

Duc Giang Chem (DGC)

Expecting growth from the semiconductor industry

September 20, 2023	Analyst Pham Minh Hieu hieupm@kbsec.com.vn
1H23 revenue and gross profit plunged YoY	Duc Giang Chemicals Group (DGC) recorded a 36% YoY contraction in 1H23 revenue and a sharp decline of 52% YoY in gross profit. In 1H23, the consumption of yellow phosphorus fell 44% YoY while the sales of phosphoric acid spiked 43% thanks to the demand from Indian market. Consumption of fertilizers of all kinds dropped 2.26% due to weak purchasing power on the domestic market.
The demand for semiconductor products is weak but may rebound in 2024	The tightening monetary environment has squeezed the demand for semiconductor equipment in 1H23. However, we noted some signs of recovery in the semiconductor industry as inventories of finished semiconductor products and foundries are plunging from 2Q. We believe that global demand for semiconductor equipment will improve in 2H23 and bounce back in 2024, positively affecting the prices of yellow phosphorus and phosphoric acid.
The balance between supply and demand of DAP fertilizer is favorable for DGC's WPA export prospects in 2H23	India has been purchasing fertilizers and WPA since July to ensure domestic food security. The world's largest phosphate fertilizer supplier, China, will also enter the high season of DAP consumption in October, while the DAP export quota for 3Q has already been filled. We believe that the outlook for WPA prices and consumption will be positive in 2H23 as India must boost WPA imports for self- production when DAP supply tightens.
HOLD recommendation with target price VND93,600	Based on FCFF and P/E valuation, we recommend HOLD for DGC shares. The target price is VND93,600, 0.9% higher than the price on September 19, 2023.

Hold change

Forecast earnings & valuation

Operating income (VNDbn)

NPAT of the parent (VNDbn)

FY-end

EPS (VND)

P/E (x)

P/B (x)

ROE (%)

EPS growth (%)

Dividend yield (%)

Revenue (VNDbn)

VND93,600
0.9%
VND92,800
VND81,900
34,142/1,399

2021A

9,550

2,541

2,388

6,047

5.5

26.4

4.3

39.7

0.9

2022A

14,444

5,998

5,565

13,774

127.8

4.3

2.1

55.7

1.8

Trading data		
Free float		58.8%
3M avg trading value (VNDbn/USDmn)		293/12
Foreign ownership		14.8%
Major shareholder	Dao Huu Hu	ıyen (18.38%)

2023F

11,392

3,715

3,853

10,145

-26.0

9.2

2.9

32.3

1.1

2024F

12,631

4,118

4,093

10,776

6.0

8.7

2.6

30.4

1.1

Share price per	formance		
(%)	1M	3M	6

(%)	1M	3M	6M	12M
Absolute	31.6	47.5	83.4	-3.6
Relative	27.7	35.1	54.6	-3.2



Source: Bloomberg, KB Securities Vietnam

1H23 performance updates

1H23 revenue and gross profit plunged YoY

1H23 revenue of DGC decreased 36% YoY while COGS declined by a mare of 19% YoY, causing gross profit to drop sharply by 52% YoY. In the first half of the year, yellow phosphorus consumption lost 44% YoY mainly due to (1) weak global consumption of household goods, causing reduced semiconductor demand and (2) boosting self- consumption of yellow phosphorus to produce phosphoric acid to meet the rising demand from India and the US. WPA consumption surged 43% thanks to the import demand of the Indian market for fertilizer production. Consumption of fertilizers of all kinds slid 2.26% on weak domestic purchasing power. The prices of DGC's main products strongly fell over the same period last year.

Table 1. DGC - 1H23 updated results

	1H22	1H23	YoY %	KBSV's notes
Revenue (VNDbn)	7,637	4,897	-36%	Yellow phosphorus consumption and revenue decreased by 44% and 57% YoY, respectively. Phosphoric acid consumption increased by 43% YoY, but revenue still decreased by 8% YoY due to the plunge in price compared to the high base levels of the same period. Consumption output and revenue of all types of fertilizers dropped 2.26% and 0.28% YoY, respectively.
Gross profit (VNDbn)	3,834	1,831	-52%	Prices saw steep falls from high base levels in 1H22 while electricity costs increased.
Gross profit margin (%)	50%	37%		
SG&A costs (VNDbn)	-382	-293	-23%	
Operating income (VNDbn)	3,452	1,537	-55%	
Financial income (VNDbn)	192	345	80%	Financial income was positive thanks to large cash balance accumulated from 2022 and higher average interest rate.
Financial expenses (VNDbn)	-60	-45	-25%	
Other income (net, VNDbn)	0.6	-0.6	-198%	
Profit before taxes (VNDbn)	3,585	1,837	-49%	
Profit after taxes (VNDbn)	3,403	1,705	-50%	
Net profit margin (%)	45%	35%		

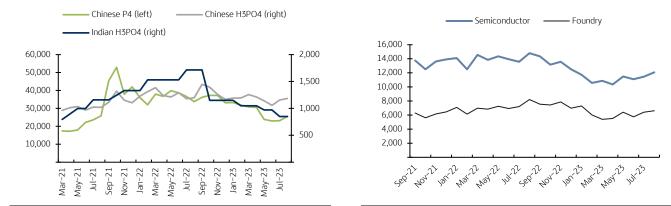
Source: Duc Giang Chemicals, KB Securities Vietnam

The demand for semiconductor equipment is weak but may rebound in 2024

TSMC, the world's largest semiconductor manufacturer, forecasts its 2023F revenue will lose 10% YoY. Since early 2023, the US and European countries have maintained tight monetary policies while the recovery of the China economy failed expectations, causing the demand for semiconductors to decline. However, we observed that the sales of semiconductor products and foundries are recovering from the bottom recorded in 1Q. We believe that global demand for semiconductor equipment will improve in 2H23 and bounce back in 2024. World Semiconductor Trade Statistics and Gartner forecast global semiconductor industry growth in 2024 will reach 11.8% and 18.5% YoY respectively. Therefore, we expect yellow phosphorus and phosphoric acid prices to be more positive in 2H23 and 2024.

Fig 2. China & India – P4 and H3PO4 prices (USD/ton)





Source: Bloomberg, KB Securities Vietnam

Extreme weather may affect the global supply of yellow phosphorus

The balance between supply and demand of DAP fertilizer is favorable for DGC's WPA export prospects in 2H23

Drought in Southern China has squeezed hydropower output and hit highpower intensive industries such as yellow phosphorus manufacturing. This is home to the largest proportion of hydropower output nationwide, but we find that heavy rains from August 2023 do not have a significant impact on this region. We are concerned that El Nino could prolong the drought into 2024 and decrease global yellow phosphorus supplies.

India has been purchasing fertilizers and WPA since July to ensure domestic food security. The world's largest phosphate fertilizer supplier, China, will also enter the high season of DAP consumption in October, while the DAP export quota for 3Q has already been filled. We believe that the outlook for WPA prices and consumption will be positive in 2H23 as India must boost WPA imports for self-production when DAP supply tightens.

Duc Giang – Nghi Son chemical complex should help DGC penetrate the chloralkali market and complete the production value chain to alumina products. The project's annual output is expected to reach 50,000 tons of PVC. The construction starting date has been delayed from 3Q23 to 1Q24 due to problems with site clearance procedures. We expect the project to go into operation in 2H25 and contribute VND1,300 billion to DGC's 2025F revenue with a GPM of about 15%.

Source: Bloomberg, KB Securities Vietnam

Forecast & valuation

Table 4. DGC - 2023F results

	2022	2023F	YoY %	KBSV's notes
Revenue (VNDbn)	14,444	11,392	-21%	
Yellow phosphorus and phosphoric acid	11,848	9,080	-23%	The prices of products may plunge by an average of 17% YoY from a high base due to the gloomy semiconductor market. Yellow phosphorus consumption should drop 26% YoY due to subdued market and increased internal consumption for phosphoric acid production. Phosphoric acid consumption may gain 19% YoY mainly thanks to the TPA segment. TPA consumption volume should rise 71% YoY because the US moves its supply out of China for the new customer Coca Cola.
Fertilizers	1,788	1,463	-18%	Average price and output may decline by 10% and 5% YoY respectively from high bas levels.
Others	808	848	5%	
Gross profit (VNDbn)	6,750	4,329	-36%	Product prices is forecast to witness a sharp contraction from high base levels while input electricity costs climb.
Gross profit margin (%)	47%	38%		
SG&A costs (VNDbn)	-752	-614	-18%	
Operating income (VNDbn)	5,998	3,715	-38%	
Financial income (VNDbn)	533	613	15%	The increase is attributable to large cash balance accumulated from 2022.
Financial expenses (VNDbn)	-150	-156	4%	
Other incomes (net, VNDbn)	-6.0	-6.0	0%	
Profit before taxes (VNDbn)	6,376	4,166	-35%	
Profit after taxes (VNDbn)	6,037	3,958	-34%	
Net profit margin (%)	42%	35%		

Source: Duc Giang Chemicals, KB Securities Vietnam

Valuation: HOLD recommendation with the target price VND93,600/share

We use a combination of the FCFF and P/E comparison (with 2024F EPS) to give a HOLD recommendation for DGC with a target price of VND93,600/share, equivalent to an upside of 0.9% compared to the closing price of VND92,800/share on September 19, 2023.

Table 5. DGC - Valuation according to FCFF

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Risk-free rate	5.0%	Present value of terminal value (VNDbn)	19,182
Equity risk premium	8.2%	Total present value for the period 2023-2027	8,149
Beta	1.50	Total present value for the period 2023-2027	27,331
Average interest rate	7.0%	Plus: Cash & Short-term investments	10,263
Taxes	5.0%	Minus: Net Debt	-782
Weighted cost of capital	14.1%	Minus: Minority interest	-487
Terminal growth rate	1.5%	Equity value	36,325
		Number of shares outstanding (million shares)	379.80
		Equity value/share (VND)	95,642

Source: Bloomberg, KB Securities Vietnam

Table 6. DGC - Final valuation

Method	Target price	Weight	Weighted price
FCFF	95,642	50%	47,821
P/E (8.5x)	91,596	50%	45,798
Target price (rounded)			VND93,600
Curent price (Sep 19, 2023)			VND92,800
Upside			0.9%
Source: KB Securities Vietnam			

Fig 7. DGC - P/B in 2021-2023 (x)



Source: Bloomberg, KB Securities Vietnam

DGC - 2021A-2024F financials

(VND billion)	2021A	2022A	2023F	2024F
Net sales	9,550	14,444	11,392	12,631
Cost of sales	-6,368	-7,694	-7,063	-7,832
Gross Profit	3,182	6,750	4,329	4,799
Financial income	171	533	613	582
Financial expenses	-68	-150	-156	-269
of which: interest expenses	-14	-18	-31	-135
Gain/(loss) from joint ventures (from 2015)	0	0	0	0
Selling expenses	-504	-600	-473	-525
General and admin expenses	-137	-152	-141	-156
Operating profit/(loss) Other incomes	2,644 7	6,381 7	4,172 7	4,431 7
Other expenses	15	13	13	13
Net other income/(expenses)	-8	-6	-6	-6
Income from investments in other entities	0	0	0	0
Net accounting profit/(loss) before tax	2,636	6,375	4,166	4,425
Corporate income tax expenses	-123	-339	-208	-221
Net profit/(loss) after tax	2,514	6,037	3,958	4,204
Minority interests	126	472	105	111
Attributable to parent company	2,388	5,565	3,853	4,093
Margin ratio	2021A	2022A	2023F	2024F
Gross profit margin	33.3%	46.7%	38.0%	38.0%
EBITDA margin	29.5%	43.5%	35.5%	38.8%
EBIT margin	26.6%	41.5%	32.6%	32.6%
Pre-tax profit margin	27.6%	44.1%	36.6%	35.0%
Operating profit margin	27.7%	44.2%	36.6%	35.1%
Net profit margin	26.3%	41.8%	34.7%	33.3%
(VND billion) Net profit/(loss) before tax	2021A 2,637	2022A 6,376	2023F 4,166	2024F 4,425
Depreciation and amortisation	279	285	330	780
Profit/loss from investing activities	-316	-316	-316	-316
Interest expense	14	18	31	135
Operating profit/(loss) before changes in Working Capital	2,840	6,363	4,211	5,024
(Increase)/decrease in receivables	36	12	98	-89
(Increase)/decrease in inventories	-692	389	-126	-123
Increase/(decrease) in payables	766 -129	-426 -17	117 -17	48 -17
(Increase)/decrease in prepaid expenses Net cash inflows/(outflows) from operating activities	2,620	5,937	3,448	4,044
Purchases of fixed assets and other long term assets	-253	-157	-874	-6,614
Proceeds from disposal of fixed assets Loans granted, purchases of debt	0	5	5	5
instruments Collection of loans, proceeds from sales of debts instruments	-3,458 1,417	-7,232 3,430	0	0
Investments in other entities	0	0	0	0
Proceeds from divestment in other entities	0	0	0	0
Dividends and interest received	53	128	128	128
Net cash inflows/(outflows) from investing activities	-2,241	-3,828	-727	-6,467
Proceeds from issue of shares	0	85	0	0
Payments for share returns and repurchases	0	0	0	0
Proceeds from borrowings	3,110	2,949	314	2,626
Repayment of borrowings	-3,410	-3,321	0	-45
Finance lease principal payments	0	0	0	0
Dividends paid	-237	-411	-380	-380
Interests, dividends, profits received Net cash inflows/(outflows) from financing activities	-537	0 -697	-66	0 2,201
Net increase in cash and cash equivalents	-158	1,412	2,655	-222
Cash and cash equivalents at the beginning of period	282	124	1,536	4,191

Source: Duc Giang Chemicals, KB Securities Vietnam

(VND billion)	2021A	2022A	2023F	2024
CURRENT ASSETS	8,520	13,405	15,306	19,48
Cash and cash equivalents	5,997	10,985	12,298	10,60
Short-term investments	124	1,535	4,191	3,96
Accounts receivable	3,632	7,471	6,072	4,37
Inventories	781	919	821	91
LONG-TERM ASSETS	1,386	1,000	1,126	1,24
Long-term trade receivables	2,523	2,420	3,008	8,88
Fixed assets	9	29	29	2
Investment properties	1,974	1,781	2,369	8,24
Long-term incomplete assets	172	234	234	23
Long-term investments	0	0	0	
TOTAL ASSETS	4	3	0	
LIABILITIES	2,188	2,572	3,032	5,66
Current liabilities	2,188	2,571	2,807	2,69
Trade accounts payable	683	326	443	49
Advances from customers	166	30	60	6
Short-term unrealized revenue	842	468	557	39
Short-term borrowings	0	0	225	2,97
Long-term liabilities	0	0	0	
Long-term trade payables	0	0	0	
Long-term advances from customers	0	0	0	
Unrealized revenue	0	0	225	2,97
Long-term borrowings	6,332	10,834	12,274	13,82
OWNER'S EQUITY	1,711	3,798	3,798	3,79
Paid-in capital	1,787	1,787	1,787	1,78
Share premium	2,947	5,084	6,420	7,86
Undistributed earnings	-368	-217	-218	-21
Minority interests	255	382	487	59

Key ratios

-				
Multiple				
P/E	26.4	4.3	9.2	8.7
P/E diluted	26.4	4.3	9.2	8.7
P/B	4.3	2.1	2.9	2.6
P/S	2.9	1.6	3.1	2.8
P/Tangible Book	4.3	2.1	2.9	2.6
P/Cash Flow	10.4	3.8	10.3	8.8
EV/EBITDA	10.1	3.5	8.1	7.3
EV/EBIT	11.2	3.6	8.8	8.6
Operating performance				
ROE	39.7%	55.7%	32.3%	30.4%
ROA	29.5%	45.0%	25.9%	21.6%
ROIC	36.0%	61.4%	41.9%	31.2%
Financial structure				
Cash Ratio	1.7	3.5	3.7	3.1
Quick Ratio	2.1	3.9	4.0	3.4
Current Ratio	2.7	4.3	4.4	3.9
LT Debt/Equity	0.0	0.0	0.0	0.2
LT Debt/Total Assets	0.0	0.0	0.0	0.2
Debt/Equity	0.1	0.0	0.0	0.0
Debt/Total Assets	0.1	0.0	0.0	0.0
ST Liabilities/Equity	0.3	0.2	0.2	0.2
ST Liabilities/Total Assets	0.3	0.2	0.2	0.1
Total Liabilities/Equity	0.3	0.2	0.2	0.4
Total Liabilities/Total Assets	0.3	0.2	0.2	0.3
Activity ratios				
Account Receivable Turnover	11.7	17.0	13.1	14.6
Inventory Turnover	6.1	6.5	6.6	6.6
Account Payable Turnover	23.3	28.6	29.6	27.1

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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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