

Dow Inc

Upgrading to Buy as we move towards an upcycle for petrochemicals

Rating Change: BUY | PO: 60.00 USD | Price: 53.37 USD

Upcycle ahead, upgrading to Buy

After turning more constructive on Dow's shares and moving to a Neutral in October 2023, we are now raising our rating to Buy, with a PO of \$60 (from \$57). Our upgrade is predicated on (1) our petrochemical sentiment indicator moving into positive territory in late-2023 (historically linked to stock outperformance), (2) our view that petrochemical margins and volumes have largely troughed in 2H23, and (3) our projection of a 50% EBITDA growth by 2025 (over 2023) as the supply/demand balance of many chemical chains improves and destocking reverses.

PE earnings to jump over wall of worry

We have been skeptical of the recovery in polyethylene due to the significant supply growth seen in the past couple of years in the US and globally, near-term additions (in 4Q23 and 1H24) in the US, and the challenges of reaching operating rates that would drive sustainable margin expansion (closer to 90% from ~80% currently). Additionally, we expect another wave of large projects to commence operations in the 2026-2028 period, damping the recovery in operating rates. That being said, P&SP (Packaging & Specialty Plastics) EBITDA is already at depressed levels similar to 2020's, and ~15-25% below 2016-18 levels. Overall we still expect PE margins to expand in the next two years, driven by modest pricing gains and energy deflation in Europe; to that we add higher volumes/operating rates, and thus estimate 2025E P&SP EBITDA of \$5.3bn. Note that while this is above 2016-18 levels (\$4.6-5bn), DOW's "normalized" earnings power is higher now (all else equal) due to the new cracker at Freeport, TX (came online in 2017 and debottlenecked a couple of years ago) and Sadara (came online in 2016-17).

Slightly trimming 2024-25E earnings, but PO raised to \$60

As we see a more sustained upcycle ahead, we are raising our 2024E EV/EBITDA multiple to 8.5x from 8.0x, bringing our PO to \$60 from \$57. Our PO implies a 6.7x 2025 EBITDA multiple. Our 4Q23E EBITDA is raised modestly on higher II&I projections while we are slightly trimming our 2024-25 estimates on a more muted P&SP recovery to \$6,541mn (from \$6,679mn) and \$8,210mn (from \$8,328mn), respectively.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	9.01	6.30	2.23	3.55	5.30
GAAP EPS	8.40	6.31	1.38	3.55	5.30
EPS Change (YoY)	442.8%	-30.1%	-64.6%	59.2%	49.3%
Consensus EPS (Bloomberg)			2.16	3.22	4.36
DPS	2.80	2.80	2.80	2.80	2.88
Valuation (Dec)					
P/E	5.9x	8.5x	23.9x	15.0x	10.1x
GAAP P/E	6.4x	8.5x	38.7x	15.0x	10.1x
Dividend Yield	5.2%	5.2%	5.2%	5.2%	5.4%
EV / EBITDA*	5.8x	7.6x	13.1x	10.9x	8.7x
Free Cash Flow Yield*	14.9%	15.1%	5.0%	5.6%	7.8%

* For full definitions of *IQmethod*SM measures, see page 5.

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Refer to important disclosures on page 6 to 8. Analyst Certification on page 4. Price Objective Basis/Risk on page 4.

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Timestamp: 16 January 2024 06:00AM EST

16 January 2024

Equity

Key Changes

(US\$)	Previous	Current
Inv. Opinion	B-2-7	B-1-7
Inv. Rating	NEUTRAL	BUY
Price Obj.	57.00	60.00
2023E Rev (m)	45,650.7	44,857.4
2024E Rev (m)	51,139.4	47,217.8
2025E Rev (m)	54,638.8	50,822.1
2023E EPS	2.20	2.23
2024E EPS	3.70	3.55
2025E EPS	5.45	5.30

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Stock Data

Price	53.37 USD
Price Objective	60.00 USD
Date Established	16-Jan-2024
Investment Opinion	B-1-7
52-Week Range	47.26 USD - 60.88 USD
Mkt Val (mn) / Shares Out (mn)	37,434 USD / 701.4
Free Float	99.7%
Average Daily Value (mn)	219.35 USD
BofA Ticker / Exchange	DOW / NYS
Bloomberg / Reuters	DOW US / DOW.N
ROE (2023E)	7.9%
Net Dbt to Eqty (Dec-2022A)	52.6%
ESGMeter TM	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".

MSD = mid-single digit

II&I= Industrial Intermediates & Infrastructure

iQprofileSM Dow Inc

iQmethodSM – Bus Performance*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	12.7%	9.8%	4.9%	6.1%	8.1%
Return on Equity	44.1%	23.5%	7.9%	13.0%	18.7%
Operating Margin	15.6%	11.1%	6.6%	7.8%	9.9%
Free Cash Flow	5,568	5,663	1,879	2,100	2,925

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	1.0x	1.6x	2.6x	2.1x	1.7x
Asset Replacement Ratio	0.6x	0.8x	1.0x	1.3x	1.3x
Tax Rate	25.5%	24.7%	25.0%	25.0%	26.0%
Net Debt-to-Equity Ratio	61.5%	52.6%	61.9%	66.3%	62.7%
Interest Cover	11.6x	9.5x	3.9x	4.9x	6.7x

Income Statement Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	54,968	56,902	44,857	47,218	50,822
% Change	42.6%	3.5%	-21.2%	5.3%	7.6%
Gross Profit	11,425	9,169	5,732	6,468	7,917
% Change	112.6%	-19.7%	-37.5%	12.8%	22.4%
EBITDA	12,368	9,348	5,441	6,541	8,210
% Change	121.4%	-24.4%	-41.8%	20.2%	25.5%
Net Interest & Other Income	(681)	(489)	(530)	(510)	(530)
Net Income (Adjusted)	6,750	4,572	1,580	2,492	3,660
% Change	448.1%	-32.3%	-65.4%	57.7%	46.8%

Free Cash Flow Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	6,754	4,572	1,580	2,492	3,660
Depreciation & Amortization	2,842	2,758	2,629	2,655	2,735
Change in Working Capital	(1,447)	(786)	805	57	(379)
Deferred Taxation Charge	278	79	(817)	0	0
Other Adjustments, Net	(1,358)	863	(119)	(5)	110
Capital Expenditure	(1,501)	(1,823)	(2,200)	(3,100)	(3,200)
Free Cash Flow	5,568	5,663	1,879	2,100	2,925
% Change	11.4%	1.7%	-66.8%	11.8%	39.3%
Share / Issue Repurchase	(1,000)	(2,325)	(500)	(750)	(750)
Cost of Dividends Paid	(2,146)	(2,089)	(2,047)	(2,028)	(2,069)
Change in Debt	(2,708)	865	(434)	0	0

Balance Sheet Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	2,988	3,886	2,447	1,770	1,876
Trade Receivables	9,554	7,755	7,117	7,531	7,937
Other Current Assets	8,306	8,836	7,862	8,455	8,718
Property, Plant & Equipment	20,555	20,442	20,482	20,927	21,392
Other Non-Current Assets	21,587	19,684	20,253	20,353	20,353
Total Assets	62,990	60,603	58,162	59,036	60,276
Short-Term Debt	231	362	110	110	110
Other Current Liabilities	12,995	10,969	10,269	11,333	11,622
Long-Term Debt	14,280	14,698	14,592	14,592	14,592
Other Non-Current Liabilities	16,745	13,327	13,344	13,344	13,344
Total Liabilities	44,251	39,356	38,315	39,379	39,668
Total Equity	18,739	21,247	19,785	19,500	20,451
Total Equity & Liabilities	62,990	60,603	58,100	58,879	60,119

* For full definitions of iQmethodSM measures, see page 5.

Company Sector

Chemicals-Major

Company Description

Dow is a leading materials science company with \$55bn in sales in 2021 and was formed as a result of the merger of Dow and DuPont in 2017 and subsequent spin in 2019. The company is organized into three principal divisions of Performance Materials & Coatings (23% of EBITDA), Industrial Intermediates & Infrastructure (27%), and Packaging & Specialty Plastics (51%).

Investment Rationale

We rate Dow shares at Buy, based on (1) our petrochemical sentiment indicator moving into positive territory in late-2023 (historically linked to stock outperformance), (2) our view that petrochemical margins and volumes have largely troughed in 2H23, and (3) our projection of a 50% EBITDA growth by 2025 (over 2023) as the supply/demand balance of many chemical chains improves and destocking reverses.

Stock Data

Average Daily Volume 4,109,929

Quarterly Earnings Estimates

	2022	2023
Q1	2.35A	0.59A
Q2	2.32A	0.76A
Q3	1.12A	0.49A
Q4	0.47A	0.40E

Exhibit 1: Dow Income Statement Summary

We still expect strong earnings growth in 2024

Net Sales	2021	2022	1Q23	2Q23	3Q23	4Q23E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E
Performance Materials & Coatings	\$9,672	\$10,764	\$2,276	\$2,197	\$2,130	\$1,832	\$8,435	\$2,285	\$2,338	\$2,386	\$2,015	\$9,024	\$9,836
Industrial Intermediates & Infrastructure	16,851	16,606	3,378	3,177	3,035	3,120	12,710	3,483	3,439	3,369	3,447	13,738	15,002
Packaging & Specialty Plastics	28,128	29,260	6,114	5,940	5,454	5,830	23,338	5,878	5,909	5,925	6,350	24,062	25,560
Corporate	317	272	83	106	111	75	375	100	105	110	80	395	425
Consolidated Total	54,968	56,902	11,851	11,420	10,730	10,856	44,857	11,746	11,791	11,789	11,891	47,218	50,822
Adjusted EBIT													
Performance Materials & Coatings	866	1,328	35	66	179	108	388	135	152	161	120	568	756
Industrial Intermediates & Infrastructure	2,282	1,418	123	-35	21	4	113	-64	44	253	262	494	1,065
Packaging & Specialty Plastics	6,638	4,110	642	918	476	546	2,582	654	907	775	749	3,084	3,925
Corporate	-260	-266	-92	-64	-50	-65	-271	-65	-65	-65	-65	-260	-270
Consolidated Total	9,526	6,590	708	885	626	593	2,812	659	1,038	1,124	1,065	3,886	5,476
Depreciation & Amortization	2,842	2,758	648	649	657	675	2,629	660	665	665	665	2,655	2,735
Adjusted EBITDA	12,368	9,348	1,356	1,534	1,283	1,268	5,441	1,319	1,703	1,789	1,731	6,541	8,210
Profit Before Tax	7,877	5,833	647	836	485	483	2,451	542	868	893	852	3,155	4,523
Adjusted Net Income	6,750	4,572	415	537	345	283	1,580	368	661	746	717	2,492	3,660
Diluted - Adjusted EPS	\$9.01	\$6.30	\$0.59	\$0.75	\$0.49	\$0.40	\$2.23	\$0.52	\$0.94	\$1.06	\$1.03	\$3.55	\$5.30
Net Sales Growth													
Performance Materials & Coatings	22%	11%	-25%	-27%	-20%	-11%	-22%	0%	6%	12%	10%	7%	9%
Industrial Intermediates & Infrastructure	40%	-1%	-25%	-27%	-25%	-15%	-23%	3%	8%	11%	10%	8%	9%
Packaging & Specialty Plastics	54%	4%	-20%	-28%	-26%	-4%	-20%	-4%	-1%	9%	9%	3%	6%
Consolidated Total	43%	4%	-22%	-28%	-25%	-9%	-21%	-1%	3%	10%	10%	5%	8%
Adjusted EBIT Margin (Ex-Equity Earnings)													
Performance Materials & Coatings	9%	12%	1%	3%	8%	6%	4%	6%	6%	7%	6%	6%	8%
Industrial Intermediates & Infrastructure	11%	9%	6%	2%	3%	2%	3%	0%	2%	7%	7%	4%	6%
Packaging & Specialty Plastics	22%	13%	10%	15%	8%	9%	11%	11%	15%	12%	11%	12%	14%
Consolidated Total	16%	11%	6%	8%	6%	6%	7%	6%	9%	9%	8%	8%	10%

Source: Company Reports and BofA Global Research Estimates

BofA GLOBAL RESEARCH



Price objective basis & risk

Dow Inc (DOW)

Our PO of \$60 is based on a 8.5x 2024E EV/EBITDA multiple. The multiple is a premium to the 7x average forward EBITDA multiple realized by DOW and its closest peer over the last five years, reflecting our view of a strong earnings recovery ahead.

Upside risks to our price objective are improvement in the plastics outlook, new product growth, additional productivity gains, higher oil prices, and a weaker USD.

Downside risks are slower growth in key end markets including autos, electronics, and infrastructure, and a stronger US dollar.

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
BUY				
	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
	DuPont	DD	DD 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
NEUTRAL				
	Air Products	APD	APD US	Steve Byrne, CFA
	Albemarle	ALB	ALB US	Steve Byrne, CFA
	Archer-Daniels-Midland Company	ADM	ADM US	Salvator Tiano, CFA
	Celanese Corporation	CE	CE US	Salvator Tiano, CFA
	Corteva	CTVA	CTVA US	Steve Byrne, CFA
	FMC Corporation	FMC	FMC 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
UNDERPERFORM				
	Ecolab Inc	ECL	ECL 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

iQmethodSM 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 & 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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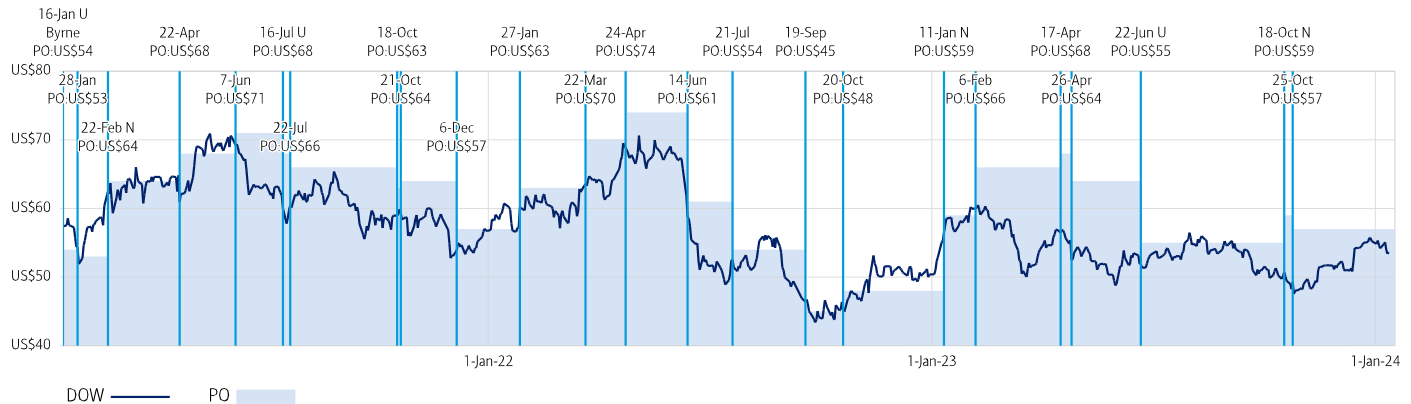
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Disclosures

Important Disclosures

Dow (DOW) 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 ^{R1}	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 ^{R1}	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%

^{R1} 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 ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} 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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