

## Air Products

# Base business is better than the market thinks; Upgrading to Buy

Rating Change: BUY | PO: 264.00 USD | Price: 217.01 USD

## Three key reasons for the upgrade

We are upgrading APD to Buy for three reasons: 1) we believe the valuation disconnect with Linde (LIN) is unwarranted, 2) the speculative project backlog has less risks than we previously viewed, and 3) we think the base business is robust, contrary to the current market view. This last perspective was based on investor concerns we heard at investor meetings we hosted in NYC with CEO Seifi Ghasemi and CFO Melissa Schaeffer. While APD's valuation started to drift a year ago, the 16% plunge in the shares in the last two weeks appears to be based largely on concerns that APD has prioritized clean energy growth projects with less focus on the base business.

## Helium has challenges, but base business is robust

A key driver of the F1Q earnings miss was challenges in APD's helium business (<10% of sales) from less demand and Russian exports, but we expect some recovery with fab operating rates. Ghasemi took responsibility for overestimating the resilience in helium & a Chinese recovery. More importantly, Exhibits 1-3 compare APD vs Linde performance by region, highlighting the strength of the base business. APD's volumes have been robust in all three regions in the last several quarters, but surcharge-driven pricing has now lapsed.

## Passionate about clean energy, but still years away

While the long-term outlook for NEOM is unknown, this project represents only \$0.8bn of the company's \$20bn backlog, owing to non-recourse financing. Ghasemi highlighted that Total's CEO recently highlighted interest in 500tpy of green hydrogen with a price near €6/kg (\$6.4/kg), both above NEOM's expected 200tpy and our estimate of APD's cost at \$5/kg. The Louisiana plant at \$7bn is the largest chunk without contracts, but IRA PTC over 12 years could nearly cover the capex. APD indicated most of the volumes with World Energy, Alberta, New York & Rotterdam projects are locked up, with more to come.

## Valuation disconnect likely to revert

Forward P/E multiples for APD and LIN have moved together prior to a year ago, and now the spread is 10x, which we expect to close in coming quarters (see Exhibit 5). Both companies guide HSD EPS growth this year, which many investors question for APD. Our PO is unchanged but we think multiple expansion could come from improved execution. We highlight on page 3 a valuation approach based on scenario analysis.

Estimates (Sep) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	10.41	11.51	12.55	13.47	14.41
GAAP EPS	10.53	10.29	12.55	13.47	14.41
EPS Change (YoY)	15.4%	10.6%	9.0%	7.3%	7.0%
Consensus EPS (Bloomberg)			12.33	13.35	14.74
DPS	6.36	6.87	7.21	7.57	7.95
Valuation (Sep)					
P/E	20.8x	18.9x	17.3x	16.1x	15.1x
GAAP P/E	20.6x	21.1x	17.3x	16.1x	15.1x
Dividend Yield	2.9%	3.2%	3.3%	3.5%	3.7%
EV / EBITDA*	14.8x	13.4x	12.3x	11.3x	10.5x
Free Cash Flow Yield*	0.5%	-2.9%	-2.6%	-1.1%	-0.3%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 6.

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Timestamp: 15 February 2024 06:00AM EST

15 February 2024

### Equity

#### Key Changes

(US\$)	Previous	Current
Inv. Opinion	B-2-7	B-1-7
Inv. Rating	NEUTRAL	BUY
2025E Rev (m)	14,256.0	14,255.7
2026E Rev (m)	15,556.7	15,556.0

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### Stock Data

Price	217.01 USD
Price Objective	264.00 USD
Date Established	6-Feb-2024
Investment Opinion	B-1-7
52-Week Range	212.24 USD - 307.71 USD
Mkt Val (mn) / Shares Out (mn)	48,285 USD / 222.5
Free Float	99.7%
Average Daily Value (mn)	421.21 USD
BofA Ticker / Exchange	APD / NYS
Bloomberg / Reuters	APD US / APD.N
ROE (2024E)	18.6%
Net Dbt to Eqty (Sep-2023A)	50.6%
ESGMeter <sup>TM</sup>	High

**ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".**

NEOM: region in northwest Saudi

tpy: tons per year

IRA: Inflation Reduction Act

PTC: production tax credits

HSD: high single digits

# iQprofile<sup>SM</sup> Air Products

## iQmethod<sup>SM</sup> – Bus Performance\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	8.3%	8.5%	7.8%	7.3%	7.1%
Return on Equity	17.4%	18.7%	18.6%	18.3%	18.1%
Operating Margin	19.0%	21.7%	23.1%	22.2%	21.7%
Free Cash Flow	244	(1,421)	(1,262)	(537)	(137)

## iQmethod<sup>SM</sup> – Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.4x	1.3x	1.4x	1.6x	1.6x
Asset Replacement Ratio	2.2x	3.4x	3.5x	3.1x	2.8x
Tax Rate	18.2%	18.8%	18.1%	18.1%	18.1%
Net Debt-to-Equity Ratio	27.2%	50.6%	67.7%	76.0%	81.1%
Interest Cover	18.8x	15.4x	13.9x	14.5x	15.1x

## Income Statement Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	12,699	12,600	12,873	14,256	15,556
% Change	23.0%	-0.8%	2.2%	10.7%	9.1%
Gross Profit	3,286	3,767	4,097	4,411	4,734
% Change	4.8%	14.6%	8.8%	7.7%	7.3%
EBITDA	4,247	4,702	5,140	5,581	6,018
% Change	9.4%	10.7%	9.3%	8.6%	7.8%
Net Interest & Other Income	431	470	488	548	598
<b>Net Income (Adjusted)</b>	<b>2,316</b>	<b>2,563</b>	<b>2,796</b>	<b>3,001</b>	<b>3,210</b>
<b>% Change</b>	<b>15.4%</b>	<b>10.7%</b>	<b>9.1%</b>	<b>7.3%</b>	<b>7.0%</b>

## Free Cash Flow Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	2,316	2,563	2,796	3,001	3,210
Depreciation & Amortization	1,338	1,358	1,522	1,708	1,885
Change in Working Capital	(116)	(425)	(293)	34	49
Deferred Taxation Charge	32	(25)	14	0	0
Other Adjustments, Net	(400)	(266)	(50)	(31)	(31)
Capital Expenditure	(2,927)	(4,626)	(5,250)	(5,250)	(5,250)
<b>Free Cash Flow</b>	<b>244</b>	<b>-1,421</b>	<b>-1,262</b>	<b>-537</b>	<b>-137</b>
<b>% Change</b>	<b>-72.0%</b>	<b>NM</b>	<b>11.2%</b>	<b>57.4%</b>	<b>74.5%</b>
Share / Issue Repurchase	0	0	0	0	0
Cost of Dividends Paid	(1,383)	(1,497)	(1,572)	(1,688)	(1,772)
Change in Debt	366	2,901	2,810	2,000	2,000

## Balance Sheet Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	2,711	1,617	2,238	1,900	1,878
Trade Receivables	1,794	1,700	1,898	1,940	2,117
Other Current Assets	1,778	1,883	1,807	1,759	1,749
Property, Plant & Equipment	14,161	17,472	21,567	25,109	28,474
Other Non-Current Assets	6,749	9,330	9,583	9,633	9,683
<b>Total Assets</b>	<b>27,193</b>	<b>32,003</b>	<b>37,094</b>	<b>40,342</b>	<b>43,902</b>
Short-Term Debt	11	260	16	16	16
Other Current Liabilities	3,455	3,636	3,095	3,128	3,348
Long-Term Debt	6,434	9,281	13,770	15,770	17,770
Other Non-Current Liabilities	3,591	3,166	3,155	3,155	3,155
<b>Total Liabilities</b>	<b>13,490</b>	<b>16,342</b>	<b>20,036</b>	<b>22,069</b>	<b>24,289</b>
<b>Total Equity</b>	<b>13,702</b>	<b>15,660</b>	<b>17,058</b>	<b>18,273</b>	<b>19,614</b>
<b>Total Equity &amp; Liabilities</b>	<b>27,193</b>	<b>32,003</b>	<b>37,094</b>	<b>40,342</b>	<b>43,902</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 6.

## Company Sector

Chemicals-Specialty

## Company Description

Air Products is an industrial gas company which generated \$12.6bn in FY23. The gases businesses recovers and distributes industrial gases such as oxygen, nitrogen, helium, argon, and hydrogen, and a variety of medical and specialty gases for use in a variety of end markets such as energy, manufacturing, healthcare, food & beverage, metals, and chemicals. They have operations in over 50 countries (44% Americas, 31% Asia, 25% Europe, 1% Middle East) and a working force of 19k diverse employees.

## Investment Rationale

We rate shares of APD as Buy due to 1. attractive valuation, 2 strong business model with stable volumes and sticky pricing, and 3. significant growth potential from clean energy projects.

## Stock Data

Average Daily Volume 1,974,585

## Quarterly Earnings Estimates

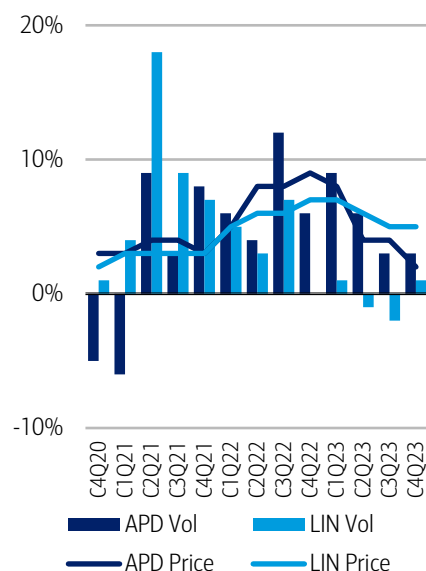
	2023	2024
Q1	2.64A	2.82A
Q2	2.74A	2.75E
Q3	2.98A	3.42E
Q4	3.15A	3.55E

## Valuation already reflects significant value destruction

Based on our recent investor meetings, we understand that investors are concerned about the returns on some of APD's more "speculative" projects, namely the green ammonia project in NEOM and the \$7bn Louisiana blue hydrogen/ammonia complex which both still lack customer commitments. We believe that a large portion of the valuation discount to LIN is attributed to this factor, with investors likely assuming that APD could be destroying value with these projects. Our ROIC estimates for these projects assumes pricing for these products owing to a lack of current markets. Using a scenario analysis, a worst case valuation approach would be to assume no return for this combined \$8bn investment, or ~\$36/share (we assume no tax benefit here). If APD's valuation were to reach parity with LIN at 27x P/E (F2024 EPS \* 27 = 339), we estimate an implied valuation of roughly \$300, adjusted for the "value-destructive" projects. If the entire Louisiana plant solely sells grey hydrogen (i.e. it gets no benefit from upgrading hydrogen into ammonia nor a premium from low-carbon products), it would have a negative net present value (NPV) of \$4.5bn (not \$7bn) by our estimates, and thus a value-at-risk of \$25/share, for an APD implied valuation of \$314 in the above scenario.

### Exhibit 1: Americas price/volume trends

More volume for APD, more price for LIN

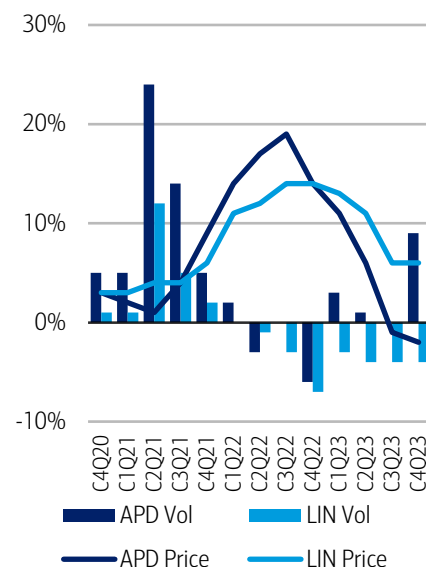


Source: Company filings, BofA Global Research

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### Exhibit 2: EMEA price/volume trends

APD's volume from Uzbekistan increased in F1Q24

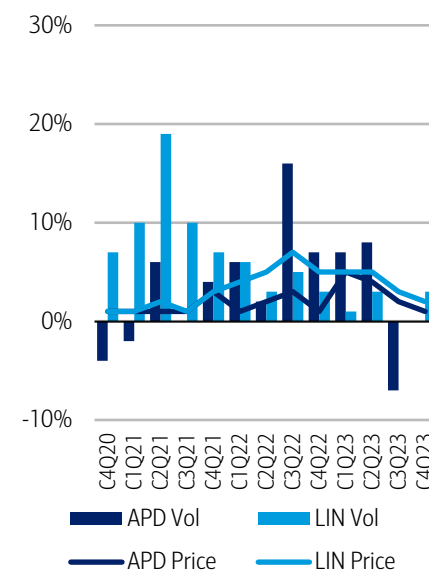


Source: Company filings, BofA Global Research

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### Exhibit 3: Asia price/volume trends

APD's volumes robust until last two quarters

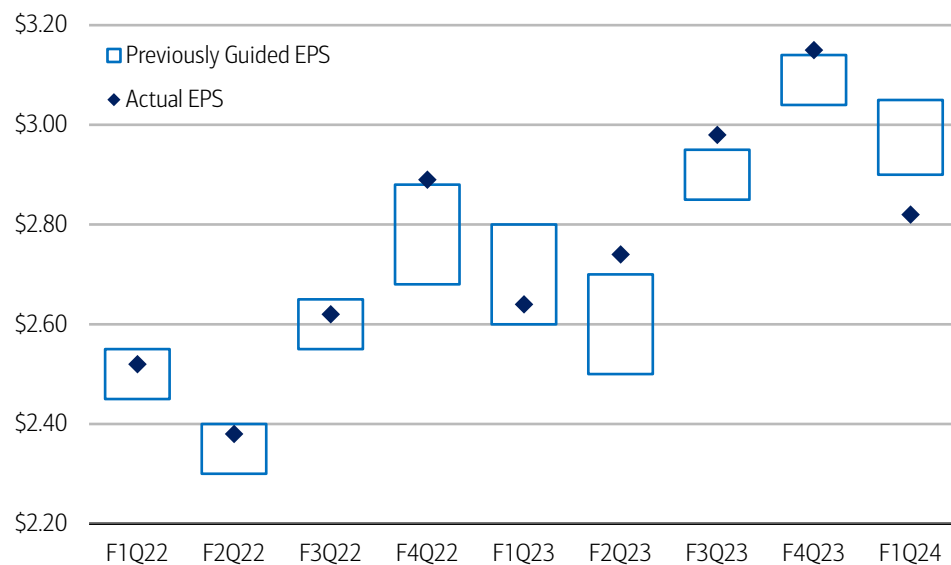


Source: Company filings, BofA Global Research

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**Exhibit 4: History of EPS performance vs guidance**

APD broke its three-quarter streak of beating guidance estimates, with an \$0.08 miss in F1Q24

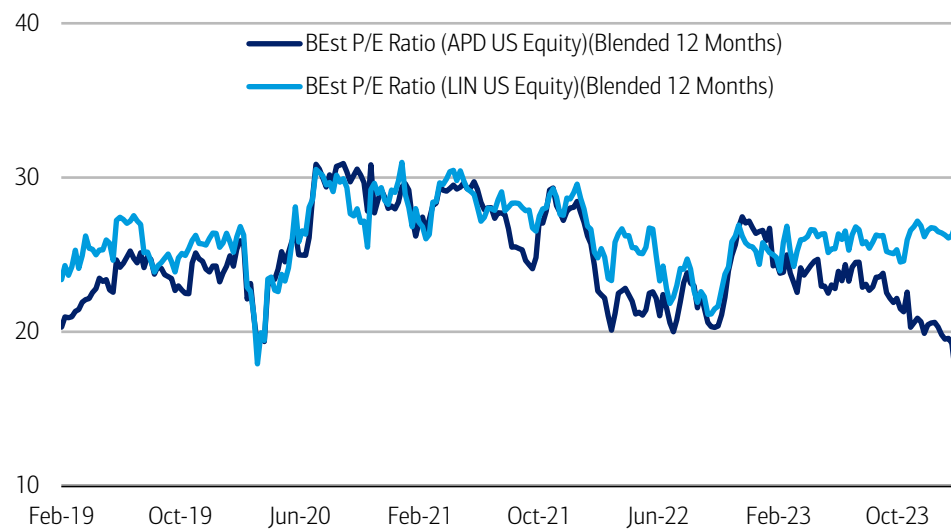


Source: Company filings, BofA Global Research

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**Exhibit 5: Forward P/E multiples for APD and LIN**

Prior to a year ago, APD and LIN traded at similar forward P/E multiples



Source: Bloomberg, BofA Global Research

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## Price objective basis & risk

### Air Products (APD)

Our \$264 PO is based on the average of a 3 stage DCF analysis and a 20.0x P/E as applied to a CY2024 EPS estimate, below historical levels due to increased risks in the business model. The 3-stage DCF is predicated on a 7.3% WACC and a 3.5% terminal growth rate.

Upside risks are a depreciating dollar, higher steel operating rates, a rebound in oil, an acceleration in global industrial production, and increased earnings growth from capital deployment.

Downside risks are a strengthening dollar, steel customer bankruptcy, declining oil prices, a reduction of hydrogen prices on the Gulf, and coal to chemicals customer bankruptcy.

## Analyst Certification

I, Steve Byrne, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

### US - Chemicals Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>BUY</b>				
	Air Products	APD	APD US	Steve Byrne, CFA
	Axalta Coating Systems	AXTA	AXTA US	Steve Byrne, CFA
	Bunge Limited	BG	BG US	Salvator Tiano, CFA
	CF Industries	CF	CF US	Steve Byrne, CFA
	Dow Inc	DOW	DOW US	Steve Byrne, CFA
	Eastman Chemical Co	EMN	EMN US	Salvator Tiano, CFA
	Element Solutions Inc.	ESI	ESI US	Steve Byrne, CFA
	Green Plains	GPPE	GPPE US	Salvator Tiano, CFA
	Huntsman Corp	HUN	HUN US	Salvator Tiano, CFA
	Linde	LIN	LIN US	Steve Byrne, CFA
	Linde	LINGY	LIN GY	Steve Byrne, CFA
	Nutrien	NTR	NTR US	Steve Byrne, CFA
	Olin Corp	OLN	OLN US	Steve Byrne, CFA
	PPG Industries Inc.	PPG	PPG US	Steve Byrne, CFA
	Sigma Lithium	SGML	SGML US	Steve Byrne, CFA
	The Mosaic Company	MOS	MOS US	Steve Byrne, CFA
<b>NEUTRAL</b>				
	Albemarle	ALB	ALB US	Steve Byrne, CFA
	Archer-Daniels-Midland Company	ADM	ADM US	Salvator Tiano, CFA
	Corteva	CTVA	CTVA US	Steve Byrne, CFA
	Ecolab Inc	ECL	ECL US	Steve Byrne, CFA
	International Flavors & Fragrances	IFF	IFF US	Salvator Tiano, CFA
	LyondellBasell Industries	LYB	LYB US	Steve Byrne, CFA
	Origin Materials	ORGN	ORGN US	Steve Byrne, CFA
<b>UNDERPERFORM</b>				
	Celanese Corporation	CE	CE US	Salvator Tiano, CFA
	DuPont	DD	DD US	Steve Byrne, CFA
	FMC Corporation	FMC	FMC US	Steve Byrne, CFA
	RPM International Inc	RPM	RPM US	Steve Byrne, CFA
	Sherwin-Williams Company	SHW	SHW US	Steve Byrne, CFA
	Westlake Chemical Partners, LP	WLKP	WLKP US	Steve Byrne, CFA
	Westlake Corp	WLK	WLK US	Steve Byrne, CFA



## iQmethod<sup>SM</sup> Measures Definitions

### Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

### Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

### Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

### Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

### Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash &amp; Equivalents

EBIT

### Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

### Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

### Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

### Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

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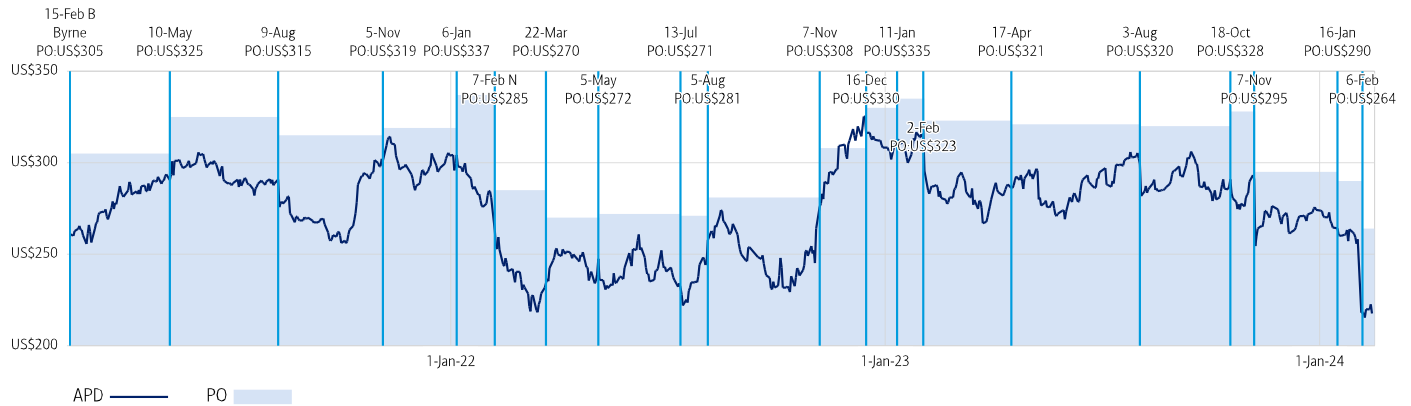
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## Important Disclosures

### Air Products (APD) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

### Equity Investment Rating Distribution: Chemicals Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	66	47.83%	Buy	33	50.00%
Hold	33	23.91%	Hold	16	48.48%
Sell	39	28.26%	Sell	20	51.28%

### Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R2</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R2</sup> Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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