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3Q22 net revenue and NPAT grew by 75.5% YoY and 210% YoY, respectively

In 3Q22, Duc Giang Chemicals (DGC) achieved NPAT of VND1,513.7 billion (+210% YoY) on net revenue of VND3,695.88 billion (+75.5% YoY). Thus, the enterprise has delivered 140% and 93.5% of the whole-year target for earnings and revenue, respectively. However, DGC's business results might have peaked in 2Q22 and will potentially decrease in the time to come.

Yellow phosphorus prices recovered positively after China cut production in Yunnan

The yellow phosphorus (P₄) supply in China tends to be tightened after Yunnan province issued the Energy Efficiency Management Plan for Energy Consumption Industries from September 2022 to May 2023. This caused P₄ production to drop by 40% against mid-September to 805 tons/day and pushed the average yellow phosphorus price in Yunnan and Guizhou to RMB 36,375/ton (+13.67% MoM).

Cooling downstream demand and surging inflation among developed economies would trigger reduced consumption of DGC's finished products

However, yellow phosphorus and phosphate-based fertilizers prices may hardly surge in the near term amid cooling demand for agricultural chemicals, similar to the movements of global farm produce prices. In addition, surging inflation among developed countries has also adversely impacted the production of electronic components, semiconductors, as well as input materials, including yellow phosphorus and electronic grade phosphoric acid.

We recommend BUY for DGC with a target price of VND97,500/share

Based on valuation results, business outlook and possible risks, we reiterate our BUY recommendation for DGC stocks. The target price is VND97,500/share, 33.2% higher than the closing price on November 3, 2022.

Buy maintain

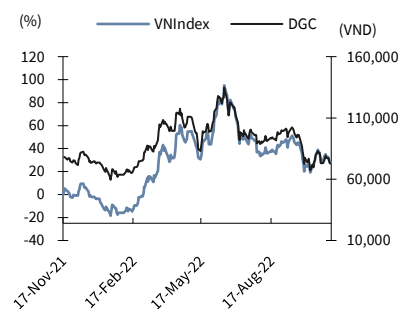
Target price	VND97,500
Upside/Downside	33.20%
Current price (Nov 3, 2022)	73,200
Market cap (VNDbn/USDmn)	27,799/1,219

Trading data	
Free float	60%
3M avg trading value (VNDbn)	300
Foreign ownership	15.34
Major shareholder	Dao Huu Huyen (18.5%)

Share price performance				
(%)	1M	3M	6M	12M
	9	-22	-22	-3
	10	-2	-4	28

Forecast earnings & valuation

FY-end	2020A	2021A	2022A	2023F
Net revenue (VNDbn)	6,236	9,550	14,338	11,564
Operating income (VNDbn)	1,021	2,651	6,502	3,314
NPAT (VNDbn)	907	2,389	5,837	3,000
EPS (VND)	5,735	13,125	15,370	7,899
EPS growth (%)	35%	129%	17%	-49%
P/E (x)	1.4	1.6	6.3	12.3
P/B (x)	2.00	3.07	5.27	
ROE (%)	0.8	1.2	3.1	
Dividend yield (%)	24%	46%	68%	



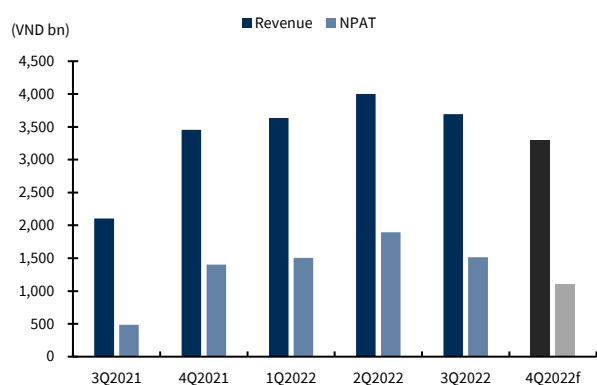
Source: Bloomberg, KB Securities Vietnam

Business performance

DGC has delivered 140% and 93.5% of the whole-year target for earnings and revenue

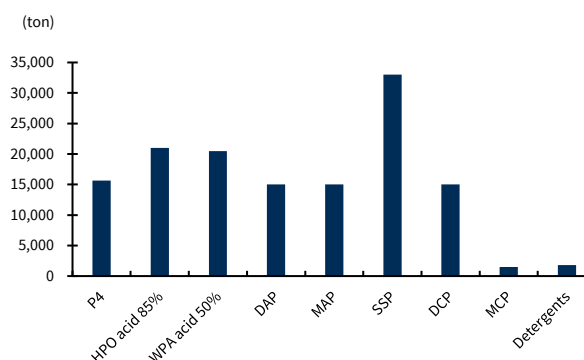
In 3Q22, DGC achieved NPAT of VND1,513.7 billion (+210% YoY) on net revenue of VND3,695.88 billion (+75.5% YoY). Thus, the enterprise has delivered 140% and 93.5% of the whole-year target for earnings and revenue, respectively. Due to plummeting P₄ prices, gross margin contracted by 8.6 percentage points QoQ to 44.5%, the lowest since the start of the year. Entering the fourth quarter of 2022, DGC targets NPAT of VND1,100 billion (-21.2% YoY) and revenue of VND3,300 billion (-4.54% YoY and -10.74% QoQ). In terms of production output, DGC plans to mine 140 thousand tons of apatite ore, the lowest level for the year to present, while boosting P₄ consumption with 10,000 tons of export volume and 5,670 tons for domestic use.

Fig 1. DGC – Revenue, NPAT (VNDbn)



Source: Duc Giang Chemicals

Fig 2. DGC – Estimated production output in 4Q22 (tons)



Source: Duc Giang Chemicals

Power shortages within China led to shrinking yellow phosphorus production

In response to severe drought and abnormally low water levels in hydroelectric reservoirs, the Yunnan provincial government has issued the Energy Efficiency Management Plan for Energy Consumption Industries from September 2022 to May 2023. Accordingly, it was a must that yellow phosphorus enterprises in Yunnan would reduce or stop their production in an all-round way from 0:00 on September 26. As of September 28, Yunnan's P₄ production was 805 tons/day, down more than 40% against mid-September. Furthermore, dry season falls in autumn and winter, leading to lower hydroelectric power output, rising costs, and shrinking yellow phosphorus production in Guizhou and Sichuan. As a result, the average yellow phosphorus price in Yunnan and Guizhou shot up to RMB 36,375/ton (up 13.67% MoM).

Yellow phosphorus prices may hardly surge in the near term

In the coming months, P₄ prices may hardly surge as the yellow phosphorus market will experience oversupply in the context of weak downstream demand. However, the apatite ore reserve, the input of yellow phosphorus, has been declining in recent years due to tighter controls, causing higher input and production costs. As a result, yellow phosphorus prices are forecasted to continue their long-term uptrend, averaging VND140 million/ton (adjusted up from the previous projection) for 2022 and VND120 million/ton for 2023.

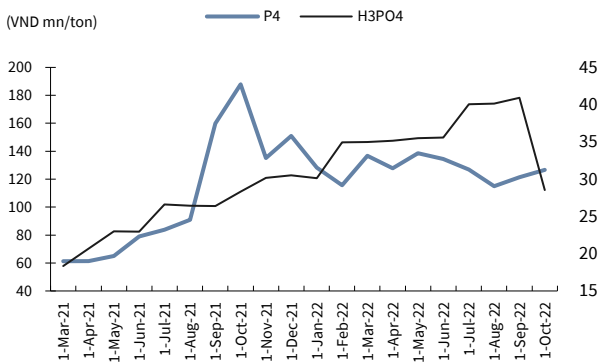
Falling farm produce prices would limit the consumption of agricultural chemicals

The demand for phosphoric acid (H₃PO₄), phosphorus trichloride, & glyphosate (the most popular herbicide in the world, accounting for almost 30% of global P4 consumption), the downstream market of yellow phosphorus, is showing signs of cooling down. The FAOFOODI index, a measure of the monthly change in international prices of a basket of 55 food commodities, has dropped 14% from its peak in May on recession concerns that will adversely impact agricultural exports. It was similar to the BCOMAG index tracking futures prices of coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. The decline in farm produce prices has made farmers hesitant to expand the cultivated area, resulting in shrinking production and a subsequent fall in the consumption of chemicals such as fertilizers, pesticides, and herbicides.

DAP price may retreat in the short term

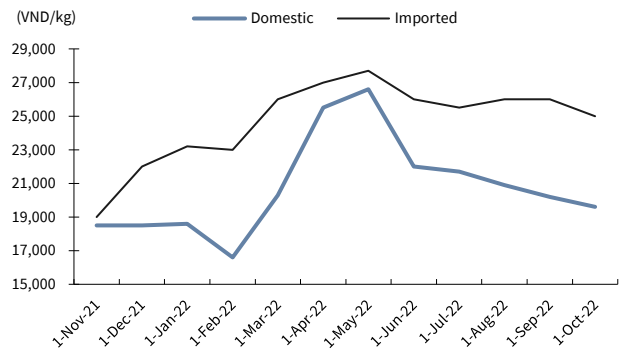
The DAP (Di-ammonium Phosphate) supply in Vietnam in 3Q22 kept falling and remained low. Depressed domestic market due to the off-season effect caused the DAP price to drop 25% to VND19,600/kg from its peak in May (Figure 4), similar to global prices. In the near term, the weak DAP demand may force domestic suppliers to cut selling prices. However, the decrease will be moderate amid tight supply and low inventories at major distributors. In 1Q23, the DAP price may fall back to around VND14,400–15,800/kg in the face of potentially increasing exports from Russia and China.

Fig 3. Global – P₄ & H₃PO₄ prices (VNDmn/ton)



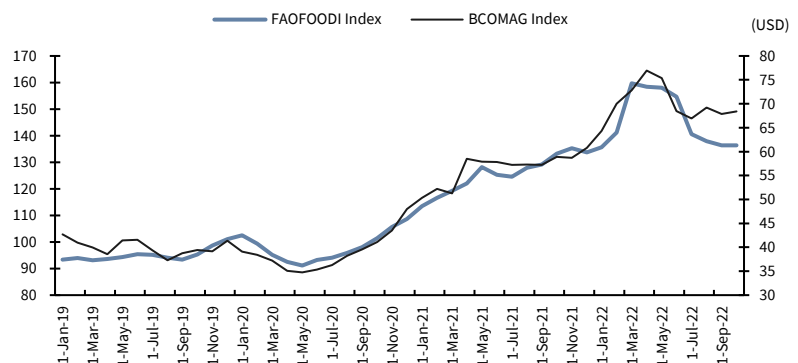
Source: SunSirs, Bloomberg, KB Securities Vietnam

Fig 4. Vietnam – Domestic and exported DAP prices (VND/kg)



Source: Agromonitor

Fig 5. Global – FAOFOODI & BCOMAG

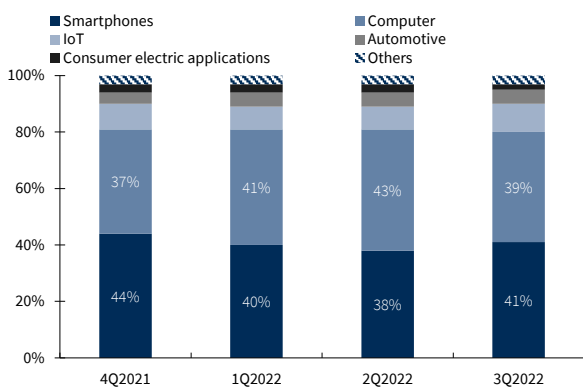


Source: Bloomberg, KB Securities Vietnam

The semiconductor industry might have peaked in the third quarter

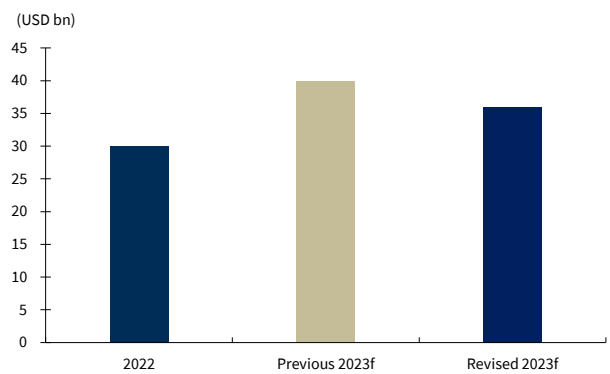
Sales of all key products, especially phone chips and internet of things (IoT) devices, of Taiwan Semiconductor Manufacturing Co., Ltd (TSMC), Taiwan's largest chipmaker, grew in 3Q22. Per TSMC, inventories of the chip and semiconductor manufacturers might have peaked in 3Q22 and may fall until at least 2H23. The lifting of lockdowns and unchecked inflation in the US and EU have cooled the demand for computers, phones, and tech gadgets. Businesses have also pushed back the release of new products, thus exacerbating the situation. At its recent meeting, TSMC announced that it would cut capital expenditure (capex) to USD36 billion, down 10% from the initial plan.

Fig 6. TSMC – Revenue breakdown by product (%)



Source: Taiwan Semiconductor Manufacturing Co., Ltd, KB Securities Vietnam

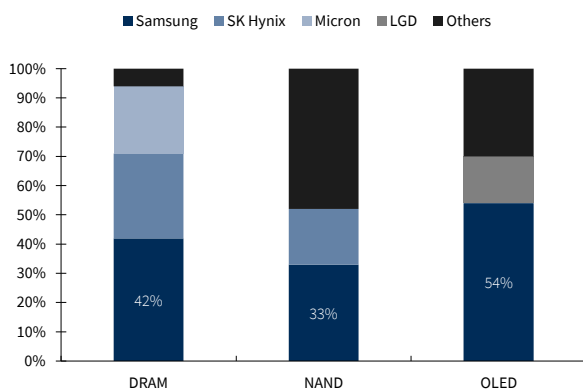
Fig 7. TSMC – Capital expenditure (USDbn)



Source: Taiwan Semiconductor Manufacturing Co., Ltd

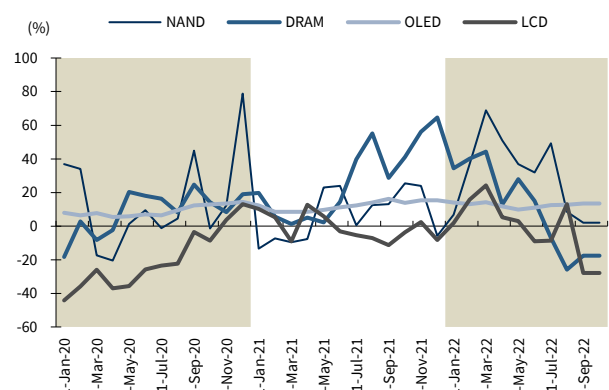
The weak consumption of chips and semiconductor products can be seen obviously in South Korea. Although the won, its domestic currency, has been weakening since early 2022, leading chipmakers like Samsung, SK Hynix, Micron, and LGD are expected to record a decline in 4Q22 revenue compared to 4Q21 after recording a 20% YoY decrease in 3Q22. October export value of DRAM and LCD products decreased by 17.7% and 27.8% YoY, respectively, while that of NAND flash memory and OLED memory card also slowed down. The consumption of inputs for semiconductor, including yellow phosphorus, is expected to fall in the coming time.

Fig 8. Korea – Market share of DRAM, NAND, OLED (%)



Source: Garnet, KB Securities Vietnam

Fig 9. Korea – Export growth of chips (%)



Source: Bloomberg

Forecast & Valuation

We forecast DGC's 2022F NPAT and net sales to touch VND6,124 billion and VND14,337 billion, respectively

We revise DGC's 2022F net revenue from VND12,252 billion to VND14,337 billion on the back of the positive movement of yellow phosphorus prices though there won't be much of a change in the second half of the year. On a quarterly basis, DGC's revenue and profit might have peaked in the second quarter, similar to the performance of finished products prices. NPAT in the fourth quarter and the whole year of 2022 should reach VND1,210 billion and VND6,124 billion (+143.56% YoY), respectively, equivalent to EPS (earnings per share) of VND15,370.

Table 1. DGC – 2022F business results

VND bn	2021A	2022F	+/-% YoY
Net revenue	9,550.38	14,338	+50.13%
Cost of goods sold	(6,368.66)	(7,384)	
Gross profit	3,181.72	6,954	+118.61%
Selling expense	(503.19)	(645)	
G&A expense	(136.59)	(172)	
Operating income	2,541.94	6,488	
Profit before tax	2,637.11	6,481	
Corporate income tax	(123.16)	(356)	
Profit after tax	2,514.33	6,124.12	143.56%
Earnings per share (VND)	13,125	15,370	

Source: KB Securities Vietnam

We recommend BUY for DGC with a target price of VND97,500/share

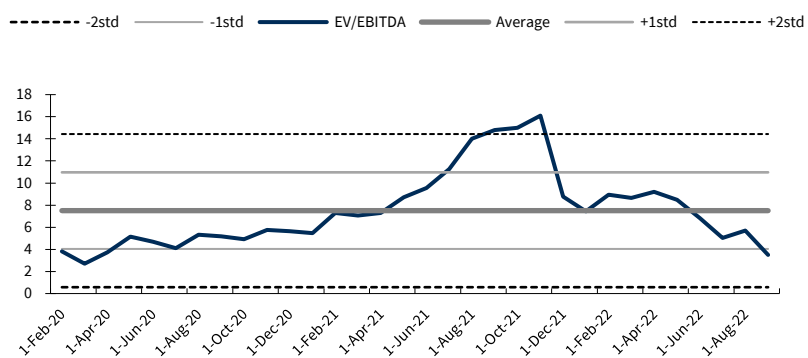
Based on the business outlook and potential risks, we maintain our BUY recommendation for DGC stocks. Combining two valuation methods FCFF (free cash flow to firm) and EV/EBITDA (enterprise-value-to-EBITDA) with a ratio of 50:50, we give DGC a target price of VND97,500/share, 33.2 % higher than the closing price of VND73,200/share on November 3, 2022.

Table 2. DGC – FCFF valuation

Beta	1.35	PV of FCFF	28,190
Risk-free rate	5.10%	(+) Cash & short-term investments	9,442
Market risk premium	7.80%	(-) Short & long-term debts	1,341
Cost of equity	15.63%	(-) Minority interest	206
Cost of debt	6.00%	Equity value	36,085
WACC	13.70%	No. of outstanding shares	379,778,413
		Value per share	95,016

Source: KB Securities Vietnam

Fig 10. DGC – EV/EBITDA ratio



Source: Bloomberg, KB Securities Vietnam

Table 3. DGC – Target price based on FCFF and EV/EBITDA

Valuation method	Forecast price	Weight	Weighted price
FCFF	95,016	50%	47,508
EV/EBITDA	99,900	50%	49,954
Target price (rounded)			97,500
Current price (Nov 3, 2022)			73,200
Upside			33.2%

Source: KB Securities Vietnam

DGC – 2019A–2022E financials

Income statement					Balance sheet				
(VND billion)	2019A	2020A	2021A	2022F	(VND billion)	2019A	2020A	2021A	2022F
Net revenue	5,091	6,236	9,550	14,338	TOTAL ASSET	4,722	5,876	8,339	14,434
COGS	-4,084	-4,757	-6,369	-7,384	CURRENT ASSETS	2,263	3,434	5,816	12,123
Gross profit	1,006	1,479	3,182	6,954	Cash and cash equivalents	128	282	124	3,990
Financial income	62	122	171	459	Accounts receivable	634	849	781	1,665
Financial expense	-57	-85	-68	-108	Inventory	808	697	1,208	1,001
- Interest expense	-28	-20	-14	-22	Other current assets	51	48	72	14
Selling expenses	-314	-388	-503	-645	NON-CURRENT ASSETS	2,459	2,443	2,523	2,312
General & admin expenses	-101	-105	-137	-172	Fixed assets	2,303	2,029	1,974	1,923
Operating profits	596	1,024	2,644	6,488	Investment properties	0	0	0	0
Other income	14	4	7	14	Long-term incomplete assets	52	180	172	11
Other expense	-11	-26	-15	-18	Long-term investments	0	0	0	0
Other profit/loss	3	-22	-7	-4	Other long-term assets	104	233	368	368
Profit before tax	599	1,001	2,637	6,481	LIABILITIES	1,270	1,809	2,006	2,591
Income tax	-28	-53	-123	-356	CURRENT LIABILITIES	1,270	1,809	2,006	2,591
Net profit after tax	572	948	2,514	6,124	Trade accounts payable	130	137	505	505
Minority interest	5	41	126	287	Advances from customers	48	34	166	166
Attributable to parent company	567	907	2,389	5,837	Short-term borrowings	735	1,149	842	1,341
EPS	4,241	5,733	13,125	15,370	Other short-term liabilities	0	0	0	0
Cash flow statement					NON-CURRENT LIABILITIES	0	0.1	0.1	0.1
(VND billion)	2019A	2020A	2021A	2022F	Long-term trade payables	0	0.1	0.1	0.1
Profit before tax	599	1,001	2,637	6,481	Other long-term payables	0	0	0	0
Depreciation and amortization	486	864	1,093	1,163	OWNER'S EQUITY	3,452	4,067	6,333	10,753
Gains from sales of goods	-17	-30	-71	-94	Paid-in capital	1,294	1,488	1,711	1,711
Changes in working capital	-21	-148	-258	-656	Share premium	1,787	1,787	1,787	1
Other changes	-3	-2	-1	0	Treasury shares	(0)	(0)	(0)	(0)
Net cash inflows/(outflows) from operating activities	847	1,073	2,586	6,049	Undistributed earnings	836	1,140	2,923	7,857
Purchases of fixed assets and other long-term assets	-111	-243	-217	-781	Budget and other funds	(2)	(1)	0	1
Proceeds from disposal of fixed assets	0	0	0	0	MINORITY INTERESTS	128	156	280	206
Gains from other assets	0	0	0	0	OWNER'S EQUITY & LIABILITIES	4,722	5,876	8,339	13,344
Other changes	-368	-860	-1,990	-763	Main ratios				
Net cash inflows/(outflows) from investing activities	-478	-1,101	-2,207	-1,543	(x, %, VND)	2019A	2020A	2021A	2022F
Proceeds from borrowings	2,944	3,519	3,110	4,668	Valuation				
Repayment of borrowings	-3,352	-3,142	-3,410	-4,169	P/E	2.9	1.4	1.6	6.3
Other investing payment	0	0	0	0	P/B	1.3	0.7	1.2	3.1
Dividends paid	-162	-194	-237	-1,139	P/S	0.9	0.5	0.8	2.6
Net cash inflows/(outflows) from financing activities	-515	183	-537	-640	EV/EBITDA	5.35	1.94	3.01	5.27
Net increase in cash and cash equivalents	-147	155	-158	3,866	EPS	4,241	5,733	13,125	15,370
Cash and cash equivalents at the beginning of period	274	128	282	124	Profitability				
Cash and cash equivalents at the end of period	128	282	124	3,990	ROE		24%	46%	68%
Operating ratios					ROA		18%	35%	54%
(%)	2019A	2020A	2021A	2022F	ROCE		25%	42%	5%
Revenue growth		23%	53%	50%	Financial health				
EBITDA growth		46%	127%	132%	Liabilities/Owner's Equity	0.4	0.4	0.3	0.2
Attributable to parent company growth		60%	163%	144%	Current ratio	1.8	1.9	2.9	4.7
Gross profit margin	33%	44%	33%	49%	Operating ratio				
EBITDA margin	17%	21%	31%	47%	Asset turnover ratio	1.1	1.2	1.3	1.3
PBT margin	12%	16%	28%	45%	Receivable turnover ratio	7	8	12	12
Attributable to parent company margin	11%	15%	25%	41%	Inventory turnover ratio	5.1	6.3	6.7	6.7

Source: Duc Giang Chemicals, KB Securities Vietnam

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Investment ratings & definitions

Investment Ratings for Stocks

(based on expectations for absolute price gains over the next 6 months)

Buy:	Hold:	Sell:
+15% or more	+15% to -15%	-15% or more

Investment Ratings for Sectors

(based on expectations for absolute price gains over the next 6 months)

Positive:	Neutral:	Negative:
Outperform the market	Perform in line with the market	Underperform the market

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