

Industry : Chemical (Recent report: [Link](#))

## Recommendations BUY Duc Giang Chemicals Group (HSX: DGC) Benefit from high anchor export prices

Current price:	177,600	Report writing date:	03/03/2022	<b>Shareholder structure</b>	
Previous target price:	115,000	Outstanding Shares (Million):	171	Dao Huu Huyen	18.5%
New target price:	233,000	Market capitalization (billion VND):	28,399	Ngo Thi Ngoc Lan	6.7%
Dividend yield:	0%	Average liquidity of 10 sessions:	1,557,150	Dao Huu Kha	6.1%
<b>Potential for price increase</b>	<b>31%</b>	Foreign ownership:	8.47%		

### Industry Analyst:

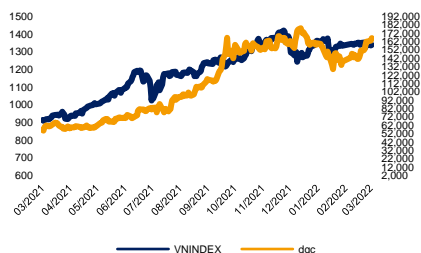
Nguyen Thi Cam Tu, CFA  
(Chemical, Fishery, Textile)  
[tuntc@bsc.com.vn](mailto:tuntc@bsc.com.vn)

### Technical Analyst:

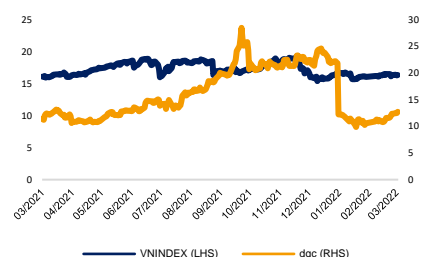
Pham Thanh Thao  
[thaopt@bsc.com.vn](mailto:thaopt@bsc.com.vn)

Recommended price : 181,000 VND  
Stop Loss Price : 163,000 VND

### Price comparison table DGC and VN-Index



### P/E comparison table of DGC and VN-Index



### Valuation

- We maintain our BUY recommendation for DGC stock with a 2022 target price of VND233,000, +31% from the March 3, 2022 price of VND177,600 due to adjusted business forecast (core segment) of the company. in 2022 (+55% compared to the latest forecast) due to the adjustment of export prices with the expectation of high anchor commodity prices in 2022 (+10% compared to the last report).

### Forecasting business results

- BSC forecasts revenue and profit after tax (core business) in 2022 to reach 11,605 billion (+22% YoY) and 3,851 billion (+53% YoY). EPS FW 2022 = 22,200 VND, PE FW 2022 = 8.0 times.
- BSC forecasts RNAV value of Real Estate Project 44 Duc Giang at 349 billion.

### Outlook for 2022

- Continuing to benefit from high anchored commodity prices.
- Production costs continue to be reduced thanks to self-reliance in Apatite ore sources .

### Risk

- Policy risks related to the environment.
- Risk of increasing input costs (coal costs).

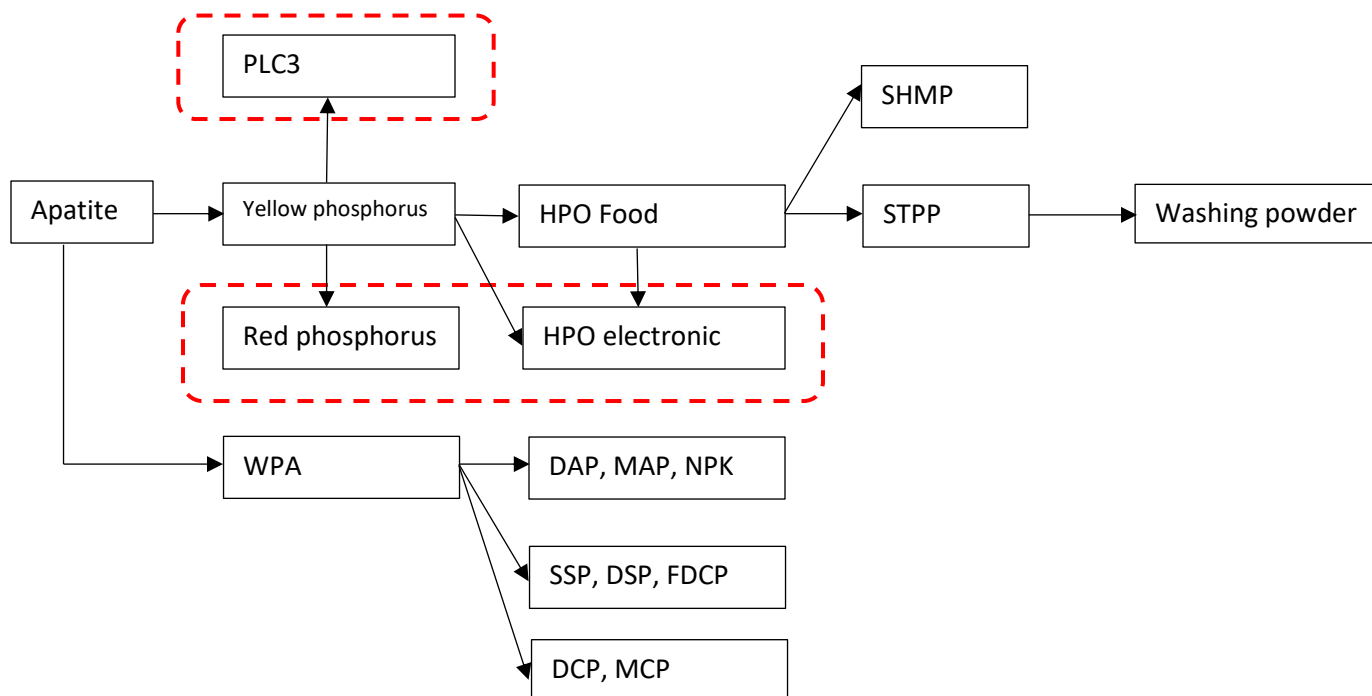
### Business Update

- Business results in 2021 grow strongly.** Revenue and profit after tax reached 9,550 billion (+53% YoY) and 2,514 billion (+165% YoY). Gross profit margin increased sharply to 33.3% from 23.7% over the same period.
- BSC believes that the strong growth in business results comes from (i) The selling prices of all products have increased according to world prices: The price of yellow phosphorus doubled; Fertilizer prices increased by 82% YoY (i) Costs were partially reduced by going into ore mining at the site 25.

	2021	2022F	Peer	VN-Index
PE (x)	8.9	13.5	11.1	16.8
PB (x)	1.9	5.0	2.2	2.4
PS (x)	1.2	3.1	0.8	2.0
ROE (%)	48%	51%	27%	15%
ROA (%)	35%	37%	15%	2.4%

	2019	2020	2021	2022F
Net Revenue	5,090	6,236	9,550	11,605
Gross profit	1,006	1,479	3,181	4,851
Profit after tax	572	948	2,514	3,851
EPS	4,241	5,728	13,125	22,200
EPS growth	-44%	35%	129%	53%

### Product chain of Duc Giang Group



\* Red frame: Product is under research

Table of products of Duc Giang Chemical Group

Product's name	Uses
Yellow phosphorus	Used in electronic industry, semiconductor, flame retardant, ...
HPO Food (Axit photphoric food)	Used as a raw material for the production of phosphate salts, Used in the electronics, semiconductor, food and beverage industries
WPA (Extracted phosphoric acid)	Used as raw materials for the production of complex fertilizers, Used in food industry, agriculture
STPP, SHMP	Used in paper industry, textile dyeing, petrochemical, ...
DAP, MAP, NPK,	Complex fertilizer
SSP, DSP, FDCP	Superphosphate fertilizer
DCP, MCP	Animal feed

Source: DGC

## I. UPDATE BUSINESS RESULTS IN 2021

**Strong growth in business results in 2021.** Revenue and profit after tax reached 9,550 billion (+53% YoY) and 2,514 billion (+165% YoY). Gross profit margin increased sharply to 33.3% from 23.7% over the same period. BSC believes that the strong growth in business results comes from (i) The selling prices of all products have increased according to world prices: The price of yellow phosphorus doubled; Fertilizer prices increased by 82% YoY (i) Costs were partly reduced by going into ore mining at field 25.

Billions dong	2021	2020	% YoY	Comment
<b>Net Revenue</b>	<b>9,550</b>	<b>6,236</b>	<b>53%</b>	
<b>Gross profit</b>	<b>3,181</b>	<b>1,479</b>	<b>115%</b>	Most of the products with positive growth over the same period, the strongest growth belongs to the group of WPA, DAP (used to make fertilizer) and H3PO4 (used in the food industry and electronics industry).
<i>Gross profit margin</i>	33.3%	23.7%		
Selling expenses	(503)	(388)	30%	
Enterprise Cost Management	(136)	(105)	31%	Gross profit margin improved significantly over the same period due to (i) DGC's selling price increased sharply in line with the increase in world commodity prices (iii) Cost savings thanks to the opening 25
<i>SG&amp;A/ DTT</i>	6.4%	7.9%		
Financial revenue	171	122	40%	
Financial expenses	(68)	(85)	-20%	
Profit before tax	2,637	1,001	163%	Financial income increased due to an increase in cash and cash equivalents (+104% YoY) when major investment projects (Duc Giang – Nghi Son) were delayed due to site clearance and relocation issues.
<b>Profit after tax</b>	<b>2,514</b>	<b>948</b>	<b>165%</b>	
<i>Profit margin after tax</i>	26.3%	15.2%		
<b>EPS</b>	<b>13,125</b>	<b>5,733</b>	<b>164%</b>	

Source: DGC

## II. BUSINESS PROSPECTS IN 2022

**BSC maintains a POSITIVE view of Duc Giang Chemical Group's business activities in 2022 based on two main points of view (i) Continuing to benefit from high world commodity prices (ii) Continued production costs continued to be reduced thanks to the self-control of Apatite ore sources.**

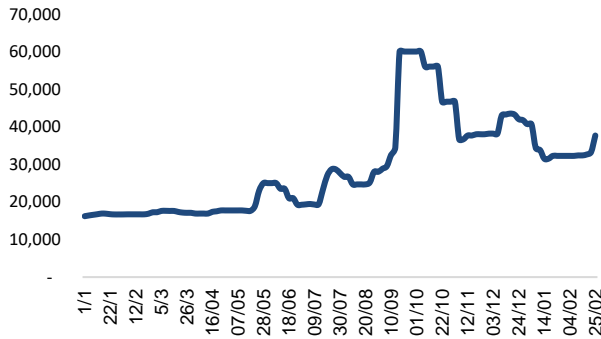
**(i) The Group continues to benefit from high international commodity prices**

**Product group Phosphorus (P4) and related products:** BSC believes that the main growth driver in 2022 continues to come from high world selling prices (equivalent to prices in Q4 2021) in all export markets (China, South Korea), Taiwan, ...) to help Duc Giang benefit. BSC expects that chip demand (for 5G equipment) and trend in electric vehicle production (for batteries) will have a positive impact on Phosphorus prices.

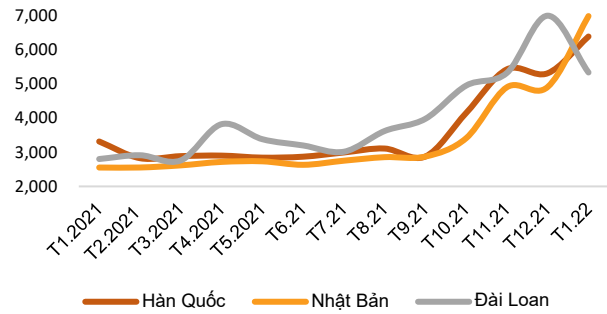
BSC also thinks that the overall output level will be flat in 2022, although the structure of output between products may change as the company optimizes resources (concentration of products with high gross margin).

	Average Price of Phosphorus T1.2022	%YoY
China (RMB/ton)	33,350	+100%
Japan (USD/ton)	6,971	+173%
Korea (USD/ton)	6,375	+93%
Taiwan (USD/ton)	5,325	+90%

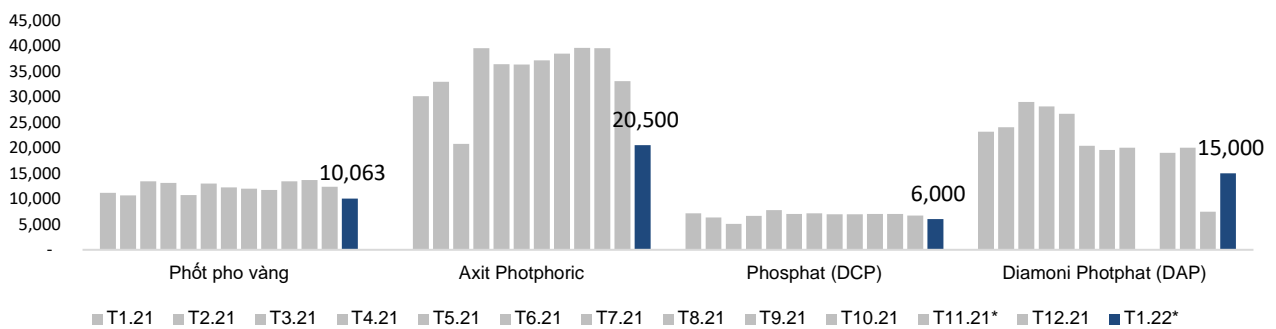
**Price of Yellow Street in China (RMB/ton)**



**Yellow Phosphorus prices in some countries (USD/ton)**



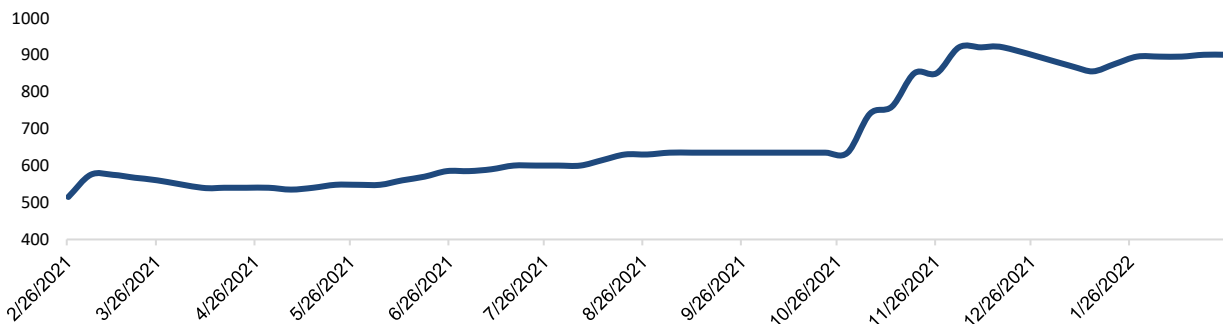
**Production output of some products in Lao Cai province (tons)**



Source: compiled by BSC

**Fertilizer and fertilizer-related products (WPA, DAP, MAP):** BSC expects fertilizer prices to remain high in 2022 thanks to limited supply in major fertilizer exporting countries: China restricting fertilizer exports, Russia affects exports due to its involvement in the war in Ukraine. In the context of tight supply, DGC is expected to benefit when production is not affected.

**China DAP price (USD/ton)**



Source: DGC, Bloomberg

**(ii) Production cost was reduced over the same period last year thanks to the extraction of apatite ore from the field 25.**

Regarding the cost of Ore, the extraction of Apatite ore from Mine 25 is expected to reduce the cost of mining compared to outside imports by about VND 240 billion (estimated figure by BSC).

**Projection table of cost reductions when Field 25 comes into operation**

Targets	Estimated BSC figures
Cost of exploitation of Apatit Vietnam Company	500,000 VND/ton
Import price of Duc Giang Chemical Group	1,200,000 VND/ton
Cost of field mining 25 (estimated BSC)	700,000 VND/ton
Ore self-sufficiency rate (estimated BSC)	~30%
Output of DGC expected to be exploited	Year 1: 400,000 tons (Ore I: 50,000 tons, Ore III: 350,000 tons) Year 2 to year 5: 670,000 tons (Ore I: 90,000 tons, Ore III: 580,000 tons) Year 6: 586,570 tons (Ore I: 81,880 tons, Ore III: 504,690 tons)
The cost is reduced when switching to self-mining ore	<b>Year 1: 240 billion VND</b> <b>Year 2 to year 5: 402 billion VND</b> <b>Year 6: 352 billion VND</b>

Source: BSC estimates

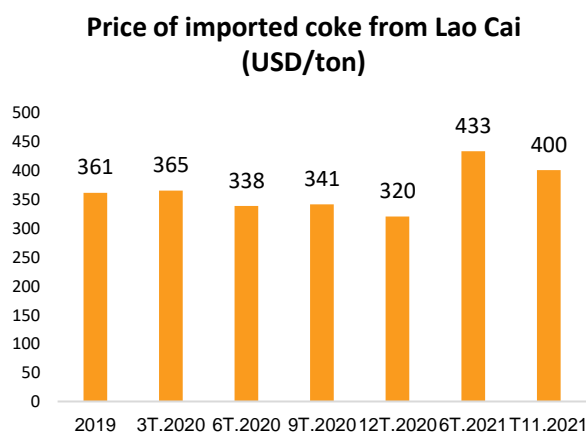
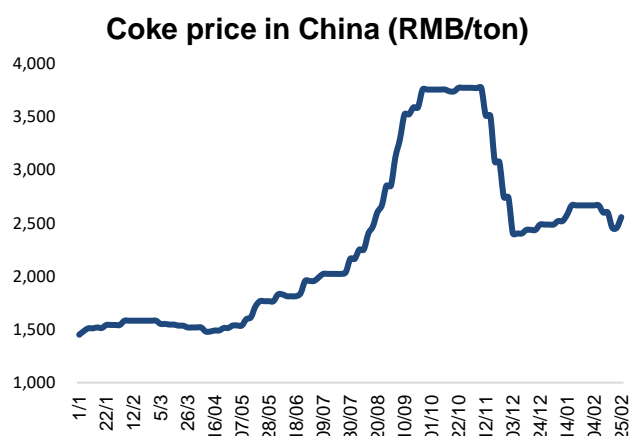
### III. RISK

#### (1) Risks on tax policy

BSC assesses that the risks related to tax policy are (i) a big risk and strongly affect the business activities of the Group and (ii) it is difficult to predict this risk in the future. In the past, Lao Cai province proposed to increase the export tax of Yellow Phosphorus from 5% to 20% (the proposal was not approved) and had a great negative effect on the stock price.

#### (2) Risk of increasing input costs (coal price)

Coal costs: Coal prices in the world are trending up again (Chinese coal prices recovered after a sharp drop at the end of last year). BSC believes that in 2022, the oil energy supply affected by sanctions on Russia may cause a sudden spike in world coal demand, causing a sharp increase in coal production.



Source: compiled by BSC

### III. FORECAST AND VALUATION

We continue to recommend BUY DGC stock with a target price of 233,000 VND/share based on valuation methods (i) in the media segment with FCF and PE methods (60%/40% weight) and (ii) Real Estate Project 44 Duc Giang (RNAV method)

**In 2022, BSC forecasts revenue and profit after tax to reach 11,605 billion (+22% YoY) and 3,851 billion (+53% YoY) based on the following assumptions:**

(i) Sales of all products grew well, mainly benefiting from the continued high prices of products:

Unit: billion VND	2019	2020	2021	2022F old	2022F new
<b>Net Revenue</b>	<b>5,091</b>	<b>6,236</b>	<b>9,550</b>	<b>8,176</b>	<b>11,605</b>
<i>Growth</i>	-16%	+22%			+22%
Yellow Phosphorus sales	2,147	2,939		3,408	6,035
Phosphoric Acid (WPA and Food HPO) sales	1,471	1,518		2,038	2,712
DAP and MAP fertilizer sales	564	760		1,207	1,314

(ii) Lợi nhuận tăng trưởng chính đến từ biên lợi nhuận gộp năm 2022 kỳ vọng đạt 41.8%, tăng mạnh so với mức biên năm 2021 (i) giá xuất khẩu tăng cao: WPA (+35% YoY), DAP và MAP (+45% YoY) (ii) cắt giảm chi phí: chi phí quặng apatit.

**DGC's Forecast (traditional segment)**

Unit: billion VND	2020	2021	2022F old	2022F new
<b>Net Revenue</b>	<b>6,236</b>	<b>9,550</b>	<b>8,176</b>	<b>11,605</b>
Cost of goods sold	(4,757)	(6,368)	(5,953)	(6,753)
<b>Gross profit</b>	<b>1,479</b>	<b>3,181</b>	<b>2,223</b>	<b>4,851</b>
<i>Gross profit margin</i>	23.7%	33.3%	27.2%	41.8%
Selling expenses	(378)	(503)	(491)	(615)
<i>Cost of Sales margin</i>	6.0%	5.3%	6.0%	5.3%
Enterprise Cost Management	(115)	(136)	(147)	(162)
<i>Marginal Business Administration Expense</i>	1.8%	1.4%	1.8%	1.4%
<b>Profit before tax</b>	<b>1,001</b>	<b>2,637</b>	<b>1,604</b>	<b>4,097</b>
Profit after tax	948	2,514	1,508	3,852
<b>EPS</b>	<b>5,728</b>	<b>13,125</b>	<b>8,530</b>	<b>22,200</b>

Source: BSC Research

**P/E method:** BSC continues to keep the target P/E for DGC at 13.0 for 2022:

P/E method	2021	2022F	2023F
EPS	8,414	22,200	19,300

PE	13.0	13.0
Fair value	288,600	250,900

**Discounted Cash Flow Method:**

Average cost of capital	
Rf	7%
Beta	0.7
Ke	12%
Kd	8%
E/A	60%
Tax	20%
WACC	10%
g	5%

	2022F	2023F	Terminal
The company's free cash flow	3,040	1,779	18,823
Present value	32,049		
Total enterprise value	33,889		
Debt	842		
Equity	33,047		
Number of shares	169,685,082		
<b>Value per share (VND)</b>	<b>194,000</b>		

**RNAV Method for Real Estate Project 44 Duc Giang :**

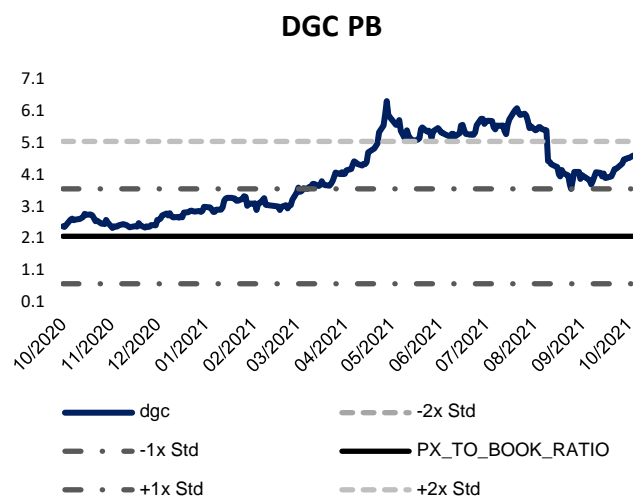
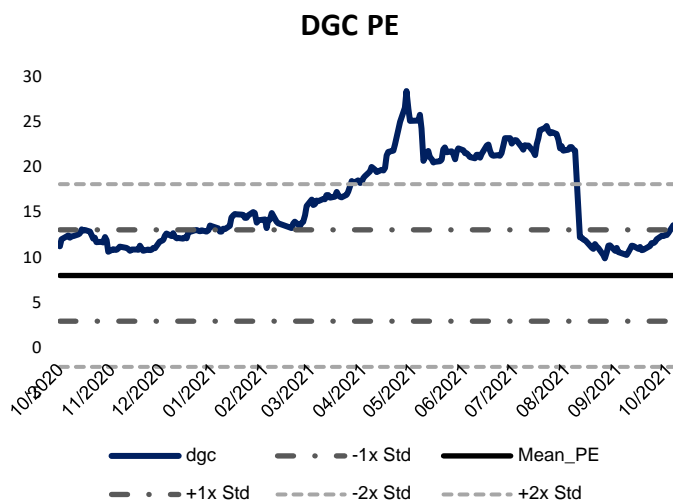
**Overview of Real Estate Projects**

Commercial area	26 ha
Number of apartments	831
Number of shophouses	53
Start time	Q4/2021
Estimated BSC selling price	23 millions/m2 because the project sells preferential prices for employees

**Project handover progress**

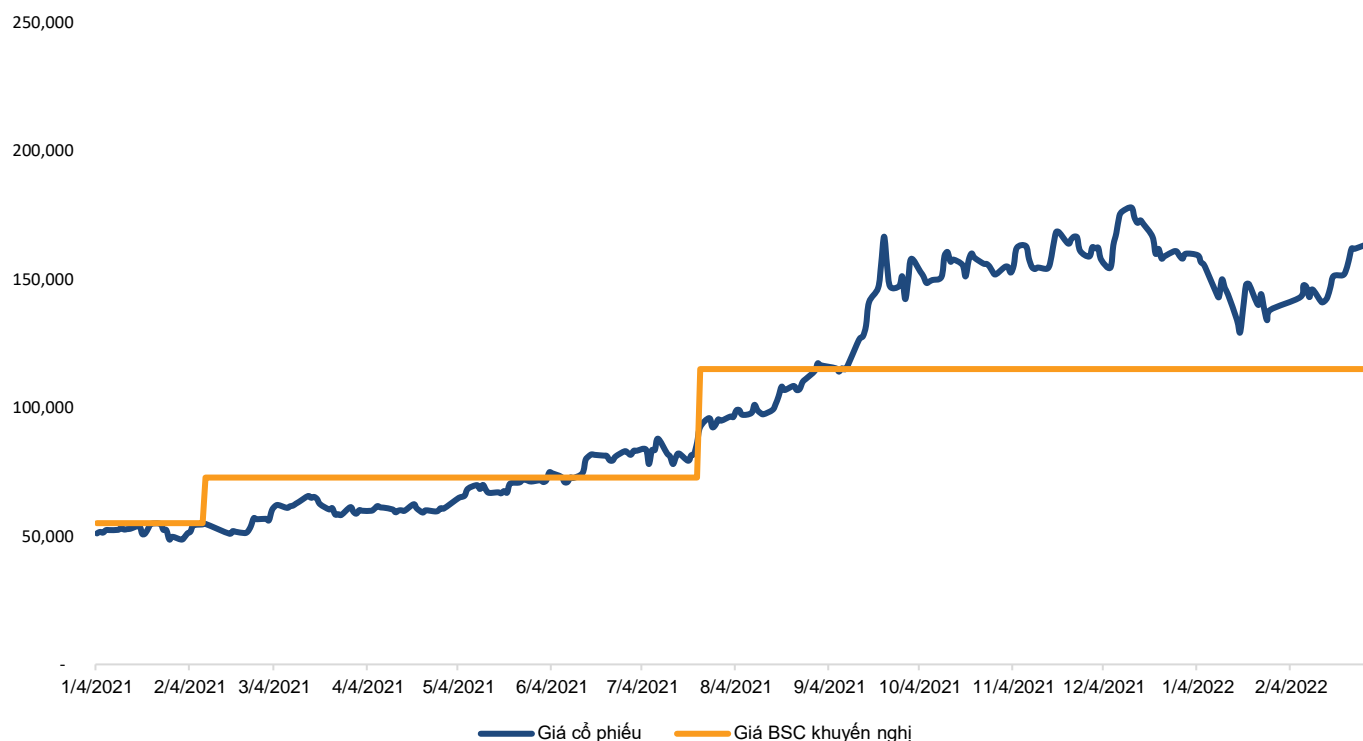
	2022F	2023F	2024F	2025F
Cash flow	494	881	589	165
Cash outflow	-705	-423	-141	
Net cash flow	-211	326	285	93
<b>Fair value (billion)</b>	<b>349</b>			
<b>Value per share</b>	<b>2,100</b>			

	Price	Proportion	Average price
<b>FCFF</b>	194,000	60%	115,800
<b>P/E</b>	288,600	40%	115,400
<b>RNAV</b>			2,100
<b>The target price</b>			<b>233,000</b>
Current price			177,600
<b>Upside</b>			<b>31%</b>



**STOCK PRICE VOLTAGE COMPLEX TO RECOMMENDATION**





## APPENDIX

Business performances (Bil VND)	2018	2019	2020	2021
<b>Net Revenue</b>	6,062	5,091	6,236	9,550
Cost of goods sold	-4,694	-4,084	-4,757	-6,368
Gross profit	1,368	1,006	1,479	3,181
Selling expenses	-341	-119	-378	-503
Enterprise Cost Management	-92	-306	-115	-136
<b>Operating profit/loss</b>	920	596	1,023	2,644
Financial revenue	42	62	122	171
Financial expenses	-56	-57	-85	-68
Interest expenses	-27	-28	-18	-13
Profit from joint ventures/associations	0	0	0	0
Other profit/loss	-5	3	-22	0
Profit before tax	916	599	1,001	2,637
Corporate income tax	-34	-27	-53	-123
<b>Profit after tax</b>	<b>882</b>	<b>572</b>	<b>948</b>	<b>2,514</b>
Non-controlling interests	1	5	41	125
<b>Profit after tax - Noncontrolling interests</b>	<b>880</b>	<b>567</b>	<b>907</b>	<b>2,388</b>
EPS	7,674	4,241	5,728	13,125

Balance Sheet (bil VND)	2018	2019	2020	2021
Cash and cash equivalents	274	128	282	124
Short term investment	246	643	1,558	3,631
Short-term receivables	750	634	848	781
Inventory	797	808	702	1,208
Other current assets	70	51	43	71
Short-term assets	<b>2,136</b>	<b>2,263</b>	<b>3,433</b>	<b>5,815</b>
tangible assets	2,327	2,303	2,136	1,973

LCTT (Bil VND)	2018	2019	2020	2021
(Loss) / PAT	907	599	1,001	2,637
Depreciation and amortization	212	258	268	278
Change in working capital	-564	-21	-93	-258
Net cash flow from operating activities	564	847	1,127	2,586
Cash for purchase of fixed assets	-403	-111	-299	-216
Other investment	-245	-367	-856	-2,036
<b>Net cash flow from investment activities</b>	<b>-636</b>	<b>-478</b>	<b>-1,155</b>	<b>-2,207</b>
Dividend payment	0	-162	-193	-236
Cash from net borrowing	265	-408	377	-300
Other revenue	0	0	0	0
<b>Net cash flow from financing activities</b>	<b>264</b>	<b>-515</b>	<b>183</b>	<b>-537</b>
Beginning of year cash flow	83	274	128	282
Cash flow in the year	192	-147	155	-158
<b>Ending of year cash flow</b>	<b>275</b>	<b>127</b>	<b>283</b>	<b>123</b>

Chỉ số(%)	2018	2019	2020	2021
Solvency				
Short-term payment ratio	1.4	1.8	2.1	1.9
Quick payout ratio	0.8	1.1	1.5	1.4
Capital structure				
Debt/total assets ratio	33%	27%	31%	24%
Debt/Equity Ratio	49%	37%	44%	32%

Depreciation	212	258	268	278
long-term unfinished assets	178	52	179	172
Long-term investment	0	0	0	0
Other long-term assets	89	104	126	368
Long-term assets	<b>2,594</b>	<b>2,459</b>	<b>2,441</b>	<b>2,523</b>
total assets	<b>4,730</b>	<b>4,722</b>	<b>5,874</b>	<b>8,338</b>
Short-term loans	1,133	735	1,149	842
Other short-term debt	78	94	243	204
Total current liabilities	<b>1,564</b>	<b>1,270</b>	<b>1,806</b>	<b>2,006</b>
Long-term loans	0	0	0	0
Other long-term debt	0	0	0	0
Total Long-term Debt	0	0	0	0
Total liabilities	<b>1,565</b>	<b>1,270</b>	<b>1,806</b>	<b>2,006</b>
Capital	1,078	1,293	1,488	1,710
Surplus equity	1,787	1,787	1,787	1,787
undistributed profits	914	836	1,126	2,922
Other equity	-1,114	-1,114	-1,114	-849
The contents of a presentation	123	128	170	279
Total Equity	<b>3,165</b>	<b>3,452</b>	<b>4,067</b>	<b>6,333</b>
Total capital	<b>4,730</b>	<b>4,722</b>	<b>5,874</b>	<b>8,338</b>
Number of shares outstanding	107	129	148	171

<b>Operational capacity</b>				
Number of days in stock	32	72	58	55
Number of days receivable	26	46	43	26
Number of days to pay	11	15	8	18
CCC	47	102	93	63
<b>Profit rate</b>				
Gross profit	23%	20%	24%	33%
Profit after tax	15%	11%	15%	25%
ROE	46%	17%	25%	48%
ROA	31%	12%	18%	35%
<b>Valuation</b>				
PE	3.2	5.5	8.9	10.9
PB	1.4	0.9	1.9	2.1
<b>Growth</b>				
Net revenue growth	869%	-16%	22%	53%
EBIT Growth	573%	-34%	70%	149%
Pre-tax profit growth	553%	-35%	67%	163%
Profit after tax growth	587%	-35%	66%	165%

Source: BSC Research.

## Disclosure

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### BSC Headquarters

BIDV Tower, 10th & 11th Floor  
35 Hang Voi, Hoan Kiem, Hanoi  
Tel: +84439352722  
Fax: +84422200669

### Ho Chi Minh Office

146 Nguyen Cong Tru St, 9th Floor District 1,  
HCMC  
Tel: +84838218885  
Fax: +84838218510

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