SECTOR: CEMENT & AGGREGATE — **March 6th 2020**

VICEM HA TIEN CEMENT JSC (HSX: HT1)

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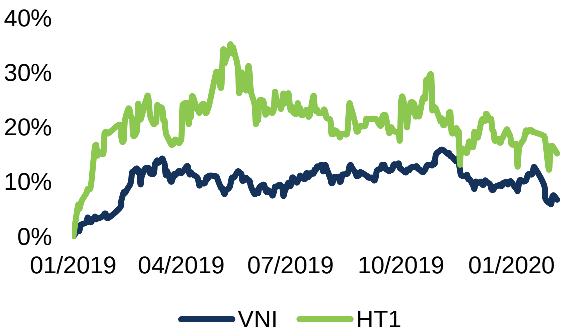
Relative share price HT1 & VNINDEX



Market Snapshot (March 6th 2020)	
Current price (VND/share):	13,950
Adjusted 52 week high (VND/share):	18,200
Adjusted 52 week low (VND/share):	13,700
Listed shares (mil shares)	381.6
Shares outstanding (mil shares)	381.5
Average 90d trading volume (shares)	74,076
% Foreign float	7.5
Market capitalization (bil VND)	5,322
P/E trailing 12 months (times)	7.2
EPS trailing 12 months (VND/share)	1,920

Business Snapshot	
Name	VICEM Ha Tien Cement
Address	360 Chuong Duong, District 1, HCM City
Main revenue	Cement, clinker production
Main cost	Limestone, clay, thermal coal
Main risk	Competitive pressure from North cement manufacturers
Main advantage	Gain control the majority of limestone quarry in the region

Shareholder structure (March 6th 2020)	
VICEM Corporation	79.7%
Others	20.3%

Current price:	**13,950**
Target price:	**13,460**
Downside:	**-4%**

RECOMMENDATION
SELL

DECLINING MARKET DEMAND & INTENSIFIED COMPETITION FROM NEW MARKET ENTRANTS

We conduct the initial valuation of VICEM Ha Tien Cement (hereby called "HT1") shares, listed on Ho Chi Minh Stock Exchange (HSX). Using discounted cash flow and peer multiples valuation method, we determine target price for HT1 shares at **13,460 VND/share** (4% lower than March 6th 2020 closing price). Therefore, we recommend to **SELL** HT1 shares for short and medium-term goals based on key thesis:

► ***Lack of potential growth in 2020.*** For year 2020 and following period, HT1's revenue growth is constrained by the decline of material demand in Vietnam's Southern construction market due to (1) Slow progress in public's infrastructure investment and (2) Tighten in government license for regional residential building. (more details)

► ***Increasing competition due to:***

(1) Significant capacity expansion from competitors in HT1's key selling markets. In 2020, HT1 faces increasing competitive pressure in two important markets: HCM City and Binh Duong. There will be two new cement plants launched by An Phu & FICO Tay Ninh with total capacity of 3.3 million tons/year (48% HT1's capacity). Additionally, other regional players are also planning to further expand capacity, thus may create intense market competition. (more details).

(2) Declining in Vietnam's cement export. Recently, the imposition of tariffs in a number of Vietnam's main cement export markets such as the Philippines and Bangladesh is causing a significant decline in export ability of many domestic companies. If this situation prolonged, pressure in the domestic market may increase, affect market demand for domestic players such as HT1. (more details)

► ***Negative outlook for company on-going investment projects:***

(1) Most plans for capacity expansion are currently not feasible. As most factories and grinding stations have been operating at full capacity, HT1 is planning to invest in new production lines in the upcoming period. However, most expansion plans are currently not feasible to implement due to limited investment capital and lack of necessary investment permits. (more details)

(2) Previous non-core investment face significant delay. Two non-core investment projects: (1) VICEM complex building, which currently in conflict with new Public Investment Law (No. 167/2017 ND-CP) and (2) BOT Phu Huu, which is yet to be approved by HCM City People's Committee. We assess that these non-core project could be seriously delayed and difficult to recover capital in the near future. (more details)

BUSINESS OVERVIEW

VICEM Ha Tien Cement Joint Stock Company (HSX: HT1), formerly known as Ha Tien cement factory, was established in 1961 with initial production capacity of 300,000 tons of cement per year and also the first cement plant in Vietnam's South region. Currently, HT1's production capacity has reached 6.5 million tons of cement per year and is the largest production unit of Vietnam Cement Corporation (VICEM).

Core business and products

HT1's core business is cement & clinker production, contributing 98-99% of company revenue with product of clinker, bagged cement and bulk cement (see product explanation). HT1's products mainly supply for construction activities in Southern Vietnam, with demand from 3 main construction activities, which are: housing, industrial & infrastructure.

Shareholder structure

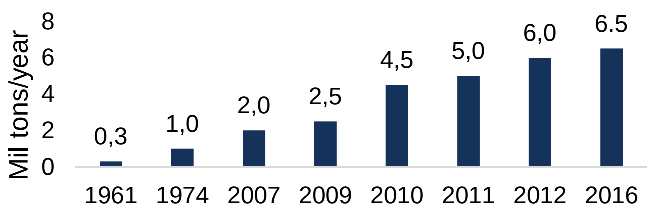
Table I: HT1's shareholder structure at March 6th 2020 *(Source: HT1, FPTS research)*

Shareholder	Ownership
VICEM Corporation	79,7%
Other shareholders	20,3%

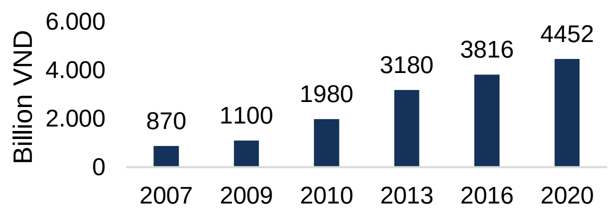
Currently, the largest shareholder is VICEM Corporation (holding 80% stake in the company), directly manages HT1's business operations. In particular, VICEM controls the supply of some materials that HT1 cannot produce (gypsum, packaging, etc.) and also in charge of allocating selling markets between HT1 and other VICEM members. (see more about VICEM)

Company history

Graph I: History of increase in production capacity



Graph II: History of increase in charter capital

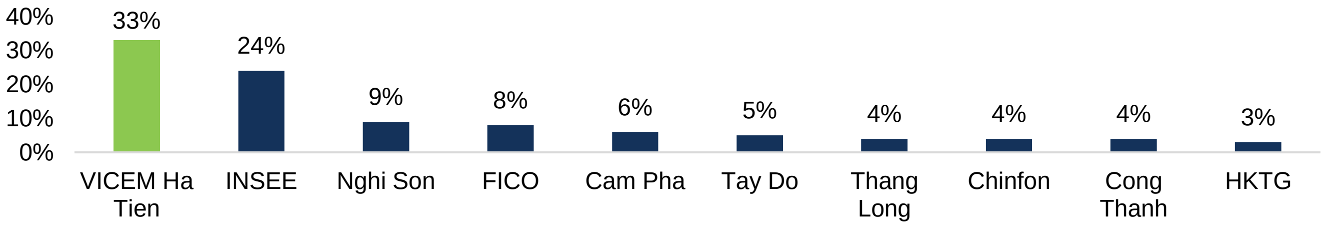


- 1961: Start construction of the first cement plant with 01 clinker production line in Kien Luong and 02 cement grinding stations in Kien Luong & Thu Duc (upgraded and renovated in 1974).
- 2007 - 2012: Complete construction of series of important projects including 02 clinker factories: Binh Phuoc, Kien Luong II and 03 grinding stations: Phu Huu, Long An, Cam Ranh and Binh Phuoc with funding from VICEM
- 2013: Issue an additional 120 million shares to offset the VND 1,200 billion internal debt with VICEM
- 2016: Receive restructuring mission for Ha Long cement and start managing Hiep Phuoc grinding station. Later, HT1 was forced to dismantled and relocated Thu Duc grinding station in accordance to HCM City urban plan.

Selling markets

HT1 is the largest cement company in the South region with a market share of 33%. The main competitor of HT1 is Thailand's FDI company (INSEE), which is also the only cement company with equivalent market share and production capacity at the moment. The rest are small cement companies in Southern Vietnam or companies from Vietnam's Central region participating in the market such as FICO Cement, Nghi Son, Cam Pha, Tay Do, etc.

Graph III: Market share of cement companies in the South (*Source: Vietnam Cement Association, FPTS research)*



BUSINESS ANALYSIS

A. Value chain overview

Input	Manufacturing	Output
Materials (66% production cost) • Limestone, clay: Mining from 04 quarries located in Kien Giang, Bình Phuoc • Coal dust (fuel): Mostly imported from Australia and Indonesia • Clinker: Imported from other VICEM factories Other production costs (34%) • Electricity: 16% • Labour: 7% • Depreciation: 8% • Others: 3%	02 clinker production plants: • Binh Phuoc factory: 2.5 million tons of clinker/year • Kien Luong factory: 2.0 million tons of clinker/year Production technology: Dry rotary kiln with cyclone pre-heater 06 cement grinding station • Total grinding capacity: 6.5 million tons of cement/year Two main production stages: Raw processing of materials (forming clinker) and grinding clinker into finished products (cement).	Main products: Bagged cement (70%) and bulk cement (30%) Consumption segment (% revenue) • Residential housing (55%) • Infrastructure (25%) • Industrial construction (20%) Consumption market (% revenue): Domestic: • South region (90%) • Central region (7%) Export: • Australia, Cambodia (3%)

Graph IV: Location of HT1's material quarries, factories and main selling market

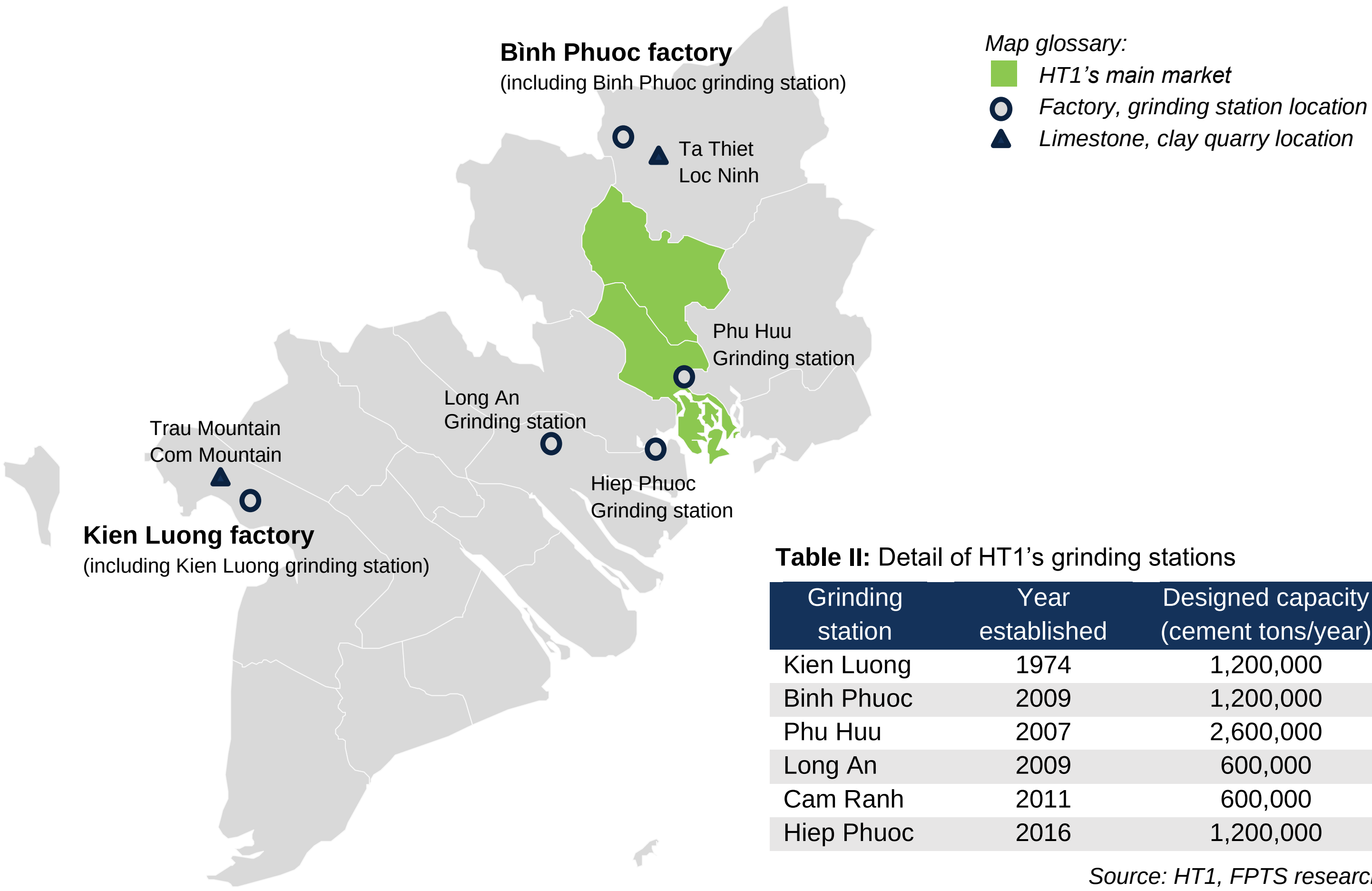


Table II: Detail of HT1's grinding stations

Grinding station	Year established	Designed capacity (cement tons/year)
Kien Luong	1974	1,200,000
Binh Phuoc	2009	1,200,000
Phu Huu	2007	2,600,000
Long An	2009	600,000
Cam Ranh	2011	600,000
Hiep Phuoc	2016	1,200,000

Source: HT1, FPTS research

Map source: HT1, General Department of Geology and Minerals of Vietnam, FPTS research

I. Raw materials and production costs

1. **The main cost for cement production is raw material cost (accounted for 66% of production cost) and electricity cost (accounted for 20% of production cost).** Main materials for cement production process include: limestone, clay and coal dust.

Table III: Components of raw materials for cement production and the proportion of each raw material cost

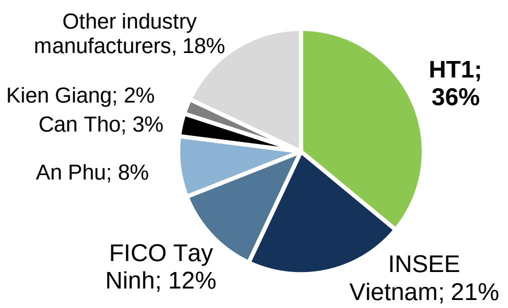
Material	% Production cost	Main supply source	Details
Limestone	26%	Kien Giang: 03 quarries, average distance: 3 km from factories	Mining license expiration: 21 - 23 years Licensed capacity: 5.0 million tons/year
Clay		Binh Phuoc: 01 quarries, average distance: 6 km from factories	Mining license expiration: 25 - 30 years Licensed capacity: 3.0 million tons/year
Coal dust, fuel	35%	Import: Indonesia & Australia (80%) Domestic: Vietnam National Coal and Mineral Group (TKV) (20%)	Import price = New Castle (Australia) or HBA (Indo) coal price + shipping cost Domestic price = TKV listed price
Other materials	5%	Gypsum Cement JSC (TXM), Trading Cement JSC (TMX)	Including gypsum, silicon powder, iron-rich soil, cement packaging, etc.

Source: VICEM, HT1, FPTS research

2. **HT1 controls the majority of production materials (limestone & clay) quarries in the Southern region**

Limestone, clay: These are two main cement materials, accounted for 26% of cement production costs. Vietnam has a large reserve of limestone and clay but are unevenly distributed throughout the country. Specifically, according to the General Department of Geology & Minerals of Vietnam, there are only 12 limestone quarries in the South region (compared to over 146 limestone quarries nationwide) and represent only 8% of Vietnam's limestone reserves. This lead to the scarcity of production materials in the Southern area, significantly affect the production capability and competition situation among regional companies.

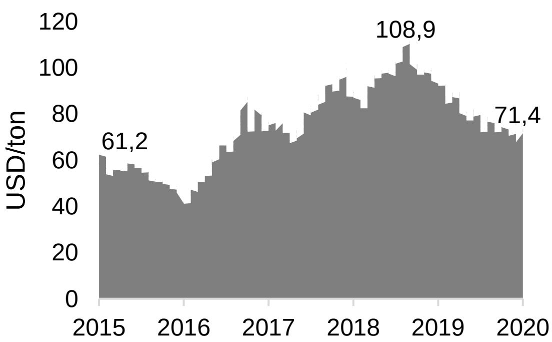
Graph V: Limestone reserves ownership in South region (*Source: VN General Department of Geology & Minerals)*



To build or expand a cement plant, companies will need license to exploit nearby material sources with corresponding capacity. Total licensed mining capacity in the South is 22.5 million tons/year according to Vietnamese government's raw materials allocation plan for cement production. In particular, HT1 has a license of up to 8 million tons/year, represent more than 1/3 of the mining reserves that can be exploited in this area. This is an advantage for HT1 in order to have largest production capacity in the South region, as also help to reduce regional competitive pressure.

3. **HT1's significant production cost come from coal dust, which has to be imported at a highly volatile price**

Graph VI: Australia imported coal price period 2015 – 2020 (*Source: Global Platts, FPTS research)*



Coal dust: HT1 uses two main sources of coal: (1) Domestic coal source is exploited in Northern coal mines (90% from Quang Ninh area) and supplied by TKV, (2) Imported coal from Australia and Indonesia. In particular, domestic coal sources with large combustion efficiency to produce cement (heat > 6000 kcal/kg) has gradually exhausted and is not enough to serve production needs of cement plants. From 2015, HT1 was forced to switch to imported coal, causing large fluctuations in input price from 2015 to 2019 (when Australian and Indonesian coal price increased 70%), causing a significant decline in HT1's profit margin in the following period.

II. Production technology

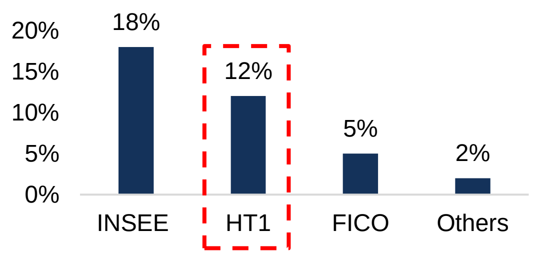
1. Production technology is well-invested and is more advanced compared to industry peers

HT1's factory uses dry rotary kiln technology, which is the most popular technology in the industry at present (with the use of 92% factories across Vietnam – see more about cement production technology). According to the Vietnam Cement Association, HT1 production lines are among few domestic production lines which are well-invested and more advanced than other companies in the industry because of: (1) Synchronous operation and frequent upgrade of machines and in-line equipment, (2) Well-invested supplement technologies help to reduce costs significantly. Therefore, despite the similar use of rotary kiln technology with industry peers, HT1's production efficiency is significantly higher (in terms of higher ultilization capacity, lower material consumption and lower production costs).

2. Owning supplement technologies helps to save production costs significantly

Supplement technologies invested by HT1 include: (1) Waste heat recovery system and (2) Waste recycling system as an alternative fuel. As explained by Vietnam Institute of Building Materials: (1) Waste heat recovery technology uses heat energy emitted from the exhaust stream when burning clinker to generate electricity while supplying most power demand for the plant and (2) Waste recycling technology makes use of waste products from other industries to replace burning fuels (coal dust) or necessary additives in cement industry (gypsum, pozzolan) at cheaper price.

Graph VIII: Proportion of alternative fuel used in Vietnamese cement plants *(Source: Vietnam Cement Association)*



According to HT1's data on the supplement technologies efficiency at Binh Phuoc and Kien Luong factories, the total annual cost savings after applying this technology is 9% (compared to previous period), including: 5% reduce from electricity costs cut in waste heat recovery technology, 4% reduce from fuel costs cut in recycling waste from steel industry & agriculture (blast furnace slag and cashew shells). The application rate of these supplement technologies of HT1 is also much higher than the industry average level. According to the report of World Cement Association, manufacturer Lafarge Holcim in Europe saves up to 15-20% of annual production costs by applying ~40% rate of alternative materials, leaving the possibility of HT1's further development for these technologies in the upcoming period.

Table IV: Compare production efficiency of HT1 production line and competitors in the South

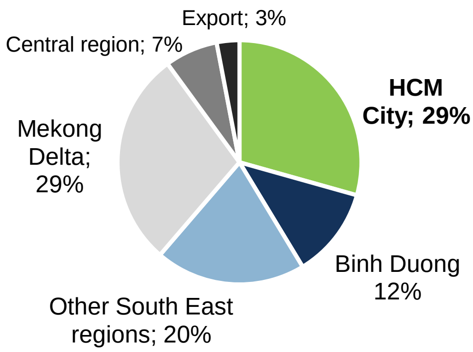
Categories	VICEM Ha Tien	INSEE Viet Nam	FICO Tay Ninh	Can Tho Cement
Factory technology	Dry rotary kiln	Dry rotary kiln	Dry rotary kiln	Dry rotary kiln
Consumption fuel price	2.2 mil VND/ton (12% cashew nut shell)	2 mil VND/ton (18% blast furnace slag)	2.5 mil VND/ton (5% blast furnace slag)	3.1 mil VND/ton (0% fuel substitution rate)
Heat captured technology	Yes	Yes	Yes	No
Electricity consumption	82 kwh/tons of cement	80 kwh/tons of cement	86 kwh/tons of cement	102 kwh/tons of cement
Difference in production cost compared to HT1		3.2% lower	4.5% lower	Higher 11.3%

Source: HT1, FICO, INSEE, FPTS estimate

III. Target market & distribution system

1. Focusing on domestic consumption with the target market in Ho Chi Minh City & Binh Duong

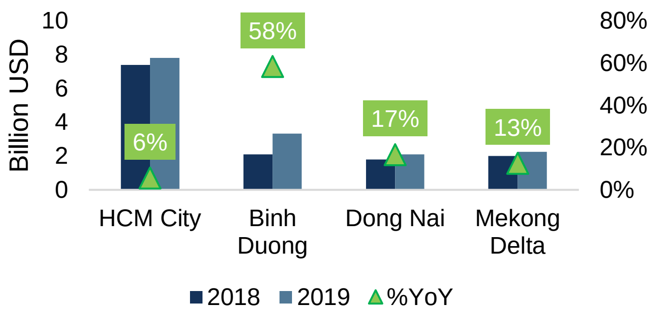
Graph IX: HT1's revenue by market in 2019 *(Source: HT1, FPTS research)*



HT1 mainly sell products domestically, particularly in Southern region of Vietnam with two main markets: HCM City & Binh Duong, which currently represent 41% of HT1's revenue. These two markets also took up nearly 30% of cement consumption in the South region. Main demand for HT1's products comes from housing construction market (55% HT1's revenue), especially the construction of residential real estate in HCM City, which represent most demand to this market segment. Additionally, HT1's significant sales in the area is also supported by supplying to many public infrastructure investment projects as well as industrial projects funded by the FDI capital inflows in Southern Vietnam's provinces.

➢ **Binh Duong market**: Potential from rising industrial construction supported by FDI capital inflows

Graph X: FDI attraction in Southern provinces *(Source: Socio-economic report of provinces and cities)*

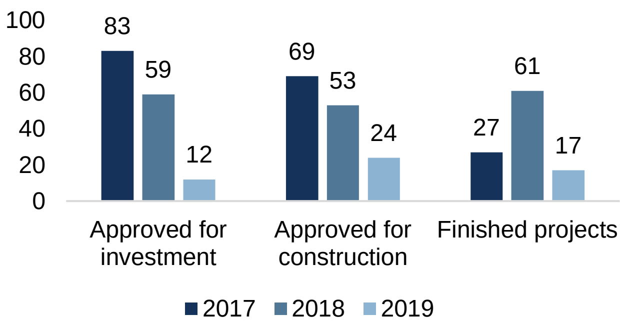


In 2019, the US-China trade tension has pushed manufacturers around the world to relocate part of their factories to Vietnam, which aim to relocate at Binh Duong - Southeast Vietnam region due to special incentives for FDI projects in this area together with developed logistic system. The growth of FDI attraction in Binh Duong province soared significantly in 2019 (+58% YoY), with the capital incentive from Taiwan-invested projects (16.3% FDI), Japan (15.4% FDI), China (12.8% FDI).

Some large FDI projects are being implemented in Binh Duong such as TECO engine production project (Taiwan), Lacouer Craft furniture factory (China) and large-scale industrial park projects (Bau Bang Industrial Park and VSIP 3 Industrial Park) have created a positive momentum for the industrial construction market in the region. As a result, HT1 has signed many contracts to supply cement for FDI projects, help to push consumption in Binh Duong market in 2019 to increase by 18% over the same period, currently contributing up to 12% revenue of the company.

➢ **HCM City market**: Tighten in construction licensing & slow disbursement of public investment projects

Graph XI: Progress of licensing housing projects in HCM City *(Source: Department of Construction HCM City)*



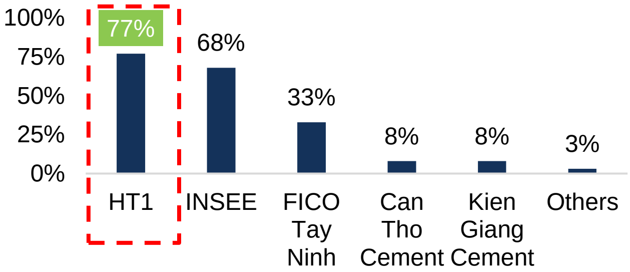
The restriction on housing construction licensing in HCM City since the end of 2018 is making construction activities in this area decline rapidly. According to HCM City's Department of Construction, only 24 housing projects were licensed to build in 2019 (-56% YoY), resulting in significant drop in material demand. At the same time, slow disbursement of city's public investment capital affects progress of many major infrastructure projects such as Nguyen Duy Trinh street expansion, Thu Thiem 2 bridge, HCM - Mon Bai highway, etc.

In 2019, HT1's sales volume in Ho Chi Minh City market decreased by 6% over the same period. As the largest cement consumption market in the South region as well as the main contribution to HT1's revenue (29% of HT1's revenue in 2019), the long-term downtrend of construction activities in Ho Chi Minh City may negatively affect overall operating results of HT1 in the upcoming period.

2. Advantages of wide coverage in distribution channel in the Southern market

Owning up to 6 grinding stations (which operated like a product distribution center) spreading across Southern provinces and cities, the market coverage level* of HT1 reaches nearly 80% compared to an average of only 10 - 30% of other regional competitors.

Graph XII: Estimated market coverage* of the grinding station network of Southern companies



Source: FPTS estimate

From information of construction materials agents in the Southern market, the transportation of products from production area (cement grinding stations) is mainly using road traffic with high transportation cost. Cost for inner city transportation average at 0.3% of cement selling price per km per cement ton shipped. Therefore, the optimal distance to distribute at efficient cost is in the range of 70 to 90 km from the grinding station, which create an important advantage for HT1 thanks to the density distribution of grinding stations in the Southern main market such as Binh Duong & HCM City.

** Market coverage (%) = The total reachable area of the grinding stations within a radius of 70 - 90km / Total area of the consumption market*

3. Due to similar characteristics of products in the industry, HT1 has to compete mainly on product price

HT1's current products are mostly bagged cement (PC & PCB 30, 40) and bulk cement, contributing 98% of revenue. Due to the regulation by the Vietnam Ministry of Construction that cement products must comply with the general cement characteristics and quality standards (see production standards), HT1 products do not differ significantly from other competitors and have to compete mainly on selling prices (see selling prices of southern cement brands).

Table V: HT1's revenue structure by business segments in 2019

Segment	Products	Achievement	Revenue (bil VND)	Gross profit (bil VND	Gross margin (%)
Clinker, cement production	Cement	Core business: contribute 99% revenue and 98% profit after tax	8,611	1,513	17.7%
	Clinker		184	15	8.2%
Other production	Block brick Construction sand	Non-core business: contribute 1% revenue and 2% profit after tax	43	10	23.2%

Source: HT1, FPTS research

BUSINESS PROSPECTS & RISKS

A. Core business prospects - Negative

I. Lack of potential growth in 2020 due to the decline in key market segments

Graph XIII: Growth forecast for construction industry

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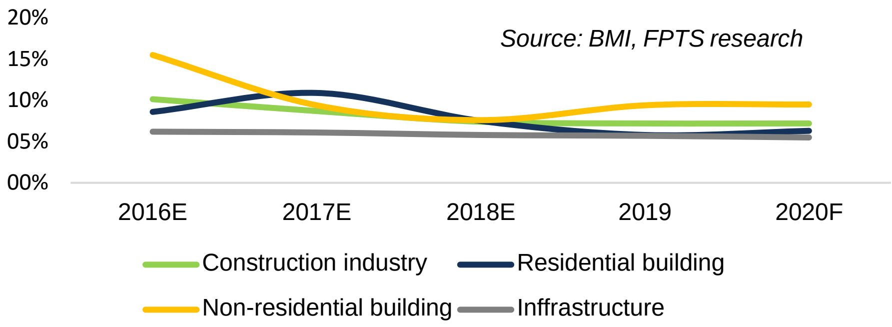

Source: BMI, FPTS research

Consumption of construction materials in the Southern market may continue to decline due to influence of:

(1) Continue tightening in housing construction policies. According to the housing development plan in HCM City in 2020, the growth target for housing construction stood at 4.7%, much lower than 5.8% in the same period of 2019. Additionally, the Circular No. 22/2019/TT-NHNN will go into effect from 2020 with main contents on the limits of personal housing loans and real estate investment loans **(2) Infrastructure investment projects continue to be delayed** in the capital disbursement stage due to slow implementation of the new Public Investment Law (No. 39/2019/QH14, effective from January 1, 2020), in which major changes continues to create significant barriers for the disbursement progress in city's infrastructure projects. **(3) Year 2020 is also considered to be a year of decline trend of FDI inflows** and industrial construction, come from the effects of the global FDI downtrend as well as largest FDI partners in Hong Kong, China and Taiwan are all affected by slower economic growth.

According to a survey at the Southern Cement Distributors Conference at 2019 year end, most distributors were concerned about the capability of cement consumption in 2020 and the following period, which most cement distributors and agents predict would decline significantly. This downtrend will put a great pressure on company's largest consumption markets as well as the overall operating plan set out by HT1 in the upcoming years.

II. Competitive pressure is increasing rapidly in South region's main markets

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Table VI: Cement projects in the South will be put into operation from 2020

	Total investment	Capacity	Area	Investors	Expected operation time
An Phu factory	5,800 billion VND	2.0 million tons of cement/year	Binh Duong	Semen Indonesia	Quarter 3 2020
FICO Tay Ninh 2nd factory line	4,800 billion VND	1.26 million tons of cement/year	Tay Ninh	FICO YTL	Quarter 3 2020

Source: FPTS research

HT1 is expected to face strong competition in its two largest markets, Binh Duong and Ho Chi Minh City from mid-2020 with a total of 2 cement projects launched from nearby FDI competitors An Phu and FICO Tay Ninh. With total new capacity of 3.3 million tons/year, equivalent to 48% of the current capacity of HT1, these two factories are planning to distribute about 30 - 40% of their products in Binh Duong & Ho Chi Minh City market. According to the discussion with HT1's representative, the company may have to consider a more preferential sales policy, in which increasing the current discount for distributors from 5% to 10% of selling price and at the same time extending debt with large sales distributors. Thus, we determine that this policy may negatively affect the company's profit margin, working capital and thus have added these effects to our forecast of HT1's operating results in the upcoming years.

Besides, other company's competitors in the Southern market are also planning to expand production capacity. However, our assessment is that these expansion plans would not be implemented soon because of major obstacles in the investment licensing stage. We will give update to investors as more information is available in near future.

Table VII: Capacity expansion plan of a number of companies in the Southern market period 2020 - 2030

Investment plan	Expected investment	Total capacity	Investor	Expected investment peiod	Status
Kaito Ha Tien factory	12.000 bil VND	4,5 mil tons of cemtn/year	Thaigroup	2020 - 2025	Have not met the source of production materials
Hon Chong 2 extended line	N/A	3,6 mil tons of cement/year	INSEE	2021 - 2030	The government has not approved investment plan

Source: Thaigroup, INSEE, FPTS research

III. HT1's ability to expand production capacity is limited

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Table VIII: Details of operation status of HT1 grinding stations in 2019 (Source: HT1, FPTS research)

Grinding station	Year established	Designed capacity (tons of cement/year)	Actual production (tons of cement/year)	% Ultilization rate
Kien Luong	1974	1,200,000	1,195,000	99.5%
Binh Phuoc	2009	1,200,000	1,180,000	98.3%
Phu Huu	2007	2,600,000	2,580,000	99.2%
Long An	2009	600,000	545,000	90.8%
Cam Ranh	2011	600,000	565,000	94.1%
Hiep Phuoc*	2017	1,200,000	923,000	77.0%

* Hiep Phuoc grinding station leases from VICEM Ha Long under the restructuring plan period 2016-2022 will have to be returned after 2022..

Currently, HT1's grinding stations have operated at almost full capacity, so market expansion has become more difficult. After Thu Duc grinding station (capacity of 1 million tons/year) demolished in 2016 according to HCM City plan, HT1 had to outsource[1] cement at Hiep Phuoc VICEM Ha Long[2] grinding station from 2017 to 2022 to offset the capacity shortage. Thus, HT1 plans to invest in additional factories and grinding stations, but most projects are currently not feasible to implement due to limitations of material quarries and lack of suitable construction sites.

Table IX: HT1's investment plans to expand production during the period 2020 - 2030

Investment plan	Total capital	Capacity	Period	Status
Long An 2 grinding station	1,200 bil VND	1 million tons of cement/year	2020 - 2022	Approved planning and has finished land clearance
Additional grinding plant Binh Phuoc factory	1,200 bil VND	1 million tons of cement/year	2021 - 2023	Planning not approved
Capacity expansion of Kien Luong clinker factory	2,800 bil VND	1.16 million tons of cement/year	2023 - 2025	Not feasible as insufficient of raw materials reserves for production
Additional grinding plant Kien Luong plant	1,200 bil VND	1 million tons of cement/year	N/A	Not feasible due to violation of urban planning of Ho Chi Minh City

Source: HT1, FPTS research

Through discussions with HT1, we assess that only the Long An 2 grinding station project (with a capacity of 1 million tons/year) can be implemented in the coming period. The project has total investment of VND 1,200 billion (~10% of HT1's total assets) and is expected to start construction in Q4 2020. This project has a reasonable investment cost while the average investment rate of a grinding station in the industry is about VND 1,400 billion/ tons of cement capacity. However, Long An 2 project will only cover the current shortage of capacity before HT1 return the Hiep Phuoc grinding station back to VICEM Ha Long in 2022.

[1] *HT1 acquires materials from VICEM Ha Long and hires this factory to produce and distribute HT1's cement brand directly in the surrounding area.*
[2] *One of VICEM's loss-making members was left to HT1 to restructure its operations.*

B. Non-core business investment have not made any positive progress

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BOT project connecting Nguyen Duy Trinh and Phu Huu industrial park: Phu Huu BOT project was completed in 2014 and has not yet been licensed to operate because of the violation in regulations on BOT investment procedure stated in Decree 78/2007/ND-CP. According to the original plan, the project had an investment of VND 461 billion (4% of HT1's total assets in 2019), expected to earn VND 45.5 billion per year for 24 years, but has had to revise its operating plan and returned a new one to the HCM City People's Committee to apply for permission to operate again. Up till now, the company said that there has been no response from the HCM People's Committee on this issue and therefore we do not include the project in the forecasted results for the coming years..

VICEM complex building on the old Thu Duc grinding station location: The VICEM complex building has been established as a joint venture with real estate company Refico since 2015 to convert the demolition site of Thu Duc grinding station (HT1 leased 50 years from the state) into a residential office complex of 10.6 hectares. However, due to the new Public Investment Law (Decree 167/2017/ND-CP, issued Dec 31, 2017), HCM City People's Committee requested the land to be publicly bid and reject direct bidding of HT1 (according to the old law) (Decree 167/2017/ND-CP, issued Dec 26, 2017). Therefore, after 5 years of delay, the project may not be able to progress.

C. Operational risks

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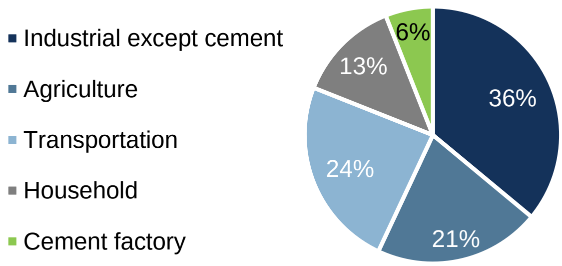
I. The cement industry negative export prospect put pressure on the domestic market

In 2019, the domestic cement industry produces a total of 98 million tons of cement while domestic consumption is only 63 million tons (~64% of production). The whole industry has exported nearly 35 million tons of cement (~36% of production) to regional markets. However, exporting cement from Vietnam has created significant impact in the international cement market (contribute up to 12% of world's cement export volume) that create risks of (1) Increasing imposition of safeguard measures in Vietnam's export markets such as Philippines' imposed duties of ~4% selling price, or Bangladesh's added VAT of 8% from 15% to 23% rate and (2) The Vietnamese Government may consider export restriction policies to avoid loss of national resources. In addition, the industry's export activities also depend heavily on the Chinese market (represent 48% of total exports in 2019), which is suffering from the negative impact of the Covid-19 pandemic and many trading activities were delayed during Q1 2020. Therefore, the export demand of the whole industry is declining significantly, creating great pressure on domestic consumption markets and companies that rely mostly on domestic market share such as HT1 in the near future.

II. Tightening environmental policies related to pollution in cement production activities

Graph XIV: Sources of PM 2.5 fine dust in Vietnam *(Source: Vietnam Academy of Science and Technology)*



In the past 10 years of development, the cement industry has left many consequences on the living environment across the country, typically air pollution in big cities like HCM City and Hanoi. Therefore, pollution management in cement production activities has been tightened. Most recent regulation impact is that HT1 has to relocate Thu Duc grinding station out of the city and is continuously being fined for unqualfied environmental standard in exploitation activities 4 times during 2014-2019

Currently, legal risks related to the environment can affect HT1 in two main issues:

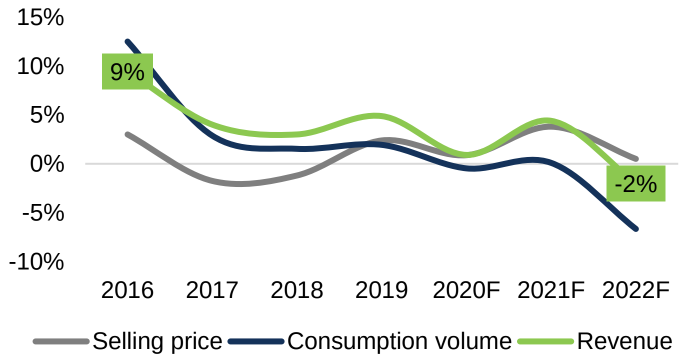
(1) The company's current quarries are very close to many nature reserves and Vietnam historical sites, especially the quarries in Kien Luong area located right next to the scenic Mount Phu Tu and Mo So mountain. Therefore, the mining activities at this quarry are constantly inspected regularly and face risk of unexpected withdrawal or suspension of mining licenses if the company not strictly follow the environmental regulations.

(2) HT1's Phu Huu grinding station (represent 36% of HT1's capacity) is located only 12km away from Ho Chi Minh City to the south. According to the policy of anti-pollution production in Ho Chi Minh City, proposed by the People's Committee, in the long term, this grinding station might face the possibility to cease operation and relocate to area far from the urban center to ensure the suitable of overall city development plan.

FINANCIAL ANALYSIS

I. Revenue growth slow down significantly as most plants have run at full capacity

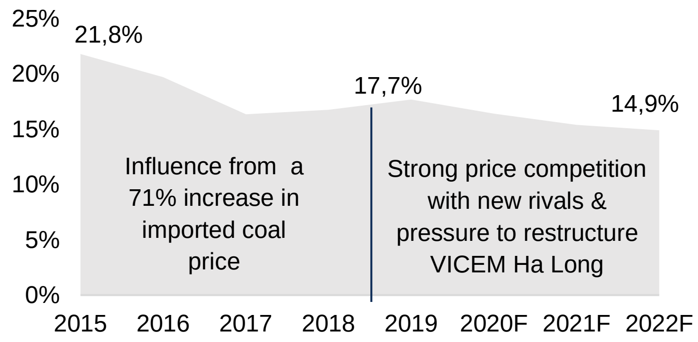
Graph XV: Growth in HT1's revenue, production and selling prices during the period 2016 – 2022F



Since 2016, HT1's revenue growth has decelerated rapidly from 9% to only 1-4% in the period 2016-2019 as most of the existing factories and grinding stations have run at full capacity while selling price witness no significant change. From 2020 to 2022, revenue growth will continue to be less optimistic before new capacity expansion project begin. According to discussion with HT1, company revenue target for 2020 is set at a relatively high level (+10% YoY) based on plan to expand consumption in the Central and Mekong Delta. However, given the current market situation, we believe that this yearly target will be difficult to accomplish.

II. Profit margin decline due to less favorable input cost and more intense competition

Graph XVI: HT1's gross margin period 2015 – 2025F



HT1's profit margin is in a fast-falling trend due to less favorable input cost and more intense market competition. In the period of 2016 - 2019, HT1's gross profit margin was continuously affected by a nearly 70% increase in Indonesia and Australia imported coal price during the period. At the same time, the downtrend of the southern construction market also made cement production in the region less profitable. HT1's profit margin therefore decreased by ~4% from 21.8% (in 2015) to only 17.7% (in 2019).

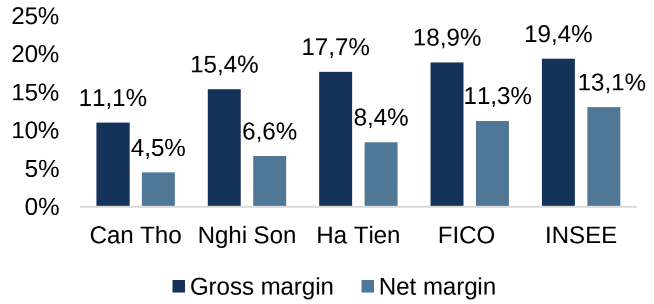
In the period of 2020 - 2022, we believe that the gross profit margin of HT1 may continue to decline due to:

(1) Price competition pressure with two new factories, An Phu and FICO Tay Ninh 2: From the second quarter of 2020, the pressure of increasing price discount in HT1's markets will be the main influence on company gross profit margin in which we have taken into account the effects of slow consumption of the Southern cement market

(2) Increasing costs when outsourcing VICEM Ha Long: To restructure VICEM Ha Long, HT1 will boost the purchase of processed cement from this factory in the next 2-3 years, resulting in higher production cost due to the extra processing costs of VICEM Ha Long - about 3% of the selling price

(3) Expanding to lower profitability markets: HT1 will shift a part of its sales volume from the main markets of Ho Chi Minh City and Binh Duong to lower profitability market in the South Central and Mekong Delta region, facing higher shipping costs and lower selling prices.

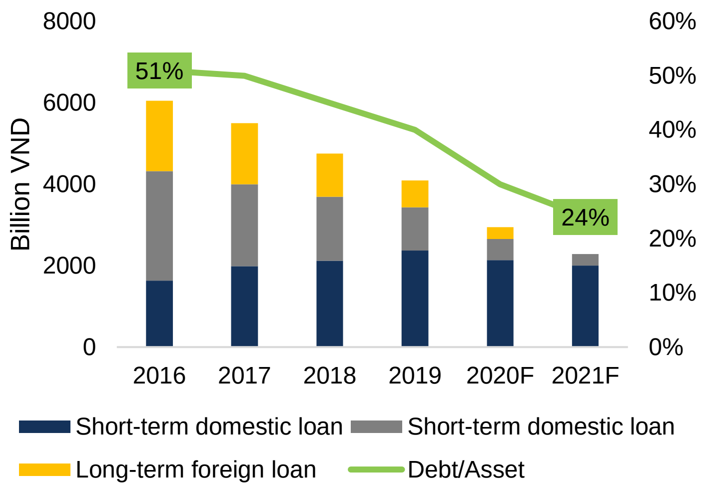
Graph XVII: HT1 and main competitors' profit margin in year 2019



It should be noted that the profitability margin of main FDI competitors are currently maintained at a good level in the industry and significantly higher than HT1's margin (mainly due to lack of pressure to support other members and lower management costs per revenue generate). The gross profit margin of HT1's competitors is about 2% to 5% higher than that of HT1 and the profit before tax margin is quite high at 5 to 13%, which is a sufficient basis for these companies to continue compete in price in the long run.

III. Financial expenses will be unaffected by exchange rates, debt levels stabilize

Graph XVIII: Changes in HT1's debt structure in the period 2019 – 2026F



From 2016 to 2019, HT1 has paid off many principal debts, mainly long-term loans for construction of grinding stations and factories during 2007 - 2012 (about VND 3,590 billion, 50% of total loans). In particular, the active repayment of long-term foreign loans (about EUR 60 million, 85% of foreign loans) has helped HT1 to gradually reduce the impact of exchange rate fluctuations, which usually accounted for 5-10% of net income in the previous period. In the following years, HT1 will repaid all foreign loans at the beginning of 2021 and will no longer be subjected to sudden pressure from EUR/VND exchange rate, thus maintain a stable debt ratio after completing Long An grinding station 2 , thus boost its capital efficiency.

OPERATING RESULT FORECAST

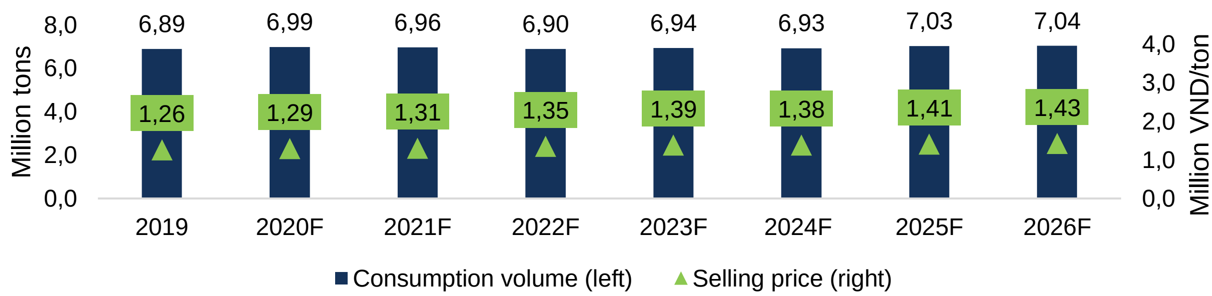
Based on the analysis and evaluation of HT1's business activities, we make a forecast of HT1's operating results for the period of 2020 - 2026. After that period, we temporarily assess that the operation of HT1 and overall cement market will not have any other significant fluctuations.

Table X: Forecasting some important operating results of HT1 in year 2020

Categories	Revenue	Gross profit	Profit before tax	EPS
FY2020 forecast	9,535 bil VND	1,471 bil VND	728 bil VND	1,907 bil VND
%YoY change	+2.4%	-5.9%	-2.3%	-2.3%

I. Selling price and sales volume

Graph XIX: Estimate selling price and consumption volume of HT1 for period 2020 - 2026F *(Source: FPTS estimate)*

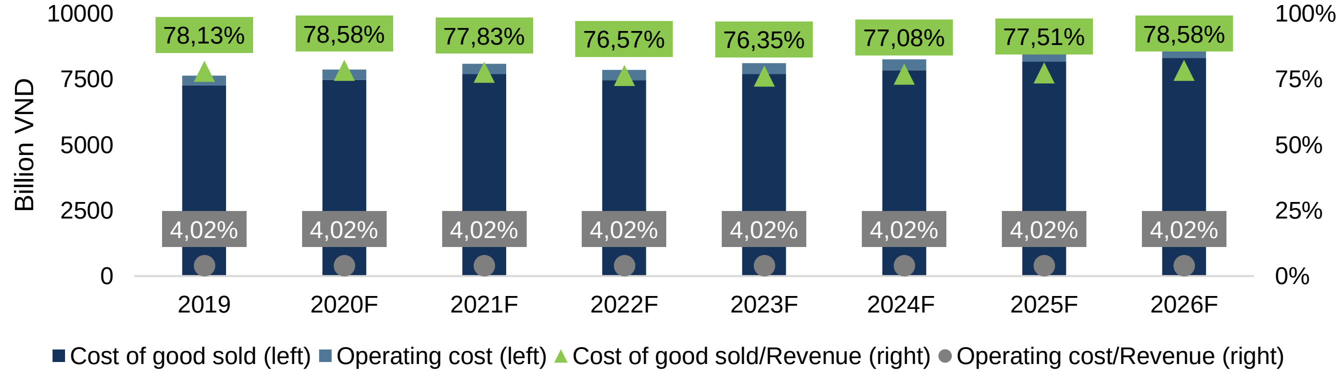


Our forecast of sales volume and selling price is based on assumptions:

- HT1's consumption volume in the period of 2020-2022 will remain stable at 6.9 million tons/year. After 2022, when Long An 2 grinding station comes into operation, the company's consumption volume will increase slightly to 7.04 million tons/year.
- The sales volume of HT1 is correlated with the industry perfomance in previous years.
- The proportion of HT1 products will gradually shift from bagged cement to bulk cement according to the set out goals by VICEM (60% bagged cement, 40% bulk cement).
- Selling prices will increase slowly in the period of 2020 - 2022 and will sideway in the period of 2022 - 2026.

II. Production cost and operating costs

Graph XX: Estimating production cost and operating expenses (SG&A expenses) in the period of 2020 - 2026F



Source: FPTS estimate

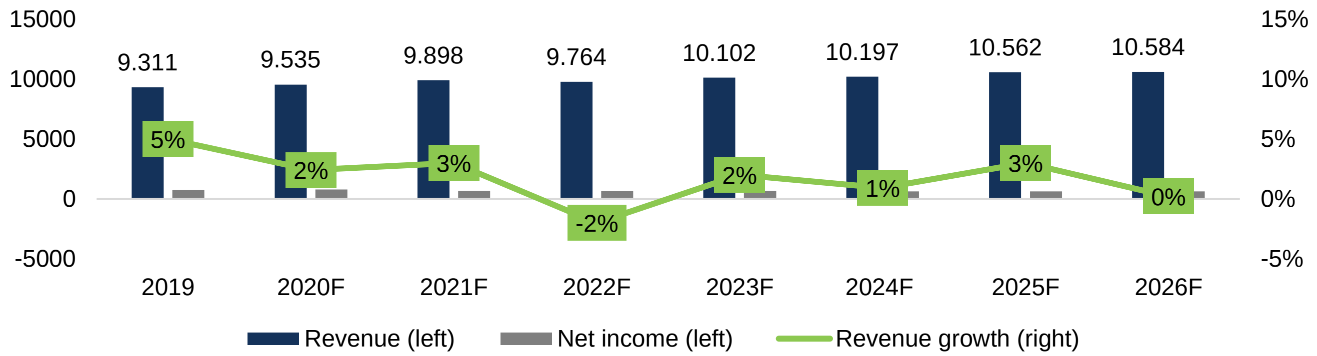
Assumptions for estimating production costs and operating costs are:

- Coal price and electricity price will continue to increase gradually in the upcoming years, following government plan of price deregulation in this market. Specifically, we calculate future coal & electricity price adjustment based on past price adjustments.
- Cost of limestone materials, clay and some other cement additives is projected to increase in accordance to the mining royalties increase following the Ministry of Finance’s future plan.
- SG&A expenses per revenue will be kept stable according to historical activity levels.

III. Revenue and profit

From our forecast, we estimate HT1's revenue and profit for the upcoming years as follows:

Graph XXI: Estimated HT1’s revenue and profit after tax for the period 2020 - 2026F



Source: FPTS estimate

SUMMARY OF VALUATION

We determine the valuation of HT1 using discounted cash flow and EV/EBITDA multiples valuation method with the weight of 50:50 respectively. The value of the stock under 02 methods has an average price of **13.460 VND/share**, 4% lower than March 6th 2020 closing price. Therefore, we recommend to **SELL** HT1's shares for short and medium term goal.

	Valuation method	Result	Weighted
1	Discounted cash flow method		
	Free cash flow to equity (FCFE)	14,310	25%
	Free cash flow to firm (FCFF)	13,503	25%
2	Peers multiple method		
	EV/EBITDA multiple	13,012	50%
	Average target price (VND/share)	**13,460**	**100%**

Assumption for discounted cash flow method

Assumption	Value	Assumption	Value
WACC 2019	9.77%	Equity risk premium	8.77%
Cost of debt	5.60%	Beta	0.92
Cost of equity	12.05%	Terminal growth	1.0%
Risk free rate (10 years government bond)	4.00%	Forecasting period	7 years

Valuation result for discounted cash flow method

Summary of free cash flow to firm (FCFF)	Value
Present value of free cash flow to firm (billion VND)	4,754.09
(+) Cash (billion VND)	776.30
(-) Short-term & long-term debt (billion VND)	3,182.16
Total firm equity value (billion VND)	5,152.44
Outstanding shares (million shares)	381.59
Target price (VND/share)	**13,503**
Summary of free cash flow to equity (FCFE)	Value
Present value of free cash flow to equity (billion VND)	2,835.80
Present value of terminal value	1,848.34
Target price (VND/share)	**14,310**

Valuation result for multiples valuation method

Industry peers	Ticker	Capitalization (billion VND)	Debt value (billion VND)	EBITDA (billion VND)	EV/EBITDA
VICEM Bim Son	BCC	737	1,511	515	4.20
VICEM Hoang Mai	HOM	269	229	166	2.42
VICEM But Son	BTS	172	1,335	414	4.65
La Hien Cement	CLH	158	161	106	3.84
VICEM Hai Van	HVX	127	259	85	2.69
Sai Son Cement	SCJ	79	791	109	8.85
VICEM Ha Tien	**HT1**	**4,965**	**3,190**	**1,829**	**4.04**
Target price	**13,012**	**VND/share**			

FINANCIAL STATEMENT SUMMARY

Income statement (bil VND)	2018	2019	2020F	2021F
Total revenue	8,878	9,311	9,535	9,898
- Revenue deduction	502	473	572	792
Net revenue	8,376	8,839	8,963	9,106
- Cost of good sold	6,973	7,275	7,493	7,703
Gross profit	1,403	1,564	1,471	1,403
- Selling expenses	135	160	164	170
- Administrative expenses	188	215	220	228
Operating profit	1,080	1,189	1,087	1,004
- Financial income (loss)	32	27	15	3
- Other income (loss)	8	-13	14	16
Earning before interest, tax	1,119	1,203	1,117	1,023
- Interest expenses	314	272	207	171
Profit before tax	806	931	909	852
- Income taxes	161	186	182	170
- Deffered taxes	0	0	0	0
Profit after tax	645	745	728	682
- Non controlling interest	-	-	-	-
Profit attributable to parent	645	745	728	682
EPS (VND)	1,681	1,952	1,907	1,786
EBITDA	1,848	1,911	1,829	1,761
Depreciation	728	708	712	739
Revenue growth	2%	6%	1%	2%
Operating profit growth	5%	10%	-9%	-8%
EBIT growth	4%	7%	-7%	-8%
EPS growth	32%	16%	-2%	-6%

Profitability ratio	2018	2019	2020F	2021F
Gross profit margin	16.8%	17.7%	16.4%	15.4%
Net profit margin	7.7%	8.4%	8.1%	7.5%
ROE DuPont	12.4%	14.1%	13.2%	11.8%
ROA DuPont	5.9%	7.1%	7.3%	7.1%
EBIT/revenue	13.4%	13.6%	12.5%	11.2%
PAT / PBT	80.0%	80.0%	80.0%	80.0%
PBT / EBIT	72.0%	77.4%	81.5%	83.3%

Efficiency ratio	2018	2019	2020F	2021F
Days receivable	21.0	20.9	21.3	22.2
Days inventory	34.2	36.0	39.5	38.5
Days payable	81.6	82.7	78.3	76.0
Cash conversion days	(26.37)	(25.89)	(17.49)	(15.35)

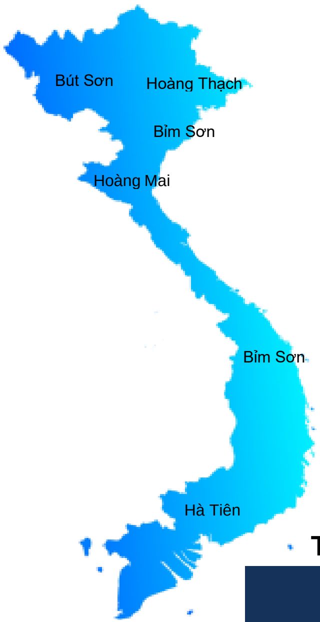
Liquidity & Leverage	2018	2019	2020F	2021F
Current ratio	0.52	0.50	0.44	0.47
Quick ratio	0.34	0.33	0.23	0.25
Cash ratio	0.21	0.20	0.09	0.10
Debt / Total asset	0.36	0.31	0.25	0.21
Debt / Total equity	0.74	0.59	0.42	0.34
Short-term debt / Total equity	0.41	0.44	0.37	0.34
Long-term debt / Total equity	0.33	0.15	0.05	0.00
Interest coverage	3.57	4.42	5.39	6.00

Balance sheet (bil VND)	2018	2019	2020F	2021F
Total Asset				
+ Cash & cash equivalents	776	818	327	378
+ Short-term investment	10	13	0	0
+ Account receivables	482	506	524	553
+ Inventories	654	717	810	812
Total current assets	1,923	2,053	1,661	1,743
+ Fixed asset at cost	14,856	14,981	15,531	16,081
+ Accumulated depreciation	-6,187	-6,808	-7,520	-8,259
+ Net fixed asset	8,670	8,173	8,011	7,822
+ Long-term investment	27	26	26	26
Total non-current assets	8,708	8,212	8,050	7,862
Total assets	**10,631**	**10,265**	**9,711**	**9,605**
Debt & equity				
+ Account payables	1,560	1,649	1,607	1,604
+ Short-term debt	2,120	2,375	2,098	2,003
+ Bonus & wellfare	36	58	74	83
Total short-term liabilities	3,727	4,081	3,779	3,690
+ Long-term debt	1,719	808	284	0
+ Other long-term liabilities	8	15	1	1
Total long-term liabilities	**1,727**	**822**	**285**	**1**
Total liabilities	**5,454**	**4,904**	**4,065**	**3,691**
+ Share premium	71	71	71	71
+ Share capital	3,816	3,816	3,816	3,816
+ Retained earnings	763	851	1,136	1,403
Total shareholder equity	5,177	5,361	5,646	5,913
Non-controlling interest	0	0	0	0
Total equity	10,631	10,265	9,711	9,605

Indirect cash flow statement (billion VND)	2018	2019	2020F	2021F
Cash at beginning	486	347	818	327
Profit after tax	486	641	728	682
+ Depreciation	719	728	712	739
+ Non cash charged	-20	11	-8	-2
+ Change in working capital	-260	475	-222	-98
Cash flow from operating	925	1,856	1,210	1,321
+ Capital expenditure	-88	-91	-550	-550
+ Investment in other entities	23	0	13	0
Cash flow from investing	-35	-75	-537	-550
+ Borrowing	3,033	3,197	2,885	3,020
+ Repayment	-3,681	-3,977	-3,686	-3,399
Cash flow from financing	-1,028	-1,351	-1,164	-720
Net cash flow during year	-1,028	-1,351	-1,164	-720
Cash at year end	347	776	327	378

APPENDIX

I. Overview about VICEM and its members (Return to business overview)



Vietnam Cement Industry Corporation (VICEM), formerly the Union of Cement Enterprises, was established in 1980.

Currently VICEM has 10 production members, 16 production lines with a capacity of 27 million tons of cement/year, accounted for 35% Vietnam market share. Besides, VICEM also manages 8 companies supplying materials for production and is in charge of allocating selling policy and selling market for subsidiaries

Table VII: Production members owned by VICEM & each member's selling markets

Member name	Selling market	Capacity (Million tons)
VICEM Hai Phong	Hai Phong	1.4
VICEM Tam Diep	Ninh Binh	1.4
VICEM Hoang Thach	Hai Dương, Bac Giang, Hung Yen	3.5
VICEM But Son	Ha Nam, Hoa Binh, Son La	3.0
VICEM Bim Son	Thanh Hoa, Nam Dinh, Quang Tri	3.2
VICEM Hai Van	Đa Nang	0.6
VICEM Hoang Mai	Nghe An	1.6
VICEM Ha Tien	HCM City, Binh Duong, Long An	5.5
VICEM Ha Long	Quang Ninh	2.1
VICEM Song Thao	Phu Tho	1.9

Source: VICEM, FPTS research

Table VIII: Internal members to supply fuel, coal dust and packaging under VICEM

Member name	Year establish	Revenue (Billion VND)	Supply material
VICEM Material Transport Jsc	1990	3,893	Coal dust 3c, 3b, 4a
VICEM Gypsum & Cement Jsc	1993	545	Gypsum
Bim Son Packaging Jsc.	1992	333	Cement packaging

Source: VICEM, VTV, TXM, FPTS research

II. Type of cement products (Return to business overview)

If classified by product characteristics, there are three main types of cement: Portland cement (Portland), Portland cement mixture and other cement..

- Ordinary Portland Cement (Ordinary Portland Cement - PC): The most popular type of cement today, only uses clinker and plaster in the production process.
- Portland Cement Blended (PCB): is a mixture of clinker, plaster and other compounds and additives (fly ash, coal slag, pozzolan) to create cement with a variety of properties.

Cement is classified based on its strength and durability under high pressure, also known in Vietnam as "Mac" (internationally called "FCU" or "compressive strength") with 3 main "Mac" grading: 30, 40, 50. "Mac" could be understood as a unit measuring compressive strength of cement samples (size 150 x 150 x 150 cm) after 28 days of cement setting, in which 1 unit of Mac = 1 kg / cm2. Each cement product will be named by this structure: Cement type: PC or PCB + "Mac" grade of cement. For example: PC40, PCB30, etc. If classified according to the form of packaging, cement products are divided into 2 types: bagged cement (cement packed in bag for transport) and bulk cement (cement which are not packaged but instead poured directly into specialized transport vehicles). Bulk cement products are usually preferred in the market because it is 15% cheaper than bagged cement, easy to provide for large scale project and are also convenient to use.

III. The standard for cement products (Return to product overview)

There are two main standards applied to cement products: TCVN (mandatory production standard in Vietnam) and ASTM (recommended for export cement products):

- Ordinary Portland Cement standard: TCVN 2682: 2009. Important points: Proportion of additives not more than 1% of the product weight. Best preservation period is 60 days from the date of manufacture.
- Portland Cement Blended standard: TCVN 6260: 2009: Important points: Proportion of additives not more than 40% of the product weight. Best preservation period is 60 days from the date of manufacture.
- American Society for Testing and Materials (ASTM): Widely used for exported cement products. Important points: Technical requirements are more strictly regulated than TCVN standards.

Table XIII: Price list of some southern cement brands (unit: million VND/ton) (**Return to product overview**)

Cement brands	Bagged PC 40	Bagged PCB 30	Bulk cement
VICEM Ha Tien	1,680,000	1,605,000	1.123.000
INSEE Viet Nam	1,625,000	1,545,000	1.105.000
FICO Tay Ninh	1,618,000	1,536,000	1.096.000
Nghi Son Cement	1,605,000	1,515,000	1.054.000
Can Tho Cement	1,598,000	1,483,000	996.000

Source: Department of Construction - Ho Chi Minh City, Vietnam Cement Association, FPTS research

IV. Cement production technology (Return to production technology)

There are 2 main cement production technologies: Vertical and rotary kilns.

- Rotary kiln: Divided into 2 types: wet rotary kiln and dry rotary kiln. In particular, dry rotary kiln is an improvement from wet kiln technology & most commonly used today, especially in Vietnam (94% of current production line).
- Vertical kilns: The oldest technology, however, has become outdated, producing less performance than rotary kiln tand causing more pollution. Currently, Vietnam has completely removed this production technology and replaced it with rotary kiln (until now there are only 5 vertical kilns out of 86 kilns nationwide).

Table XIV: Details of production lines of some cement companies in the industry

Companies	Ticker	Factory area	Production technology	Factory age	Total designed capacity (mil tons)
VICEM Ha Tien	HT1	Binh Phuoc	Dry rotary kiln	17 years	6.5
VICEM Bim Son	BCC	Thanh Hoa	Dry rotary kiln	15 years	3.2
VICEM But Son	BTS	Ha Nam	Dry rotary kiln	18 years	3.0
Vissai Song Lam Cement		Nghe An	Dry rotary kiln	3 years	4.5
Long Son Cement		Thanh Hoa	Dry rotary kiln	5 years	5.0
Nghi Son Cement		Thanh Hoa	Dry rotary kiln	16 years	4.3
INSEE Viet Nam Cement		Kien Luong	Dry rotary kiln	26 years	5.4
FICO Tay Ninh Cement		Tay Ninh.	Dry rotary kiln	15 years	3.5

Source: Vietnam Cement Association, FPTS research

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