

Armstrong World Industries, Inc.

4Q23 beats; 2024 guidance ahead of consensus & back half looks conservative

Reiterate Rating: BUY | PO: 132.00 USD | Price: 117.45 USD

2024 guidance ahead of consensus

Armstrong (AWI) reported 4Q23 ahead of our forecast. AWI's full year performance in 2023 was well ahead of its initial guidance and expectations following a challenging 2022. Management initiated 2024 EBITDA guidance 4% ahead of consensus at the mid-point. We reiterate our Buy rating on attractive valuation relative to other building product companies. Guidance looks conservative in 2H24 on revenue and margins.

Revenue growth driven by mix/pricing in 2024

Management is forecasting net sales growth of 3%-6% in 2024 with mineral fiber volumes down low-single digits, which will be more than offset by mid-single digit growth in AUV. AUV is expected to return to a normal cadence in 2024 with positive price (two annual increases per year including a 5% announcement in February) and favorable mix (lower retail mix vs. 2023). Mineral fiber (MF) revenue grew 5.3% in 2023 driven by +4.8% average unit value (AUV). AWI MF volume growth of 0.4% outperformed the market due AWI's growth initiatives (added roughly 100bps to 2023 revenue growth), as well as retail channel fill. Architectural Specialties (AS) revenue is expected to grow 6-9% in 2024 with a minimal benefit from M&A and flow-through of higher 2H22 starts. Importantly, guidance assumes a more challenging macro backdrop in 2H24.

Margin outlook looks conservative in 2H

Management expects 2024 MF EBITDA margin to increase to ~40% (compared to 39% in 2023) or an incremental margin of roughly 60% at the mid-point. Margin expansion should be supported by positive AUV and a moderation in inflation. Inflation is expected to increase low-single digits from slightly higher raw material and freight costs, partially offset by deflationary energy costs. We see upside to MF margin guidance if natural gas prices remain at current levels (estimate 5% of costs). AS EBITDA margin is expected to increase to 19% in 2024 (up from 17.6%), as AWI continues to scale the business.

4Q23 beats our expectations; Raise PO

AWI reported 4Q EPS of \$1.21, above our \$1.06 forecast. Revenue grew 4% YoY with mineral fiber up 2% YoY (vol flat, AUV +2%) and architectural specialties up 4% YoY. We increase our 2024E/2025E adjusted EPS 2%/6%. We raise our PO to \$132 (from \$110) now based on 12X 2025E EV/EBITDA (was 11X) driven by higher sector multiples.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	4.75	5.32	5.78	6.53	7.35
GAAP EPS	4.37	4.98	5.78	6.53	7.35
EPS Change (YoY)	11.2%	12.0%	8.6%	13.0%	12.6%
Consensus EPS (Bloomberg)			5.54	6.34	7.30
DPS	0.95	1.05	1.13	1.17	1.21
Valuation (Dec)					
P/E	24.7x	22.1x	20.3x	18.0x	16.0x
GAAP P/E	26.9x	23.6x	20.3x	18.0x	16.0x
Dividend Yield	0.8%	0.9%	0%	0%	1.0%
EV / EBITDA*	14.5x	13.0x	12.2x	11.4x	10.8x
Free Cash Flow Yield*	2.1%	3.0%	3.8%	3.4%	4.2%

* For full definitions of *IQmethod*SM measures, see page 6.

20 February 2024

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	110.00	132.00
2024E EPS	5.64	5.78
2025E EPS	6.16	6.53
2026E EPS	6.76	7.35

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Stock Data

Price	117.45 USD
Price Objective	132.00 USD
Date Established	20-Feb-2024
Investment Opinion	B-1-7
52-Week Range	62.03 USD - 117.45 USD
Mkt Val (mn) / Shares Out (mn)	5,063 USD / 43.1
Free Float	98.7%
Average Daily Value (mn)	36.17 USD
BofA Ticker / Exchange	AWI / NYS
Bloomberg / Reuters	AWI US / AWI.N
ROE (2024E)	38.8%
Net Dbt to Eqty (Dec-2023A)	87.2%
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](#)".

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Timestamp: 20 February 2024 06:57PM EST

iQprofileSM Armstrong World Industries, Inc.

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	15.4%	17.1%	17.7%	18.0%	18.2%
Return on Equity	41.8%	42.3%	38.8%	37.0%	35.4%
Operating Margin	24.5%	26.4%	27.1%	27.8%	28.2%
Free Cash Flow	108	150	191	170	210

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	0.8x	1.0x	1.1x	1.0x	1.0x
Asset Replacement Ratio	0.9x	0.9x	0.9x	0.9x	0.9x
Tax Rate	22.5%	24.9%	25.0%	25.0%	25.0%
Net Debt-to-Equity Ratio	101.9%	87.2%	60.8%	44.8%	25.8%
Interest Cover	11.1x	9.7x	8.9x	9.6x	10.3x

Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	1,233	1,295	1,346	1,411	1,490
% Change	11.4%	5.0%	3.9%	4.9%	5.6%
Gross Profit	449	497	518	553	593
% Change	NA	NA	NA	NA	NA
EBITDA	385	430	459	491	519
% Change	3.5%	11.7%	6.6%	7.0%	5.7%
Net Interest & Other Income	(17)	(24)	(33)	(33)	(33)
Net Income (Adjusted)	220	238	249	270	291
% Change	10.8%	10.3%	11.3%	8.5%	7.7%

Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	203	224	249	270	291
Depreciation & Amortization	84	89	94	98	98
Change in Working Capital	(49)	(3)	13	(23)	(4)
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	(55)	(76)	(81)	(83)	(83)
Capital Expenditure	(75)	(84)	(84)	(92)	(92)
Free Cash Flow	108	150	191	170	210
% Change	NA	NA	NA	NA	NA
Share / Issue Repurchase	(165)	(132)	(140)	(140)	(140)
Cost of Dividends Paid	(44)	(47)	(49)	(48)	(48)
Change in Debt	21	(65)	0	0	0

Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	106	71	167	243	360
Trade Receivables	112	111	114	128	135
Other Current Assets	138	131	131	134	139
Property, Plant & Equipment	554	566	556	550	544
Other Non-Current Assets	776	793	820	802	799
Total Assets	1,687	1,672	1,788	1,858	1,978
Short-Term Debt	0	23	23	23	23
Other Current Liabilities	183	172	188	182	190
Long-Term Debt	651	564	564	564	564
Other Non-Current Liabilities	318	322	322	322	322
Total Liabilities	1,152	1,081	1,097	1,091	1,099
Total Equity	535	592	691	767	879
Total Equity & Liabilities	1,687	1,672	1,788	1,858	1,978

* For full definitions of iQmethodSM measures, see page 6.

Company Sector

Building Products

Company Description

AWI is the largest manufacturer and distributor of suspended ceiling tile and grid systems in the world. The company's markets are primarily commercial (95% of total sales) and repair and remodel (61% of sales).

AWI reports its financial results under two distinct operating segments: Mineral Fiber and Architectural Specialty. In addition, the company participates in a joint venture with Worthington Industries known as WAVE.

Investment Rationale

We rate AWI shares at Buy. Our Buy rating reflects AWI's attractive valuation compared to its historical levels.

Stock Data

Average Daily Volume

307,984

Quarterly Earnings Estimates

	2023	2024
Q1	1.12A	1.18E
Q2	1.38A	1.58E
Q3	1.60A	1.73E
Q4	1.21A	1.28E

Exhibit 1: Armstrong World Industries 4Q23 earnings variance compared to BofA forecasts

AWI beat our 4Q23 forecast on better top line and EBITDA margin

Income Statement	YoY Change			Variance vs BofAe		
	4Q22	4Q23	YoY	BofAe	4Q23A	Δ
Sales (\$ mm)	\$305	\$312	3%	\$300	\$312	4%
Gross Margin	36.6%	38.3%	165 bps	35.0%	38.3%	326 bps
SG&A % of Sales	19.1%	20.6%	151 bps	19.4%	20.6%	119 bps
Operating Margin (includes WAVE JV)	23.5%	24.1%	60 bps	22.9%	24.1%	118 bps
EBITDA Margin	30.1%	31.5%	143 bps	30.3%	31.5%	124 bps
Pre-tax Margin	21.1%	22.3%	120 bps	20.8%	22.3%	155 bps
Operating EPS	\$1.08	\$1.21	12%	\$1.06	\$1.21	15%
GAAP EPS	\$1.07	\$1.06	(1%)	\$1.06	\$1.06	0%
Segment Results	4Q22	4Q23	YoY	BofAe	4Q23A	Δ
Sales						
Mineral Fiber	\$216	\$220	2.0%	\$208	\$220	6%
Architectural Specialties	\$89	\$92	4.0%	\$92	\$92	1%
Segment EBITDA						
Mineral Fiber	\$78	\$81	3.6%	\$75	\$81	7%
Architectural Specialties	\$14	\$17	24.1%	\$16	\$17	7%
Segment EBITDA margin						
Mineral Fiber	36.2%	36.7%	57 bps	36.1%	36.7%	59 bps
Architectural Specialties	15.5%	18.5%	300 bps	17.4%	18.5%	111 bps

Source: BofA Global Research estimates, Company Data

BofA GLOBAL RESEARCH

Exhibit 2: Armstrong World Industries income statement

We forecast adjusted EPS to improve in 2024 and 2025

YE 12/31 (\$ mm)	2024E				2023	2024E	2025E
	3/31/2024	6/30/2024	9/30/2024	12/31/2024	12/31/2023	12/31/2024	12/31/2025
	1Q	2Q	3Q	4Q			
Net Sales	\$313.0	\$349.1	\$358.2	\$325.3	\$1,295.2	\$1,345.6	\$1,411.1
Cost of sales	198.4	211.5	213.8	203.7	798.2	827.5	857.7
Gross Profit	\$114.6	\$137.5	\$144.3	\$121.7	497.0	518.1	553.4
Selling, general & administrative expense	58.2	62.8	63.4	61.8	244.5	246.3	255.4
Equity (earnings) from WAVE joint venture	21.0	25.0	26.0	21.0	89.3	93.0	95.0
Operating income (including JV earnings)	\$77.3	\$99.7	\$106.9	\$80.9	\$341.7	\$364.9	\$393.0
Interest expense	10.2	10.2	10.2	10.2	35.3	40.8	40.8
Other non-operating expense (income), net	(2.0)	(2.0)	(2.0)	(2.0)	(10.9)	(8.0)	(8.0)
Earnings before income taxes	\$69.1	\$91.5	\$98.7	\$72.7	\$317.3	\$332.0	\$360.1
Income tax expense	17.3	22.9	24.7	18.2	79.0	83.0	90.0
Earnings from continuing operations	\$51.8	\$68.6	\$74.0	\$54.5	\$238.3	\$249.0	\$270.1
Loss from discontinued operations	-	-	-	-	-	-	-
Net income attributable to AWI	\$51.8	\$68.6	\$74.0	\$54.5	\$238.3	\$249.0	\$270.1
Diluted EPS (Adjusted Shares, Cont. Ops.)	\$1.18	\$1.58	\$1.73	\$1.28	\$5.32	\$5.78	\$6.53
Adjusted Common Shares Outstanding:							
Diluted	43.8	43.3	42.9	42.5	44.8	43.1	41.4
Dividend per share	\$0.28	\$0.28	\$0.28	\$0.29	\$1.04	\$1.13	\$1.17
EBITDA Calculation							
(=) Adjusted EBIT	\$77.3	\$99.7	\$106.9	\$80.9	\$341.7	\$364.9	\$393.0
(+) D&A	23.0	23.0	24.0	24.0	88.7	94.0	98.0
(=) Adjusted EBITDA	\$100.3	\$122.7	\$130.9	\$104.9	\$430.4	\$458.9	\$491.0
Margins							
Gross Margin	36.6%	39.4%	40.3%	37.4%	38.4%	38.5%	39.2%
Selling, General & Administrative % of Sales	18.6%	18.0%	17.7%	19.0%	18.9%	18.3%	18.1%
Operating Margin (including JV earnings)	24.7%	28.6%	29.9%	24.9%	26.4%	27.1%	27.8%
EBIT Margin	24.7%	28.6%	29.9%	24.9%	26.4%	27.1%	27.8%
Adjusted EBITDA Margin	32.1%	35.1%	36.6%	32.2%	33.2%	34.1%	34.8%
Pre-tax Margin	22.1%	26.2%	27.6%	22.3%	24.5%	24.7%	25.5%
Net Margin post-noncontrolling interest (continuing ops)	16.6%	19.7%	20.7%	16.7%	18.4%	18.5%	19.1%
Net Margin (attributable to AWI)	16.6%	19.7%	20.7%	16.7%	18.4%	18.5%	19.1%
Tax rate	25.0%	25.0%	25.0%	25.0%	24.9%	25.0%	25.0%
YoY % Change							
Sales	0.9%	7.3%	3.1%	4.2%	5.0%	3.9%	4.9%
Gross Profit	2.2%	10.9%	2.1%	1.8%	10.7%	4.2%	6.8%



Exhibit 2: Armstrong World Industries income statement

We forecast adjusted EPS to improve in 2024 and 2025

YE 12/31	2024E				2023	2024E	2025E
Operating Profit (including JV earnings)	2.8%	12.0%	4.6%	7.4%	13.3%	6.8%	7.7%
Adjusted EBIT	2.8%	12.0%	4.6%	7.2%	13.3%	6.8%	7.7%
Adjusted EBITDA	4.3%	10.5%	4.8%	6.6%	11.7%	6.6%	7.0%
Pre-tax Profit	0.3%	11.6%	2.1%	4.2%	11.5%	4.6%	8.5%
Net Income post-noncontrolling interest (continuing ops)	1.9%	10.3%	3.6%	1.5%	8.1%	4.5%	8.5%
Net Income (attributable to AWI)	1.9%	10.3%	3.6%	1.5%	8.1%	4.5%	8.5%
EPS	5.9%	14.6%	7.7%	5.7%	11.9%	8.7%	13.1%
YoY BPS Change							
Gross Margin	46 bps	129 bps	-41 bps	-86 bps	195 bps	13 bps	71 bps
SG&A % Sales	0 bps	-41 bps	-32 bps	-159 bps	152 bps	-58 bps	-20 bps
Operating Margin (including JV earnings)	47 bps	121 bps	43 bps	74 bps	192 bps	73 bps	73 bps
Adjusted EBIT Margin	47 bps	121 bps	43 bps	71 bps	192 bps	73 bps	73 bps
Adjusted EBITDA Margin	105 bps	104 bps	60 bps	72 bps	198 bps	87 bps	69 bps
Pre-tax Margin	-12 bps	101 bps	-28 bps	1 bps	143 bps	18 bps	85 bps
Net Margin post-noncontrolling interest (continuing ops)	16 bps	54 bps	9 bps	-45 bps	52 bps	11 bps	64 bps
Net Margin (attributable to AWI)	16 bps	54 bps	9 bps	-45 bps	52 bps	11 bps	64 bps
Tax rate	-112 bps	85 bps	-106 bps	204 bps	238 bps	10 bps	0 bps

Source: BofA Global Research estimates, Company Data

BofA GLOBAL RESEARCH

Price objective basis & risk

Armstrong World Industries, Inc. (AWI)

Our \$132 PO for AWI shares is based on a 2025E adjusted EV/EBITDA multiple of roughly 12.0x, implying a 2025E P/E multiple of roughly 20x, roughly in-line with AWI's historical average as a favorable price-cost outlook, which offsets a challenging commercial construction outlook. We view AWI as among the best positioned, most resilient companies in our coverage through-out a cycle.

Downside risks: 1) weaker than anticipated commercial construction activity, 2) slower than forecast share repurchases, 3) weaker than expected economic growth in North America, 4) a resurgence in COVID-19 outbreaks that leads to another round of construction market closures, 5) slower than expected return to the office, 6) less municipal spending dedicated to non-residential R&R.

Upside risks: 1) stronger than anticipated recovery in commercial construction, 2) faster than expected recovery in mineral fiber AUV, 3) stronger than expected economic growth in North America, 4) an unexpected decline in COVID-19 cases, 5) faster than expected return to the office, 6) strong municipal spending on R&R for schools and other projects.

Analyst Certification

I, Rafe Jadrosich, 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 - Homebuilders and Building Products Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Armstrong World Industries, Inc.	AWI	AWI US	Rafe Jadrosich
	Builders FirstSource Inc	BLDR	BLDR US	Rafe Jadrosich
	D.R. Horton, Inc.	DHI	DHI US	Rafe Jadrosich
	Latham Group, Inc.	SWIM	SWIM US	Shaun Calnan, CFA
	Leslie's	LESL	LESL US	Shaun Calnan, CFA
	NVR, Inc.	NVR	NVR US	Rafe Jadrosich
	Owens Corning	OC	OC US	Rafe Jadrosich
	PulteGroup Inc.	PHM	PHM US	Rafe Jadrosich
	The AZEK Company Inc.	AZEK	AZEK US	Rafe Jadrosich
	Toll Brothers, Inc.	TOL	TOL US	Rafe Jadrosich
	TopBuild Corp	BLD	BLD US	Rafe Jadrosich
	Trex Company, Inc.	TREX	TREX US	Rafe Jadrosich
NEUTRAL				
	Dream Finders Homes, Inc.	DFH	DFH US	Rafe Jadrosich
	KB Home	KBH	KBH US	Rafe Jadrosich
	Lennar Corporation	LEN	LEN US	Rafe Jadrosich
	Smith Douglas Homes Corp.	SDHC	SDHC US	Rafe Jadrosich
UNDERPERFORM				
	Fortune Brands Innovations Inc	FBIN	FBIN US	Rafe Jadrosich
	Hayward Holdings, Inc.	HAYW	HAYW US	Rafe Jadrosich
	Masco Corp	MAS	MAS US	Rafe Jadrosich
	Mohawk Industries	MHK	MHK US	Rafe Jadrosich
	Patrick Industries, Inc.	PATK	PATK US	Rafe Jadrosich
	Pool Corporation	POOL	POOL US	Shaun Calnan, 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

iQmethodSM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and valuations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

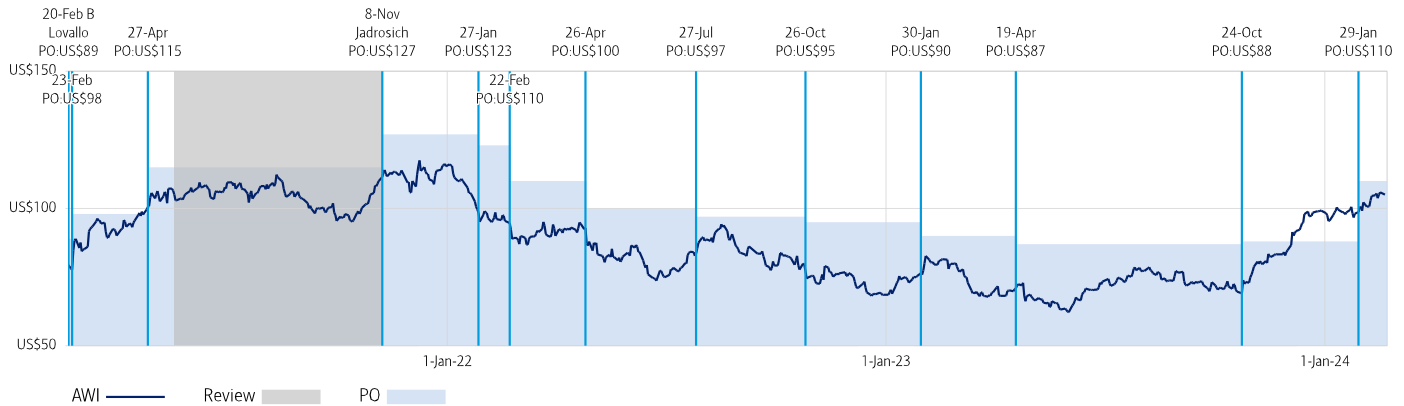
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Disclosures

Important Disclosures

Armstrong World (AWI) 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: Building Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	39	44.83%	Buy	22	56.41%
Hold	18	20.69%	Hold	11	61.11%
Sell	30	34.48%	Sell	8	26.67%

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.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

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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