

Duc Giang Chem (DGC)

Expecting growth from the semiconductor industry

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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

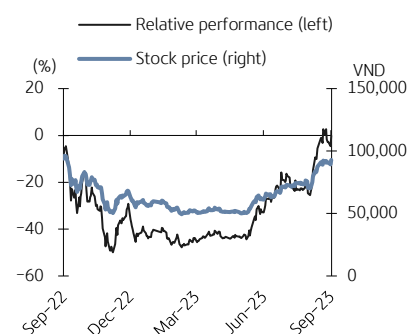
Target price	VND93,600
Upside	0.9%
Current price (Sep 19, 2023)	VND92,800
Consensus market price	VND81,900
Market cap (VNDbn/USDmn)	34,142/1,399

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

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

Forecast earnings & valuation

FY-end	2021A	2022A	2023F	2024F
Revenue (VNDbn)	9,550	14,444	11,392	12,631
Operating income (VNDbn)	2,541	5,998	3,715	4,118
NPAT of the parent (VNDbn)	2,388	5,565	3,853	4,093
EPS (VND)	6,047	13,774	10,145	10,776
EPS growth (%)	5.5	127.8	-26.0	6.0
P/E (x)	26.4	4.3	9.2	8.7
P/B (x)	4.3	2.1	2.9	2.6
ROE (%)	39.7	55.7	32.3	30.4
Dividend yield (%)	0.9	1.8	1.1	1.1



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 mere 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

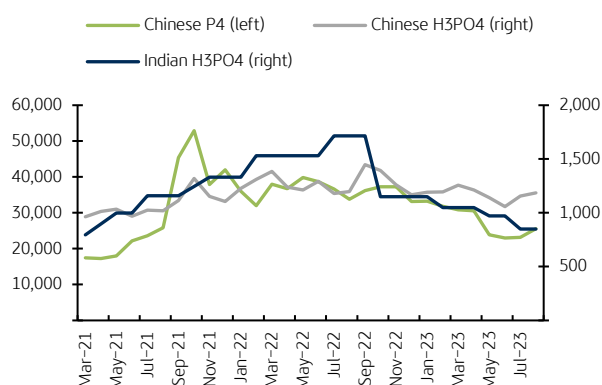
	1H22	1H23	YoY %	KBSV's notes
Revenue (VNDbn)	7,637	4,897	-36%	Yellow phosphorus consumption and revenue decreased by 44% and 57% YoY, respectively. Phosphoric acid consumption increased by 43% YoY, but revenue still decreased by 8% YoY due to the plunge in price compared to the high base levels of the 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

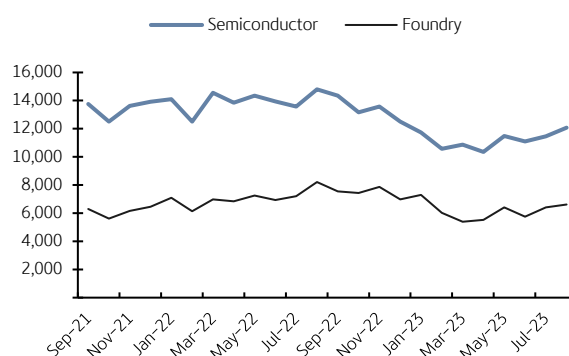
TSMC, the world's largest semiconductor manufacturer, forecasts its 2023F revenue will lose 10% YoY. Since early 2023, the US and European countries have maintained tight monetary policies while the recovery of the China economy failed expectations, causing the demand for semiconductors to decline. However, 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

Fig 3. Global – Sales of semiconductors & foundries (USDmn)



Source: Bloomberg, KB Securities Vietnam

Extreme weather may affect the global supply of yellow phosphorus

Drought in Southern China has squeezed hydropower output and hit high-power 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.

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.

Duc Giang – Nghi Son chemical complex should help DGC penetrate the chlor-alkali 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%.

Forecast & valuation

Table 4. DGC – 2023F results

	2022	2023F	YoY %	KBSV's notes
Revenue (VNDbn)	14,444	11,392	-21%	
<i>Yellow phosphorus and phosphoric acid</i>	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.
<i>Fertilizers</i>	1,788	1,463	-18%	Average price and output may decline by 10% and 5% YoY respectively from high base levels.
<i>Others</i>	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

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

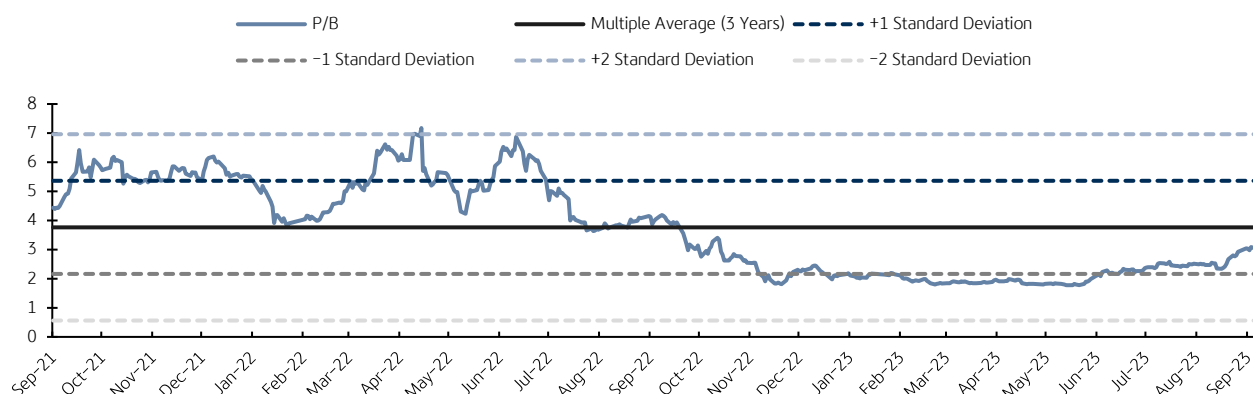
Source: Bloomberg, KB Securities Vietnam

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
Current 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

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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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