

Sector Note



Basic chemicals

The start of a down cycle

- We expect that discretionary demand of Vietnam's export chemical markets such as the China and the U.S will soften further into 2023F.
- We expect the NP of basic chemicals companies to slow down due to weaker demand amid the global economic slowdown.
- Our stock pick is DGC.

A sluggish start to the year 2023

Vietnam's basic chemicals (yellow phosphorus, DAP and MAP fertilizer,..) export value grew 25.3% yoy in 2022 to US\$5.6bn. However, value growth started easing since 3Q22 (+29.5% yoy in 3Q22; +25.3% yoy in 4Q22) following both muted global demand and weakening selling prices. According to General Department of Vietnam Customs (GDVC), China is the largest importer of Vietnam chemical in 2022 with an import value of US\$1.18bn (+21.0% yoy) due to the shortage the supply in China. 2022 exporting to Japan and India markets reached US\$0.73bn and US\$0.7bn, decreasing 13.0% yoy and increasing 12.5% yoy, respectively. For the first 2.5M23, the export turnover of basic chemicals only reached US\$930m (-10.9% yoy) ranking 12th in the total export items of Vietnam in 2.5M23.

Global demand of yellow phosphorus will slow down in 2023

The economic downturn leads to a decrease in demand for electronic goods and semiconductors in 2023. World Semiconductor Trade Statistics forecast the global semiconductor market to shrink 4% in 2023. Thus, global demand for yellow phosphorus – the input for semiconductors will drop 15% yoy in 2023. Besides, yellow phosphorus prices have peaked out since 2Q22 and are expected to range between US\$4,500-5,000 in 2023. We forecast Vietnam's yellow phosphorus exporters (DGC, PAT, DDV) will experience a contraction about 25-35% yoy in FY23F net profit from high base FY22.

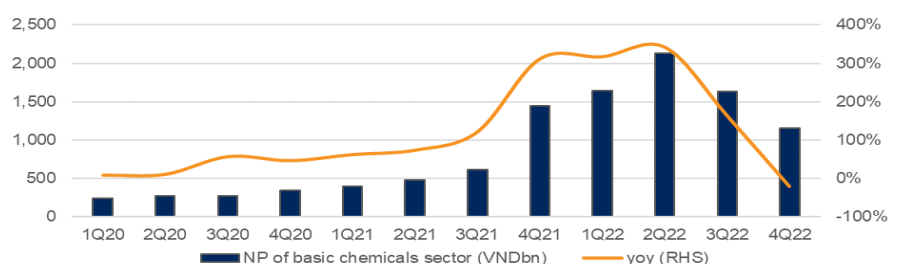
Lower caustic soda prices following the China 's reopens

The domestic price of caustic soda is highly dependent on the China because China exports about 40% of the demand for caustic soda in Vietnam. Chinese caustic soda price decreased 15.8% since Nov-22 following the re-operation of caustic soda factories return to operation in 2023 and weak demand for aluminum consumption. Furthermore, China reopen its economy will improve caustic soda supply in Vietnam. Thus, we forecast caustic soda price to reach range US\$700-US\$800/tonne in 2023 (-15% yoy). Since the price contract is usually signed 3 months in advance, we believe that the NP of the caustic soda companies such as CSV, HVT in the 1H23 will be lower compared to 2H22

Our stock pick is DGC

We prefer stocks that are having attractive valuations despite being in a down cycle. Thus, our stock pick is DGC. In addition, the Chlor-alkali-vinyl (CAV) project's phase 1 completion in 3Q24F will become the main revenue growth driver; contributing 25% of annual revenue and making DGC's sodium hydroxide factory number 1 in commercial capacity in Vietnam.

Figure 1: Quarterly aggregated net profit growth of basic chemicals companies



Source: Fiinpro, VNDIRECT RESEARCH

Analyst(s):



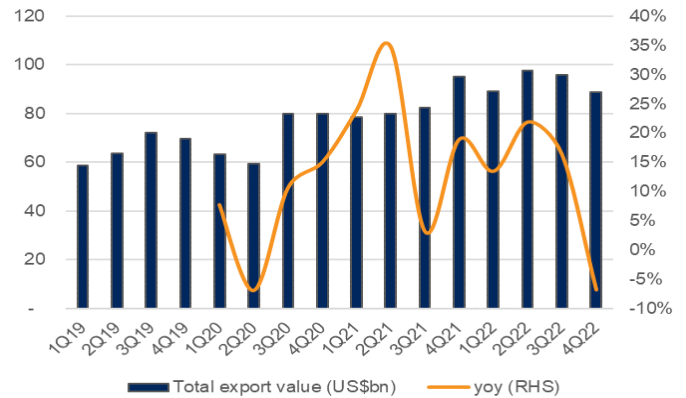
Hao Nguyen Duc

hao.nguyenduc@vndirect.com.vn

Key charts: Vietnam export basic chemicals in 2022

The export growth of major industries

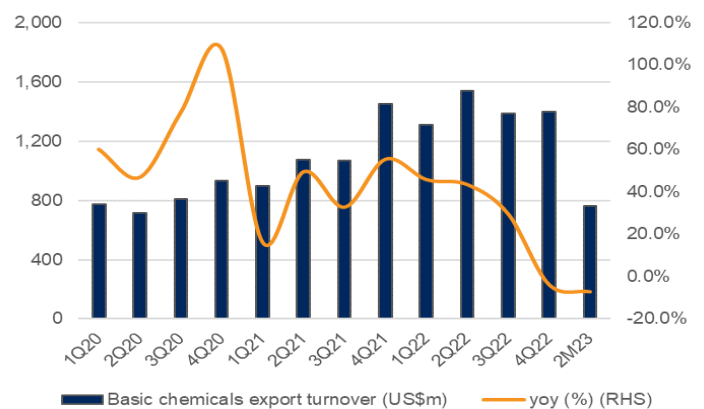
Vietnam's export turnover in 2022 recorded positive results, reaching US\$371.5bn (+10.6% yoy) thanks to high contribution from main export industries such as textile and garment, wood and wooden product and shoe and sandals. Total export value of 3 industries achieved US\$62.2bn in 2022 (+6.01% yoy) thank to pent-up demand in the main export markets such as the U.S., E.U in post-Covid 19 period.



Sources: MOIT, VNDIRECT RESEARCH

Basic chemicals export value

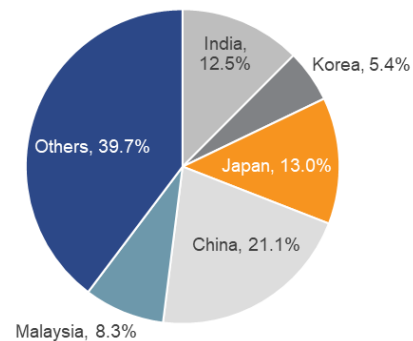
Vietnam 's basic chemicals (yellow phosphorus, DAP and MAP fertilizer,...) export value grew 25.3% yoy in 2022 to US\$5.6bn. However, value growth started easing since 3Q22 (+29.5% yoy in 3Q22; +25.3 % yoy in 4Q22) following both muted global demand and weakening selling prices.



Sources: MOIT, VNDIRECT RESEARCH

Basic chemicals export destination in 2022

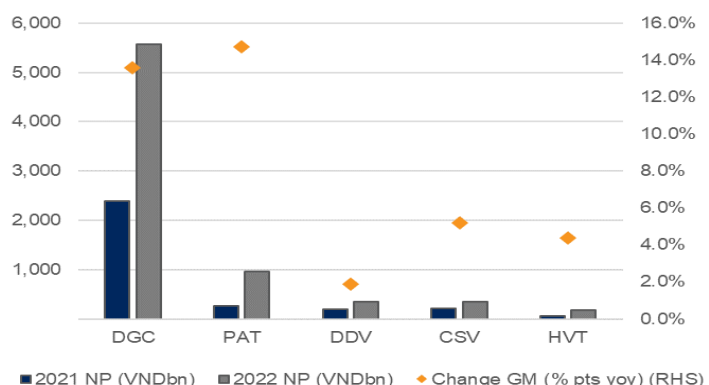
According to General Department of Vietnam Customs (GDVC), China remained the largest importer of Vietnam chemical in 2022 with an import value of US\$1.18bn (+21.0% yoy) due to the shortage the supply in China. 2022 exporting to Japan and India markets reached US\$0.73bn and US\$0.7bn, decreasing 13.0% yoy and increasing 12.5% yoy, respectively.



Sources: MOIT, VNDIRECT RESEARCH

Basic chemical business results in 2022

Although NP growth of sector slowed in the 4Q22 (-19% yoy), 2022 was still a bright year for chemical businesses. The aggregated NP of basic chemical listed companies soared 138% yoy, in which PAT was a spotlight (+276% yoy). GM of sector increased 11.3% pts thanks to shortage supply and higher demand for semiconductor in 2022.



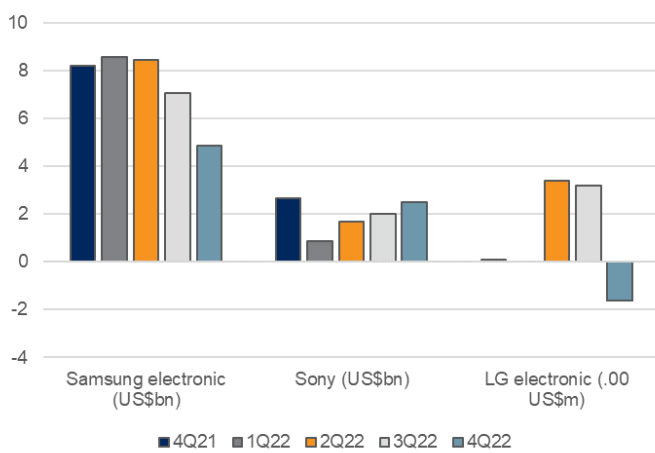
Sources: Fiiipro, VNDIRECT RESEARCH

FY23 Outlook: The glorious days has over

A sluggish start to the year 2023

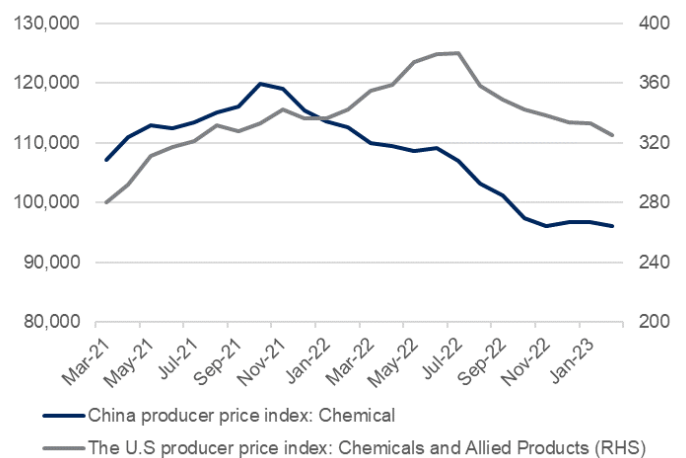
After 2022 achieving impressive results, chemical exports showed signs of slowing down in 2M23. Specifically, the export turnover of basic chemicals only reached US\$930m in the first 2.5 months of 2023, declining 10.9% due to weak global demand. Chemical exports value is ranked 12th in the total export items of Vietnam in 2.5M23. We expect that discretionary demand of Vietnam's export chemical markets such as the China and the U.S will soften further into the end of 2023F caused by on-going high inflationary expectation and, and potential economic recession.

Figure 2: The NP growth of large electronic companies decelerated in 4Q22



Source: Global data, VNDIRECT RESEARCH

Figure 3: China producer price index for chemical recorded 96,100 in Feb-23, the lowest level since 2020

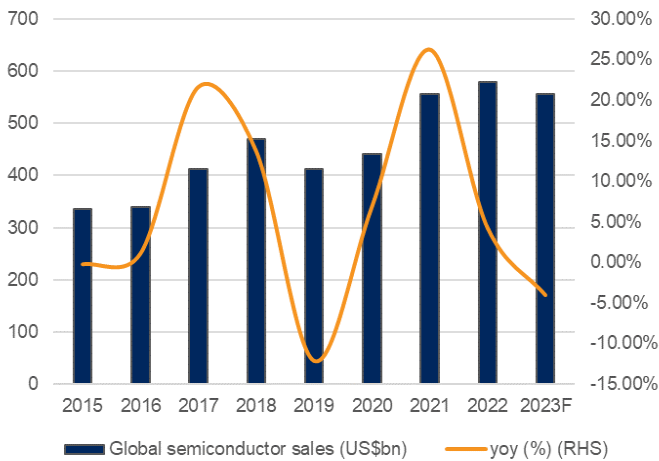


Source: U.S. Bureau of Labor Statistics, Ceicdata, VNDIRECT RESEARCH

Yellow phosphorus: global demand ease due to the compression of semiconductor manufacturing

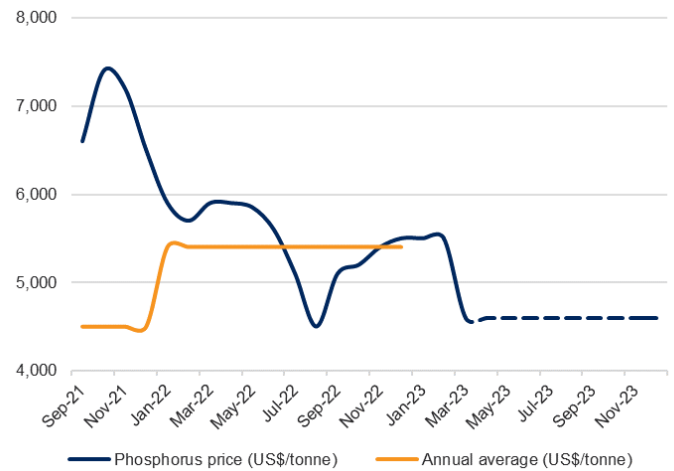
The economic downturn leads to a decrease in demand for electronic goods and semiconductors in 2023. World Semiconductor Trade Statistics forecast the global semiconductor market to shrink 4% in 2023 to US\$557bn for the first annual contraction since 2019. In addition, Taiwanese chipmaker TSMC - the world's largest contract chipmaker forecast that first-quarter revenue would drop 5% yoy and it would slash annual investment as the major Apple Inc supplier expects softer demand due to a slowing global economy. TSMC said its capital expenditure in 2023 would decrease to US\$32-36bn from US\$36.3bn in 2022. Thus, we think that the demand for yellow phosphorus – the input to produce semiconductors will reduce in 2023. We forecast yellow phosphorus price will achieve US\$4,500-5,000 in 2023 following the weak demand for semiconductor. As a result, we believe yellow phosphorus manufacturers such as DGC, PAP, CSV, HVT will be affected due to weak demand.

Figure 4: Global semiconductor sales is expected to decrease 4% yoy in 2023 (Units: US\$bn)



Source: Global data, VNDIRECT RESEARCH

Figure 5: We expect phosphorus prices to reach US\$4,600 in 2023 (US\$/tonne)

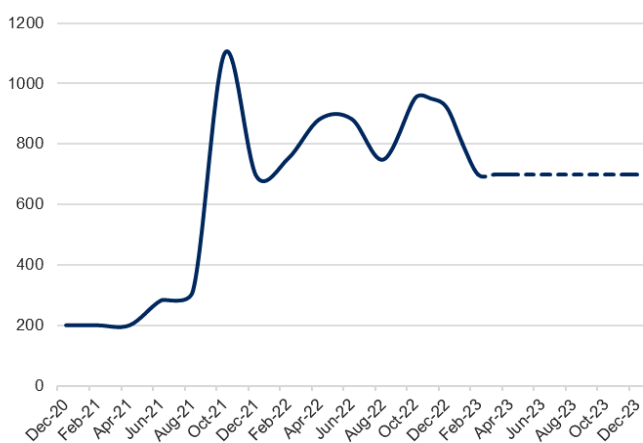


Source: Businesses Analytic, VNDIRECT RESEARCH

Caustic soda: more challenge ahead after the China 's reopens

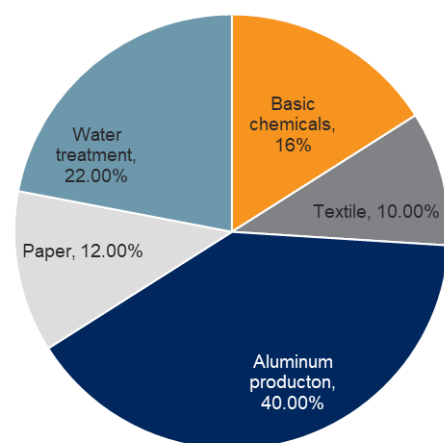
The domestic price of caustic soda is highly dependent on the China because China exports about 40% of the demand for caustic soda in Vietnam. Caustic soda price in China decreased 15.8% since Nov-22 as caustic soda factory in China return to operation in 2023 and weak demand for aluminum consumption. Furthermore, China reopen its economy will improve caustic soda supply in Vietnam. Thus, we forecast caustic soda price to reach range US\$700-US\$800/tonne in 2023 (-15% yoy). Since the price contract is usually signed 3 months in advance, we believe that the NP of the caustic soda companies such as CSV, HVT in the 1H23F will be lower compared to 2H22.

Figure 6: We forecast caustic soda to reach US\$800/tonne in 2023 (Unit: US\$/tonne)



Source: VNDIRECT RESEARCH, COMPANY REPORT

Figure 7: Consumption structure of caustic soda in 2021



Source: General Statistics Office of China, VNDIRECT RESEARCH

The possibility of higher electricity expenses in FY23F

Electricity costs account for 20-30% of the total cost of basic chemical production. We see Vietnam power sector will record a fast electricity consumption growth in 2022-30F period, following the expected high GDP

growth. According to the PDP8 draft high-load scenario, power demand will increase at high forecasted CAGR of 9.2% in 2023-30F. Thus, we believe that GM of chemical enterprises will edge down in 2023 due to 1) higher electricity cost and 2) lower average selling prices. Overall, we forecast GM's basic chemical to decrease 4-6% pts yoy in 2023F.

Investment idea: our top pick is DGC

DGC – Vietnam's leading producer of phosphorus and phosphorus-based products, posted VND3,112bn in 4Q22 net revenue (-10% yoy and -15.8% qoq). DGC's GM slumped 4.4% pts yoy in 4Q22 due to 1) lower average selling price and 2) higher input cost such as sulfur, coke, phosphates. Thus, DGC's NP in 4Q22 decreased 21% yoy, to VND1,032bn. For FY23F, we forecast that DGC's revenue and net profit will dropped 24.4% and 35.1% yoy, respectively following the weak demand for fertilizer and semiconductor in 2023.

We still like DGC because:

- DGC is Asia's largest exporter of yellow phosphorus - an essential material for semiconductor manufacturing and food and beverage industry.
- We expect DGC's NP to rebound in FY24F (+13.7% yoy) thanks to demand recovery for electronic items and the contribution from chlor-alkali-vinyl segment.
- The Chlor-alkali-vinyl (CAV) project's phase 1 completion in 3Q24F will contribute 25% of annual revenue and making DGC's sodium hydroxide factory number 1 in commercial capacity in Vietnam.
- Currently, DGC is traded at 5.4x FY23F P/E, which is a 27% discount to its 1-year average of 7.0x. We believe this valuation is relatively attractive for leading producer of phosphorus and phosphorus-based products and is planning to expand new products in short term.

Figure 8: Peer comparison in chemical export industries

Company	Ticker	Recom,	TP LC\$	Market cap		P/E (x)		P/BV (x)		3 year- EPS growth	ROE (%)		ROA (%)	
				US\$m	TTM	FY23F	Current	FY23F	CAGR	FY22	FY23F	FY22	FY23F	
Duc Giang Chemicals JSC	DGC VN	Add	72,200	472.6	3.5	5.4	1.9	1.7	116.0	67.4	30.5	51.2	25.3	
Viet Tri Chemicals JSC	HVT VN	na	na	22.0	3.1	na	1.3	na	88.6	50.1	na	29.7	na	
South Basic Chemicals JSC	CSV VN	na	na	38.0	3.5	na	0.9	na	22.6	26.9	na	21.6	na	
DAP Vinachem Co Ltd	DDV VN	na	na	43.0	3.5	na	0.7	na	na	21.3	na	16.3	na	
Mean					4.3	5.6	1.2	1.7	75.8	41.4	30.5	29.7	25.3	
Median					3.5	5.4	1.1	1.7	88.6	38.5	30.5	25.7	25.3	

Source: VNDIRECT RESEARCH, BLOOMBERG (Data as in 28 March 2023)

Investment risks

Longer-than-expected inflation in the U.S. market will reduce shopping demand for non-essential product. Additionally, higher than expected electricity cost will narrow GM's basic chemical companies in 2023.

DUCGIANG CHEMICALS & DETERGENT POWDER JSC - DGC

Add

Attractive valuation despite weak outlook

Target price (12M)
VND72,200

BASIC MATERIALS | Update

Consensus*: Add: 5 Hold: 1 Reduce: 1

Target price / Consensus: +2.3%

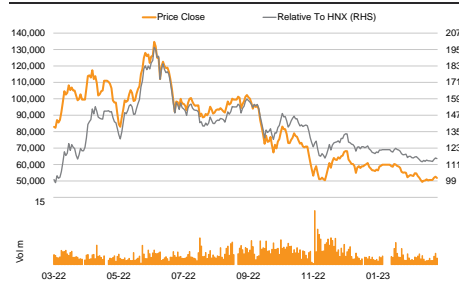
Key changes in the report

➤ Decreased EPS FY23F by 15.1%

➤

Previous rating	Add
Previous TP	VND79,200
Current price	VND51,800
52w high (VND)	134,700
52w low (VND)	49,400
3m Avg daily value (VNDmn)	101,071
Market cap (VNDbn)	19,976
Free float	47%
Dividend yield	2.11%
TTM P/E (x)	3.5
Current P/B (x)	1.9

Price performance



Source: VNDIRECT RESEARCH

Ownership

Dao Huu Huyen	18.4%
Ngo Thi Ngoc Lan	6.6%
Dao Huu Kha	6.0%
Others	69.0%

Source: VNDIRECT RESEARCH

Analyst(s):



Hao Nguyen Duc

hao.nguyenduc@vndirect.com.vn

- DGC recorded FY22 revenue of VND14.445bn (+51.2% yoy) and NP of VND5,566bn (-133.0% yoy), fulfilling 95.5% and 98% of our forecasts.
- We revise down FY23F NP forecast by 15.1% due to weaker demand amid the global economic slowdown.
- Reiterate to ADD rating with lower TP of VND72,200/share

4Q22 net profit continued its downward trend after peaking in 2Q22

4Q22 revenue decreased by 9.9% yoy to VND3,112bn following weaker demand amid the global economic slowdown. DGC's GM slumped 4.4% pts yoy in 4Q22 due to 1) lower average selling price and 2) higher input cost such as sulfur, coke, phosphates. Thus, DGC's NP in 4Q22 decreased 21% yoy, to VND1,032bn, the lowest level since 3Q21. For FY22, DGC recorded revenue of VND14.445bn (+51.2% yoy) and NP of VND5,566bn (-133.0% yoy), fulfilling on 95.5% and 98% of our forecasts.

More challenges ahead

The economic downturn leads to a decrease in demand for electronic goods and semiconductors in 2023. World Semiconductor Trade Statistics forecast the global semiconductor market to shrink 4% in 2023 to US\$557bn for the first annual contraction since 2019. Thus, we think that the demand for yellow phosphorus – the input to produce semiconductors will reduce in 2023. We forecast DGC's yellow phosphorus sale volume to decrease 25.9% yoy, to 40,000 tonnes in 2023. In addition, according to the PDP8 draft high-load scenario, power demand will increase at high forecasted CAGR of 9.2% in 2023-30F. Thus, we believe that GM of DGC will edge down in 2023 due to 1) higher electricity cost and 2) lower average selling prices. We forecast GM's DGC to decrease 6.9% pts yoy in 2023.

Change to forecast

We decrease FY23F phosphorus chemicals revenue by 20.6% vs. previous forecast due to weaker demand from the electronics sector. We decrease agricultural phosphate revenue 19.6% in FY23F versus our previous forecast mainly driven by weak demand in the domestic market. We lower DGC's GM by 1.9% pts as 1) electricity cost increase 10% yoy and 2) yellow phosphorus's ASP decrease 10.5% yoy. As a result, we revise down FY23F NP forecast by 15.1%. We expect DGC's NP to rebound in FY24F (+13.7% yoy) thanks to demand recovery for electronic items and the contribution from chlor-alkali-vinyl segment.

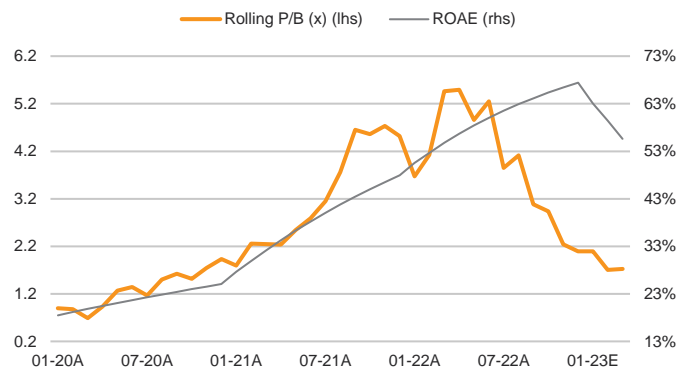
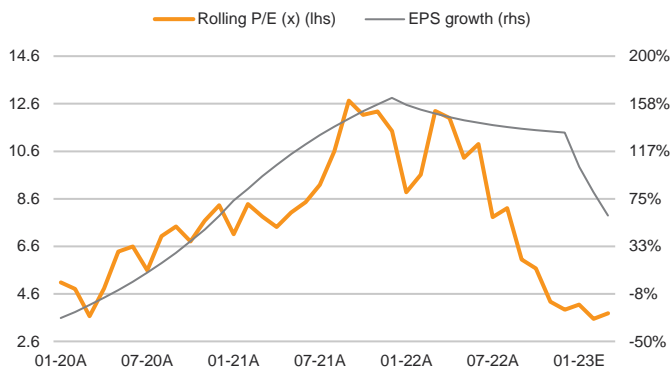
Reiterate to ADD rating with lower TP of VND72,200/share

We revise down our TP by 8.7% following an FY23F EPS downgrade of 15.1%, respectively. Our valuation is based on a P/E target of 7.0x – lower 12.5% vs. previous target P/E due to weaker outlook in 2023. The recent share price slump has dragged DGC's FY23F P/E to only 5.4x, 27% discount to its 1-year average. We believe this valuation is relatively attractive for a country leading phosphorus producer with nearly risk-free to FX volatility and rate hike.

Financial summary (VND)	12-21A	12-22A	12-23E	12-24E
Net revenue (bn)	9,551	14,445	10,925	11,465
Revenue growth	53.1%	51.2%	(24.4%)	4.9%
Gross margin	33.3%	46.7%	39.8%	45.0%
EBITDA margin	25.5%	42.9%	36.1%	37.8%
Net profit (bn)	2,389	5,566	3,610	4,105
Net profit growth	163.5%	133.0%	(35.1%)	13.7%
Recurring profit growth	165.2%	140.1%	(35.1%)	13.7%
Basic EPS	6,436	14,994	9,725	11,059
Adjusted EPS	6,249	14,601	9,387	10,675
BVPS	16,306	28,155	35,680	42,689
ROAE	48.0%	67.4%	30.5%	28.2%

Source: VNDIRECT RESEARCH

Valuation



Income statement

(VNDbn)	12-22A	12-23E	12-24E
Net revenue	14,445	10,925	11,465
Cost of sales	(7,694)	(6,579)	(6,303)
Gen & admin expenses	(152)	(87)	(92)
Selling expenses	(600)	(492)	(516)
Operating profit	5,999	3,767	4,554
Operating EBITDA	5,797	3,555	4,168
Depreciation and amortisation	202	212	386
Operating EBIT	5,999	3,767	4,554
Interest income	533	427	213
Financial expense	(150)	(80)	(88)
Net other income	(6)	22	23
Income from associates & JVs	0	0	0
Pre-tax profit	6,376	4,135	4,702
Tax expense	(339)	(219)	(249)
Minority interest	(472)	(306)	(348)
Net profit	5,566	3,610	4,105
Adj. net profit to ordinary	5,566	3,610	4,105
Ordinary dividends	(411)	(2,278)	(1,139)
Retained earnings	5,155	1,332	2,966

Balance sheet

(VNDbn)	12-22A	12-23E	12-24E
Cash and equivalents	1,535	958	611
Short term investments	7,471	8,667	10,400
Accounts receivables	919	1,198	1,383
Inventories	1,000	1,100	1,210
Other current assets	60	129	136
Total current assets	10,985	12,053	13,741
Fixed assets	2,015	1,740	3,670
Total investments	29	0	0
Other long-term assets	376	1,367	483
Total assets	13,405	15,159	17,894
Short-term debt	468	655	688
Accounts payable	326	219	210
Other current liabilities	1,778	650	657
Total current liabilities	2,571	1,524	1,555
Total long-term debt	0	0	0
Other liabilities	0	0	0
Share capital	3,798	3,798	3,798
Retained earnings reserve	5,084	8,117	10,666
Shareholders' equity	10,451	13,244	15,846
Minority interest	382	391	492
Total liabilities & equity	13,405	15,159	17,894

Cash flow statement

(VNDbn)	12-22A	12-23E	12-24E
Pretax profit	6,376	4,135	4,702
Depreciation & amortisation	212	386	556
Tax paid	(339)	(219)	(249)
Other adjustments	0	0	0
Change in working capital	(192)	(879)	(226)
Cash flow from operations	6,058	3,423	4,783
Capex	157	(885)	(2,285)
Proceeds from assets sales	5	5	5
Others	128	427	213
Other non-current assets changes	(3,802)	(3,030)	(3,923)
Cash flow from investing activities	(3,513)	(3,484)	(5,991)
New share issuance	85	0	0
Shares buyback			
Net borrowings	(371)	511	306
Other financing cash flow	(436)	1,251	1,694
Dividends paid	(411)	(2,278)	(1,139)
Cash flow from financing activities	(1,133)	(516)	861
Cash and equivalents at beginning of period	124	1,535	958
Total cash generated	1,412	(577)	(347)
Cash and equivalents at the end of period	1,535	958	611

Key ratios

	12-22A	12-23E	12-24E
Dupont			
Net profit margin	38.5%	33.0%	35.8%
Asset turnover	1.33	0.76	0.69
ROAA	51.2%	25.3%	24.8%
Avg assets/avg equity	1.32	1.21	1.14
ROAE	67.4%	30.5%	28.2%
Efficiency			
Days account receivable	13.0	36.0	40.1
Days inventory	47.4	61.0	70.3
Days creditor	15.5	12.2	12.2
Fixed asset turnover	6.94	5.82	4.24
ROIC	49.2%	25.3%	24.1%
Liquidity			
Current ratio	4.3	7.9	8.8
Quick ratio	3.9	7.2	8.1
Cash ratio	3.5	6.3	7.1
Cash cycle	45.0	84.8	98.1
Growth rate (yoy)			
Revenue growth	51.2%	(24.4%)	4.9%
Operating profit growth	136.0%	(37.2%)	20.9%
Net profit growth	133.0%	(35.1%)	13.7%
EPS growth	133.0%	(35.1%)	13.7%

Source: VND RESEARCH

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RECOMMENDATION FRAMEWORK

Stock Ratings

Definition:

Add	The stock's total return is expected to reach 15% or higher over the next 12 months.
Hold	The stock's total return is expected to be between negative 10% and positive 15% over the next 12 months.
Reduce	The stock's total return is expected to fall below negative 10% over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Hien Tran Khanh – Head of Research

Email: hien.trankhanh@vndirect.com.vn

Hao Nguyen Duc – Analyst

Email: hao.nguyenduc@vndirect.com.vn

VNDIRECT Securities Corporation

1 Nguyen Thuong Hien Str – Hai Ba Trung Dist – Ha Noi

Tel: +84 2439724568

Email: research@vndirect.com.vn

Website: <https://vndirect.com.vn>