VIGLACERA CORPORATION – JSC (VGC – UPCOM)

Catalysts Ahead for VGC to Fully Realize its Potential

Viglacera is one of Vietnam's leading building materials producers and property developers. Viglacera's brand has been renowned with Vietnamese people, and its major products include construction glasses, toilet ceramics and tiles. Regarding its property business, VGC has been active in its participation in social housing developments in Ha Noi and has 4,000ha of industrial land.

Currently, most of VGC's building materials production lines are running at maximum capacity. Therefore, the firm is planning to add new production capacity by embarking on projects in energy saving glasses, toilet ceramics, tiles and special white glasses. Given that the majority of new projects are able to begin production in late 2017 and early 2018, the company's main growth catalysts are likely to fully kick in after 2016.

Regarding its property business, continued FDI flow to Northern Vietnam will be a growth catalyst for VGC's industrial land demand. However, we do not expect a high return from this particular business until state ownership starts reducing more at VGC.

We believe VGC to be fairly valued at 17,800VND (11.9% upside from today's closing price on December 14, 2016) and have come up with a "Neutral" recommendation for the stock in the Long-term". In the short-term, VGC's move to the HNX bourse on 22/12/2016 could support its stock price. However, the dilution risk is a great concern for investors at the moment.

Investment Consideration

- Large Production Capacity and Stable Operation in Building Materials
- Capacity Expansion is Crucial to Growth in the Building Materials Segment
- Large Industrial Park Land Bank: VGC's Long-Term Advantage
- The State Divestment Could Create a Chance to Improve its Business Efficiency

Risks:

- Risk of Increased Raw Material Prices
- Risk of dilution

Key Financials

Y/E Dec (VND bn)	FY2014	FY2015	FY2016E	FY2017F
Net Revenue	8,009	7,820	7,916	8,485
% change	31	-2	1.2	7.2
PAT	296	328	518	560
% change	871	11.1	57.9	7.9
Net margin (%)	3.7	4.2	6.5	6.6
ROA (%)	2.4	2.8	4.0	3.6
ROE (%)	11.2	12.4	16.9	13.0
EPS (VND)	825	1,239	1,753	1,295
Adjusted EPS (VND)	825	1,239	1,753	1,732
Book value (VND)	9,973	11,169	12,061	11,968
Cash dividend (VND)	0	400	600	1,000
P/E (x) (*)	-	6.5	9.1	12.3
P/BV (x) (*)	-	0.6	1.3	1.3

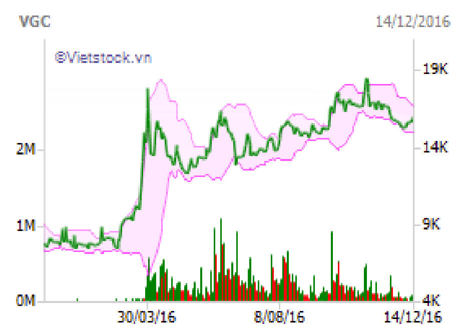
Sources: VGC, RongViet Research, (*) Based on share price on December 14, 2016

NEUTRAL

Market Price (VND)	15,900
Target Price (VND)	17,800
Investment Horizon	**Long Term**

Stock Info

Sector	Building materials
Market Cap (VND B)	4,881.3
Shares O/S	307,000,000
Free float (%)	21.2
52 Week High	18,400
52 Week Low	7,000
Avg. Daily Volume (20 sessions)	81,473



Performance (%)

	3M	1Y	3Y
VGC	1.0	100.8	
Building Materials	34.2	87.3	
UPCoM	0.4	16.3	33.4
HNX Index	-5.8	0.0	20.4

Major Shareholders (%)

Ministry of Construction	78.8
Foreigner Investor Room	39.8

Huong Pham

(084) 08- 6299 2006 – Ext 1314

huong.pt@vdsc.com.vn

INVESTMENT THESIS

Large Production Capacity and Stable Operation in Building Materials

Viglacera Corporation JSC (Upcom: VGC) operates in 2 primary segments, namely property and construction materials. Construction materials its major sector which contributes to approximately 80% of VGC's revenue and net profit. VGC' production capacity currently accounts for 40%, 11%, 6% and 10% of the domestic market in building glass, granite, ceramic and sanitary wares sector, respectively. In terms of its distribution channel, VGC has built a familiar and strong brand name with 60 tier 1 wholesalers and 3,000 retailers throughout the country.

Table 1: Revenue During 2012-2015 (billion VND)

	2012	2013	2014	2015
Products	**5,326.7**	**5,200.8**	**7,546.0**	**7,262.5**
Real estate	*1,361.2*	*682.2*	*2,176.6*	*1,560.7*
Glass	*742.1*	*590.1*	*1,133.2*	*1,201.9*
Sanitary wares	*537.2*	*757.3*	*1,026.2*	*918.9*
Tiles	*1,041.1*	*1,300.9*	*1,295.3*	*1,629.7*
Bricks	*1,427.4*	*1,554.4*	*1,711.8*	*1,776.2*
Others	*217.5*	*315.9*	*202.9*	*175.1*
Services	**320.5**	**821.3**	**360.4**	**500.8**
Infrastructure	*177.7*	*633.4*	*133.3*	*185.8*
Management	*77.5*	*123.1*	*155.2*	*230.8*
Others	*65.3*	*64.8*	*71.9*	*84.2*
Construction contract	**49.0**	**68.4**	**102.4**	**56.6**
Total	**5,696.2**	**6,090.6**	**8,008.7**	**7,819.9**

Source: VGC

Table 2: Gross Profit During 2012-2015 (billion VND)

	2012	2013	2014	2015
Products	**842.9**	**824.1**	**1,456.9**	**1,571.3**
Real estate	*268.2*	*62.7*	*403.3*	*253.4*
Glass	*14.1*	*29.4*	*149.6*	*206.6*
Sanitary wares	*135.4*	*156.1*	*203.0*	*261.9*
Tiles	*176.7*	*220.4*	*319.3*	*422.4*
Bricks	*223.1*	*305.0*	*344.4*	*377.0*
Others	*25.3*	*50.6*	*37.4*	*50.0*
Services	**135.3**	**346.3**	**119.6**	**143.4**
Infrastructure	*71.4*	*305.5*	*61.7*	*75.3*
Management	*46.8*	*27.8*	*51.3*	*61.9*
Others	*17.1*	*13.0*	*6.6*	*6.2*
Construction contract	**39.5**	**9.4**	**8.7**	**7.7**
Gross profit	**1,017.7**	**1,179.8**	**1,585.2**	**1,722.4**

Source: VGC

While revenue from VGC's real estate operations was unusual and cyclical, revenue from construction materials was more stable. At the bottom of the real estate market during 2011-2013, this segment still saw CAGR of 1%. When the market rebounded, construction materials revenue increased immediately by 18.8% in 2014 and by 6.2% in 2015. In this period, the volume of terracotta and tiles rose slightly by 6.0% and 7.2%, respectively.

Regarding construction materials products, VGC currently focus on the universal segment which is suitable for mid-end apartments or affordable apartment projects. The consumption of this segment was fairly stable and accounted for 40% of the total units sold in Hanoi and Ho Chi Minh city. In these two cities, the amount of apartments being supplied to the market was nearly 36,500 units, and was equivalent to 2.3 million square meters. According to the World Bank, Vietnamese will need approximately 374,000 units of new houses and fix about 320,000 to 1 million houses each year. From 2010 until now, meter square per capita of Vietnam has increased 1-1.1 meter square each year, which adds up to 85-90 million meters per year for the whole country. We believe that this is a market with very high potential for VGC's product such as terracotta and tiles.

On the other hand, the performance of the glass segment depends on the development of office buildings and shopping malls. Since 2011, the rental vacancy rate in the two biggest cities decreased from 25% to 8% in 2015 and is forecasted to be below 5% from 2016-2018 according to CBRE. Besides that, the rental prices remained stable or slightly increased, although the supply was stronger with new projects such as 789 Building (65,625 m2), Handico Tower (29,040 m^2), and Saigon M&C Tower (49,000 m2). Moreover, the glass sector is supported by significant FDI ($52 billion) flowing to the real estate market and also from investment in office buildings and shopping malls which creates stable cash flows.

Table 3: The Number of Projects Under Construction in Some Major Cities

	HCMC	Ha Noi	Da Nang	Can Tho	Nha Trang	Vung Tau	Hai Phong
September, 2016							
Office	147	152	26	15	9	22	23
Retail	90	62	29	3	6	8	3
Hotel and condominium	21	15	34	3	18	9	2
Housing	282	100	16	5	14	11	7
Total	**540**	**329**	**105**	**26**	**47**	**50**	**35**
December, 2015							
Office	124	125	17	14	8	16	17
Retail	90	62	29	3	6	8	3
Hotel and condominium	23	15	27	2	11	9	2
Housing	174	86	16	5	6	6	5
Total	**411**	**288**	**89**	**24**	**31**	**39**	**27**

Source: CBRE, RongViet Research

Capacity Expansion is Crucial to Achieve Growth in the Building Materials Segment

VGC is running either at or above its capacity in its material production lines, which urges the company to invest generously in capacity expansion.

Glass:

VGC is a pioneer in the production of energy-saving glass (solar-control and low-e glass) and ultra-white glass in Vietnam. The first phase of VGC's new energy-saving glass plant went into operation in July 2016 and has been operating at 60% of its design capacity. Using cutting-edge technology transferred from Von Ardenne (Germany), the plant called for a total capex of VND480 billion, VND350 billion of which was financed by debt. The second phase of the plant, built in Bac Ninh, will add another 2.3-2.7 million cbm (standardized) to VGC's low-e capacity. Eurowindow and Sado Group, two of Vietnam's largest construction glass vendors, have committed to buy 2 million sqm of low-e glass from VGC each year. Given the contracted sales volume, we estimate that phase 1 of the low-e plant can contribute VND400-500 million to VGC's annual revenue and approximately VND100 billion to gross profit once production begins to be stable.

Table 4: Expansion Projects in VGC's Glass Segment

Project	Location	Design Capacity	Ownership	Timeline
Energy-saving glass Phase 1	Di An, Binh Duong	2.3 million m^2/year	VGC: 100%	60% of design capacity
Energy-saving glass Phase 2	Bac Ninh	2.3-2.7 million m^2/year		
Ultra-white float glass	Yen Phong IP, Bắc Ninh	650 ton/day	VGC: 70%	2018
Ultra-white rolled glass	Bac Ninh	250 ton/day		

Source: VGC

VGC has also obtained the government's permission to build a factory to produce ultra-white glass, a material used in equipment that requires exceptional clarity such as solar cells and sophisticated electronics. VGC wants to export 90% of its ultra-white output to the US, and the other 10% will be sold to a glass processor in Bac Giang. VGC's partner in the US also owns 30% of stakes in this factory.

The 250-ton-a-day ultra-white glass is under construction and will be able to spin out its first products in the second half of 2018. The ultra-white factory in Bac Ninh along with phase 1 of the float glass factory in Vung Tau will increase VGC's glass revenue by 3-4 times, once they go into production.

Sanitary Ceramic:

VGC is building a new factory in My Xuan IP (Ba Ria-Vung Tau) to manufacture up to 750 thousand units of "smart" bathroom ware a year. The project will cost VGC a total of VND300 billion and will come into operation in H2 2017. According to the Ministry of Construction, the demand for sanitary ware can double between 2015 and 2020. By expanding into the high-quality segment, VGC is preparing to take on future demand and the shift in consumer preferences. Assuming that the plant will run at 20% of its design capacity in 2017, the increment net revenue is estimated at VND200 billion. However, when the plant reaches full capacity, it can contribute up to VND1,000 billion in net revenue.

Tiles and Building Blocks

Most of VGC's new projects in tiles and bricks can contribute to sales and earnings only from 2018 onwards. The tile market in Vietnam is suffering from a surplus of supply, but only in small and old-fashioned products. The use of new technology and an understanding of customers' preferences can help VGC create a market for its own products. Aside from the local market, the US and Western Europe are very potential export markets for VGC's tiles.

During the initial years of the new tile projects, gross profit margin may be low, which results from increased depreciation and interest expenses and the lower capacity of production. During 2014, the cost to build a ceramic tile factory and granite tile factory that can product 3-4 million sqm a year was 13.2% and 13.7% higher than 2010, respectively. Higher capex mean depreciation expenses for the new plants will exceed that of the existing plants. However, the sales prices of new products may not be much higher, while the rate of faulty products can be higher in early years. We estimate the gross profit margin for VIT's new granite plant in 2016 at 8-10%, although it is able to increase to 14-16% in 2017.

Table 5: Tile and Brick Projects of VGC and its Subsidaries

Type of project	Location	Product type	Capacity	Timeline	Capital
Tile					
VGC's new investment	*Phu Ha IP, Phu Tho*	*Ceramic*	*6 million sqm*	*2016-2017*	*300 billion VND*
Viglacera Thai Binh plant Phase 2	*Tien Hai IP, Thai Binh*	*Granite*	*3 million sqm*	*2016-2017*	*300 billion VND*
New investment	*Tien Hai IP, Thai Binh*	*Ceramic*	*6 million sqm*	*2017-2018*	*300 billion VND*
Upgrade and expand Yen Phong plant	*Yen Phong IP, Bac Ninh*	*Ceramic*	*6 million sqm*	*2018-2020*	*200 billion VND*
Brick					
Dong Trieu Clinker Brick plant Phase 2	*Quang Ninh*	*Clinker brick*	*2 million sqm*	*2016*	*130 billion VND*

Source: VGC

Large Industrial Park Land Bank: VGC's Long-Term Advantage

Real estate accounts for approximately 47% and 25% of the parent company's revenue and its consolidated revenue, respectively. The contribution of industrial parks (IPs) was about 70% and tends to increase when the residential land bank decreases. As a state owned company under the Ministry of Construction, VGC has accumulated a large land bank at a low price to develop industrial parks. The total area of VGC (4,032ha) is much larger than its peers, (KBC, ITA, LHG, etc), with 11 IPs in Bac Ninh, Quang Ninh, Phu Tho, Thai Binh, Ha Nam and Hue. Excluding Yen Phong and Tien Son, the other IPs are almost new and have a lower occupancy rate. As a result, the large ready-for-rent area gives VGC a comparative advantage in attracting new customers.

Besides, the attraction of FDI has a great impact on the leasing of VGC's industrial parks. Over 31% of VGC's IPs are located in Bac Ninh Province which was ranked 7th for its attractive propsetcs and added capital ($706 million) in the first 11 months of this year. The rest of provinces having VGC's IPs have positive FDI attraction prospects in comparison with the whole country in general.

Table 6: FDI Attraction Prospects in Provinces with VGC's IPs in the First 11 Months of 2016

No.	Location	The number of new licensed projects	New registered capital ($ million)	The number of added capital projects	Added capital ($ million)	Total new register and added capital ($ million)
7	Bac Ninh	166	452.37	115	254.14	706.51
8	Ha Nam	31	604.33	27	98.20	702.53
11	Quang Ninh	9	518.97			518.97
17	Ha Tinh	8	154.24	2	133.47	287.71
21	Phu Tho	11	84.13	16	103.04	187.17
36	Thua Thien Hue	8	27.72	1	0.70	28.42
37	Thai Binh	7	27.79	2	-0.56	27.23
	Total	**240**	**1,869.55**	**163**	**588.99**	**2,458.54**
	Vietnam	2,240	13,028.18	1,075	5,074.86	18,103.04
	Proportion	**10.7%**	**14.4%**	**15.2%**	**11.6%**	**13.6%**

Source: Foreign Investment Agency

In general, the rental prospects of VGC's industrial parks is positive thanks to:

(1) Favorable geographic location, near the gateway, such as Hai Phong port, Noi Bai International Airport, Lach Huyen deep water port (in progress), which will facilitate the export/transshipment of goods to China, Korea, Japan, Taiwan, etc.

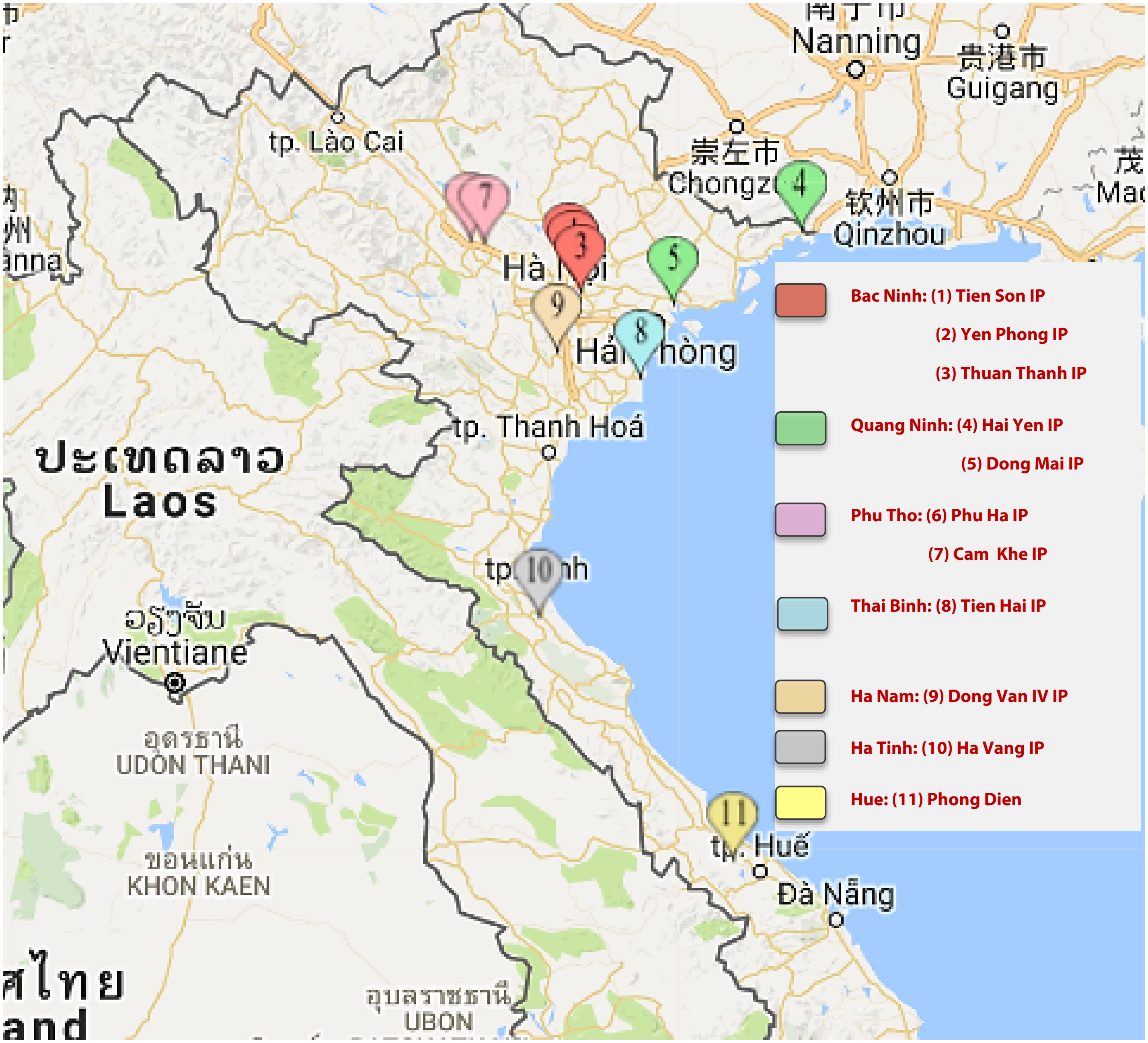
(2) Lower lease rates than southern industrial parks

(3) Strong tax incentives for new businesses (corporate tax rate is just 15% and there is also land rent exemption for 15 years).

(4) In recent years, many large multinational corporations like Samsung, LG, Ford, Toshiba, and Canon have invested significant capital to build factories in VGC's IPs. In 2015, Samsung received approval to invest $3 billion for the Samsung Display project in Yen Phong Industrial Park (Bac Ninh). More importantly, this significant project of Samsung helped to attract many satellite businesses to invest in VGC's industrial park such as Sakai Amiori (Phu Ha IP), JT Sensor Vina Co, Ltd. Park Electronic Vina Co, and Ltd. Sunjin F & F (Dong Van IV IP).

In addition to this, the IP segment is playing a more important role in the business results of real estate, as the area to develop residential projects is tightening.

Graph 1: IP's location

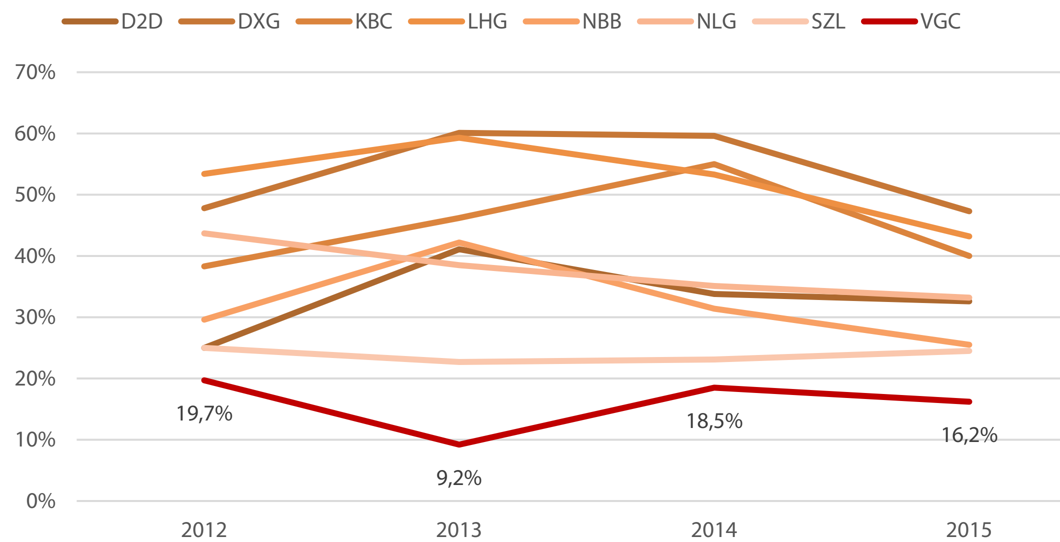


Source: Google Maps

The State Divestment Could Create a Chance to Improve its Business Efficiency

Viglacera started out as an enterprise under the Ministry of Construction, and was later equitized at the end of 2014. After successfully issuing 30 million shares to the public in July of 2016, the ownership of the Ministry of Construction reduced but is still currently at a high level of 78.82%. Quite similar to many state-owned companies, such as DIG (Ministry of Construction owns 51.04%), VGC lacks some dynamics and efficiency in its business operations. In addition to this, resources are scattered in too many business segments, which results in the company not performing at its full potential.

Graph 2: Gross Margin of Typical Real Estate Enterprises



Source: FinnPro, Rong Viet Research; using gross margin of VGC's real estate segment

The real estate segment accounts for 47% of the parent company's revenue and ~25% of its consolidated revenue, and nearly 70% of this is contributed from industrial real estate; the proportion tends to rise when the land bank for civil construction projects has declined. The gross margin of the real estate segment is still at a modest level, although it has a large land fund at favorable locations and easy expandability, when compared to its peers.

However, the Ministry of Construction is going to divest, lowering its stake from 78.82% to 51% by 2020. As reported, VGC will issue about 123 million additional shares in early 2017 to finance real estate projects and to support the expansion of its building materials segment. The Ministry of Construction does not intend to participate in this issuance, and therefore, the ownership of the state might decline to 56% in 2017. Moreover, the reduction of state ownership not only increases liquidity but also facilitates new investors. Recently, Dragon Capital's fund bought a 5.04% stake in VGC. We believe that new shareholders could help VGC exit the model of SOE, cut costs, and improve its business efficiency.

RISKS

Risk of Increased Raw Material Prices

Raw materials account for over 50% of the cost of VGC's building materials. VGC can self-supply part of its materials thanks to a number of mineral mines (clay, feldspar and white sand) with relatively large reserves that the company owns through its subsidiaries. However, most of the mines are using simple extraction techniques, resulting in impurities in raw materials which are difficult to produce high-grade construction materials.

Moreover, the right to mine in Van Hai (Quang Ninh) could be revoked due to its environmental impacts. Since Van Hai mine is the main sand source for Dap Cau Glass and Viglacera Float Glass Company, a cessation in this mine may cause VGC to purchase more materials at higher prices, and for the company to also experience higher shipping costs. Some good quality clay mines such as Gieng Day and Dam Ha have almost run out of reserves, which means VGC will have to invest additional money for exploring new material fields. In addition, VGC currently imports around 10-15% of batching and additives, especially the glazed sub-materials from Italy and Spain. Thus, fluctuations of exchange rates and import prices of these materials could affect the profitability of VGC.

Table 7: Material Mines of VGC

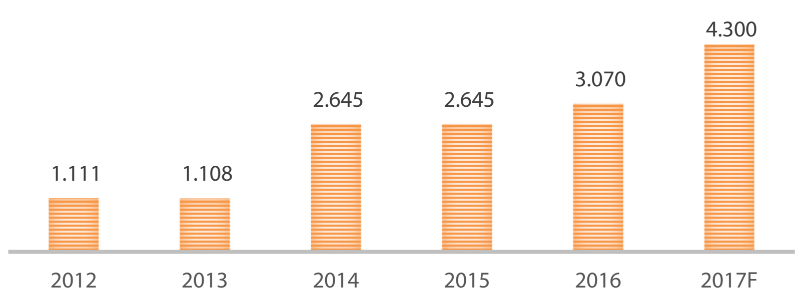
Company	Materials	Location	Mining Area (ha)	Explotion Capacity (ton/year)	Reserves (thousand tons)	License period
Viglacera Mineral JSC	Feldspar mine	Lao Cai	4.95	52,500	522	2011-2022
	Granite mine	Yen Bai	2.33	48,000		2012-2026
Viglacera Material JSC (VRC)	Truc Thon refractory clay	Hai Duong	2.3			2015-2016
	Kim Sen clay	Quang Ninh	57			
	Gieng Day clay	Quang Ninh		300,000	1,130	2002-2018
	Xich Tho clay	Quang Ninh	94.5	113,007	4,344	2012-2032
Viglacera Van Hai JSC	Van Hai white sand	Quang Ninh	299	250,000	1,021	1996-2021

Source: RongViet Research

Risk of Dilution

As mentioned above, VGC expects to issue an addition 123 million shares for current shareholders in 2017 to finance its new projects. The reference price might be based on book value of the latest quarter. If the issuance is successful, VGC just needs to issue another 44.5 million shares after 2017 to reduce the ownership of the Ministry of Construction to 51%.

Graph 3: History of increasing its Charter Capital (Unit: VND billion)



Source: VGC, RongViet Research

Meanwhile, most of its new projects will start production by the end of 2017 or 2018 and generally need half of a year to operate stably. Therefore, we believe that the investment in VGC has dilution risks as the increase in net income from above projects could hardly follow the climb of VGC's stock price. However, if the stock has a strong correction and drops to an attractive price level, this could present a buy opportunity for medium and long term investors.

OUTLOOK

Viglacera is one of Vietnam's leading building materials producers and property developers. Viglacera's brand has been renowned with Vietnamese people, and its major products include construction glasses, toilet ceramics and tiles. Regarding its property business, VGC has been active in its participation in social housing developments in Hanoi and has 4,000ha of industrial land.

Currently, most of VGC's building materials production lines are running at maximum capacity. Therefore, the firm is planning to add new production capacity by embarking on projects in energy saving glasses, toilet ceramics, tiles and special white glasses. Given that the majority of new projects are able to begin production in late 2017 and early 2018, the company's main growth catalysts are likely to fully kick in after 2016.

Regarding its property business, continued FDI flow to Northern Vietnam will be a growth catalyst for VGC's industrial land demand. However, we do not expect a high return from this particular business until state ownership starts reducing more at VGC.

We believe VGC to be fairly valued at 17,800VND (14.1% upside from today's closing price) and have come up with a "Neutral" recommendation for the stock in the Long-term". In the short-term, VGC's move to the HNX bourse on 22/12/2016 could support its stock price. However, the dilution risk is a great concern for investors at the moment.

COMPANY OVERVIEW

VGC is One of the Largest Construction Materials Producers in Vietnam

Founded in 1974, Viglacera Corporation JSC (UPCoM: VGC) was initially Construction Glass and Ceramic Corporation, under the management of the Ministry of Construction. Despite being equitized, VGC keeps its corporate structure as a group of 10 dependent units, 19 subsidiaries and 6 affiliates. VGC's major operating businesses are real estate and building materials.

For its real estate segment, VGC develops residential projects in Hanoi and industrial parks in Bac Ninh, Quang Ninh, Thai Binh, Phu Tho, Ha Nam and Hue. The real estate business is operated by its holding company.

The majority (around 70%) of its revenue comes from construction materials including glass, tiles, ceramic and sanitary wares, which are manufactured and distributed by its subsidiaries and affiliates. Each businesses' revenue is among the top for listed companies in its respective industry. Most of VGC's subsidiaries in the tiles business have been listed and known as top industry firms, such as VIT, TLT, VHL.

Construction Glass: Competitive Capacity Enables VGC to Pioneer New Product Lines

The glass business, which is the primary focus of VGC's operations, consists of a variety of business lines including float glass, safety tempered glass, laminated glass, mosaic glass, pattern glass, decorative mirror, and mirror glass. Float glass is the most common product as it is the core for other glass products.

According to Vietnam Glass Association (Vietglass), the domestic supply side consists of 4 factories which are Chu Lai, Viet Nhat, Binh Duong and Trang An. The total capacity of these factories is around 2,200 tons per day, and VGC has ownership of two of these, which are Binh Duong (100% ownership) and Viet Nhat (29.28% ownership). These factories operate at a capacity of 450 and 550 tons per day respectively.

VGC has also pioneered low-e glass and ultra-white glass, which are high-end products that used to be solely imported. Low-e glass has been commonly used globally, particularly in developed countries thanks to its superior efficiency in terms of thermal preservation, electricity saving (45%) and UV blocking (99%). However, it is not widely used in Vietnam and is mostly seen in towers and high-end buildings due to the affordability, as the price is 2-2.5 time higher than standardized glass. Since more high-end office buildings and mid and high-end apartment projects have been implemented recently, the market demand for Low-e glass can expect to experience strong growth. Besides, while most Chinese products have a 35-40% imposed tariff for glass materials and 5% for finished products, VGC has many advantages over its competitors in terms of local supply, low transportation costs and competitive selling prices.

Tiles and Bricks: Changes in the Product Mix Improves Consumption Amid the Current Oversupply

Tile and bricks account for about 40-45% of VGC's consolidated revenue. These products also have a high gross profit margin of ~25%. Of its 8 subsidiaries and 2 affiliates, Vigracera Ha Long (VHL), Vigalacera Tien Son (VIT) and Viglacera Thang Long (TLT) are of significant importance to VGC's business results.

The Vietnamese market demand for tiles has been achieving sufficient growth in recent years. The domestic consumption volume reached 400 million m^2 in 2015, 29% higher than that of 2014. However, the fast surge in supply (current design capacity is 520 million m^2) particularly in the ceramic segments, causes a slight oversupply. Therefore, the Ministry of Construction (MoC) has been strictly selective in approving new projects and only encourages investments in the more high-end segments which are porcelain and granite tiles.

Based on these new developments, granite is inevitably the new trend instead of ceramic tiles, as it features superior strength and damage resistance. According to the Ministry of Construction, the market demand for tiles is going to reach 570 million m^2 in 2020, 140 million m^2 of which will be granite tiles. At the current capacity of 60 million m2 per year, the domestic supply side needs to scale up by 18.5% per year in order to meet the domestic demand, which is a sensible target for VGC to concentrate on by expanding its granite tile capacity at Viglacera Tien Son (VIT).

Table 8: Important Subsidiaries of VGC in Tile and Brick Segments

	Location	VGC	Type of Products	Note
VIT	Bac Ninh	51.00%	6.5 million m^2 granite tiles	Plan to increase capacity by 8 million m^2 by 2020
VHL	Quang Ninh	50.48%	Cotto brick: 4.5 million m^2 /year Tuynel brick: 180 million units/year	
TLT	Vĩnh Phuc	51.07%	8.5 million m^2 ceramic tiles	

Source: VGC

VIT started a new production line in Tien Hai Industrial Park (Bac Ninh) in late-2015, adding 2 million m^2 granite tiles to the total design capacity. The factory's stable utilization rate is over 100% and will contribute remarkably to VIT's 2016 business results. According to VGC's long-term strategy, VIT's capacity is going to increase by between 8 to 10 million m^2 by 2020.

TLT, another subsidiary, is in the ceramic business and has a total capacity of 8.5 million m^2 and a sustainable utilization rate of 70%. TLT's depreciation expenses make up less than 5% of its COGS, and it has been incurring these since 2004. Therefore, TLT is seen to deliver attractive profitability with an approximate 18% profit margin and an 8% net margin.

In contrast, VHL is involved in the following business areas (1) cotto brick, the lowest quality tile (mainly use in garden yard or public projects, (2) brick (block, tunnel) and (3) roof tiles and decorative products. Quite similar to TLT, the company's stable performance is implied in its 20% gross margin.

Moreover, VGC also has plans to invest in high-end ceramic tile and clinker tile production of around 20 million m^2 per year. The tile market is currently oversupplied but mostly in the smaller size and lower quality segments. Having new technology and being located near the natural gas input sources serves as comparative advantages, and VGC's potential in the high-end ceramic projects is consequently considered fairly feasible.

Ceramic Sanitary Wares: Remarkable Margins Coupled with Considerable Growth Prospects

Ceramic sanitary ware has a gross margin of 28.5%, the highest among VGC's business segments. This product also has the strongest growth in terms of revenue, reaching 19.6% CAGR in 2012-2015. VGC's current capacity is 1.25 million units per year, focusing on the mid and high-end segment of bathroom furniture such as sinks, toilets and showers.

Table 9: Production Capacity of Sanitary Wares and Showers

No.	Company	Location	Production capacity	
			Product	Volume
1	Viglacera Thanh Tri Sanitary Ware JSC	Ha Noi	Sanitary wares	475,000
2	Viglacera Viet Tri Sanitary Ware JSC	Phu Tho	Sanitary wares	400,000
3	Viglacera Binh Duong Sanitary Ware JSC	Binh Duong	Sanitary wares	350,000
	Total			**1,225,000**
1	**Viglacera Shower Company**	**Ha Noi**	**Shower**	**500,000**

Source: VGC

The current design capacity of VGC is 1.25 million units of sanitary wares and 500,00 units of showers. In recent years, VGC has fully utilized production capacity of sanitary wares and one third of shower capacity. This is the reason why VGC is investing in a new sanitary ware to increase its capacity by 750,000 units per year. The new project could start production by late 2017 and could contribute significantly to the revenue of sanitary wares from 2018.

Raw Materials Are Mostly Purchased from External Partners

Table 10: Main Raw Materials Used in VGC's Production

	Raw Materials	Usage (ton/1 mil unit/ year)
Construction Glass (million sqm)	White sands	17.740
	Aluminum Hydroxide	337
	Dolomite	2.989
	Calcite	285
	Soda Ash	5.465
	Sodium Sulfate	77
	Sodium Nitrate	139
	Sodium Antimonite	61
Fire Bricks (million QTC units)	Refractory Clay	530
	Coal	150
Ceramic Tiles (million m²)	White Clay	9.880
	Feldspar	5.880
	Kaolin	1.960
Granite Tiles (million m²)	Feldspar	11.000
	Kaolin	887
	White Clay	214
Sanitary Products (million units)	Feldspar	7.920
	Kaolin	3.960

Source: RongViet Research

Sand, the most important raw material in the manufacturing of glass, comes from different sources for VGC's glass factories. Van Hai sand mine (Quang Ninh) is the main material resource for its glass factory in Quang Ninh, which is under the management of its subsidiary - Viglacera Van Hai. However, the exploitation license can only be expanded for 5 more years (by 2021) and is under the risk of pre-term withdrawal of licenses. Its float glass factory in Binh Duong has bought most of its materials from Cam Ranh sand mine of FICO 1, which is one of the best quality quarries with large reserves in Vietnam. With more than 10 million tons of reserves, the source of materials for high quality glass production of VGC could be stable in the long run.

Table 11: Planning, Exploration, Exploitation, Processing and Usage of Some Basic Materials by 2020

Materials	Total quarries	In which		Reserves of surveyed mines (million tons)		
		No surveying	Surveyed	Total	B + C1+ C2	P- level resources
Kaolin	347	118	229	849,973	192,541	657,432
White clay	27	3	24	38,283	23,469	14,814
Feldspar	71	26	45	83,86	46,9	36,96
Refractory clay	9	1	8	15,064	13,668	1,396
White sand	60	7	53	1.403,012	60,926	1.342,086
Dolomite	80	37	43	2.800,306	124,224	2.676,082

Source: Decision 152/2008/QĐ-TTg

Level A, B: Measured reserves
Level B, C1: Indicated reserves
Level C2: Inferred reserves

Level P1: mineral reserves, exploration results
Level P2, P3: exploration results

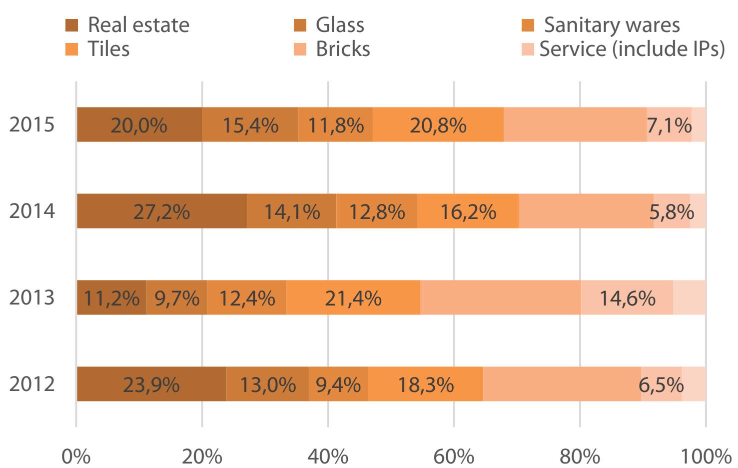
Other materials such as kaolin and feldspar are mainly purchased from Phu Tho and Lao Cai. In addition, clay used for the production of granite and ceramic tiles is acquired from several mines in Hai Duong province, where the remaining reserves are enough for the next 20-30 years. Overall, VGC has to purchase the majority of its materials. However, VGC is capable of negotiating the prices and receiving a stable supply of raw materials from suppliers due to its large market position.

FINANCIAL ANALYSIS

Earnings Improved During 2012-2015

Overall, the earnings of VGC were highly correlated to the real estate cycle, as building materials consumption is also affected by a less favorable real estate market. However, amid the previous poorly performing real estate market (2011-2013), the building materials segment still recorded slight growth (~1%/year). In 2014, when the property market began to rebound, real estate sales and the building materials segment grew strongly, at 219% and 18.8%, respectively compared to 2013. The growth in the construction materials segment remained stable at 6.2% in 2015, but the real estate segment declined significantly as the recognition of real estate projects was not as high as 2014. The gross profit margin also witnessed significant improvements over the years.

Graph 4: VGC's Revenue Structure (%)



Source: VGC

Table 12: Growth in Revenue of Business Segments (%)

	2013	2014	2015
Finished products	**-2.4**	**45.1**	**-3.8**
Real estate	*-49.9*	*219.0*	*-28.3*
Glass	*-20.5*	*92.0*	*6.1*
Sanitary wares	*41.0*	*35.5*	*-10.5*
Tiles	*25.0*	*-0.4*	*25.8*
Bricks	*8.9*	*10.1*	*3.8*
Others	*45.3*	*-35.8*	*-13.7*
Service	**156.3**	**-56.1**	**39.0**
Construction contract	**39.6**	**49.6**	**-44.7**
Growth in VGC's revenue	*6.9*	*31.5*	*-2.4*

Source: VGC

Table 13: Gross Profit Margin (%)

	2012	2013	2014	2015	9M2016
Products	**15.8**	**15.8**	**19.3**	**21.6**	**24.6**
Real estate	*19.7*	*9.2*	*18.5*	*16.2*	
Glass	*1.9*	*5.0*	*13.2*	*17.2*	
Sanitary wares	*25.2*	*20.6*	*19.8*	*28.5*	
Tiles	*17.0*	*16.9*	*24.7*	*25.9*	
Bricks	*15.6*	*19.6*	*20.1*	*21.2*	
Others	*11.7*	*16.0*	*18.4*	*28.6*	
Services	**42.2**	**42.2**	**33.2**	**28.6**	**38.5**
Infrastructure	*40.2*	*48.2*	*46.3*	*40.5*	
Management	*60.3*	*22.6*	*33.1*	*26.8*	
Others	*26.3*	*20.0*	*9.2*	*7.4*	
Construction contract	**80.6**	**13.8**	**8.5**	**13.6**	**9.3**
Gross margin	**17.9**	**19.4**	**19.8**	**22.0**	**25.2**
Net margin	**0.7**	**0.5**	**3.7**	**4.2**	**6.4**

Source: VGC

VGC achieved strong growth in revenue in 2013 and 2014 due to its high utilization rate and the improvement in prices; **sanitary ware** has the highest profit margin although this segment only contributes to around 12% of VGC's revenue. However, the room to increase revenue in this segment will be abundant when the new plant in Vung Tau begins to operate around the second half of 2017.

Table 14: Sanitary Ware Segment

	2012	2013	2014	2015
Design Capacity (unit)				
Sanitary	1,225,000	1,225,000	1,225,000	1,225,000
Shower	500,000	500,000	500,000	500,000
% Utilization Rate				
Sanitary	83.4	86.1	97.6	98.0
Shower	32.8	43.9	43.5	42.5
Real Volume (unit)	1,185,898	1,274,088	1,412,338	1,413,000
Sanitary	1,021,985	1,054,800	1,195,000	1,200,500
Shower	163,913	219,288	217,338	212,500
Revenue (VND billion)	537.2	757.3	1.026.2	918.9
% growth in revenue		*41.0*	*35.5*	*-10.5*

Source: VGC

Tiles and bricks account for approximately 43.6% of VGC's consolidated revenue. Although the gross profit margin was somewhat lower than sanitary ware, this segment has still seen much improvement in both revenue and gross profit. The market for ceramic tiles and bricks in Vietnam is in an oversupply for some product types. However, we believe that the prospects for consumption of VGC's new projects are optimistic due to the new focus on investment products which can effectively capture consumer preferences and the advantage of being near the natural gas source, which supports the stability of VGC's products.

For its **building glass segment**, many businesses had to close or downsize production between 2011-2013 due to fierce competition. The cost of temporarily stopping the production of glass was extremely high, accounting for 60-80% of the new glass factory's investment cost. Therefore, although the inventories of VGC were extremely high in 2011-2013 (~6 months of production), the Company still maintained production and accepted a net loss in the period. By the end of 2015, the glass segment had a higher utilization rate and contributed more to the revenue of VGC, despite having the lowest profit margin of its building materials segment.

Moving Towards a Safer Financial State

Table 15: VGC's Financial Structure (Unit: %)

Ratios	2011	2012	2013	2014	2015
Total Debt/Equity	699.0	763.2	815.6	319.0	253.2
Total Debt/Total Asset	84.7	86.6	87.4	76.1	71.7
Short-term Debt/Equity	500.2	539.0	526.1	193.8	143.8
Long-term Debt/Equity	198.8	224.2	289.6	125.2	109.4
Short-term Debt/Total Asset	60.6	61.2	56.4	46.2	40.7
Long-term Debt/Total Asset	24.1	25.4	31.0	29.9	31.0

Source: VGC, RongViet Research

Since VGC uses large amounts of debt to finance fixed assets and working capital, its financial structure is somewhat unbalanced with a high Debt/Equity ratio. However, VGC's other financial ratios have seen an improvement thanks to (1) equity capital increasing 6 times, from VND451.4 billion to VND2,645 billion, by revaluating assets before equitization in 2014 and (2) positive operating cash flows helped the company to pay its debt as well as invest in new projects. In addition to lower interest rates (reducing from 12-15% to 9%), a reduction of the remaining debt resulted in lower interest expenses in 2015 as compared to 2011.

Table 16: VGC's Liquidity Ratios in 2011-2015

Ratios	2011	2012	2013	2014	2015
Short-term Liquidity Ratios (x)					
Current liquidity ratio	0.79	0.83	0.95	1.07	1.04
Quick liquidity ratio	0.32	0.32	0.35	0.42	0.46
Cash liquidity ratio	0.08	0.03	0.09	0.18	0.15
Solvency Ratios (x)					
Interest coverage ratio	1.4	1.0	1.7	3.1	4.6
Debt-service coverage ratio	0.7	0.6	0.7	1.0	1.7
EBITDA/Interest expenses	1.4	1.0	1.7	3.1	7.2
3-step DuPont Analysis (%)					
EBIT/Sales (1)	7.3	6.6	7.9	8.6	9.4
Sales/Total Asset (2)	71.0	53.9	54.3	65.0	67.0
Interest expense/Total assets (3)	3.7	3.4	2.5	1.8	1.4
Total Asset/Equity x (1-tax) (4)	566.9	-1,419.4	366.0	334.7	273.8
ROE = (1)x(2)-(3)x(4)	8.6	-1.8	6.7	12.8	13.5

Source: VGC, RongViet Research

Table 17: VGC's Activity Ratios

Ratios	2011	2012	2013	2014	2015
Inventory turnover (x)	3.0	1.5	1.4	1.7	1.9
Receivables turnover (x)	6.6	3.8	3.8	5.9	6.0
Payables turnover (x)	1.7	1.2	1.1	1.5	1.6
Cash conversion cycle (days)	(31.9)	20.0	38.5	29.8	29.2

Source: VGC, RongViet Research

EARNINGS FORECAST

Business results of VGC are predicted based on the following assumptions:

The projects have a specific plan but might start operating 3-6 months later than the Company's guidance.

Consumption of granite tiles and sanitary ware for its new projects is positive, while the consumption of glass (solar control, low-e and ultra-while glass) may be lower than the design capacity (less than 65%).

Interest rates rose slightly for working capital loans, and long-term interest rates use the reference interest rate of each project.

Table 18: Some Key Assumptions

		2016	2017F	2018F	2019F	2020F
Volume						
Glass (m^2)		23,075,000	23,880,000	26,125,000	32,020,000	35,075,000
	% growth	*-8.4*	*3.5*	*9.4*	*22.6*	*9.5*
Sanitary ware (unit)		1,445,000	1,595,000	1,820,000	1,895,000	1,932,500
	% growth	*2.3*	*10.4*	*14.1*	*4.1*	*2.0*
Tile (m^2)		12,692,574	12,809,926	15,554,624	16,936,717	18,676,251
	% growth	*21.4*	*0.9*	*21.4*	*8.9*	*10.3*
Total Revenue		7,916.2	8,484.7	9,486.4	10,859.5	11,727.4
	% growth	1.2	7.2	11.8	14.5	8.0
Real estate		1,360.7	1,443.9	1,396.4	1,765.6	1,897.7
	% growth	*-12.8*	*6.1*	*-3.3*	*26.4*	*7.5*
Glass		1,223.7	1,324.7	1,512.2	2,023.3	2,327.2
	% growth	*1.8*	*8.3*	*14.2*	*33.8*	*15.0*
Sanitary ware		947.0	1,151.5	1,463.3	1,584.4	1,658.0
	% growth	*3.1*	*21.6*	*27.1*	*8.3*	*4.6*
Tile		1,823.5	1,942.9	2,425.9	2,761.7	3,069.7
	% growth	*11.9*	*6.5*	*24.9*	*13.8*	*11.2*
		1,851.3	1,904.9	1,943.0	1,962.4	1,972.2
	% growth	*4.2*	*2.9*	*2.0*	*1.0*	*0.5*
Gross Profit (billion VND)		1,975.7	2,112.8	2,296.8	2,656.6	2,846.2
% growth		14.7	6.9	8.7	15.7	7.1
	Real estate	250.5	253.1	207.0	234.5	274.4
	Glass	320.7	344.9	363.2	448.6	526.6
	Sanitary ware	271.8	299.8	354.7	405.7	429.0
	Tile	481.2	536.0	658.8	730.0	835.7
	Brick	449.8	461.4	472.2	475.0	478.2
Gross margin (%)						
	Real estate	18.4	17.5	14.8	13.3	14.5
	Glass	26.2	26.0	24.0	22.2	22.6
	Sanitary ware	28.7	26.0	24.2	25.6	25.9
	Tile	26.4	27.6	27.2	26.4	27.2
	Brick	24.3	24.2	24.3	24.2	24.2
NPAT (billion VND)		518.5	559.7	599.6	719.6	778.0
	Growth in NPAT	57.9	7.9	7.1	20.0	8.1
	Net margin	6.5	6.6	6.3	6.6	6.6
	Basic EPS (dong/share)	1,753	1,732	1,856	2,227	2,407
	Diluted EPS (dong/share)	1,753	1,295	1,388	1,665	1,800

Source: RongViet Research

In the **glass segment**, the new energy saving glass factory could increase VGC's production volume by ~575,000 m^2 in 2016 (assuming the new plant operates at 25% of design capacity). However, the company's shutdown of Dap Cau rolled glass plant to invest in an ultra white rolled glass production line might decrease production volume by 2.2-3 million m^2 per year. Overall, the total sales volume of VGC in 2016 could decrease by 8.4%. However, we estimate that the selling price could increase by the same percentage due to a shortage of supply when Trang An factory (~14% of the industry capacity) stopped running for maintainance. However, the price of low-e glass is about 2-2.5 times higher than normal glass, so the revenue from the glass segment could still increase by 2% compared to 2015.

For the year 2017, we project that the current Binh Duong factory could still optimize 90% of design capacity while the new energy saving glass plant could run at 60%, and that consumption volume might slightly increase by 3.5% compared to 2016. From 2018, the ultra-white glass project in Bac Ninh (250 tons/day) could be put into operation and operate about 15% of design capacity in the first year and 50% in 2019. Particularly, projects in Ba Ria - Vung Tau (600 tons/day) might begin operating from 2020; this project is not included in our projection and valuation as well.

Regarding the **sanitary ware** business, VGC's current production lines have been operating at nearly full capacity, thus there appears to be little room for growth. However, the company may boost sales of higher margin products, so the sanitary wares' sales can grow by 3.1% in 2016. Moreover, VGC is investing in a new production line of high-end sanitary ceramic with capacity of 750,000 units per year in My Xuan Industrial Park in Ba Ria Vung Tau; this might start production testing in H2 2017. Assuming that the line will be running at 25% of capacity in 2017, VGC's sanitary ware sales volume can grow by 10.4% in 2017. More importantly, the high-end products can sell at a higher price, which might boost the sector's revenue by 21.6%, twice the rate of volume growth.

While the **brick business** remains stable, the tile business is going to surge in 2016, as a result of the new production line of 2 million m^2 granite tiles per year operated by VIT since December 2015. At the present, the production line's utilisation rate has exceeded its capacity by 5% and will be the key driver of VGC's 21.4% growth in sales volume in 2016 and 0.9% in 2017. However, as the proportion of tier 1 products is only 96%, lower than expected, the revenue can only go up by 11.9%, slower than its sales volume. At the same time, VIT's gross margin might decline by 0.7 percentage points to 14.4% in 2016, which is expected to be 14.9% in 2017. Lastly, TLT and VHL's tile plants have been operating stably. The tile business's gross margin has been improving and gradually reaching the highest gross margin product lines among VGC's businesses.

Table 19: Forecast for the Lease Area (Unit: ha)

Industrial Park	2016	2017	2018	2019	2020
Tien Son	-	-	-	-	-
Yen Phong 1	-	-	-	-	-
Phong Dien	5.0	5.0	8.0	8.0	8.0
Hai Yen	6.8	9.6	9.6	9.6	13.7
Yen Phong Phase 2	4.7	4.7	7.1	11.8	11.8
Phu Ha	7.9	13.2	16.5	19.8	23.2
Cam Khe	9.9	13.2	16.5	19.8	23.2
Ha Vang	4.2	6.3	12.6	18.9	21.0
Dong Van	10.5	14.7	16.8	17.9	20.0
Thuan Thanh	9.4	9.4	9.4	9.4	13.1
Dong Mai	4.5	4.5	5.6	9.0	9.0
Tien Hai	16.7	16.7	16.7	16.7	16.7
Total	**79.6**	**97.3**	**118.8**	**140.8**	**159.5**

Source: RongViet Research

In terms of its **real estate** business, VGC is going to recognise the remaining revenue from several projects including 671 Hoang Hoa Tham, Thang Long No.1, Bac Ninh conjunction and Xuan Phuong Urban Area in 2016 (VND455 billion) and in 2017(VND350 billion). We expect that the residential business's gross margin might range from 22% to 23%. Regarding the industrial parks, the lease area in new projects such as Yen Phong, Phu Ha, Phong Dien, and Dong Van might not be considerable during the first years. VGC's total new leased area is estimated at around 79.6 ha and 97.3 ha in 2016 and 2017 respectively, and 70% of the revenue is going to be a lump sum. Generally speaking, with a strong decrease in residential projects' revenue and a slight incline in industrial parks' revenue, the real estate business might recognise a 12.5% decrease in revenue in 2016. Besides, the industrial parks' gross margins during the newly implemented stage might not be impressive, ranging from 12% to 20%.

Table 20: Financial Ratios of VGC (Unit: VND billion)

	2014	2015	2016F	2017F	2018F	2019F	2020F
Revenue	**8,009**	**7,820**	**7,916**	**8,485**	**9,486**	**10,859**	**11,727**
Growth in revenue (%)	31.5	-2.4	1.2	7.2	11.8	14.5	8.0
Gross profit	1,598	1,717	1,976	2,113	2,297	2,657	2,846
Gross margin (%)	20.0	22.0	25.0	24.9	24.2	24.5	24.3
SG&A	(909)	(982)	(1,045)	(1,111)	(1,243)	(1,423)	(1,536)
Operating profit	690	735	931	1,002	1,054	1,234	1,310
EBITDA	1,102	1,153	1,404	1,479	1,600	1,849	1,929
EBIT	422	492	755	821	867	1,047	1,135
Financial expense	(247)	(199)	(177)	(183)	(192)	(192)	(181)
- Interest expense	(220)	(161)	(139)	(146)	(154)	(155)	(144)
Depreciation	(680)	(661)	(648)	(658)	(734)	(802)	(793)
EBT	461	524	786	850	894	1,073	1,160
NPAT	**296**	**328**	**518**	**560**	**600**	**720**	**778**
Net margin (%)	3.7	4.2	6.5	6.6	6.3	6.6	6.6
Basic EPS (dong/share)	**825**	**1,239**	**1,753**	**1,732**	**1,856**	**2,227**	**2,407**
Dilluted EPS (dong/cp)	**825**	**1,239**	**1,753**	**1,295**	**1,388**	**1,665**	**1,800**

*Source: RongViet Research, *using share price at the end of 2016 to calculate EPS for the years 2017-2020; social welfare ratio: 5%*

We estimate that VGC's 2016 revenue will be around VND7,916 billion, 1.2% higher YoY. The holding company's NPAT might reach VND518 billion, equivalent to a basic EPS of VND1,753 in 2016.

In 2017, the revenue is forecasted to grow by 7.2%, as a result of the contribution from the super white glass plant, the granite tile production line, the new sanitary ceramic plant and the improvement in sales prices. 2017 NPAT is projected at VND560 billion, equivalent to an EPS of VND1,732 (based on the current number of shares outstanding). However, in case of a successful private placement of 123 million shares in early-2017, the diluted EPS is calculated at VND1,295.

VALUATION

We use sum-of-the-parts valuation method, including EV/EBITDA multiples to evaluate the building materials segment and the net asset value method for the real estate projects, to determine a reasonable price for VGC.

For the building materials section, we calculate EBITDA by leaving out real estate incomes and expenses (according to the financial statements and some ratios of cost allocation related to the sector).

As can be seen in Table 21, the average EV/EBITDA of the building materials industry is around 5.5 times. Considering the business performance of VGC and its complex organizational structure with multiple subsidiaries, we use an EV/EBITDA of 5 times for the building materials segment. The enterprise value of this section is estimated at VND 6,253 billion.

Table 21: EV/EBITDA of Some Enterprises in the Same Industry

No.	Ticker	Market Cap (VND billion)	EV/EBITDA
1	PTB	2,549	7.2
2	BTS	1,047	6.5
3	VHL	816	4.4
4	CVT	678	6.0
5	VIT	387	5.6
Average			**5.5**

Source: FinnPro, using closing price of Dec 14, 2016, excluding businesses having EV/EBITDA of higher than 9

Table 22: Valuation of VGC's Building Materials Segment

	2017	2018	2019	2020
EBITDA (VND billion)	1,251	1,353	1,557	1,762
EV/EBITDA		**Enterprise Value**		
4,5	5,628	6,091	7,007	7,928
5,0	**6,253**	6,767	7,786	8,809
5,5	6,878	7,444	8,564	9,690
6,0	7,504	8,121	9,343	10,571
6,5	8,129	8,797	10,122	11,452

Source: RongViet Research

Because only the parent company is in charge of its real estate operations, we suppose that minority interest is mostly coming from the building material segment. After comparing the value of cash and cash equivalents of VGC in its parent and consolidated reports, we determined that the relative value of the building materials segment is VND453 billion.

Table 23: Determination of VGC's Ownership in Building Materials Section

Factors	Value (VND billion)
EV of building materials segment	6,253
Total debt of building materials segment	*4,310*
Minority interest	*394*
Cash and cash equivalents	*453*
Equity value of building materials segment	**2,001**

Source: RongViet Research

For the real estate segment, we reevaluated the current projects of VGC, and also took into account the additional cost of investment until the project is completed, in order to determine the value of the real estate inventories. Combined with other assets of the real estate segment, the total revaluation value is VND10,769 billion, about 13% higher than its book value. Excluding total liabilities of the real estate segment, its equity value is estimated at VND3,461 billion.

Table 24: Revaluation Net Asset Value of VGC's industrial Parks

Industrial Parks	Total area	Commercial Land Area	Total investment	invested cost	Additional investment	Leasable Area	Lease Rate	Projected Sales	Net Asset Value
	sqm	sqm	(VND billion)	(VND billion)	(VND billion)*	sqm	USD	(VND billion)*	(VND billion)*
Tien Son	3,320,500	2,490,375	854	854	-	-	80	-	-
Yen Phong	3,636,000	2,727,000	935	935	-	-	72	-	-
Yen Phong-expanded	3,139,000	2,354,250	2,345	94	2,251	2,118,825	69	1,393	300
Hai Yen	1,824,200	1,368,150	1,069	411	658	766,164	46	791	396
Dong Mai	1,600,000	1,200,000	670	435	235	598,014	33	377	78
Phu Ha	3,500,900	2,625,675	1,269	-	1,269	2,625,675	33	699	133
Phong Dien	2,843,199	2,132,399	1,154	236	919	2,072,692	69	1,069	307
Thuan Thanh	2,500,000	1,875,000	1,158	239	920	1,818,750	58	1,017	426
Ha Vang	3,000,000	2,100,000	1,558	271	1,287	1,848,000	36	736	104
Tien Hai	4,460,000	3,345,000	2,201	670	1,531	2,659,275	58	1,446	623
Cam Khe	4,500,000	3,375,000	1,938	172	1,766	3,143,475	35	1,090	164
Dong Van 4	3,000,000	2,250,000	1,378	176	1,203	2,250,000	43	1,056	439
Total	**37,323,799**	**27,842,849**	**16,255**	**4,582**	**6,704**			**9,673**	**2,969**

*Source: RongViet Research, * current value*

Table 25: Revaluation of VGC's Real Estate Segment (Unit: VND billion)

	Book Value	Revaluated value
Industrial real estate segment	1.614	2,664
Civil real estate segment		188
Other assets	7.918	7,918
Total assets of real estate segment	**9.531**	**10,769**
Total debt	7.308	7,308
Equity value of real estate segment	**2.223**	**3.461**

Source: RongViet Research

Combining each segment's values, the target price is determined at **VND 17,800/share**, an upside of 11.9% compared to the closing price on Dec 14th, 2016. Therefore, we give this stock a **NEUTRAL** recommendation in **LONG TERM** for VGC.

Table 26: Valuation Results

Factors	Value (VND billion)
Equity value of building materials segment	2,001
Equity value of real estate segment	3,461
Total equity value of VGC	**5,462**
Number of shars outstanding (share)	*307,000,000*
Equity value per share (VND)	**17,790**

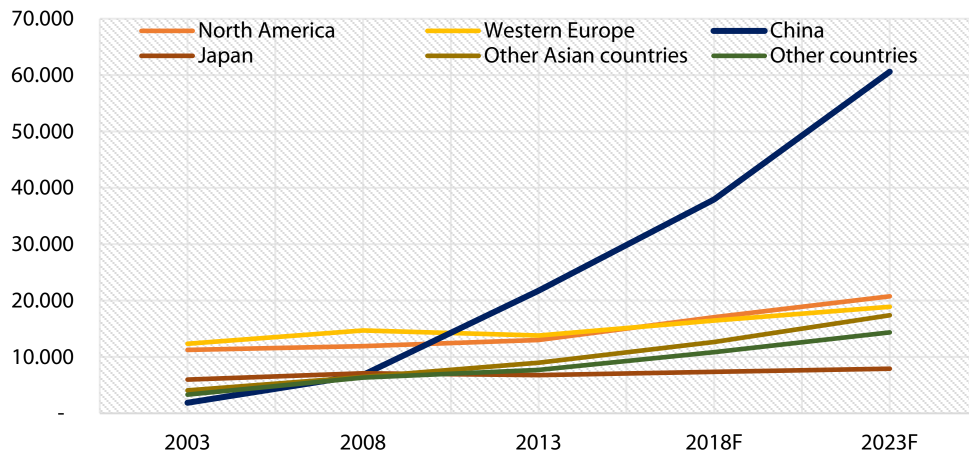
Source: RongViet Research

INDUSTRY OVERVIEW

Large Demand for High Quality Construction Glass

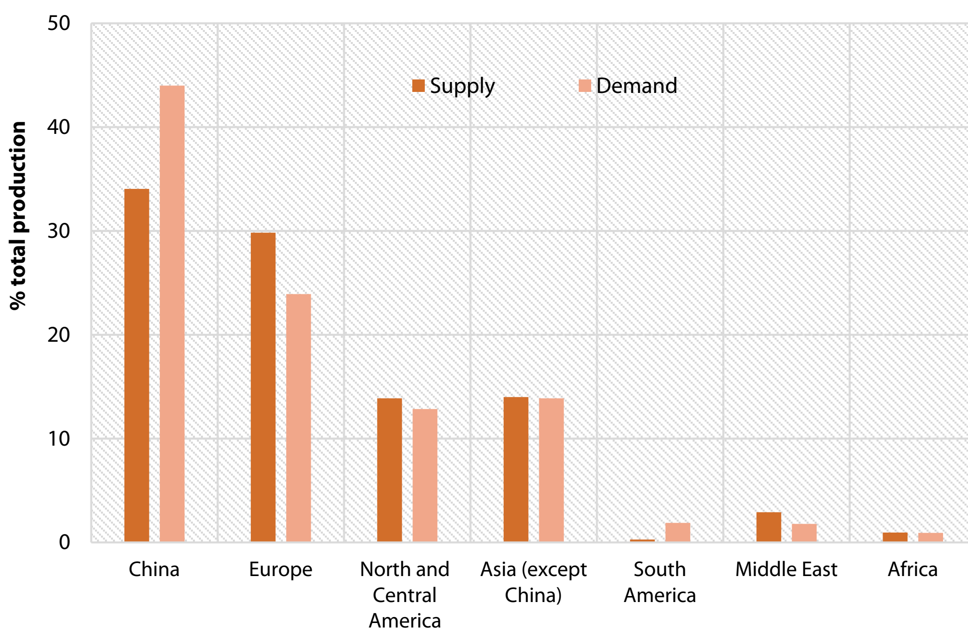
Construction activities in developed regions such as Western Europe and North America, along with the rapid urbanization rate of emerging countries such as China, India, Vietnam, Indonesia and Thailand will be the major driving force for global float glass consumption. According to Liberated Market Research, glass demand is projected to be 10 billion m^2 by 2018, representing an increase of 6.6% per year. Asia Pacific in particular could be the fastest growing region, at 41% over the period of 2013- 2018 and at 37% between 2019-2023. Within the Asia Pacific region, China is the dominant flat glass consumer, representing over 48% of the total volume in 2013, and 52% by 2018.

Graph 5: World Flat Glass Demand ($ million)



Source: The Freedonia

Graph 6: Flat Glass Production and Consumption by Major Regions in 2015



Source: Market & Markets

Meanwhile, the global capacity of construction glass is oversupplied, mostly in the low-end product segment. During 2005-2015, the number of glass factories decreased by 32% in North America, while European countries also shut down 1-2 plants. Despite the oversupply, most of the factories closed due to outdated technology, which did not meet the market's demand for high quality. Over half of China's production (~ 50% of world capacity) has low quality, and therefore it sells at considerably lower prices in some developing countries such as Vietnam.

According to research of Market & Markets, the usage of energy saving glass (Low-E glass, Solar Control) for buildings has been becoming popular in recent years, of which over 60% of the market share comes from the world's largest manufacturers such as Asahi (Japan), Pilkington (USA), Saint-Gobain (France).

High Demand for Construction Glass in Vietnam

According to the estimation of the Ministry of Construction, domestic demand is projected to increase by 38% during 2015-2020. Meanwhile, on the supply side, domestic manufacturers account for only 60% of the market share with major suppliers such as Chu Lai Glass, Vietnam Float Glass, Binh Duong Glass, and Trang An Glass. Currently, most of Vietnam's manufactures mainly produce white and colored glass for civil construction. In the high-end products segment, such as reflective glass and low-e glass, Vietnam has to import from China (60%) and other ASEAN countries (30-35%) despite higher prices and the long waiting time.

Table 27: Projected Demand of Some Major Building Materials

Types of Products	Unit	2015	2020
Construction glass	Million m^2	80	110
Tiles	Million m^2	320	470
Sanitary products	Million units	12.69	20.68
Bricks		26	30

Source: The master plan *developed in* 2020 *Vietnam* building materials *and orientations*

Table 28: Major Domestic Glass Manufacturers

Company name	Factory Location	VGC's ownership	Types of products	Design capacity
Vietnam Float Glass (VIFG)	Binh Duong	100%	Float glass	23 million m^2 (standard) per year
Dap Cau Sheet Glass	Bac NInh	51%	Rolled glass	11 million m^2 (standard) per year
Vietnam-Japan Float Glass (VFG)	Bac Ninh	29.28%	Float glass	30 million m^2 (standard) per year
Trang An Glass	Ninh Binh		Float glass	17 million m^2 (standard) per year
Chu Lai Float Glass	Quang Nam		Float glass	42 million m^2 (standard) per year

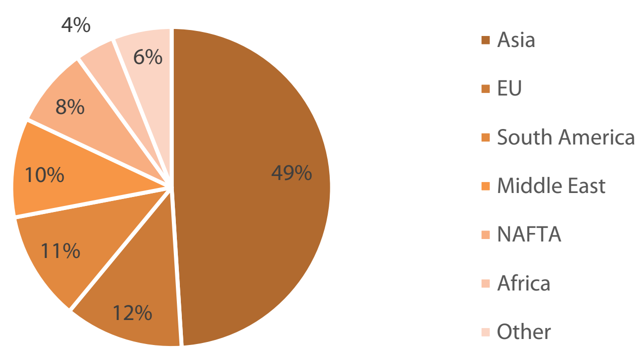
Source: RongViet Research; standard: presided standard at 2mm

Real Estate Market is the Main Growth Engine for Sanitary Ware Products

The demand for sanitary ware products in the world is being supported by strong growth of the property market in the US, China, India, Korea and the Middle East. In developing markets, market demand mainly comes from replacement of products with higher quality products. The organization MarketandMarkets predicts that the value of the sanitary ware market will reach $46 billion in 2019, corresponding to an increase of 10.1% per year (CAGR) over the period 2014-2019.

On the supply side, China ranked first in the world with more than 120 million tons of sanitary products per year, accounting for over 20% of the global market share. Meanwhile, Brazil is the second largest producer but only produces 24 million tons of products per year. The production of ceramic products and sanitary wares products are mainly produced by international corporations like Lixil (Inax and American Standard), TOTO, and Kohler.

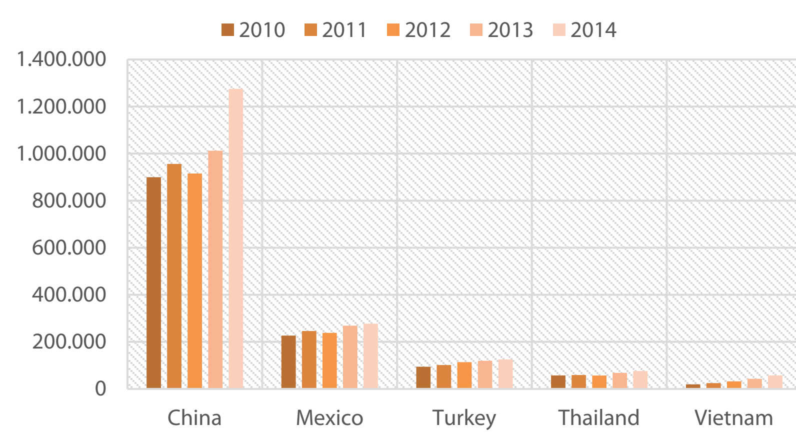
Graph 7: Production Volume by Region in 2014



Source: Ceramic World Review

Besides the major exporting countries such as China (45% of total exports), Mexico and Turkey, Vietnam has emerged as one of the leading exporters of sanitary ware products. In 2014, the export growth rate of Vietnam was strong, reaching 19%, allowing the country to rank 9th in exports with 57,424 tons.

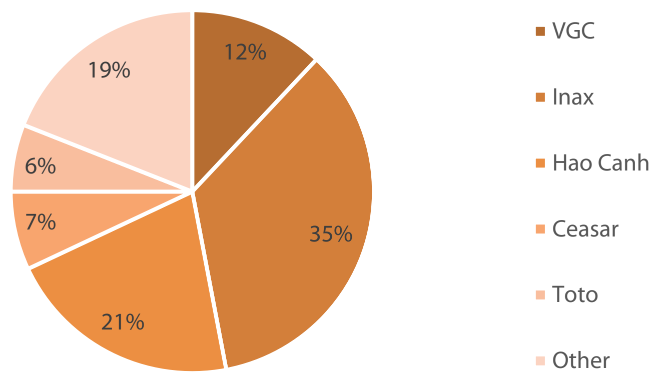
Graph 8: Main Exporters in 2014 (Unit: tons)



Source: Ceramic World Review

In the domestic market, the Ministry of Construction forecasts that the demand for sanitary products will increase by 63% between 2015-2020, equivalent to 20.68 million units. However, most domestic demand is satisfied by international brands like Inax, Ceasar, Toto and Chinese products because Vietnamese products are less diversified and are mostly low quality products. Therefore, the new investment in high quality products of VGC might be a step ahead of the rising domestic demand.

Graph 9: Market Share in Sanitary Ware Market in Vietnam



Source: RongViet Research

APPENDIX 1: LIST OF SOME INDUSTRIAL PARKS IN VIETNAM

	Total area	Industrial Park	Location	Area (ha)	Occupancy rate (%)	Lease rate (USD/m²/50 years)	Construction period
ITA	879	Tan Tao	HCM	343,9	87	220-260	1996-2000
		Tan Duc 1	Long An	273	85	60-108	2003-2005
		Tan Duc 2	Long An	262	25	90-120	2005-2008
LHG	374	Long Hau	Long An	250	87	90-100	2006-2010
		Long Hau 3	Long An	124	n/a	n/a	2016-2019
KBC	2,579	Que Vo Phase 1	Bac Ninh	310	95	40-45	2002
		Que Vo Phase 2	Bac Ninh	300	63	55-60	2007
		Trang Due 1	Hai Phong	187	95	60-68	2007
		Trang Due 2	Hai Phong	214	43	60-69	2014
		Quang Chau	Bac Giang	426	27	50-60	2006
		Tan Phu Trung	HCM	542	23	63-75	2003
		Trang Due 3	Hai Phong	600	n/a	n/a	2016
KBC's associates	1,975	Dai Dong-Hoan Son (21%)	Bac Ninh	264,3	65	60-70	2005
		Haa Khanh Phase 2 (19.5%)	Da Nang	132,6	65	33	2004
		Lien Chieu (19.5%)	Da Nang	298,4	64	33	1998
		Sai Gon - Chan May (10%)	Hue	650	10	30	2009
		Sai Gon - Nhon Hoi (10%)	Binh Dinh	630	10	16-18	2005
VGC	4,032	Tien Son	Bac Ninh	332	100	80	1999 - 2011
		Yen Phong	Bac Ninh	364	100	72	2006 - 2015
		Hai Yen	Quang Ninh	182	44	46	2004 -2007
		Dong Mai	Quang Ninh	160	50	33	2010 - 2016
		Phu Ha	Phu Tho	350	0	33	2015 - 2020
		Phong Dien	Hue	284	3	69	2015 - 2020
		Yen Phong Phase 2	Bac Ninh	314	10	69	2016 - 2021
		Tien Hai	Thai Binh	446	21	58	2016-2020
		Cam Khe	Phu Tho	450	7	35	2015-2022
		Dong Van 4	Ha Nam	600	0	43	2016-2020
		Thuan Thanh	Bac Ninh	250	3	58	2017-2020
		Ha Vang	Ha Tinh	300	12	36	2010

Source: RongViet Research

APPENDIX 2: VGC's REAL ESTATE PROJECTS

No.	Project	Location	Total area (m2)	Saleable area (m2)	Remaining saleable area (m2)	Proportion of saleable area (%)
I	**Current industrial parks**		**22,793,099**	**16,997,849**	**8,433,370**	**50**
1	KCN Tien Son	Bac Ninh	3,250,000	2,490,375	-	0
2	KCN Yen Phong	Bac Ninh	3,636,000	2,727,000	-	0
3	KCN Yen Phong Phase 2	Bac Ninh	3,139,000	2,354,250	2,118,825	90
4	KCN Hai Yen	Quang Ninh	1,824,000	1,368,150	766,164	56
5	KCN Dong Mai	Quang Ninh	1,600,000	1,200,000	598,014	50
6	KCN Phu Ha	Phu Tho	3,500,900	2,625,675	2,625,675	100
7	KCN Phong Dien	Hue	2,843,199	2,132,399	2,072,692	97
8	KCN Ha Vang	Ha Tinh	3,000,000	2,100,000	252,000	12
II	**Industrial parks under construction in 2016-2020**		**14,460,000**	**10,845,000**	**9,871,500**	**91**
1	KCN Thuan Thanh	Bac Ninh	2,500,000	1,875,000	1,818,750	97
2	KCN Tien Hai	Thái Bình	4,460,000	3,345,000	2,659,275	80
3	KCN Dong Van 4	Hà Nam	3,000,000	2,250,000	2,250,000	100
4	KCN Cam Khe	Phu Thọ	4,500,000	3,375,000	3,143,475	93
III	**Residentail projects**		**1,922,722**	**1,922,722**	**295,886**	**15**
1	Thang Long No 1 Phase 1	Hanoi	19,429			0
2	Thang Long No 1 Phase 2	Hanoi	18,95		8,198	43
3	628 Hoang Hoa Tham	Hanoi	4,345			0
4	671 Hoang Hoa Tham Phase 1	Hanoi	6,515			
5	671 Hoang Hoa Tham Phase 2	Hanoi	2,765			
6	671 Hoang Hoa Tham Phase 3	Hanoi	7,27		2,699	37
7	Dang Xa 1	Hanoi	296,541		27,361	9
8	Dang Xa 2	Hanoi	390,226		41,036	11
9	Xuan Phuong	Hanoi	145,768		6,313	4
10	Tay Mo	Hanoi	85,904			0
11	Dai Mo	Hanoi	20,953			0
12	Kim Chung	Hanoi	36,964			
13	Bac Ninh	Bac Ninh	10,572			
14	Housing for staff in Yen Phong IP	Bac Ninh	499,7		152,846	30
15	Condominium in Tien Son IP	Bac Ninh	249,625		38,994	16
16	Hoan Son	Bac Ninh	106,006			0
17	Dinh Bang	Bac Ninh	21,234			0
	Total		**39,175,821**	**29,765,571**	**18,600,756**	**62**

Source: VGC

Unit: VND Billion

INCOME STATEMENT	2014	2015	2016F	2017F
Revenue	8,009	7,820	7,916	8,485
COGS	6,410	6,103	5,941	6,372
Gross profit	1,598	1,717	1,976	2,113
Selling Expense	490	537	562	590
G&A Expense	419	445	483	522
Finance Income	39	32	31	29
Finance Expense	247	199	177	183
Other profits	-29	-78	-16	-14
Gain/(loss) from joint	8	33	17	17
PBT	461	524	786	850
Tax expense	92	118	144	157
Minority interests	73	78	123	133
PAT	296	328	518	560
EBIT	690	735	931	1,002
EBITDA	1,102	1,153	1,404	1,479

Unit: %

FINANCIAL RATIO	2014	2015	2016F	2017F
Growth				
Revenue	31.5	-2.4	1.2	7.2
EBITDA	40.6	4.6	21.8	5.4
EBIT	42.5	6.5	26.7	7.6
PAT	882.8	11.1	57.9	7.9
Total Assets	9.8	-5.3	12.3	17.2
Equity	120.3	12.0	25.3	39.0
Profitability				
Gross profit/Revenue	20.0	22.0	25.0	24.9
EBITDA/ Revenue	13.8	14.7	17.7	17.4
EBIT/ Revenue	8.6	9.4	11.8	11.8
Net margin	3.7	4.2	6.5	6.6
ROAA	2.4	2.8	4.0	3.6
ROIC or RONA	10.4	10.6	11.4	9.9
ROAE	11.2	11.1	14.0	10.9
Efficiency				
Receivable Turnover	6.3	5.9	6.5	6.5
Inventory Turnover	1.7	2.2	1.8	1.6
Payable Turnover	1.5	1.9	1.6	1.6
Liquidity				
Current	1.1	1.0	1.1	1.3
Quick	0.4	0.5	0.5	0.6
Solvency				
Total Debt/Equity	95.1	75.8	63.2	48.7
Current Debt/Equity	57.4	48.4	34.7	25.2
Long-term Debt/ Equity	37.7	27.5	28.5	23.4

Unit: VND Billion

BALANCE SHEET	2014	2015	2016F	2017F
Cash and equivalents	1,026	708	869	1,649
Short-term investment	0	10	15	28
Receivables	1,263	1,324	1,221	1,309
Inventories	3,672	2,761	3,314	3,976
Other current assets	130	129	136	142
Tangible Fixed Assets	5,304	5,812	6,570	7,219
Intangible Fixed Assets	109	103	100	97
Other long-term assets	215	250	283	317
Long-term Asset	598	564	592	622
Total asset	12,317	11,662	13,100	15,358
Accounts payable	4,179	3,297	3,627	3,990
Short-term borrowings	1,515	1,429	1,286	1,299
Long-term borrowings	993	811	1,054	1,206
Other non-current liabilities	2,647	2,774	2,913	3,058
Bonus and Welfare fund	2	23	26	29
Technology-science	40	26	32	37
Total liabilities	**9,377**	**8,361**	**8,937**	**9,619**
Common stock and APIC	2,645	2,645	3,070	4,300
Treasury stock (enter as -)	(0)	(0)	(0)	(0)
Retained earnings /	75	304	575	733
Other comprehensive income /	(179)	(96)	(96)	(96)
Investment and Development	97	102	154	210
Total equity	2,638	2,954	3,703	5,146
Minority Interest	289	337	461	594

Unit: VND billion

CASH FLOW STATEMENT	2014	2015	2016F	2017F
Profit before tax	461	524	786	850
-Depreciation	468	391	473	477
-Adjustments	(929)	267	-	-
+/- Working capital	1,059	(279)	835	774
Net Operating CFs	1,059	904	2,094	2,101
+/- Fixed Asset	(788)	(555)	(708)	(240)
+/- Deposit, equity investment	586	(368)	33	33
Interest, dividend, cash profit	8	33	-	-
Net Investing CFs	**(194)**	**(889)**	**(675)**	**(207)**
+/- Capital	1,537	(0)	425	1,230
+/- Debt	(654)	(268)	(313)	(81)
Dividend paid & other	(1)	(0)	(1)	(2)
Net Financing CFs	(425)	(335)	(1,256)	(1,114)
+/- cash & equivalents				
Beginning cash & equivalents	586	1,026	707	869
+/- cash & equivalents	440	(320)	162	780
Ending cash & equivalents	1,026	707	869	1,649

DISCLAIMERS

This report is prepared in order to provide information and analysis to clients of Rong Viet Securities only. It is and should not be construed as an offer to sell or a solicitation of an offer to purchase any securities. No consideration has been given to the investment objectives, financial situation or particular needs of any specific. The readers should be aware that Rong Viet Securities may have a conflict of interest that can compromise the objectivity this research. This research is to be viewed by investors only as a source of reference when making investments. Investors are to take full responsibility of their own decisions. VDSC shall not be liable for any loss, damages, cost or expense incurring or arising from the use or reliance, either full or partial, of the information in this publication.

The opinions expressed in this research report reflect only the analyst's personal views of the subject securities or matters; and no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or opinions expressed in the report.

The information herein is compiled by or arrived at Rong Viet Securities from sources believed to be reliable. We, however, do not guarantee its accuracy or completeness. Opinions, estimations and projections expressed in this report are deemed valid up to the date of publication of this report and can be subject to change without notice.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by Viet Dragon Securities Corp. (“VDSC”), a company authorized to engage in securities activities in Vietnam. VDSC is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to “major U.S. institutional investors” in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”).

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Rosenblatt Securities Inc., 40 Wall Street 59th Floor, New York, NY 10005, a registered broker dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through VDSC. Rosenblatt Securities Inc. accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority (“FINRA”) and may not be an associated person of Rosenblatt Securities Inc. and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Ownership and Material Conflicts of Interest

Rosenblatt Securities Inc. or its affiliates does not ‘beneficially own,’ as determined in accordance with Section 13(d) of the Exchange Act, 1% or more of any of the equity securities mentioned in the report. Rosenblatt Securities Inc, its affiliates and/or their respective officers, directors or employees may have interests, or long or short positions, and may at any time make purchases or sales as a principal or agent of the securities referred to herein. Rosenblatt Securities Inc. is not aware of any material conflict of interest as of the date of this publication.

Compensation and Investment Banking Activities

Rosenblatt Securities Inc. or any affiliate has not managed or co-managed a public offering of securities for the subject company in the past 12 months, nor received compensation for investment banking services from the subject company in the past 12 months, neither does it or any affiliate expect to receive, or intends to seek compensation for investment banking services from the subject company in the next 3 months.

Additional Disclosures

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither VDSC nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report’s preparation or publication, or any losses or damages which may arise from the use of this research report.

VDSC may rely on information barriers, such as “Chinese Walls” to control the flow of information within the areas, units, divisions, groups, or affiliates of VDSC.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States. The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by VDSC with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

No part of the content of this research report may be copied, forwarded or duplicated in any form or by any means without the prior.

Company Report

This report is created for the purpose of providing investors with an insight into the discussed company that may assist them in the decision-making process. The report comprises analyses and projections that are based on the most up-to-date information with the objective which is to determine the reasonable value of the stock at the time such analyses are performed. Through this report, we strive to convey the complete assessment and opinions of the analyst relevant to the discussed company. To send us feedbacks and/or receive more information, investors may contact the assigned analyst or our client support department.

RATING GUIDANCE

Ratings / Return Potential	BUY	ACCUMULATE	NEUTRAL	REDUCE	SELL
Intermediate- term (up to 6 months)	>20%	10% to 20%	-5% to10%	-15% to- 5%	<-15%
Long-term (over 6 months)	>30%	15% to 30%	-10% to 15%	-15% to -10%	<-15%

ABOUT US

RongViet Securities Corporation (RongViet) was established in 2007, licensed to perform the complete range of securities services including: brokerage, financial investment, underwriting, financial and investment advisory and securities depository. RongViet now has an operating network that spreads across the country. Our major shareholders, also our strategic partners, are reputable institutions, i.e Eximbank, Viet Dragon Fund Management, etc... Along with a team of the professional and dynamic staffs, RongViet has the man power as well as the financial capacity to bring our clients the most suitable and efficient products and services. Especially, RongViet was one of the very first securities firms to pay the adequate attention to the development of a team of analysts and the provision of useful research report to investors.

The **Analysis and Investment Advisory Department** of RongViet Securities provides research reports on the macro-economy, securities market and investment strategy along with industry and company reports and daily and weekly market reviews

Network

Headquarter

Address: Floor 1-2-3-4, Viet Dragon Tower, 141 Nguyen Du, Ben Thanh Ward, Dist.1, Tp.HCM

Phone: 84.8 6299 2006   Fax: 84.8 6291 7986

Website: www.vdsc.com.vn

Ha Noi Branch

2C Thai Phien – Hai Ba Trung District – Ha Noi

NhaTrang Branch

50Bis Yersin - NhaTrang

Can Tho Branch

95 Vo Van Tan –CầnThơ

DISCLAIMERS

This report is prepared in order to provide information and analysis to clients of Rong Viet Securities only. It is and should not be construed as an offer to sell or a solicitation of an offer to purchase any securities. No consideration has been given to the investment objectives, financial situation or particular needs of any specific. The readers should be aware that Rong Viet Securities may have a conflict of interest that can compromise the objectivity this research. This research is to be viewed by investors only as a source of reference when making investments. Investors are to take full responsibility of their own decisions. VDSC shall not be liable for any loss, damages, cost or expense incurring or arising from the use or reliance, either full or partial, of the information in this publication.

The opinions expressed in this research report reflect only the analyst's personal views of the subject securities or matters; and no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or opinions expressed in the report.

The information herein is compiled by or arrived at Rong Viet Securities from sources believed to be reliable. We, however, do not guarantee its accuracy or completeness. Opinions, estimations and projections expressed in this report are deemed valid up to the date of publication of this report and can be subject to change without notice.