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Surging prices of yellow phosphorus and DAP fertilizer contributed to record high net revenue and NPAT

In the second quarter of 2022, Duc Giang Chemicals Group (DGC) posted record high NPAT of VND1,894.44 billion (+469% YoY) on net revenue of VND4,002.35 billion (+96% YoY). Yellow phosphorus and DAP (Di Ammonium Phosphate) prices continued to remain high compared to 2021, while prices of ore as input material only increased by 20–22% YoY, helping gross profit margin to improve from 46.95% to 53.1%.

The demand for yellow phosphorus in the second half of 2022 should remain stable amid rising supply

We lower our previous yellow phosphorus price forecast from VND125 million/ton to VND120 million/ton for 2022 amid rising supply. However, the global chip shortage would boost the consumption of raw materials like yellow phosphorus to produce semiconductors, thus pushing yellow phosphorus prices in the second half of this year.

Russia removed export quota on DAP while China's fertilizer export value is showing signs of recovery

The supply of DAP and MAP (Mono Ammonium Phosphate) fertilizers should increase in the second half of 2022 in the context that the fertilizer export value of China in 1H22 was equivalent to 81.7% of 2021's. Furthermore, Russia raised the export quota on MAP fertilizer to 1870 thousand tons in 2H22 against 1430 thousand tons in 2H21 and at the same time lifted the DAP quota.

We recommend BUY for DGC stock with a target price of VND123,000

Based on the EV/EBITDA valuation method, business outlook, and possible risks, we are upgrading our rating on the shares of DGC from HOLD to BUY. The target price is VND123,000/share, 22.8% higher than the closing price on July 21, 2022.

Buy update

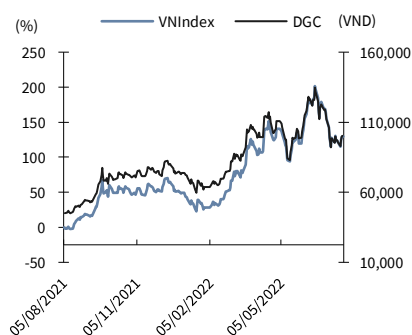
Target price	VND123,000
Upside/Downside	22.8%
Current price (Jul 21, 2022)	100,500
Market cap (VNDbn/USDmn)	37,309/ 1,636.39

Trading data	
Free float	60%
3M avg trading value (VNDbn)	312
Foreign ownership	14.53%
Major shareholder	Dao Huu Huyen (18.5%)

Share price performance				
(%)	1M	3M	6M	12M
Absolute	-16	-9	58	119
Relative	-16	2	77	130

Forecast earnings & valuation

FY-end	2019A	2020A	2021A	2022F
Net sales (VNDbn)	5,091	6,236	9,550	12,253
Earnings/Loss (VNDbn)	596	1,024	2,644	4,913
NPAT (VNDbn)	572	948	2,514	4,676
EPS (VND)	4,241	5,733	13,125	12,100
EPS growth (%)		35%	129%	92.19%
P/E (x)	4.1	7.7	12.2	10.2
P/B (x)	0.9	1.9	4.3	4.9
ROE (%)		24%	46%	57%
Dividend yield (%)	40%	35%	25%	117%



Source: Bloomberg, KB Securities Vietnam

Business performance

In 2Q22, net revenue fulfilled 96% of the full-year target while NPAT exceeded the plan by 58%

In 2Q22, DGC posted record high NPAT of VND1,894.44 billion (+469% YoY) on net revenue of VND4,002.35 billion (+96% YoY), delivering 158% and 96% of the full-year targets for profit and revenue, respectively. Yellow phosphorus and DAP fertilizer prices continued to remain high compared to 2021, while prices of ore as input material only gained by 20–22% YoY, helping gross profit margin to improve from 46.95% to 53.1%. Exports brought in VND5,822 billion (+2x YoY) in net revenue in the first half of this year while domestic sales also jumped by 54.31% YoY.

Yellow phosphorus prices dropped by nearly 17% from their peak in May

After peaking at VND137.5 million/ton in May, yellow phosphorus prices experienced a decline of nearly 17% to VND115 million/ton due to rising supply combined with dwindling demand amid US economic recession fears. To be more specific, Tunisia, once one of the world's largest producers of phosphate minerals, started to ramp up apatite ore exploration, with output in 1Q22 doubling 1Q21's to 1.3 million tons. It, therefore, partially solved the supply shortage. As planned, Tunisia would explore and export 5.5 million tons of yellow phosphorus in 2022 (+48.6% YoY) to capitalize on previous price increases.

The demand for yellow phosphorus in the second half of 2022 should remain stable

Therefore, we lower our previous yellow phosphorus price forecast from VND125 million/ton to VND120 million/ton for 2022 to reflect the impact of supply. However, the demand for yellow phosphorus is expected to remain stable in the context of the continued shortage of chips worldwide and disruptions in its supply chain. The process of etching geometric patterns onto a substrate, most often a silicon wafer, to produce chips or photolithography uses a mixture of neon, krypton, and xenon gas as inputs. Statistics show that Ukraine supplies more than 70% of the world's neon gas, 40% of its krypton gas, and 30% of its xenon gas, while Russia's exports of these three gases amount to 30%. The prolonged war between Russia and Ukraine tightened the supply of these gases. The Semiconductor Industry Association anticipated chip demand in 2022 to keep growing by 16.3% (up 6.1% compared to the previous projection in 1Q22 due to slow processing time for backlogged orders. Americas witnessed the sharpest increase in chips consumption (+22.6% YoY), followed by Europe (+20.8% YoY) and Japan (+12.6% YoY). The consumption is forecast to expand by 5% in 2023, in line with the plan to raise capacity by 20% in August 2021 of Taiwan Semiconductor Manufacturing Company Limited (TSMC), Taiwan's largest chipmaker. It will drive the demand for raw materials like yellow phosphorus to produce semiconductors, thus pushing yellow phosphorus prices in the second half of this year.

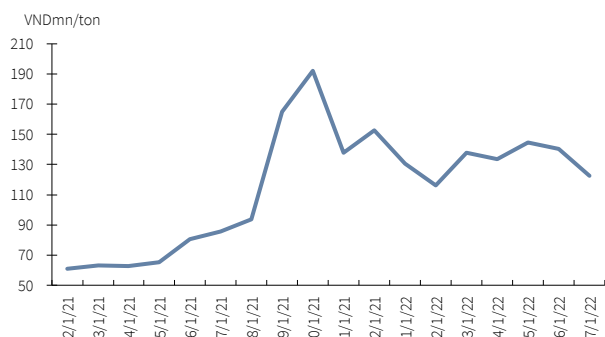
The demand for fertilizer is lower due to recession concerns

The demand on MAP and DA fertilizer is expected to slow down in the second half of the year. According to the June report of the UN Food and Agriculture Organization's, the prices of crops such as wheat, corn and sugar jumped in the first five months of the year before falling in June. The main reasons for the price drop include seasonal factors, better quality of seedlings, and positive expectations about the next crop. Besides, the demand for agricultural imports from global countries is slowing down due to concerns about recession, which also put pressure on the prices of agricultural products.

The supply of DAP and MAP fertilizers in the second half of the year is rebounding

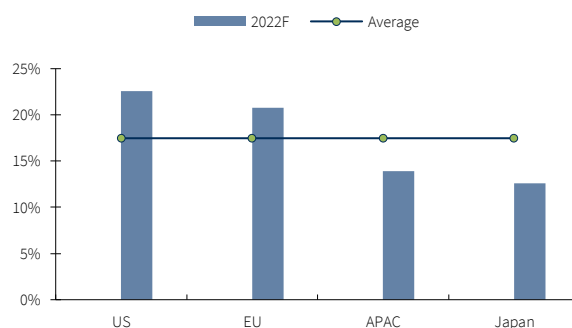
Data from the Chinese Customs indicated this country's total fertilizer export value in 1H22 reached 81.7% of the value in 2021 despite the decision on restricting fertilizer exports (Figure 4). Russia also raised fertilizer export quota for 2H22 by 440 tons YoY to 1870 thousand tons for MAP fertilizer and removed the quota for DAP fertilizer. Accordingly, the supply of DAP and MAP fertilizers in 2H22 may recover. However, Agromonitor said the volume of DAP fertilizer imported to Vietnam from China and other markets has reduced since the beginning of the year, and the output reached 10-year lows. As the movements follow the scenario, we maintain our forecast prices for MAP and DAP at VND16.5 million/ton and VND19 million/ton respectively for 2022.

Fig 1. Vietnam – The prices of yellow phosphorus (VNDmn/ton)



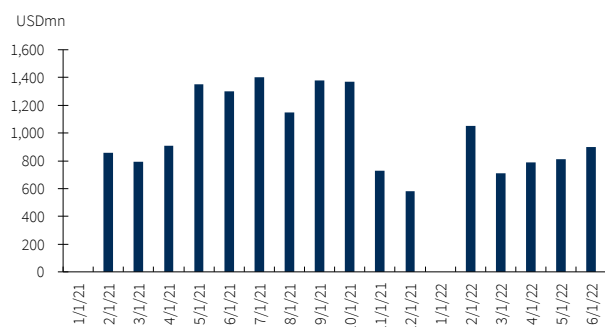
Source: SunSirs, KB Securities Vietnam

Fig 2. Global – Semiconductor consumption growth by region (%)



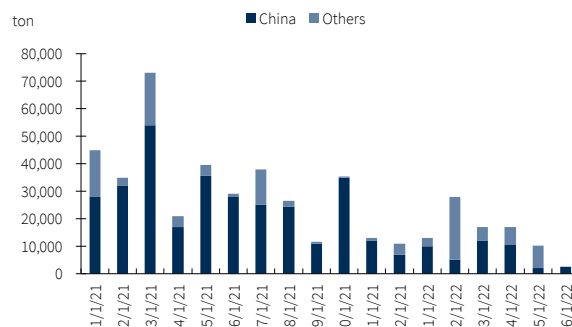
Source: World Semiconductor Trade Statistics

Fig 3. China – Fertilizer export value (USDmn)



Source: Administration of Customs of China

Fig 4. Vietnam – Fertilizer exporters



Source: Agromonitor

Table 1. Russia – Fertilizer export quota (thousand tons)

	2H2022	2H2021
Urea	5,010	0
Ammoni Nitrat (AN)	1,990	2,440
Urea Ammonium Nitrate (UAN)	1,300	1,120
NPK	3,440	3,080
Mono Ammonium Phosphate (MAP)	1,870	1,430
Other NP fertilizer	640	286
Di-Ammonium Phosphate (DAP)	No restriction	0

Source: Agromonitor

Forecast & Valuation

We revised down DGC's net sales forecast for 2022 from VND12,528 billion to VND12,252 billion to reflect downside risk in yellow phosphorus prices in the second half of the year. However, the operation of the 25th mine helped to undermine the increase in input costs of apatite ore. As a result, we raised our forecast for DGC's gross profit margin from 41% to 44%. The strengthening of sales management should help reduce expenses to VND551 billion compared to the previous forecast while revenue from financial activities may rise 44.11% YoY to VND245 billion as the value of short-term investment increased by more than VND1,000 billion in Q2. NPAT should increase VND534 billion to VND4,675 billion in 2022, equivalent to EPS of VND12,100/share.

Table 2. DGC – Business performance

Unit: VND billion	2021A	2022F	Changes
Net revenue	9,550.38	12,252.50	+28.29%
COGS	(6,368.66)	(6,861.40)	
Gross profit	3,181.72	5,391.10	+64.44%
Selling expenses	(503.19)	(551.36)	
Administration expenses	(136.59)	(122.53)	
Operating profits	2,541.94	4,717.21	
Financial income	170.66	245.05	+43.58%
Financial expense	(68.11)	(49.01)	
– Interest expense	(13.66)	(18.38)	
Profit before tax	2,637.11	4,896.10	
Income tax	(123.16)	(220.32)	
Net profit after tax	2,514.33	4,675.77	+85.96%
Earnings per share (VND)	13,125.00	12,100.00	

Source: KB Securities Vietnam

After assessing the prospects and possible risks and considering the results of EV/EBITDA valuation, we change our HOLD recommendation to BUY for DGC stocks for medium and long-term. The fair price in 2022 is VND123,000/share which is equivalent to EV/EBITDA 8x (revised down from 8.5x to the industry's valuation) and 22.8% higher than the closing price on July 21, 2022.

Table 2. 2022F performance

Income statement					Balance sheet				
(VND billion)	2019A	2020A	2021A	2022F	(VND billion)	2019A	2020A	2021A	2022F
Net revenue	5,091	6,236	9,550	12,253	TOTAL ASSET	4,722	5,876	8,339	11,878
COGS	-4,084	-4,757	-6,369	-6,861	CURRENT ASSETS	2,263	3,434	5,816	9,567
Gross profit	1,006	1,479	3,182	5,391	Cash and cash equivalents	128	282	124	2,739
Financial income	62	122	171	245	Accounts receivable	634	849	781	1,310
Financial expense	-57	-85	-68	-49	Inventory	808	697	1,208	845
- Interest expense	-28	-20	-14	-18	Other current assets	51	48	72	14
Selling expenses	-314	-388	-503	-551	NON-CURRENT ASSETS	2,459	2,443	2,523	2,312
General & admin expenses	-101	-105	-137	-123	Fixed assets	2,303	2,029	1,974	1,923
Operating profits	596	1,024	2,644	4,913	Investment properties	0	0	0	0
Other income	14	4	7	10	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	-9	Other long-term assets	104	233	368	368
Profit before tax	599	1,001	2,637	4,896	LIABILITIES	1,270	1,809	2,006	2,477
Income tax	-28	-53	-123	-220	CURRENT LIABILITIES	1,270	1,809	2,006	2,476
Net profit after tax	572	948	2,514	4,676	Trade accounts payable	130	137	505	505
Minority interest	5	41	126	184	Advances from customers	48	34	166	166
Attributable to parent company	567	907	2,389	4,492	Short-term borrowings	735	1,149	842	1,269
EPS	4,241	5,733	13,125	12,100	Long-term loans	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	4,896	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	9,402
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	-390	Share premium	1,787	1,787	1,787	1
Other changes	-3	-2	-1	0	Treasury shares	(0)	(0)	(0)	(0)
Net cash inflows from operating activities	847	1,073	2,586	4,727	Undistributed earnings	836	1,140	2,923	6,538
Purchases of fixed 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	309
Gains from other assets	0	0	0	0	OWNER'S EQUITY & LIABILITIES	4,722	5,876	8,339	11,878
Other changes	-368	-860	-1,990	-645	Main ratios				
Net cash inflows from investing activities	-478	-1,101	-2,207	-1,425	(x, %, VND)	2019A	2020A	2021A	2022F
Proceeds from borrowings	2,944	3,519	3,110	3,990	Valuation				
Repayment of borrowings	-3,352	-3,142	-3,410	-3,563	P/E	2.9	1.4	1.6	10.2
Other investing payment	0	0	0	0	P/B	1.3	0.7	1.2	4.9
Dividends paid	-162	-194	-237	-1,114	P/S	0.9	0.5	0.8	3.7
Net cash inflows from financing activities	-515	183	-537	-687	EV/EBITDA	5.35	1.94	3.01	8.81
Net increase in cash and cash equivalents	-147	155	-158	2,615	EPS	4,241	5,733	13,125	12,100
Cash at the beginning of period	274	128	282	124	Profitability				
Cash at the end of period	128	282	124	2,739	ROE		24%	46%	57%
Operating ratios					ROA		18%	35%	46%
(%)	2019A	2020A	2021A	2022F	ROCE		25%	42%	52%
Revenue growth		23%	53%	28%	Financial health				
EBITDA growth		46%	127%	78%	Liabilities/Owner's Equity	0.4	0.4	0.3	0.3
Attributable to parent company growth		60%	163%	88%	Current ratio	1.8	1.9	2.9	3.9
Gross profit margin	33%	44%	33%	44%	Operating				
EBITDA margin	17%	21%	31%	43%	Asset turnover ratio	1.1	1.2	1.3	1.2
PBT margin	12%	16%	28%	40%	Receivable turnover ratio	7	8	12	12
Attributable to parent company margin	11%	15%	25%	37%	Inventory turnover ratio	5.1	6.3	6.7	6.7

Source: KB Securities Vietnam

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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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