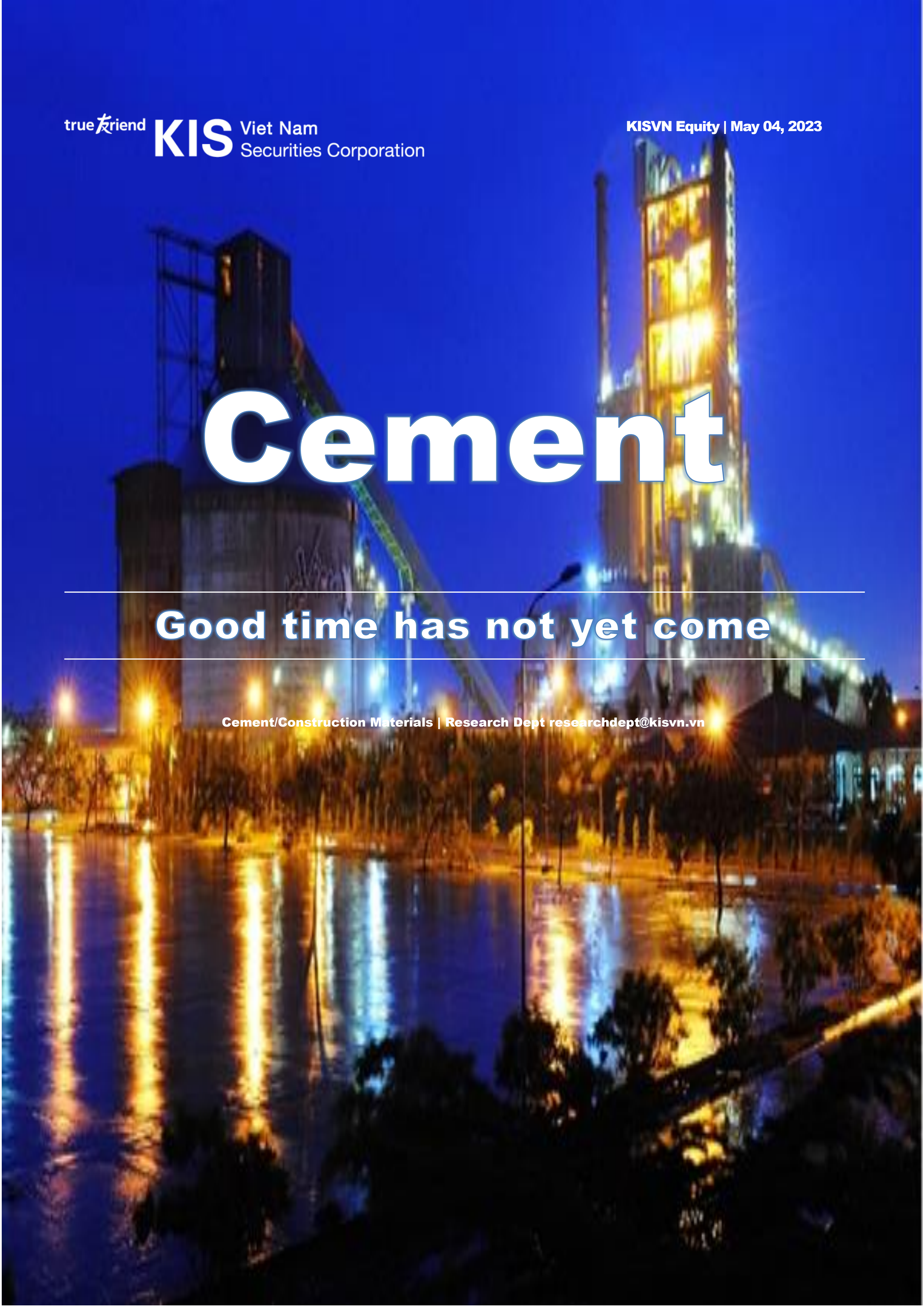
true friend KIS Viet Nam Securities Corporation

KISVN Equity | May 04, 2023



Cement

Good time has not yet come

Cement/Construction Materials | Research Dept researchdept@kisvn.vn

trueFriend KIS Viet Nam Securities Corporation

Cement

Good time has not yet come

Prolonged excessive capacity
Currently, the Vietnam cement production, which is around 111mn tonnes pa, is almost double the domestic consumption. However, new cement production lines are coming online over next years. Besides, the recent regulation on the ratio of addictive mixing can push the industry further deep into excess capacity condition. In addition, the unbalancing allocation of plants, depending on resource allocation, created the regional unbalance of supply and demand. This would weaken pricing power and profit margin stabilization of domestic industry players.

Export is currently only solution for excess capacity
Since 2017, the domestic cement and clinkers producers have strongly boosted the export channel. China and Philippines are two main biggest export markets for domestic producers, especially, northern ones. Beside traditional export partners, Vietnam producers are aggressively exploring and expanding into new markets. Currently, the heavy dependence on China market has showed negative aspect when the 2022 export volume dropped significantly due to Zero-COVID policy. On the other side, the recent easing of Zero-COVID policy would also be a good catalyst for export revival of Northern producers.

Outlook to improve but demand still sluggish
In 2022, under the pressure of oversupply and high input price (thermal coal), domestic producers experienced the squeeze in margin and the drop in sales volume. In 2023F, despite the reverse of 2022 negative factors, we still see some challenges for the industry amid high-borrowing rate environment and issues related to real estate developers and bond markets. Besides, the demand of global and main export markets are forecasted to be flat in 2023F. Along with it, the new tax rate on clinker export would hinder the revival of export channel.

Initiation: Neutral rating on Cement industry
We initiate Neutral rating on Cement industry as we see some challenges on demand side from domestic as well as export markets amid domestic excessive capacity. China re-opening is supposed to be a good catalyst for Vietnam cement producers, however, we still have HOLD ratings on HT1 and BCC as we see the market prices are fully reflected the revival outlook of these companies.

Sector
In-depth

Cement

4 May 2023

Neutral

Company	Rating	TP (VND)
Vicem Ha Tien Cement	HOLD	13,500
Bim Son Cement	HOLD	11,160

Research Department
researchdept@kisvn.vn

Contents

What is the report about?

- Long-term growth drivers for both domestic and export markets
- NEUTRAL on the multiple headwinds
- 2 favorite stock: Vicem Ha Tien Cement, Bim Son Cement

I. Executive summary

Excess production capacity for cement products

Currently, Vietnam's cement industry is experiencing excess capacity conditions when the total designed capacity is almost double the domestic demand. Despite of that fact, the new production lines will come online in the next few years, which will lead to a fiercer competition among domestic producers. In addition, the change in mixing ratio regulation and the increasing tax rate on clinker export would erode domestic producers' pricing power.

Export channel is the main solution for oversupply issue

The cement and clinker export is a great support for the Vietnam cement industry. China and Philippines are the two main export market for clinkers and cement, respectively. China market is very potential thanks to output cut due to more restrictive environment regulations, however, the heavy dependence on China market also brings significantly negative impact on Vietnam exporters, especially in 2022 due to Zero-COVID policy. Beside the traditional export partners, Vietnam exporters are also exploring and expanding to new markets, such as South Africa, Australia etc.

Outlook is dim

In 2023F, we expect to see the revival in export volume, especially in China market thanks to the ease of COVID policy. This would be a good catalyst for producers from the North of Vietnam. However, the global and China demand for cement are forecasted to be flat amid high borrowing rate environment and real estate market issue, therefore, global import demand might be not improved significantly. In the meantime, domestic market is experiencing same situation with high borrowing rate and issues related bond market and residential developers that would delay the construction activities and lower cement demand despite infrastructure projects

Good not yet come
Reiterate Neutral

We reiterate Neutral rating on the Cement industry as we see some challenges for the industry in short and med terms: (1) domestic issues amid economic slowdown,(2) potentially more competition and slower-than-expected demand revival in export markets,(3) potentially domestic oversupply as the increasing production capacity and higher export rate on clinkers according to the new regulations.

HT1 and BCC are our favorite stocks

We initiate coverage of HT1 with HOLD rating and a TP of VND13,500, BCC with HOLD rating and a TP of VND11,160. HT1 and BCC are 2 companies that win the big market share in the South and the Central regions, respectively. China re-opening is benefiting directly and in-directly to BCC and HT1, however, we see the market prices are fully reflected the export revival outlook.

Table 1. Regional Peer Valuations

	TP (Local)	Upside	3-year EPS growth	PE (x)			EV/EBITDA (x)			PB (x)			Dividend yield (%)		ROE		Net Gearing
				FY22A	FY23F	FY24F	FY22A	FY23F	FY24F	FY22A	FY23F	FY24F	FY23F	FY24F	FY23F	FY24F	FY22
Malayan Cement B	3	23%	15.7%	42.6	44.6	29.3	11.8	16.3	14.9	0.5	0.5	0.5	0.2	0.4	1.2	1.6	56.3
Siam City Cement	160	14%	30.8%	22.5	11.6	10.3	10.7	7.8	6.5	1.3	1.1	1.1	6.4	6.7	9.9	10.5	56.4
Pioneer Cement	78	159%	31.1%	14.0	7.2	7.2	4.3	6.1	6.5	0.5	0.5	0.5	NA	4.2	3.1	2.5	71.4
Maple Leaf Cemen	35	51%	10.7%	5.3	4.2	3.9	3.7	3.8	3.9	NA	0.6	0.5	0.6	5.9	14.7	13.3	51.8
Overseas median				**18.2**	**9.4**	**8.8**	**7.5**	**7.0**	**6.5**	**0.5**	**0.5**	**0.5**					
Overseas average				**21.1**	**16.9**	**12.7**	**7.6**	**8.5**	**8.0**	**0.8**	**0.7**	**0.6**					
Vicem Ha Tien Cement	13,500	(4.7%)	49.1%	41.5	20.2	15.0	6.3	5.7	4.8	1.1	1.0	1.1	4.2	8.5	5.3	7.2	22.6
Bim Son Cement	11,160	(2.1%)	29.2%	27.5	27.9	17.8	4.5	4.0	3.0	0.7	0.7	0.7	4.4	4.4	2.9	4.6	22.5

Note: As of Mar 21st 23 close
Source: Bloomberg, KIS

Table 2. Domestic Peer Valuations

	TP (Local)	Upside	3-year EPS growth	PE (x)			EV/EBITDA (x)			PB (x)			Dividend yield (%)		ROE		Net Gearing
				FY22A	FY23F	FY24F	FY22A	FY23F	FY24F	FY22A	FY23F	FY24F	FY23F	FY24F	FY23F	FY24F	FY22
But Son Cement	NA	NA	NA	13.1	NA	NA	5.5	NA	NA	0.5	NA	NA	NA	NA	NA	NA	57.0
Vicem Hoang Mai	NA	NA	NA	20.0	NA	NA	2.8	NA	NA	0.4	NA	NA	NA	NA	NA	NA	(0.0)
Quang Ninh Const	NA	NA	NA	3.0	NA	NA	4.6	NA	NA	0.7	NA	NA	NA	NA	NA	NA	123.3
Hai Van Cement	NA	NA	NA	61.7	NA	NA	3.6	NA	NA	0.3	NA	NA	NA	NA	NA	NA	22.4
Cement Trading	NA	NA	NA	11.0	NA	NA	NA	NA	NA	0.7	NA	NA	NA	NA	NA	NA	(127.1)
Vvmi La Hien Cem	NA	NA	NA	6.1	NA	NA	1.8	NA	NA	1.7	NA	NA	NA	NA	NA	NA	(66.3)
Sai Son Cement	NA	NA	NA	29.9	NA	NA	9.2	NA	NA	0.3	NA	NA	NA	NA	NA	NA	47.5
Domestic average				**20.7**	NA	NA	**4.4**	NA	NA	**0.6**	NA	NA					
Domestic median				**13.1**	NA	NA	**4.6**	NA	NA	**0.4**	NA	NA					
Vicem Ha Tien Cement	13,500	(4.7%)	49.1%	41.5	20.2	15.0	6.3	5.7	4.8	1.1	1.0	1.1	4.2	8.5	5.3	7.2	22.6
Bim Son Cement	11,160	(2.1%)	29.2%	27.5	27.9	17.8	4.5	4.0	3.0	0.7	0.7	0.7	4.4	4.4	2.9	4.6	22.5

Note: As of Mar 21st 23 close
Source: Bloomberg, KIS

Table 3. Coverage valuation

Recommendation & TP			Earnings & Valuation										
Company				Sales (VND bn)	OP (VND bn)	NP (VND bn)	EPS (VND)	BPS (VND)	PE (x)	PB (x)	ROE (%)	EV/EBITDA (x)	DY (%)
Vicem Ha Tien Cement	Recommendation	Hold	2021A	7,064	571	369	820	13,560	17.3	1.0	7.0	5.8	12.1
(HT1)	TP (VND)	-	2022A	8,918	471	261	341	13,408	41.5	1.1	5.1	6.3	5.0
	Price (04 May, VND)	14,150	2023F	8,214	466	273	700	13,511	20.2	1.0	5.3	5.7	4.2
	Market cap. (VND bn)	5,399	2024F	7,730	577	368	943	13,258	15.0	1.1	7.2	4.8	8.5
			2025F	7,962	652	425	1,090	13,153	13.0	1.1	8.5	4.2	8.5
Bim Son Cement	Recommendation	Hold	2021A	4,330	184	84	488	17,197	23.4	0.7	3.7	3.8	3.8
(BCC)	TP (VND)	-	2022A	4,218	120	69	415	17,228	27.5	0.7	3.0	4.5	5.5
	Price (04 May, VND)	11,400	2023F	3,995	120	67	409	17,205	27.9	0.7	2.9	4.0	4.4
	Market cap. (VND bn)	1,405	2024F	4,455	169	105	640	17,451	17.8	0.7	4.6	3.0	4.4
			2025F	4,644	210	139	847	17,942	13.5	0.6	5.9	2.3	4.4

Source: Respective company data, Bloomberg, KISVN

II. Oversupply weighs the industry

1. Players struggles to sell the exceeded output

Excess capacity by 76% for cement and clinker products

According to our data collection and Vietnam National Cement Association (VNCA), the cement industry is currently experienced excessive capacity situation. Since 2010, the domestic market has started experiencing the growing oversupply situation, which caused by the Decision No.108/2005/QD-TTG encouraging new cement manufacturer establishment. Domestic consumption volume only took up around 70% and lower of total designed capacity over last 10 years. In 2022, the designed cement capacity for the whole industry is about 111.4mn tonnes per annum, according to VNCA, whilst the 2022 domestic consumption volume was around 62.7mn tonnes. In addition, two new production lines could commence operation in 2023, including: Xuan Thanh 3 Cement (4.5mn tonnes pa), Long Thanh Cement (2.3mn tonnes pa). The total new capacity of the whole industry could go up to 118mn tonnes pa, almost doubling the 2023F projected domestic consumption by VNCA at 63-65.5mn tonnes. However, designed capacity for clinker and cement in Vietnam is forecasted to surge in the next 3 years with new facilities by private cement manufacturers. Per our estimate, the total cement production capacity will increase by 16.7% to 130mn tonnes. Furthermore, the improvement in technologies and the new regulation on the ratio of additive mixing can increase production volume further with current designed capacity, which would make the oversupply more severe. With the current capacity, the new mixing-ratio regulation can increase the production capacity to 120-133mn tonnes per annum, equivalent to 15-20% capacity increase.

Table 1. New facilities are expected to be online over next 3 years

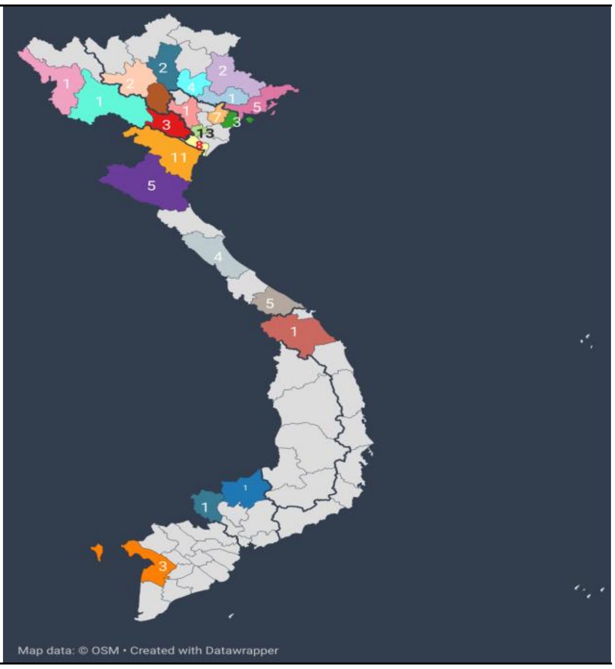
Owner	Production Lines	Location
ThaiGroup	Xuan Thanh 3	Ha Nam
SCC-VN	Insee2 – Phase 1	Kien Giang
Long Thanh	Long Thanh	Ha Nam
Fico-YTL	Fico Tay Ninh – Assembly 2	Tay Ninh
Can Tho	Can Tho - Hau Giang – Assembly 4	Hau Giang
Vissai	Do Luong – Phase 2	Nghe An
Xuan Khiem	Xuan Son – Assembly 1	Hoa Binh
Dai Duong	Dai Duong 2	Thanh Hoa
VICEM Hoang Mai	VICEM Hoang Mai 2	Nghe An
Thanh Thang	Thanh Lien- Assembly 5	Ha Nam
SCC-VN	Insee 2- Phase 2	Kien Giang

Source: KIS, VNCA, Finnpro

The allocation of production lines is unbalancing among regions due to resource allocation

Besides, the allocation of production lines is unbalancing among regional areas due to the limestone quarry's location. Most production lines allocate in the central and the north areas of Vietnam. This created a regional oversupply in the North and a regional overdemand in the South of Vietnam. Evidently, the consumption in the North made up around 40% of total consumption while the production lines located there accounted for 58% of total cement capacity. This can somehow create a logistic/cost competitive advantage for companies that located in South of Vietnam.

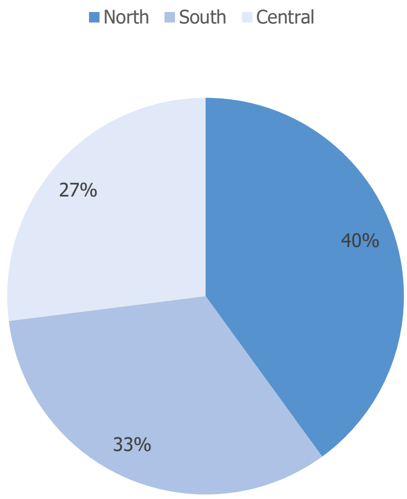
Figure 1. Unbalancing Cement factory distribution



Source: KIS, VNCA

Note: the map shows the number of production lines in each province

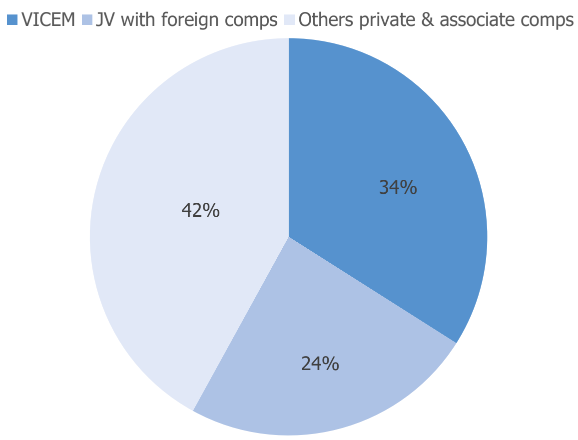
Figure 2. Regional cement consumption proportion (2021)



Source: VNCA, KIS

The market is currently still fragmented with 49 producers, which are classified into 3 main groups. VICEM is the biggest cement producer in Vietnam, consisting of 34% market share (2022 VNCA). VICEM is also the only entity with cement and clinker factories that are located nationwide, therefore, VICEM somehow gained the pricing powers among producers. In addition, around 41 out of 87 productions lines have the clinker capacity that each lower than 2,500 tonnes per day, which is supposed to be energy & economic inefficiency. Hence, the government required the new investment with minimum capacity of 5,000 tonnes per day according to Decision No. 1266/QD-TTg: Strategy for development of building materials in 2021-2030. In which, by 2025, the production lines with capacity of less than 2,500 tonne clinker per day have to be upgraded the technology to improve the productivity, product quality, energy saving and environment protection.

Figure 3. Vietnam producers are classified in 3 main groups with corresponding 2022 market share



Source: KIS, VNCA

Table 2. Production lines capacity and distribution

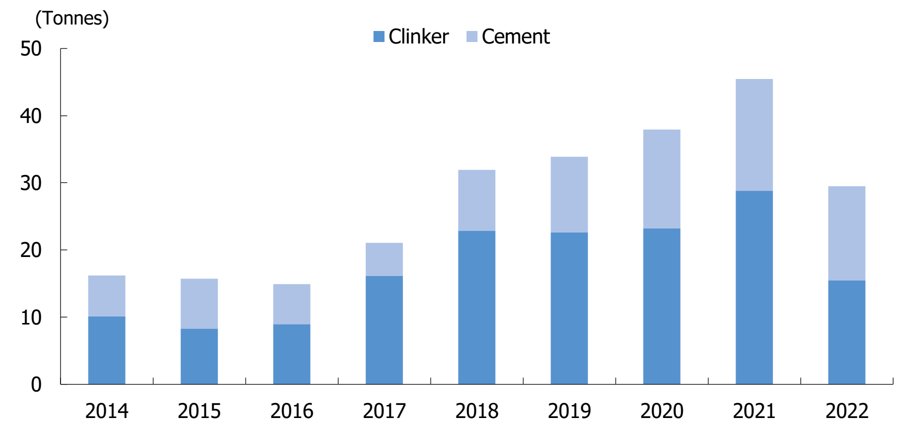
Regions	N.o Rotary Kiln	Capacity (tonne clicker/day)		
		>=4,000	2,500-4,000	<=2,500
North	60	15	8	35
Middle	24	13	3	6
South	05	3	2	0
Total	89	29	13	41

Source: VNCA, KIS

2. Export channel: a great support for industry

The prolonged oversupply exerts pressure on domestic cement producers to increase export. Over last few years, the fast increasing export volume of cement and clinker relieved the industry issue. However, the export volume growth was paused in 2022 after witnessing the 2016-2021 CAGR of 24.9%. Of which, growth of clinker export was 26.3%, higher than that of cement of 22.8%.

Figure 4. Vietnam cement & clinkers export volume over years

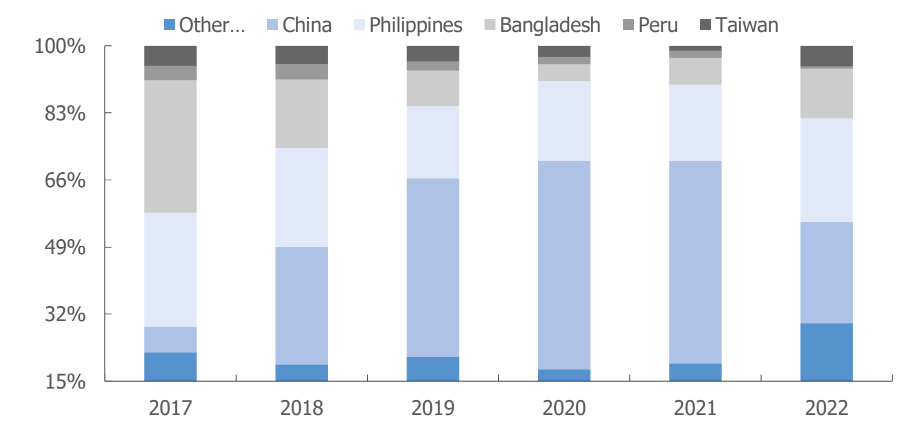


Source: KIS, VNCA

China and Philippines are two main export market for Vietnam exporters

China and Philippines are the two biggest clinkers and cement importers. China remained the key export destination for clinker from Vietnam despite the significant drop in 2022 with around USD212mn (-73% yoy) and the second top importer of cement with around USD144.2mn (+29% yoy). Philippines is the largest importer of cement with around USD362mn (+6.8% yoy) in 2022. According to our data collection, cement producers from the North and the Central are the main exporters to China and Philippines markets while Cambodia is the main export market for cement producer located in the South. Beside "traditional markets" such as Philippines, China, Cambodia, Vietnam cement manufacturers have also been expanding to other export market like USA, South Africa, Australia…etc.

Figure 5. Top 5 cement & clinker importers (market share in value)



Source: KIS, VNCA

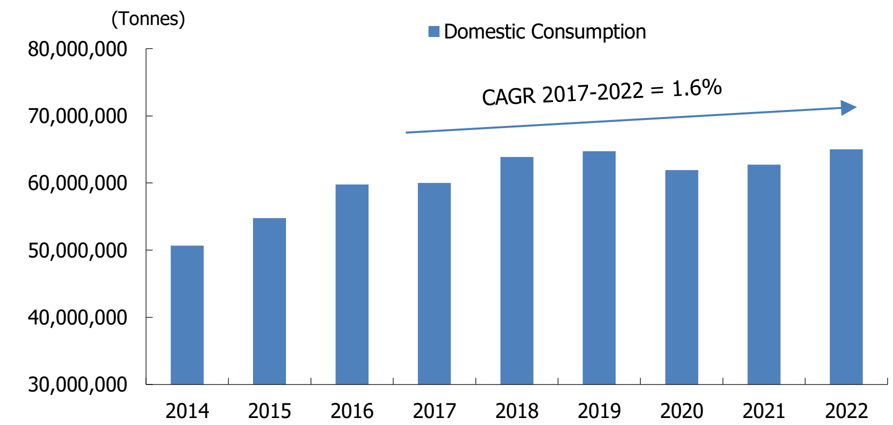
III. Outlook: Good time has not yet come

1. Crises temporarily took improvement away

Crises affected seriously industry total export volume and companies' margins

As mentioned above, prolonged issue of the industry is excess capacity while the domestic demand was almost flat over last few years. The main driver for the growth of the industry could buoyant export activities, the main solution for current industry situation. However, 2022 has pointed out the remaining issues of this main solution when Vietnam exporters were very fragile due to the significant dependence on a few main export markets (China, Philippines etc.)

Figure 6. Domestic demand was almost flat over last few years

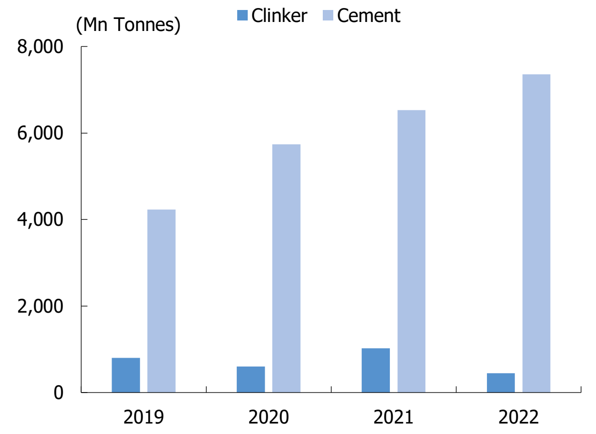


Source: KIS, VNCA

In 2022, the total export volume dropped significantly, which mainly caused by the decrease in China import. Faced with the impact of the pandemic prevention and control, the continued bottoming out of the real estate market, the demand for cement shrank rapidly, then, import from Vietnam either. According to the data of the China National Bureau of Statistics, in 2022, total cement output in the country reached 2,120mn tonnes, representing a decrease of 10.8% compared to the previous year. The cement output hit the lowest since 2012, and the year-on-year decline reached the double-digit level for the first time.

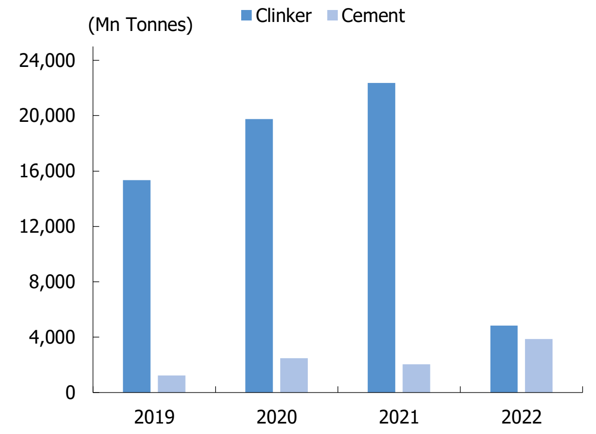
As for Philippines, although Vietnam exporters were also affected by high freight rates and shipping issue and safeguard tax on cement products, the total export volume to Philippines in 2022 continued to increase thanks to the strong demand from ambitious infrastructure development program under the Duterte's administration. On Oct 5 2022, the Philippine Tariff Commission issued its final conclusion that will not extend the safeguard measure against cement imported from Vietnam along with some other countries.

Figure 7. Philippines imports from Vietnam over years



Source: KIS, Vietnam Customs, Trademap.org

Figure 8. China import dropped significantly in 2022

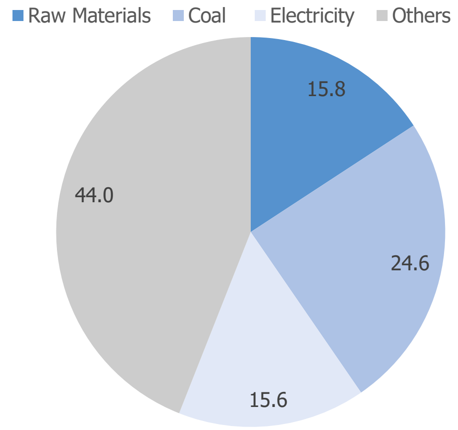


Source: KIS, Vietnam Customs, Trademap.org

Notice: Data was collected from different sources so kindly use data as reference for the trend.

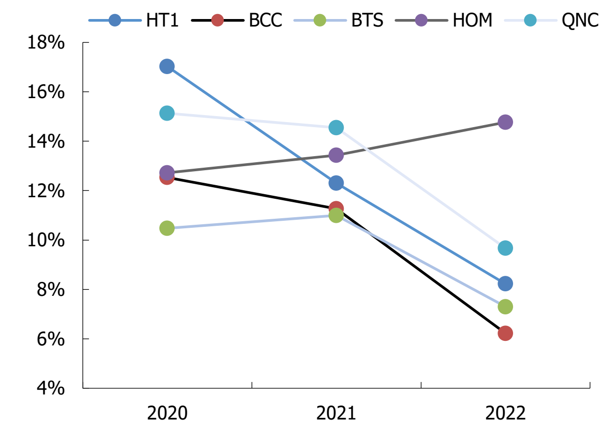
In 2022, industry players continued to experience squeezed margins when the coal price remained high. As an input material, the rising coal price has squeezed the margins of companies since 2021, whilst they cannot pass all increasing production costs to end-use consumers due to the fragmented market and oversupply situation. The selling prices remained almost flat over years in both domestic and export price due to the excess capacity globally.

Figure 9. Cement Production Cost Breakdown (2021)



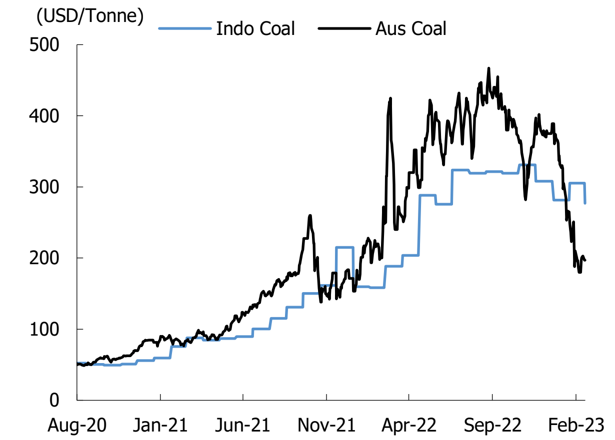
Source: KIS, Finnpro

Figure 10. Gross margin of cement producers were under pressure as input price surge



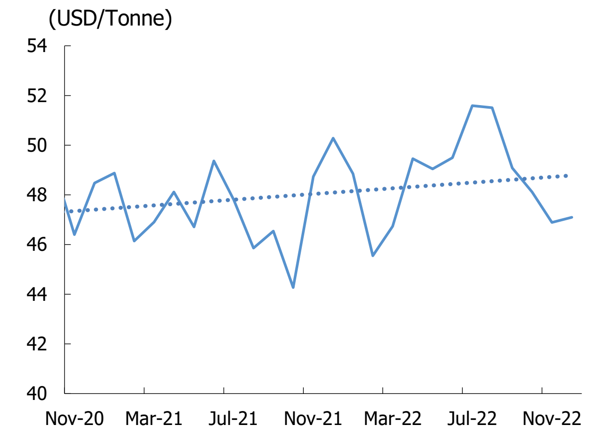
Source: KIS, FinnPro

Figure 11. Coal price increased and remained at high level during 2021-2022 period



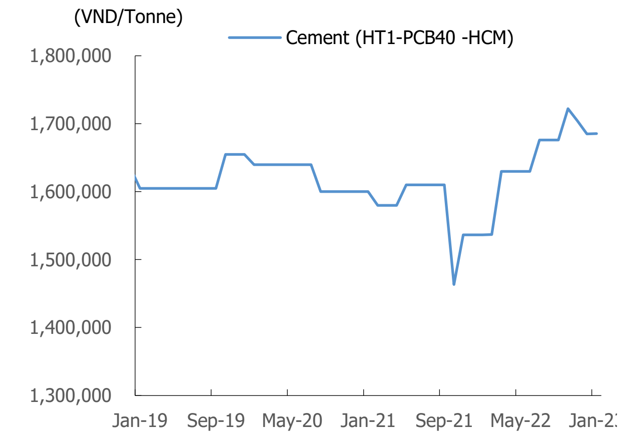
Source: KIS, Bloomberg

Figure 12. Philippines export ASP(Portland Type 1)



Source: KIS, Vietnam Customs

Figure 13. Domestic price was almost flat over years



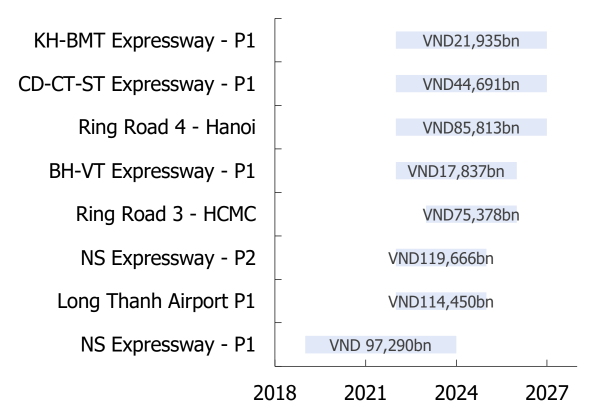
Source: KIS, Ministry of Construction

2. Good time has not yet come

Domestic issues may hinder the growth of domestic market despite the public projects

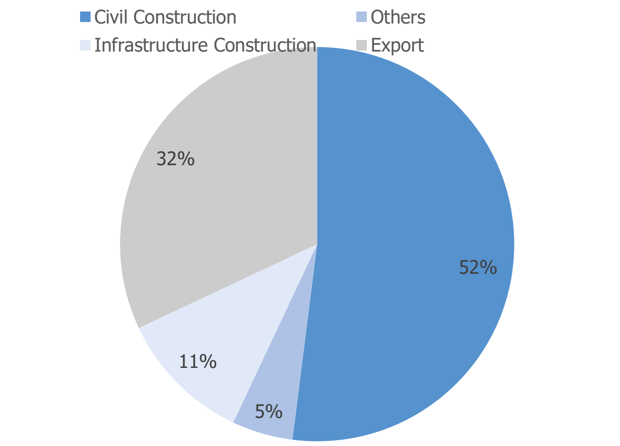
As for domestic market, current issues related to residential property developers and capital market are supposed to slow down construction activities, then impact demand for cement. Besides, the high-interest-rate environment along with economic growth slow-down outlook would negatively affect resident's sentiment and delay construction plans and property buy-sell activities. This might cost a period of time to improve the market sentiment, where the buyers will be in "wait-and-see" mode. With a not quite good view on real-estate market, we suppose that demand for cement will be impacted in 2023F and onwards. Recently, the disbursement of public spending for major infrastructure projects has been expected to increase the demand for cement. However, in our opinion, most of infrastructure projects, which are highway, will require not as much amount of cement as market's initial expectation and only in the final phase of construction. Besides, the progress of these projects also depends on the disbursement pace of public budget, which was slow in first months of 2023. Therefore, we suppose that the domestic demand will be flat, at least, 2 years from now.

Figure 14. The key public investment projects



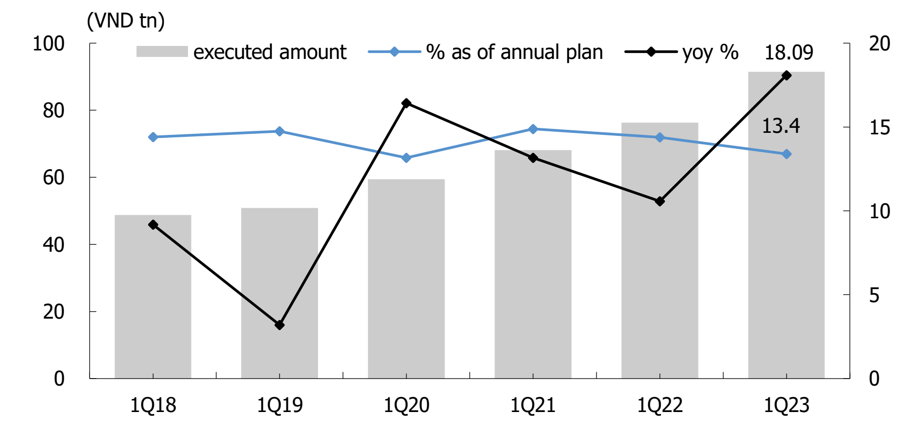
Source: KIS, Ministry of Construction

Figure 15. Cement Consumption Breakdown



Source: KIS

Figure 16. Vietnam Public Infrastructure Expenditure over years

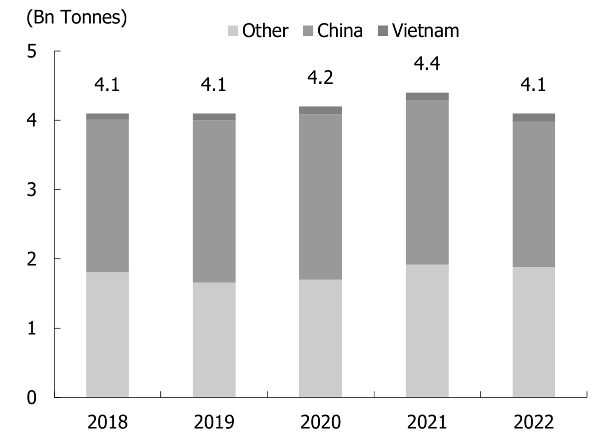


Source: KIS

The increase in competition amid flat forecasted global demand

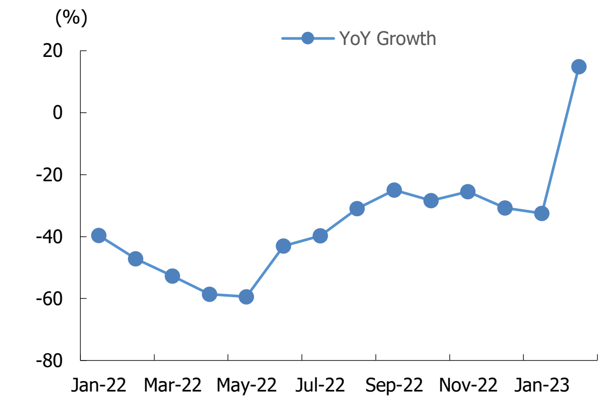
As for export markets, the growth over previous years was mainly attributed by stricter environmental regulations and the phasing out of inefficient smaller-sized producers in China and ambitious infrastructure development program from Philippine government. The short-term outlook in China is now starting to improve after easing Zero-COVID policy, however, real estate downturn is still forecasted to affect cement demand in 2023F despite some recent positive signals. The demand growth for cement in China is forecasted to be flat, at around 0-3% yoy while shipments to China are expected to decline according to IA Cement. Although the export to China in 2023F can be improved compared to 2022, Vietnam cement and clinkers exporters may experience higher competition to win contracts to China. In med term, Vietnam exporters can benefit from the phasing out of substandard production capacity due to the environment regulations (plan to cut 400mn tonnes). In long term, the demand for cement in China is likely to decline, according to CCA&RMI, due to slowing urbanization and weakening construction. Therefore, we suppose that Vietnam exporters will experience the decline of total export volume growth in long term.

Figure 17. China production made up more than 50% of total global cement production



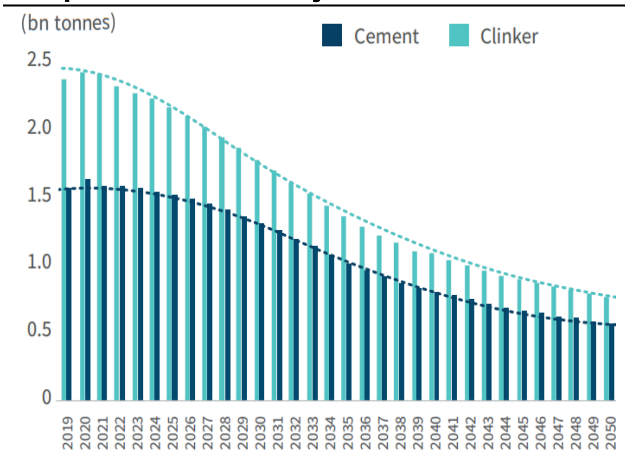
Source: KIS, Statista

Figure 18. The recent improvement in China Home Sales but early to say revival has started



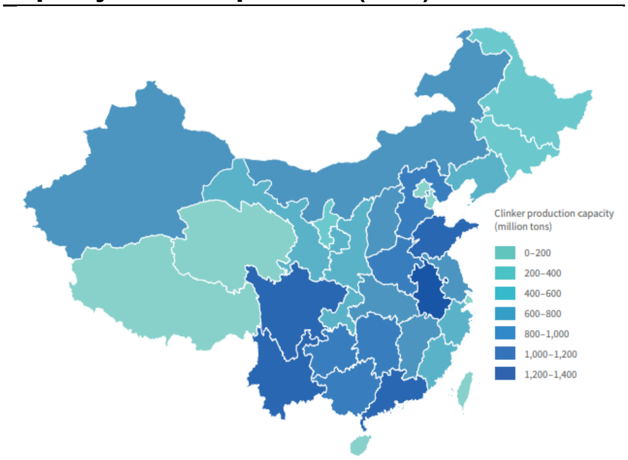
Source: KIS, China Real Estate Information Corp

Figure 19. China consumption of cement and clinker is expected to lower over years



Source: KIS, CCA&RMI

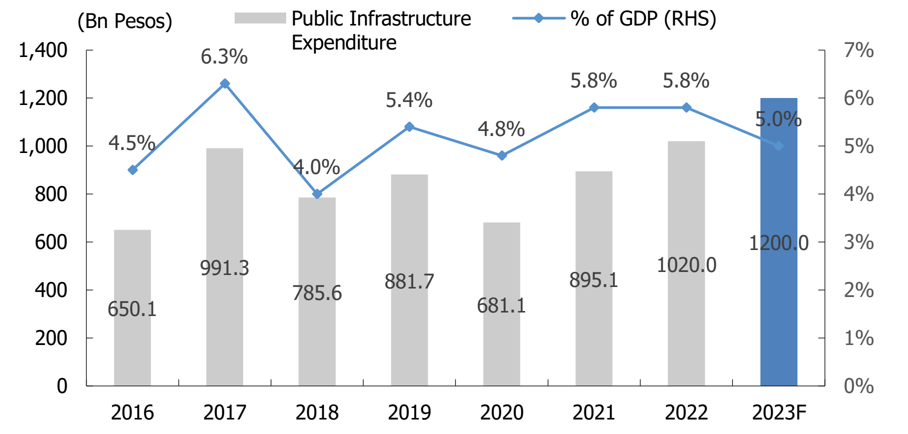
Figure 20. Distribution of clinker production capacity in China's provinces (2021)



Source: KIS, CCA&RMI

As for Philippine market, under the Macros Jr administration, the government committed to maintain high investments in infrastructure at around 5-6% of GDP annually. The infrastructure spending target shall be achieved through the implementation of the Build, Better, More Program which will receive a total of P1.2 trillion (5.0 percent of GDP) under the FY 2023 proposed budget. The government will slowly increase the spending on infrastructure to 6.2% in 2028, according to the Budget Chief. Besides, recently, the department of Trade and Industry has decided to not extend the safeguard measure against cement imported from Vietnam and some other countries. This is, in our opinion, supposed to be a good support for Vietnamese cement exporters. However, other regional exporters (such as Thailand, Indonesia etc.) are also eying on Philippine markets amid large demand. In addition, new cement plants has been welcomed by the Philippines government to increase domestic production capacity to meet domestic demand. Therefore, we expect to see Vietnam exporters will experience a more intense competition in this market in med & long term.

Figure 21. Philippines Public Infrastructure Expenditure over years



Source: KIS, Philippines Government

As mentioned above, Vietnam exporters are expanding their overseas trade partners beside traditional trade partners. Despite of that efforts, we see the export markets will be muted over 2 years from now amid global high borrowing-rate environment and global economy slowdown outlook, which are expected to slow down or postpone construction activities globally. In addition, global cement industry is also excessive capacity so any decline in global demand will make exporters fight harder for overseas contracts. In short and med term, the overcapacity elimination policy and increasingly restrictive regulation on environmental protection in China would continuingly create the export opportunity for Vietnam exporters.

3. Risks to be considered

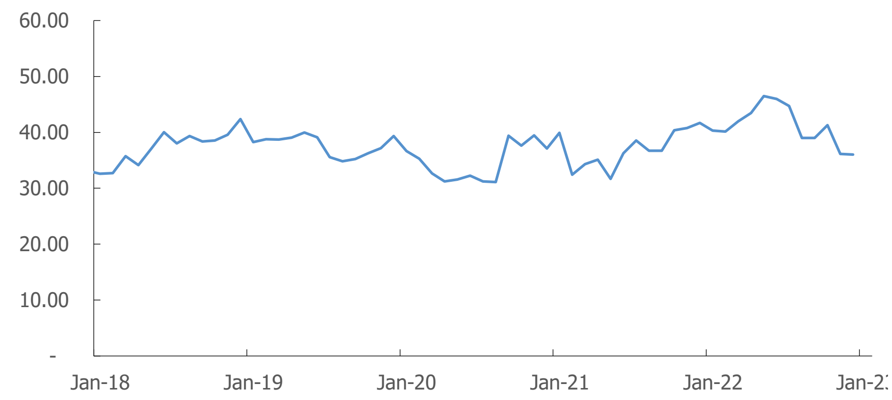
Economic slowdown could dampen the consumption

The downside risk is that the lingering inflation and global economic slowdown will erode the cement & clinker demand for the industry amid excessive capacity. Currently, the Vietnam new regulation on the ratio of additive mixing may potentially make the industry more excessive capacity. In the meantime, the decline in demand of global market in general and current export markets would worsen the domestic industry players amid fiercer competition when companies will return to compete for the domestic pie. Besides, if the current issues related to bond markets and residential developers are not settled down soon, the outlook for domestic demand will be darker.

New tax regime might create downward pressure on companies' earnings, especially, Northern ones

According to Decree No.101/2021/ND-CP, the export tax on clinker will increase from 5% to 10% from Jan 01, 2023. The Ministry of Finance argued that the increase in clinker exports depletes domestic resources and cause many negative environment impacts. Although the VNCA has recently sent the proposal to delay the deadline for increasing clinker export tax, the new tax rate still imposes the risk of the decline in clinker export volume (China is the main clinker importer) and cement oversupply in domestic market. We see this move would bring down local cement prices by increasing supply in the domestic market. Besides, while the gross margin of clinker was around 3-5%, the increasing tax can squeeze the margin or reduce the export volume. This possibly dampens industry players' growth in medium & long term.

Figure 22. Clinker export price was quite stable over years



Source: KIS

V. Conclusion and Ratings

Reiterate Neutral

We reiterate a Neutral rating on Cement sector as we see some challenges for the Vietnam cement industry in short and med terms: (1) domestic issues amid economic slowdown, (2) potentially more competition in export markets, (3) potentially domestic oversupply as the increasing production capacity and higher export rate on clinkers according to the new regulations.

1) Domestic issues hinder demand

First, domestic issues related to residential developers and capital market amid economic slowdown would hinder construction activities and end-use buyers may take "wait-and-see" approach while there is still uncertainty in the market.

2) Potentially more competitive export markets amid flat demand

Second, we see the competition is heating up in both domestic and export markets. Vietnamese exporters will compete with other regional competitors in the traditional export market as well as other new markets while the construction activities is expected to be delay and demand is expected to be lower amid lingering high borrowing-cost environment.

3) Excessive capacity

Third, the improvement in technology and the change in regulation on additive mixing ratio would push the industry deep into excess capacity beside the new tax rate on clinker export. In addition, the decline in demand globally amid global excess capacity also create a more challenging time for the industry.

Table 3. Industry SWOT Analysis

SWOT	
Strength: - Low input costs (labor, electricity etc) - Abundant and high quality cement production materials	**Opportunity:** - Construction market is expected to grow strongly on the back of property market and industrialization process - Political and social stablization attracts more foreigner investment amid manufacturing hub diversification post-COVID19
Weakness: - Cement manufacturing enterprises of Vietnam is also fragmented, with low scale and concentration - Domestic demand is lower than overal designed capacity - Producers have low pricing power due to fragmented market	**Threat:** - Increasingly strict requirements for environmental protection, enterprises in the cement manufacturing industry are increasing development and technological innovation to minimize the harmful effects of their operation

Stock analysis – we are rating HOLD on HT1 and BCC stocks.

Vicem Ha Tien Cement (HT1, HOLD, VND13,500): The company mainly operates in the South of Vietnam, where HT1 has the best pricing power among producers thanks to the fact that the regional demand exceeded regional supply. In addition, the company also explores the new export markets besides the traditional market - Cambodia.

Bim Son Cement (BCC, HOLD, VND11,160): The company's main markets are Thanh Hoa province and others in central area. BCC only focuses on residential and non-residential segments. China is the main export market of BCC with around 30% sale volume.

Companies Analysis

Vicem Ha Tien Cement (HT1)

Bim Son Cement (BCC)

Vincem Ha Tien Cement (HT1)

HOLD (Re-Initiate), TP VND13,500

Stock price (04 May, VND)	14,150
Market cap (USD mn)	230
Shares outstanding (mn)	382
52W High/Low (VND)	19,135/7,470
6M avg. daily turnover (USD mn)	0.54
Free float (%)	17.5
Foreign ownership (%)	3.4
Major shareholders (%)	
Vietnam National Cement Corp	79.7

Yr to Dec	Sales (VND bn)	OP (VND bn)	NP (VND bn)	EPS (VND)	% chg (YoY)	EBITDA (VND bn)	PE (x)	EV/EBITDA (x)	PB (x)	ROE (%)	DY (%)
2021A	7,064	571	369	820	(23.4)	1,154	16.5	5.6	1.0	7.0	12.7
2022A	8,918	471	261	341	(58.4)	1,043	39.7	6.0	1.0	5.1	5.2
2023F	8,214	466	273	700	105.3	1,039	19.4	5.5	1.0	5.3	4.4
2024F	7,730	577	368	943	34.7	1,153	14.4	4.7	1.0	7.2	8.9
2025F	7,962	652	425	1,090	15.6	1,232	12.4	3.9	1.0	8.5	8.9

Performance

	1M	6M	12M
Absolute (%)	(9.3)	45.3	(26.8)
Relative to VNI (%p)	(5.8)	40.2	(5.2)

Stock price trend

Source: Bloomberg

Market price fully reflected the expectation

HOLD and TP of VND13,500. We re-initiate the coverage of HT1 with HOLD rating on Vincem Ha Tien Cement (HT1) based on the outlook in 2022-25F. We forecast EPS will post a three-year CAGR of +47.3% while 2023-25F CAGR was of 24.8%. We expected to see the bounce back of EPS growth in 2023F thanks to the stabilization of input price (coal) before declining due to mute industry outlook. Our target price of VND13,500 is based on the combination of forward PE of 12.0x (higher than 5-year average) on the average EPS over 2023F-24F (70% weight) and DCF valuation over 5-year projection period (30% weight). We use a WACC at 14.1% assuming: 1) a risk-free rate of 5.5%, 2) a beta of 1.38 and 3) an equity risk premium of 8.0% and terminal growth rate of 2%.

Muted global outlook despite China re-opening. China re-opening would be a positive catalyst for Vietnam clinker export from low base. HT1 is the indirect beneficiary in this case when HT1's main export market is Cambodia. The domestic price will be partly relieved from oversupply pressure when northern producers can revive and accelerate the export volume to China - their main export market. However, the outlook of global demand in general and in China in particular, is forecasted to decline amid high borrowing rate, will hinder the growth of the global demand as well as Vietnam export markets' demand.

Domestic market might need more time. Despite the public infrastructure projects, the issues related bond market and residential developers may slow down the cement demand beside high borrowing-rate environment and other high construction material prices that may delay construction activities from end-use buyers. Additionally, the increasing the number of new production lines, change in addictive mixing ratio, and the increasing export tax on clinker will create a pressure more oversupply pressure on domestic producers amid the decline in demand.

Company overview

Vincem Ha Tien Cement (HT1) is one of the largest domestic cement companies in Vietnam. The company is the leader in the South with around 30% market share and has 10% market share throughout Vietnam. It is 80% owned by the State-owned Vietnam Cement Industry Corporation (VICEM).

Table 2. DCF method

Cost of equity		Note	DCF calculation	Value	Note
Beta (x)	1.38		PV of Terminal Value	4,974	Long term growth rate at 2%
Risk-free rate (%)	5.5		**Total PV of Operations**	8,937	
Equity risk premium (%)	8. 0	From 11.0%	Plus: Cash	1,090	
Cost of equity (%)	16.5		Less: Debt	(1,645)	
WACC calculation			Less: Minority Interest	(10)	
Cost of debt (%)	8.0		Equity Value	8,372	
Target debt to capital (%)	24.2		Shares Outstanding, Million	382	
Tax rate (%)	20.0				
WACC (%)	14.1		**DCF target price at end-2023**	21,920	

Table 3. PE multiple method

Metrics	2023F	2024F	Avg.2023-24F
Core EPS (VND)	700	943	822
Regional median multiple (x)	9.4	NA	9.4
Premium (%)	27.6	NA	27.6
Target multiple (x)	12.0	NA	12.0
Implied value per share (VND)			**9,870**

Table 4. Cash flow summary

(VNDbn)

	2023F	2024F	2025F	2026F	2027F
EBIT	**466**	**577**	**652**	**658**	**718**
less: tax	(68)	(92)	(107)	(107)	(118)
add: depreciation	574	576	580	584	588
less: capex	(50)	(50)	(100)	(100)	(100)
(increase) / decrease in NWC	90	(32)	(5)	(51)	(104)
Unlevered free cash flow	**1,039**	**991**	**1,038**	**990**	**1,000**
PV of FCF	**1,039**	**872**	**799**	**663**	**590**

Table 5. Valuation

Metrics	Implied price	Weight	Weight value
Price/EPS, 1-yr forward at 12.0x	9,870	70%	6,910
DCF	21,920	30%	6,580
HT1's target share price (rounded)			**13,500**

Balance sheet

(VND bn)

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
Current assets	1,524	2,373	2,510	2,636	3,103
Cash & cash equivalents	311	691	1,090	1,340	1,835
Accounts & other receivables	527	498	446	426	439
Inventory	664	1,044	908	800	741
Non-current assets	7,285	7,012	6,589	6,169	5,751
Fixed assets	5,859	5,439	4,915	4,389	3,909
Investment assets	995	1,058	1,108	1,158	1,158
Others	435	636	612	670	748
Total assets	8,809	9,385	9,099	8,805	8,854
Advances from customers	74	92	82	77	80
Unearned revenue	136	130	130	130	130
Trade payables	1,208	1,434	1,311	1,209	1,235
Others	606	768	775	785	795
ST debt & due bonds	1,611	1,845	1,645	1,545	1,595
LT debt & bonds	0	0	0	0	0
Total liabilities	3,635	4,269	3,943	3,746	3,835
Controlling interest	5,165	5,107	5,146	5,048	5,006
Capital stock	3,816	3,816	3,816	3,816	3,816
Capital surplus	71	71	71	71	71
Other reserves	793	903	904	904	904
Retained earnings	487	317	355	257	215
Minority interest	9	9	10	11	13
Shareholders' equity	5,174	5,116	5,156	5,059	5,019

Income statement

(VND bn)

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
Sales	7,064	8,918	8,214	7,730	7,962
COGS	6,195	8,026	7,362	6,790	6,936
Gross profit	869	892	852	940	1,027
SG&A expenses	299	421	386	363	374
Operating profit	571	471	466	577	652
Financial income	18	6	16	16	16
Interest income	6	18	1	1	1
Financial expenses	125	143	131	124	127
Interest expenses	100	76	115	108	80
Other non-operating profit	(2)	(10)	(8)	(8)	(8)
Gains (Losses) in associates, subsidiaries and JV	0	0	0	0	0
Earnings before tax	462	324	342	461	533
Income taxes	93	63	69	92	107
Net profit	369	262	274	369	426
Net profit of controlling interest	369	261	273	368	425
EBITDA	1,154	1,043	1,039	1,153	1,232

Cash flow

(VND bn)

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
C/F from operations	735	587	928	907	1,002
Net profit	369	262	274	369	426
Dep'n & Amort'n	584	572	574	576	580
Net incr. in W/C	(218)	(247)	80	(38)	(4)
C/F from investing	(114)	(187)	(100)	(100)	(100)
Capex	(125)	(194)	(100)	(100)	(100)
Incr. in investment	11	7	0	0	0
C/F from financing	(1,403.5)	(19.1)	(428.9)	(557.8)	(407.8)
Incr. in equity	0	1	0	0	0
Incr. in debt	(766)	234	(200)	(100)	50
Dividends	(637)	(254)	(229)	(458)	(458)
C/F from others	0	(1)	0	0	0
Increase in cash	(782)	380	399	249	494

Key financial data

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
Per-share data (VND, adj.)					
EPS	820	341	700	943	1,090
BPS	13,560	13,408	13,511	13,258	13,153
DPS	1,714	710	600	1,200	1,200
Growth (%)					
Sales growth	(11.3)	26.2	(7.9)	(5.9)	3.0
OP growth	(43.2)	(17.4)	(1.2)	23.9	13.1
NP growth	(23.4)	(58.4)	105.2	34.6	15.7
EPS growth	(23.4)	(58.4)	105.3	34.7	15.6
EBITDA growth	(30.5)	(9.5)	(0.5)	11.0	6.9
Profitability (%)					
OP margin	8.1	5.3	5.7	7.5	8.2
NP margin	4.4	1.5	3.3	4.7	5.2
EBITDA margin	16.3	11.7	12.6	14.9	15.5
ROA	3.9	2.9	3.0	4.1	4.8
ROE	7.0	5.1	5.3	7.2	8.5
Dividend yield	12.1	5.0	4.2	8.5	8.5
Dividend payout ratio	209.0	208.1	85.7	127.3	110.1
Stability					
Net debt (VND bn)	1,300	1,154	555	205	(240)
Net debt/equity (%)	30.0	20.0	10.0	0.0	0.0
Valuation (x)					
PE	17.3	41.5	20.2	15.0	13.0
PB	1.0	1.1	1.0	1.1	1.1
EV/EBITDA	5.8	6.3	5.7	4.8	4.2

Bim Son Cement (BCC)

HOLD (Initiate), TP VND11,160

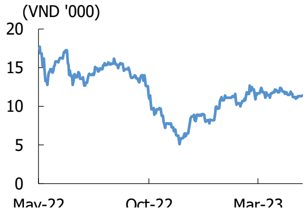
Stock price (04 May, VND)	11,400
Market cap (USD mn)	60
Shares outstanding (mn)	123
52W High/Low (VND)	17,725/5,100
6M avg. daily turnover (USD mn)	0.36
Free float (%)	26.8
Foreign ownership (%)	1.2
Major shareholders (%)	
Vietnam National Cement Corp	73.1

Yr to Dec	Sales (VND bn)	OP (VND bn)	NP (VND bn)	EPS (VND)	% chg (YoY)	EBITDA (VND bn)	PE (x)	EV/EBITDA (x)	PB (x)	ROE (%)	DY (%)
2021A	4,330	184	84	488	(50.3)	489	23.4	3.8	0.7	3.7	3.8
2022A	4,218	120	69	415	(15.0)	424	27.5	4.5	0.7	3.0	5.5
2023F	3,995	120	67	409	(1.4)	428	27.9	4.0	0.7	2.9	4.4
2024F	4,455	169	105	640	56.5	481	17.8	3.0	0.7	4.6	4.4
2025F	4,644	210	139	847	32.4	526	13.5	2.3	0.6	5.9	4.4

Performance

	1M	6M	12M
Absolute (%)	(7.3)	56.2	(34.6)
Relative to Vnindex (%p)	(3.8)	51.1	(13.1)

Stock price trend



Source: Bloomberg

China Re-opening is the catalyst for recovery

HOLD and TP of VND11,160: We initiate the coverage of Bim Son Cement (BCC) with HOLD rating based on our outlook for the industry in FY23F-25F. We forecast EPS will post a three-year forward CAGR of 26.8% thanks to the low base in 2022F. The low base is contributed mainly by the significant drop in China import. We expected to see the bounce back of EPS growth in 2023F thanks to the stabilization of input price (coal) before declining due to mute industry outlook. Our target price of VND11,160 is based on the combination of forward PE of 11.0x (higher than 5-year average) on the average EPS over 2023F-24F (70% weight) and DCF valuation over 5-year projection period (30% weight). We use a WACC at 15.7% assuming: 1) a risk-free rate of 5.5%, 2) a beta of 1.6 and 3) an equity risk premium of 8.0% and terminal growth rate of 2%.

Muted global outlook despite China re-opening. China re-opening would be a positive catalyst for Vietnam clinker export from low base. BCC is the direct beneficiary in this case when BCC's main export market is China with around 30% volume. Thanks to that, the company will benefit from the improvement in domestic prices and increasing export volume to China. However, the outlook of global demand in general and in China in particular, is forecasted to decline amid high borrowing rate, will hinder the growth of the global demand as well as Vietnam export markets' demand for cement and clinker products.

Domestic market might need more time. Despite the public infrastructure projects, the issues related bond market and residential developers may slow down the cement demand beside high borrowing-rate environment and other high construction material prices that may delay construction activities from end-use buyers. Additionally, the increasing the number of new production lines, change in addictive mixing ratio, and the increasing export tax on clinker will create a pressure more oversupply pressure on domestic producers amid the decline in demand.

Company overview

Bim Son Cement Joint Stock Company (BCC) was established in 1980 with its main business in production, trade, import and export of cement, clinker and other building materials. The company has a total clinker production capacity of 3.4mn tonnes and cement capacity of 5mn tonnes per annum.

Table 2. DCF method

Cost of equity		Note	DCF calculation	Value	Note
Beta (x)	1.6		PV of Terminal Value	1,860	Long term growth rate at 2%
Risk-free rate (%)	5.5		**Total PV of Operations**	3,214	
Equity risk premium (%)	8. 0	From 11.0	Plus: Cash	183	
Cost of equity (%)	18.3		Less: Debt	(512)	
WACC calculation			Less: Minority Interest	34	
Cost of debt (%)	8.0		Equity Value	2,919	
Target debt to capital (%)	21.5		Shares Outstanding, Million	123	
Tax rate (%)	20.0				
WACC (%)	15.7		**DCF target price at end-2023**	23,730	

Table 3. PE multiple method

Metrics	2023F	2024F	Avg.2023-24F
Core EPS (VND)	409	640	525
Regional median multiple (x)	9.4	N.A	9.4
Premium (%)	17.0	N.A	17.0
Target multiple (x)	11.0	N.A	11.0
Implied value per share (VND)			**5,780**

Table 4. Cash flow summary

(VNDbn)

	2023F	2024F	2025F	2026F	2027F
EBIT	**120**	**169**	**210**	**193**	**194**
less: tax	(16)	(24)	(32)	(29)	(30)
add: depreciation	308	312	316	320	324
less: capex	(100)	(100)	(100)	(100)	(100)
(increase) / decrease in NWC	3	10	(65)	(39)	56
Unlevered free cash flow	**316**	**367**	**330**	**345**	**446**
PV of FCF	**316**	**316**	**248**	**224**	**250**

Table 5. Valuation

Metrics	Implied price	Weight	Weight value
Price/EPS, 1-yr forward at 13.0x	5,780	70%	4,040
DCF	23,730	30%	7,120
BCC's target share price (rounded)			**11,160**

Balance sheet

(VND bn)

FY-ending Dec	2021A	2022A	2023F	2024F	2025F
Current assets	544	805	823	1,155	1,440
Cash & cash equivalents	95	43	183	501	763
Accounts & other receivables	88	119	108	121	126
Inventory	318	605	491	489	505
Non-current assets	3,332	3,295	3,115	2,924	2,727
Fixed assets	3,165	3,147	2,938	2,726	2,510
Investment assets	68	18	18	18	18
Others	134	160	186	205	223
Total assets	3,876	4,099	3,938	4,078	4,168
Advances from customers	128	81	80	89	93
Unearned revenue	0	0	0	0	0
Trade payables	873	1,025	934	978	955
Others	199	289	292	299	307
ST debt & due bonds	524	511	461	521	571
LT debt & bonds	34	71	51	41	31
Total liabilities	1,758	1,977	1,818	1,928	1,957
Controlling interest	2,142	2,152	2,154	2,192	2,262
Capital stock	1,232	1,232	1,232	1,232	1,232
Capital surplus	57	57	57	57	57
Other reserves	714	728	741	762	790
Retained earnings	139	134	123	140	183
Minority interest	(23)	(29)	(34)	(42)	(52)
Shareholders' equity	2,119	2,123	2,120	2,150	2,210

Income statement

(VND bn)

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
Sales	4,330	4,218	3,995	4,455	4,644
COGS	3,842	3,782	3,588	3,966	4,100
Gross profit	488	436	407	489	544
SG&A expenses	304	316	288	321	334
Operating profit	184	120	120	169	210
Financial income	1	0	2	2	2
Interest income	0	1	1	1	1
Financial expenses	45	36	40	45	46
Interest expenses	45	36	33	31	27
Other non-operating profit	(29)	3	(4)	(5)	(5)
Gains (Losses) in associates, subsidiaries and JV	0	0	0	0	0
Earnings before tax	111	87	78	122	161
Income taxes	33	24	16	24	32
Net profit	78	63	62	97	129
Net profit of controlling interest	84	69	67	105	139
EBITDA	489	424	428	481	526

Cash flow

(VND bn)

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
C/F from operations	423	180	372	428	383
Net profit	78	63	62	97	129
Dep'n & Amort'n	305	304	308	312	316
Net incr. in W/C	40	(187)	2	19	(62)
C/F from investing	(90)	(196)	(110)	(104)	(107)
Capex	(90)	(198)	(100)	(100)	(100)
Incr. in investment	0	2	(10)	(4)	(7)
C/F from financing	(326.3)	(36.3)	(131.6)	(11.6)	(21.6)
Incr. in equity	0	0	0	0	0
Incr. in debt	(289)	25	(70)	50	40
Dividends	(37)	(61)	(62)	(62)	(62)
C/F from others	0	0	0	0	0
Increase in cash	7	(52)	131	312	255

Key financial data

FY-ending Dec.	2021A	2022A	2023F	2024F	2025F
Per-share data (VND, adj.)					
EPS	488	415	409	640	847
BPS	17,197	17,228	17,205	17,451	17,942
DPS	438	632	500	500	500
Growth (%)					
Sales growth	0.7	(2.6)	(5.3)	11.5	4.2
OP growth	(26.7)	(34.6)	(0.2)	40.7	24.6
NP growth	(50.3)	(15.0)	(1.4)	56.3	32.5
EPS growth	(50.3)	(15.0)	(1.4)	56.5	32.4
EBITDA growth	(12.1)	(13.1)	0.7	12.4	9.4
Profitability (%)					
OP margin	4.2	2.8	3.0	3.8	4.5
NP margin	1.4	1.2	1.3	1.8	2.2
EBITDA margin	11.3	10.1	10.7	10.8	11.3
ROA	1.9	1.6	1.5	2.4	3.1
ROE	3.7	3.0	2.9	4.6	5.9
Dividend yield	3.8	5.5	4.4	4.4	4.4
Dividend payout ratio	89.7	152.2	122.2	78.2	59.0
Stability					
Net debt (VND bn)	463	540	329	62	(161)
Net debt/equity (%)	20.0	30.0	20.0	0.0	(10.0)
Valuation (x)					
PE	23.4	27.5	27.9	17.8	13.5
PB	0.7	0.7	0.7	0.7	0.6
EV/EBITDA	3.8	4.5	4.0	3.0	2.3

■ **Guide to KIS Vietnam Securities Corp. stock ratings based on 12-month forward performance**
- BUY: Expected total return will be 15%p or more
- Hold: Expected total return will be between -5%p and 15%p
- Sell: Expected total return will be -5%p or less
- KIS Vietnam Securities Corp. does not offer target prices for stocks with Hold or Sell ratings.

■ **Guide to KIS Vietnam Securities Corp. sector ratings for the next 12 months**
- Overweight: Recommend increasing the sector's weighting in the portfolio compared to its respective weighting in the VNIndex based on market capitalization.
- Neutral: Recommend maintaining the sector's weighting in the portfolio in line with its respective weighting in the VNIndex based on market capitalization.
- Underweight: Recommend reducing the sector's weighting in the portfolio compared to its respective weighting in the VNIndex based on market capitalization.

■ **Analyst Certification**

I/We, as the research analyst/analysts who prepared this report, do hereby certify that the views expressed in this research report accurately reflect my/our personal views about the subject securities and issuers discussed in this report. I/We do hereby also certify that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research report.

■ **Important compliance notice**

As of the end of the month immediately preceding the date of publication of the research report or the public appearance (or the end of the second most recent month if the publication date is less than 10 calendar days after the end of the most recent month), KIS Vietnam Securities Corp. or its affiliates does not own 1% or more of any class of common equity securities of the companies mentioned in this report.

There is no actual, material conflict of interest of the research analyst or KIS Vietnam Securities Corp. or its affiliates known at the time of publication of the research report or at the time of the public appearance.

KIS Vietnam Securities Corp. or its affiliates has not managed or co-managed a public offering of securities for the companies mentioned in this report in the past 12 months;

KIS Vietnam Securities Corp. or its affiliates has not received compensation for investment banking services from the companies mentioned in this report in the past 12 months; KIS Vietnam Securities Corp. or its affiliates does not expect to receive or intend to seek compensation for investment banking services from the companies mentioned in this report in the next 3 months.

KIS Vietnam Securities Corp. or its affiliates was not making a market in securities of the companies mentioned in this report at the time that the research report was published.

KIS Vietnam Securities Corp. does not own over 1% of shares of the companies mentioned in this report as of 4 May 2023.
KIS Vietnam Securities Corp. has not provided this report to various third parties.
Neither the analyst/analysts who prepared this report nor their associates own any shares of the company/companies mentioned in this report as of 4 May 2023.
KIS Vietnam Securities Corp. has issued CW with underlying stocks of Nam Kim, Hoa Sen and is the liquidity provider.

Prepared by: Research Department

Global Disclaimer

■ **General**

This research report and marketing materials for Vietnamese securities are originally prepared and issued by the Research Center of KIS Vietnam Securities Corp., an organization licensed with the State Securities Commission of Vietnam. The analyst(s) who participated in preparing and issuing this research report and marketing materials is/are licensed and regulated by the State Securities Commission of Vietnam in Vietnam only. This report and marketing materials are copyrighted and may not be copied, redistributed, forwarded or altered in any way without the consent of KIS Vietnam Securities Corp..

This research report and marketing materials are for information purposes only. They are not and should not be construed as an offer or solicitation of an offer to purchase or sell any securities or other financial instruments or to participate in any trading strategy. This research report and marketing materials do not provide individually tailored investment advice. This research report and marketing materials do not take into account individual investor circumstances, objectives or needs, and are not intended as recommendations of particular securities, financial instruments or strategies to any particular investor. The securities and other financial instruments discussed in this research report and marketing materials may not be suitable for all investors. The recipient of this research report and marketing materials must make their own independent decisions regarding any securities or financial instruments mentioned herein and investors should seek the advice of a financial adviser. KIS Vietnam Securities Corp. does not undertake that investors will obtain any profits, nor will it share with investors any investment profits. KIS Vietnam Securities Corp., its affiliates, or their affiliates and directors, officers, employees or agents of each of them disclaim any and all responsibility or liability whatsoever for any loss (director consequential) or damage arising out of the use of all or any part of this report or its contents or otherwise arising in connection therewith. Information and opinions contained herein are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or KIS Vietnam Securities Corp. The final investment decision is based on the client's judgment, and this research report and marketing materials cannot be used as evidence in any legal dispute related to investment decisions.

■ **Country-specific disclaimer**

United States: This report is distributed in the U.S. by Korea Investment & Securities America, Inc., a member of FINRA/SIPC, and is only intended for major U.S. institutional investors as defined in Rule 15a-6(a)(2) under the U.S. Securities Exchange Act of 1934. All U.S. persons that receive this document by their acceptance thereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to Korea Investment & Securities, Co., Ltd. or its affiliates. Pursuant to Rule 15a-6(a)(3), any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Korea Investment & Securities America, Inc., which accepts responsibility for the contents of this report in the U.S. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. person absent registration or an applicable exemption from the registration requirement.

United Kingdom: This report is not an invitation nor is it intended to be an inducement to engage in investment activity for the purpose of section 21 of the Financial Services and Markets Act 2000 of the United Kingdom ("FSMA"). To the extent that this report does constitute such an invitation or inducement, it is directed only at (i) persons who are investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended) of the United Kingdom (the "Financial Promotion Order"); (ii) persons who fall within Articles 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order; and (iii) any other persons to whom this report can, for the purposes of section 21 of FSMA, otherwise lawfully be made (all such persons together being referred to as "relevant persons"). Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons. Persons who are not relevant persons must not act or rely on this report.

Hong Kong: This research report and marketing materials may be distributed in Hong Kong to institutional clients by Korea Investment & Securities Asia Limited (KISA), a Hong Kong representative subsidiary of Korea Investment & Securities Co., Ltd., and may not otherwise be distributed to any other party. KISA provides equity sales service to institutional clients in Hong Kong for Korean securities under its sole discretion, and is thus solely responsible for provision of the aforementioned equity selling activities in Hong Kong. All requests by and correspondence with Hong Kong investors involving securities discussed in this report and marketing materials must be effected through KISA, which is registered with The Securities & Futures Commission (SFC) of Hong Kong. Korea Investment & Securities Co., Ltd. is not a registered financial institution under Hong Kong's SFC.

Singapore: This report is provided pursuant to the financial advisory licensing exemption under Regulation 27(1)(e) of the Financial Advisers Regulation of Singapore and accordingly may only be provided to persons in Singapore who are "institutional investors" as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This report is intended only for the person to whom Korea Investment & Securities Co., Ltd. has provided this report and such person may not send, forward or transmit in any way this report or any copy of this report to any other person. Please contact Korea Investment & Securities Singapore Pte Ltd in respect of any matters arising from, or in connection with, the analysis or report (Contact Number: 65 6501 5600).

VIET NAM

JAE HEUNG LEE, Business Director (jhlee@kisvn.vn +8428 3914 8585 - 1466)
UYEN LAM, Head of Institutional Brokerage (uyen.lh@kisvn.vn +8428 3914 8585 - 1444)
KIS Vietnam Securities Corporation
3rd floor, 180-192 Nguyen Cong Tru, Nguyen Thai Binh Ward, District 1, Ho Chi Minh City.
Fax: 8428 3821-6898

SOUTH KOREA

YEONG KEUN JOO, Managing Director, Head of International Business Division (ykjoo@truefriend.com, +822 3276 5157)
PAUL CHUNG, Sales Trading (pchung@truefriend.com +822 3276 5843)
27-1 Yoido-dong, Youngdeungpo-ku, Seoul 150-745, Korea
Toll free: US 1 866 258 2552 HK 800 964 464 SG 800 8211 320
Fax: 822 3276 5681~3
Telex: K2296

NEW YORK

DONG KIM, Managing Director (dkim@kisamerica.com +1 212 314 0681)
HOON SULL, Head of Sales (hoonsull@kisamerica.com +1 212 314 0686)
Korea Investment & Securities America, Inc.
1350 Avenue of the Americas, Suite 1110
New York, NY 10019
Fax: 1 212 314 0699

HONG KONG

DAN SONG, Managing Director, Head of HK Sales (dan.song@kisasia.com +852 2530 8914)
GREGORY KIM, Sales (greg.kim@kisasia.com, +822 2530 8915)
Korea Investment & Securities Asia, Ltd.
Suite 2220, Jardine House
1 Connaught Place, Central, Hong Kong
Fax: 852-2530-1516

SINGAPORE

ALEX JUN, Managing Director, Head of Singapore Sales (alex@kisasia.com.sg +65 6501 5602)
CHARLES AN, Sales (alex.jun@kisasia.com.sg +65 6501 5601)
Korea Investment & Securities Singapore Pte Ltd
1 Raffles Place, #43-04, One Raffles Place
Singapore 048616
Fax: 65 6501 5617

LONDON

Min Suk Key, Managing Director (peterkey@kiseurope.com +44 207 065 2766)
Korea Investment & Securities Europe, Ltd.
2nd Floor, 35-39 Moorgate
London EC2R 6AR
Fax: 44-207-236-4811