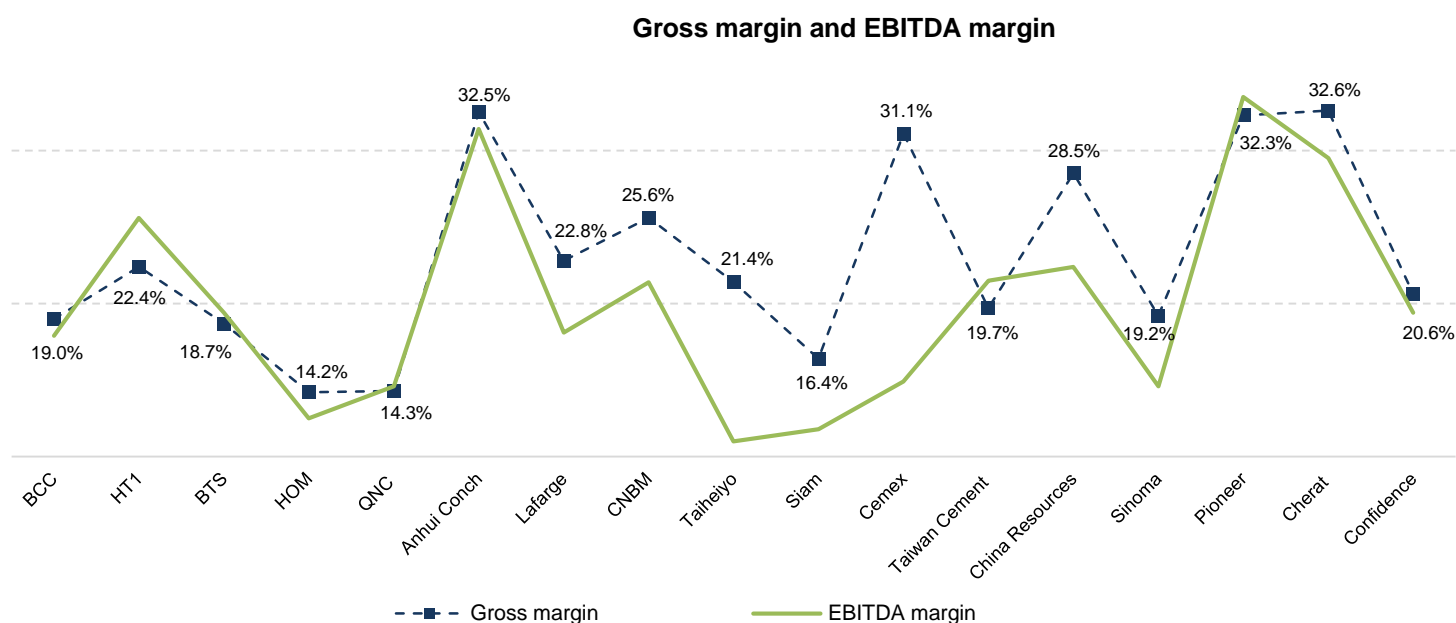
### Selling prices are different between brands, higher price in the South compared with the one in the North

Cement selling price is defined by Circular No 06 – TT/LB. Accordingly, retail price of PC30 cement in the market is set by Government Pricing Committee based on pricing scheme proposed by VICEM and consensus from Ministry of Construction. The main markets are defined as Hanoi, Ho Chi Minh City, Da Nang and Can Tho. Retail prices may differ from the standard retail price of 10% amplitude. Prices in other markets are applied by VICEM or other cement manufacturers, but should ensure that the price of cement in the remote, mountainous areas are not largely different from current market price.

Nevertheless, in practice companies have various such promotion policies as discount, bag gift, board sponsor, etc. Thus, the listed and actual prices may apparently different.

Cement prices of entities in the same area are largely different. **Selling prices in the South is usually higher than in the North with about VND 300,000 - 400,000 per tonne.** Retail price in October 2014 inched up slightly compared to previous month (about VND 20,000 - 50,000 per tonne). In particular, prevalent price range in the North and Central is from VND 1.05 -1.55mil per tonne; while in the southern area, popular price is from VND 1.46 - 1.85mil per tonne. The highest price nationally is in Gia Lai, Daklak and Kontum region. Export price of cement and clinker in the first half of October 2014 is about USD 54.5 - 55 per tonne and USD 38.2 - 39 per tonne.

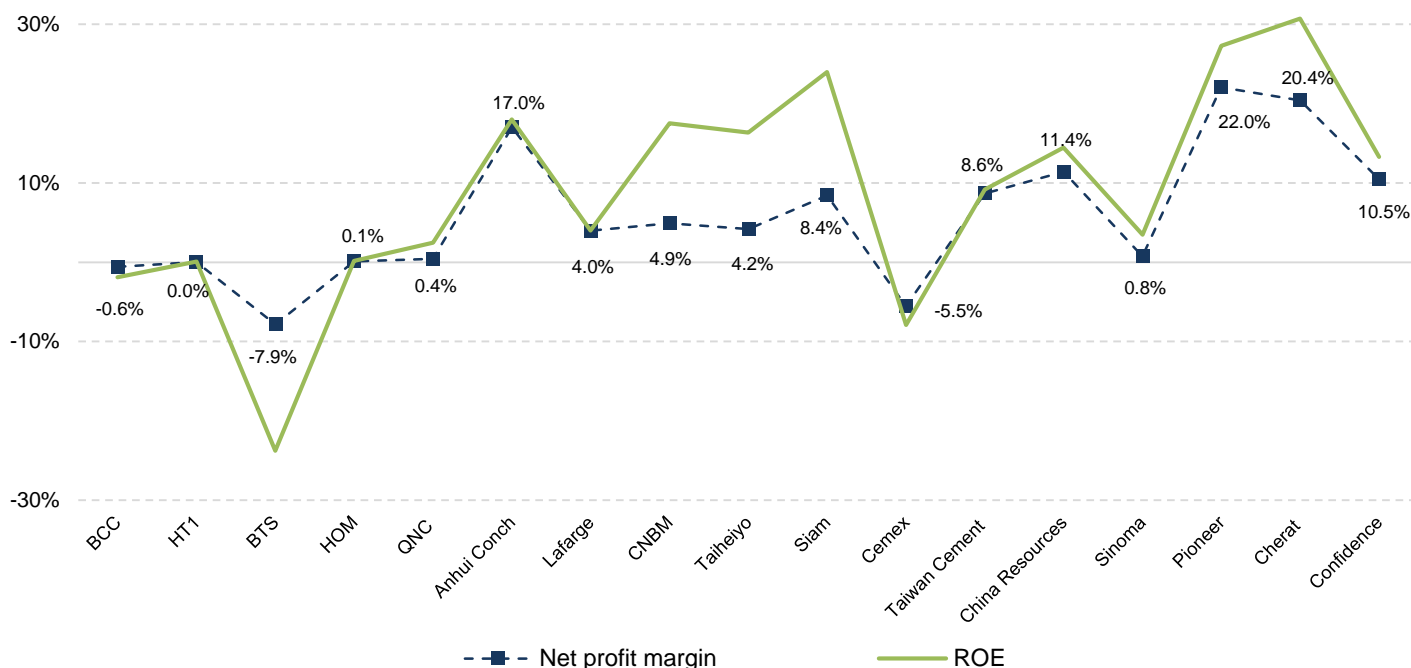
### Gross margin of Vietnamese cement companies is lower than the world average level



Sources: Bloomberg, FPTs

**Gross profit margin of Vietnamese Cement companies is below the average level of the world.** Especially, gross profit margin is even lower for companies with small-scaled production. Due to interest expense and depreciation, EBITDA margin of Vietnamese cement enterprises are not greatly distinct from peers in other countries. This fact embodies that the effectiveness of Vietnamese cement companies stays lower solely because of higher financial leverage. Decreasing interest rate trend will drive cement companies to increased efficiency in the coming years.

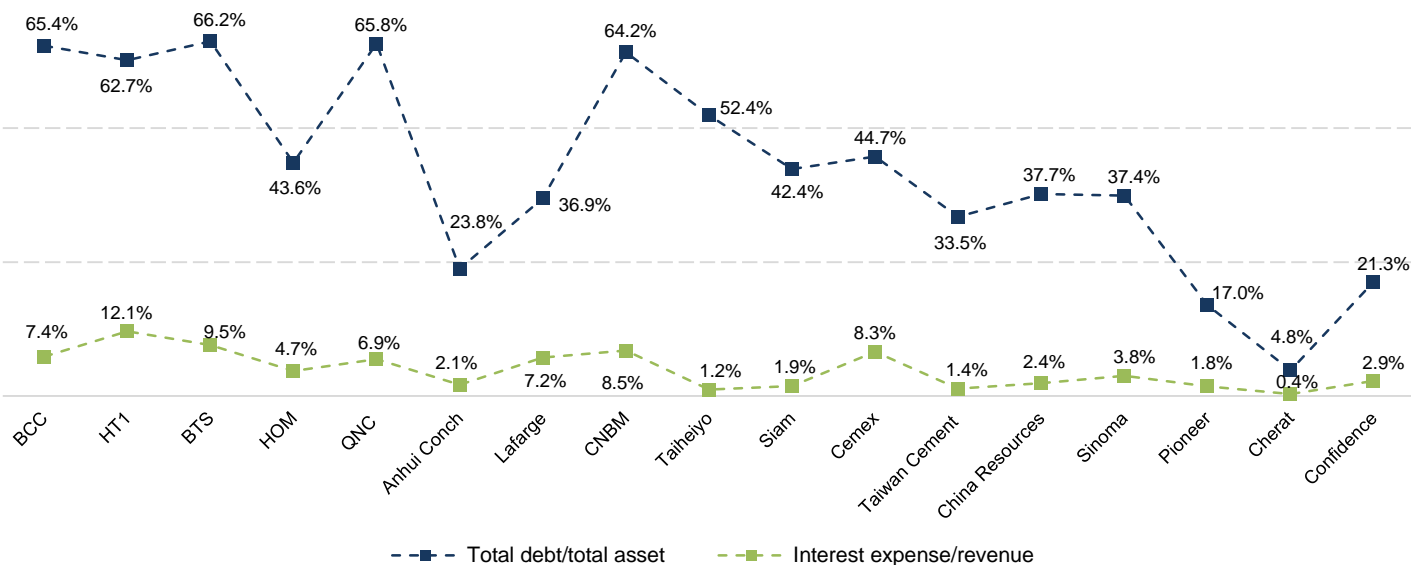
### Net profit margin and ROE



Sources: Bloomberg, FPTs

### Financial leverage of Vietnamese cement companies is higher than the world average level

#### Capital structure and interest expense



Sources: Bloomberg, FPTs

**Vietnamese cement companies have higher financial leverage of 1.5 times compared with the world average level.** The ratio of interest expense on revenue is also higher than that of peers in the world.

## Appendix 1: Financial statement and projection

Income statement	2011	2012	2013	2014
Revenue	3,287,083	3,516,336	3,728,692	4,277,229
- Cost of goods sold	2,409,249	2,716,273	3,019,746	3,392,710
Gross profit	877,834	800,063	708,946	884,520
- Sales & marketing	180,127	178,308	195,836	244,635
- General & admin	126,125	129,977	174,201	174,754
Operating profit	571,582	491,778	338,909	465,131
- Financial gains/(losses)	-98,788	-33,865	-96,987	-28,155
- Net non-op gains	752	7,056	0	0
EBIT	482,371	458,665	248,978	436,976
- Interest expense	425,066	366,800	275,332	248,310
EBT	57,305	91,865	-26,354	188,666
- Income tax expense	7,738	22,966	1,451	54,550
Profit after tax	49,567	68,899	-27,805	134,116
- Minority interests	0	0	-6,189	0
Net Income to common	49,567	68,899	-21,616	134,116
EPS	518	720	-226	1,402
EBITDA	791,875	739,047	485,644	774,747
Depreciation	309,504	280,382	236,666	337,771
Revenue growth	20.8%	7.0%	6.0%	14.7%
Operating profit growth	147.4%	-14.0%	-31.1%	37.2%
EBIT growth	111.6%	-4.9%	-45.7%	75.5%
EPS growth	10.7%	39.0%	131.4%	-720.4%
Profitability ratios	2011	2012	2013	2014
Gross margin	26.7%	22.8%	19.0%	20.7%
Profit after tax margin	1.5%	2.0%	-0.7%	3.1%
ROE DuPont	4.9%	6.3%	-2.5%	10.5%
ROA DuPont	0.8%	1.2%	-0.5%	2.3%
* EBIT Margin	14.7%	13.0%	6.7%	10.2%
* Tax burden	86.5%	75.0%	105.5%	71.1%
* Interest burden	11.9%	20.0%	-10.6%	43.2%
* Asset turnover	0.56	0.60	0.65	0.74
Leverage ratio	5.79	5.41	5.08	4.53
ROIC	8.2%	6.8%	5.9%	7.5%
Efficiency ratios	2011	2012	2013	2014
Days inventory on hand	88.7	71.6	56.2	63.9
Days AR outstanding	37.9	48.3	40.2	39.1
Days AP outstanding	77.7	70.5	73.6	74.1
Cash conversion cycle	48.9	49.3	22.8	28.9
Inventory turnover	4.1	5.1	6.5	6.3
Liquidity/Solvency	2011	2012	2013	2014
Current ratio	0.70	0.64	0.48	0.50
Quick ratio	0.34	0.40	0.28	0.27
Cash ratio	0.04	0.05	0.06	0.05
Debt-to-assets	0.72	0.69	0.65	0.61
Debt-to-capital	0.81	0.78	0.77	0.71
Debt-to-equity	4.19	3.45	3.37	2.46
Short-term debt to equity	0.18	0.21	0.27	0.31
Long-term debt to equity	0.55	0.47	0.39	0.30
Interest coverage ratio	1.13	1.25	0.90	1.76
Valuation ratios	2011	2012	2013	2014
Price-to-earnings (P/E)	38.4	27.6	-88.1	14.2
Price-to-book value (P/B)	1.8	1.7	1.7	1.3
EV / EBITDA	7.1	7.1	10.6	6.3
Book value per share	10,818	11,955	11,759	14,933

Balance sheet	2011	2012	2013	2014
<b>Assets</b>				
+ Cash & equivalent	67,027	91,443	131,894	122,231
+ Short-term investments	89,000	130,000	88,032	88,032
+ Accounts receivable	402,255	527,865	430,774	458,562
+ Inventories	611,450	454,130	475,336	593,801
+ Other current assets	12,896	7,751	30,798	30,798
Total current assets	1,182,628	1,211,189	1,156,834	1,293,424
+ Gross fixed assets	6,357,717	6,507,007	6,755,429	6,971,824
- Accum. depreciation	-1,771,796	-2,086,668	-2,323,186	-2,660,957
+ Net fixed assets	4,585,921	4,420,339	4,432,243	4,310,867
+ Long-term investments	0	0	0	0
+ Other long-term assets	10,735	79,569	101,657	84,102
Total long-term assets	4,870,156	4,516,426	4,628,046	4,487,561
<b>Total Assets</b>	<b>6,052,784</b>	<b>5,727,615</b>	<b>5,784,880</b>	<b>5,780,985</b>
<b>Liabilities &amp; Equity</b>				
+ Accounts payable	676,099	628,670	842,869	807,167
+ Short-term borrowings	1,015,938	1,250,155	1,543,556	1,790,384
+ Bonus, welfare	5,417	5,349	5,229	7,911
<b>Current liabilities</b>	<b>1,697,454</b>	<b>1,884,174</b>	<b>2,391,654</b>	<b>2,605,462</b>
+ Long-term debt	3,320,417	2,699,838	2,244,483	1,723,134
+ Other LT liabilities	0	0	0	0
Total LT liabilities	3,320,431	2,699,849	2,244,494	1,723,145
<b>Total Liabilities</b>	<b>5,017,885</b>	<b>4,584,023</b>	<b>4,636,148</b>	<b>4,328,607</b>
+ Total preferred equity	0	0	0	0
+ Add'l paid in capital	57,007	57,007	57,007	57,007
+ Share capital	956,614	956,614	956,614	956,614
+ Retained earnings	39,487	68,362	-21,774	104,295
+ Minority interest	0	0	23,879	23,879
Total equity	1,034,899	1,143,595	1,124,853	1,428,499
<b>Liabilities &amp; equity</b>	<b>6,052,784</b>	<b>5,727,618</b>	<b>5,784,880</b>	<b>5,780,985</b>
<b>Cash flow</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Beginning cash</b>	<b>61,187</b>	<b>67,027</b>	<b>91,443</b>	<b>131,894</b>
<b>Net Income</b>	<b>57,303</b>	<b>91,865</b>	<b>-26,356</b>	<b>134,116</b>
+ Depreciation	309,505	324,219	329,668	339,326
+ Other non-cash adjust.				
+ Changes in non-cash	-44,073	23,688	111,822	-181,955
<b>Cash from Operations</b>	<b>336,574</b>	<b>449,887</b>	<b>476,532</b>	<b>463,699</b>
+ Disposal fixed assets	1,368	1,057	10,442	0
+ Capex	-439,116	-8,931	-39,831	-216,395
+ Change in investments	0	0	-61,410	0
+ Other investments	0	9,864	6,812	0
<b>Cash from Investing</b>	<b>-526,748</b>	<b>-39,010</b>	<b>-42,019</b>	<b>-198,840</b>
+ Dividends paid	-47,831	0	0	0
+ Change in capital	0	0	0	0
+ Change in ST debt	133,644	234,217	293,401	246,828
+ Change in LT debt	110,266	-620,579	-455,355	-521,349
+ Other financing act.	0	0	0	0
<b>Cash from Financing</b>	<b>196,079</b>	<b>-386,463</b>	<b>-394,062</b>	<b>-274,522</b>
Net changes in cash	5,905	24,414	40,451	-9,663
<b>Ending cash</b>	<b>67,029</b>	<b>91,441</b>	<b>131,894</b>	<b>122,231</b>
<i>Units in VND bn</i>				



## Appendix 2: Information about cement

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**Clinker** is calcined product at 1450°C from limestone, clay and some additive adjustment materials such as iron ore, bauxite, sand, etc. Chemical compositions consist essentially blending of 4 main oxides: CaO, SiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub> and Al<sub>2</sub>O<sub>3</sub>. The 4 major oxides when heated in batches will react to form four main minerals C<sub>3</sub>S (3CaO. SiO<sub>2</sub>); C<sub>2</sub>S (2CaO.SiO<sub>2</sub>); C<sub>3</sub>A (3CaO.Al<sub>2</sub>O<sub>3</sub>); C<sub>4</sub>AF (4CaO. Al<sub>2</sub>O<sub>3</sub>. Fe<sub>2</sub>O<sub>3</sub>). These minerals have different crystal structures and determine the quality of the clinker. The quality of clinker will determine nature of cement.

**Cement** is a hydraulic binder is made by grinding clinker, natural gypsum and additives. When exposed to water, occurrence of hydration reaction and formed mortar, a type of cement. Then, due to the formation of hydration products, cement begin setting process and then hardening process to finally get a form of material that has strength and certain stability.

In order to ensure cement quality, chemical compositions of cement are:

- CaO: 63-66%
- SiO<sub>2</sub>: 21-24%
- Al<sub>2</sub>O<sub>3</sub>: 4-8%
- Fe<sub>2</sub>O<sub>3</sub>: 2-4%

In addition, some impurities such as MgO, CaO that is granular refractory destabilize volume, should be limited.

- MgO: <4.5%
- SO<sub>3</sub>: <3%
- Alkaline oxide (Na<sub>2</sub>O, K<sub>2</sub>O): <1.5%.

(Source: Wikipedia, building materials curriculum)

### Distinguishing Portland cement and Portland cement mixture.

- PC cement is Portland cement that is grinded from clinker and a certain amount of gypsum (accounting for 4-5%). Portland cement quality is determined according to the Vietnam standard 2682:1999.

- PCB Portland cement is a mixture produced from crushed mixture of clinker, gypsum and additives (including amount of gypsum does not exceed 40%, in that whole additives cannot exceed 20%). Quality of Portland cement mixture is determined according to Vietnam standard 6260:1997.

### Commonly used standards for cement in Vietnam.

TCVN 2682:1992 - Portland cement

TCVN 5691:1992 - White Portland cement

TCVN 6260:1997 – Portland mixtures cement

TCVN 6067:1995 - Portland sulfate resistance cement

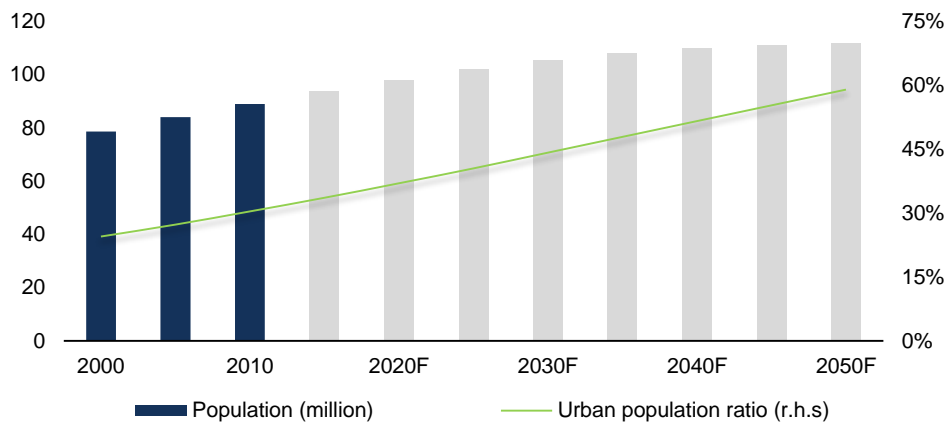
TCVN 6069:1995 - Less heated Portland cement

TCVN 7712:2007 - Portland mixtures less heated cement

TCVN 7711:2007 - Portland mixed sulfate resistance cement.

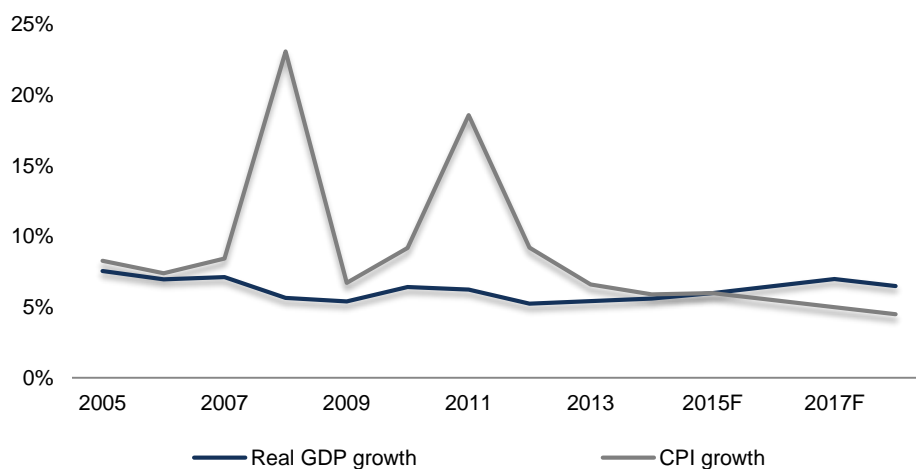
### Appendix 3: Macro factors supporting industry growth

**Total population and urban population ratio of Vietnam**



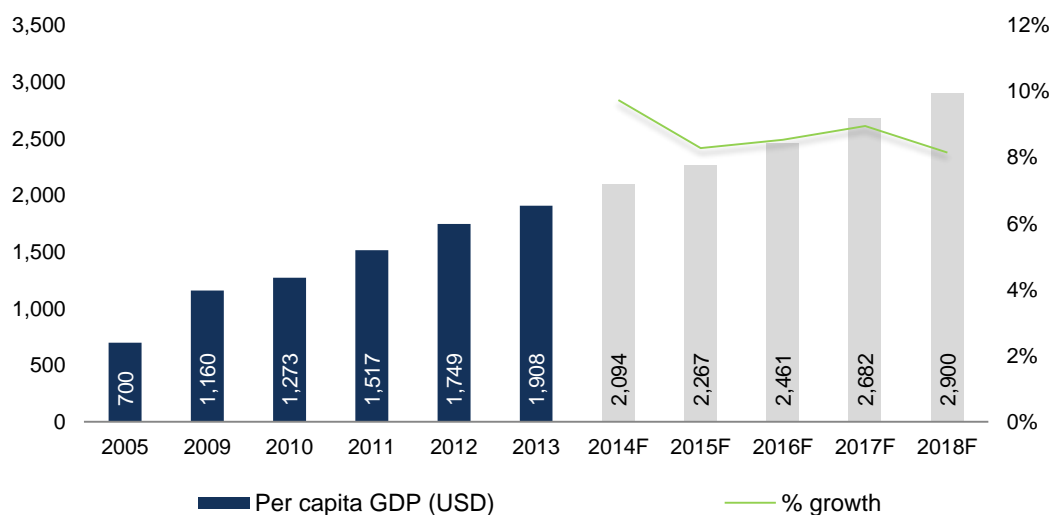
Sources: World Urbanization Prospective: The 2009 Revision Population Database; MoC

**Real GDP growth and inflation**



Sources: ADB, EY Rapid-Growth Markets Forecast July 2014

**Per capita GDP\* of Vietnam, forecasted to 2018**



\* Nominal GDP

Sources: GSO; EY Rapid-Growth Markets Forecast July 2014

**Appendix 4: Top 25 largest companies globally in terms of production capacity**

Rank	Companies	Country	Capacity (Mt/year)	Number of factory
1	Anhui Conch	China	217	26
2	Lafarge	France	205	134
3	Holcim	Switzerland	174	117
4	CNBM	China	128	80
5	Heidelberg Cement	Germany	90	100
6	Italcementi	Italia	80	60
7	Cemex	Mexico	76	55
8	Taiwan Cement Corp	Taiwan	64	6
9	China Resources	China	59	17
10	Sinoma	China	53	4
11	UltraTech	India	49	23
12	Taiheiyo	Japan	43	11
13	Tianrui	China	42	11
14	Eurocement	Russia	40	30
15	Jidong Development	China	37	9
16	Shanshui	China	36	21
17	Buzzi	Italia	36	32
18	Cimpor	Portugal	35	36
19	Votorantim	Brazil	35	25
20	Siam	Thailand	31	6
21	Jiangsu Jinfeng	China	31	7
22	Jaypee	India	27	17
23	Vicat	France	25	15
24	Yatai Group	China	22	6
25	VICEM	Vietnam	22	9

Source: FICEM

## RECOMMEND EXPLANATION

This recommendation based on the difference between targeted value and market value of each stocks in order to provide appropriate information for investors in 12-month investment period from recommend day.

The expected at 18% is estimated based on 12-month government bond rate in addition to market risk premium in Vietnam.

Recommendation	Explanation
<b>12 months period</b>	
<b>Buy</b>	If targeted price is <b>higher</b> than market price 18%
<b>Add</b>	If targeted price is <b>higher</b> than market price about 7%-18%
<b>Monitor</b>	If targeted price compared to market price is <b>within</b> -7%-7%
<b>Reduce</b>	If targeted price is <b>lower</b> than market price from -7% to -18%
<b>Sell</b>	If targeted price is <b>lower</b> than market price -18%

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