MOODY'S INVESTORS SERVICE

SECTOR IN-DEPTH

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Building Products – US

Lower housing starts, moderation in repair & remodeling prompts caution, not crisis

» Lower demand for building products on materially lower housing starts. We project contraction in new single-family housing starts to around 821,000 in 2023, about 18.5% below 2022, in response to rising mortgage rates and weakening demand, but improving slightly in 2024. Unemployment is rising to 4.6% in 2023 from 3.7% in 2022.

» Market conditions also give pause to repair and remodeling expansion. Contractors generally expect remodeling activity to decline this year, relative to 2022, as indicated by the remodeling market index. We estimate that R&R (repair and remodeling) overall will contract by about 8% - 10% this year, potentially recovering modestly in 2024. Nondiscretionary, higher-return projects, such as roof repair and replacement, remain the sector's primary revenue driver. Customers prioritize home improvements based on need and cost-effectiveness.

» Lower demand means companies' margins will contract. Building product companies reaped unprecedented profits during 2021-2022, benefiting from high volumes and resulting operating leverage. Lower demand means maintaining similar margins will be difficult. Previous price hikes to cover higher personnel, energy and transportation costs provide some offset to reduced volumes. Falling raw material costs also offer a source of savings.

» Companies overspending on acquisitions or shareholder returns is the greatest credit risk for the sector. How companies use capital for acquisitions and shareholder compensation (share repurchases or large dividends) poses event risk for the building products sector. Material debt-financed dividends could adversely affect ratings.

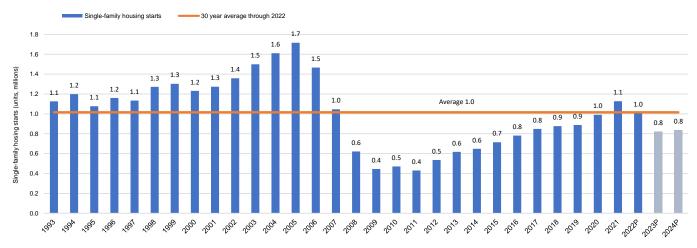
» Sector liquidity in good shape, with many companies having extended maturities and refinanced at lower rates. Springing covenants under revolvers and "covenant-lite" term loans allow companies to focus on improving operations and investing in future growth, while also contending with economic uncertainty. Revolver availability and no near-term maturities are the key sources of liquidity.

Most building products companies are well positioned to contend with the slowdown in new singlefamily housing starts

Homebuilding in the US is the main source of revenue for some companies within the US building products sector. Our <u>homebuilding</u> <u>analysts project</u> a meaningful drop in single family home construction of 18.5%, to a level representative of a five year average before the pandemic, as homebuilders continue to actively realign construction to lower demand. We expect a slight pickup of 2% in new single family housing construction in 2024 as demand and the market rebalances (see Exhibit 1).

Exhibit 1

New single-family home starts forecast to drop to 821,000 this year, from around 1.0 million last year Forecast through 2024



Source: U.S. Census Bureau; Moody's Analytics

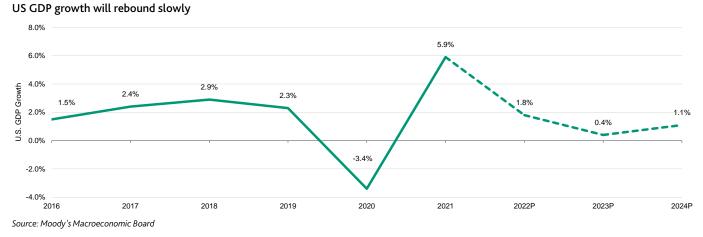
Stretched affordability because of robust home price appreciation and rising interest rates, inflation pressures, reduced disposable income and stock market volatility are risks that will contribute to moderation in housing demand in 2023. Further contributing to home construction are remote/hybrid work arrangements that drive migration from cities to suburbs and exurbs, as well as Millennials forming families. This is despite our expectation of some further interest rate increases this year and unemployment rising to 4.6% from 3.7% in 2022.

Companies directly involved with home construction — such as <u>Eagle Materials</u>' (Baa2 stable) drywall business, <u>Owens Corning's</u> (Baa2 positive) insulation segment, <u>Cornerstone Building Brands</u>' (B2 stable) window and siding operations, as well as <u>TopBuild</u> (Ba1 stable) and <u>Installed Building Products</u> (IBP, Ba2 stable) — will experience significant contraction in revenue and resulting earnings due to lower demand. <u>Builders FirstSource</u> (Ba1 stable) and <u>84 Lumber</u> (Ba2 stable), distributors of lumber and related products, will also be negatively impacted. However, these companies are generally well positioned relative to their respective ratings to handle the current downturn in new housing starts. As an example, the TopBuild's EBITDA, based on the last twelve months ended September 30, 2022 and no material change in debt, would have to contract by almost 40% to reach 3.0x leverage, the trigger that could result in downward rating pressure. Likewise, Builders FirstSource has even more headroom under its 3.0x leverage trigger, needing to experience a 73% decline in its EBITDA. Builders FirstSource is currently under levered, with adjusted debt-to-EBITDA of only 0.8x on September 30, 2022.

Economic pressures persist, but are waning slowly. Our <u>Global Macro Outlook</u> projects US GDP growth for 2022 was 1.8%, flat for 2023 but improve by 1.1% in 2024. All those figures are down considerably from 5.9% growth in 2021 (see Exhibit 2). While the economic environment will be volatile in the coming year, relative stability could emerge in 2024 if governments and central banks manage to navigate their economics through the current challenges. Non-discretionary building products, regardless of economic conditions will always be a source of strength.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Exhibit 2



Reduced demand means companies will experience margin contractions

The US market is the main revenue source for domestic building products companies and related distributors. During 2021 and early 2022, building product companies enjoyed unprecedented profitability, benefiting from high volumes and resulting operating leverage. Maintaining margins will be difficult for manufacturers with high fixed costs in the face of reduced demand, producing operating margin volatility. Overall, we expect margins for the sector to be reduced, with some declines being material. However, margins declines should stabilize over the next year.

As an example, we forecast Owens Corning's adjusted EBITDA margin will approach 20.9% by late 2024, versus 23.8% for 2022. <u>Masco's</u> (Baa2 stable) adjusted EBITDA was 17.9% for the 12 months ended September 30, versus 19.5% for 2021. <u>Stanley Black &</u> <u>Decker</u> (Baa2 negative) is experiencing a more precipitous decline in operating performance. We project Stanley's EBITA margin for 2022 was 5.8% versus 12.5% for 2021. That figure should improve to 7.9% for 2024, Our forward view for Stanley includes \$1 billion savings from a restructuring program and lower-cost inventory being sold (another \$200 million in reduced cost of goods sold) than in previous years.

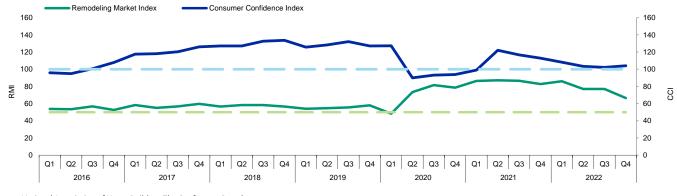
Building material distributors have more of a variable costs than manufacturers and can flex their expenses relative to demand, while maintaining margins. One such company is IBP, where we forecast adjusted EBITDA margin of 15% over the next two years, versus 16.2% (inclusive of high lumber prices) for the 12 months through September 30. We expect adjusted EBITDA margin in the range of 12.5% - 15% through 2023 for <u>Park River Holdings (B2 negative</u>), operating as PrimeSource Brands — near the company's 2021 performance.

Repair and remodeling activity moderating

The construction end market, both professional and do-it-yourself, is at risk for less discretionary spending in 2023. We estimate repair and remodeling overall will contract by about 8% - 10% this year, potentially growing modestly in 2024. We also consider trends in the National Association of Home Builders (NAHB) Remodeling Market Index, which gauges remodeling contractors' expectations of demand over the next three months. The index trended down in the fourth quarter of 2022 to 66.4, from 76.8 in the Q3 2022. Index readings above 50 indicate most contractors surveyed believe market conditions are expanding. Also, The Conference Board's US consumer confidence index was 104 (readings over 100 indicate increase in consumer confidence) in December 2022. There is a substantial correlation between consumer confidence and the remodeling market index (see Exhibit 3).

Exhibit 3

Repair & remodeling market index shows moderation



Source: National Association of Home Builders, The Conference Board.

A risk to consumer spending is inflation lowering discretionary income. Consumers are facing higher costs for a range of basic goods: food, clothing, fuel for vehicles and homes, health care. Also, many households face the prospect of paying more on adjustable mortgages and credit cards with the Federal Reserve raising interest rates. Stock market volatility is also resulting in reduced personal and retirement savings. These factors are likely to diminish consumer confidence over the next several months, which could also dampen home remodeling demand.

Product type influences companies' resilience during a downturn

While the building products sector continues to perform well, companies' product mix determines growth potential, effects on revenue, and operating performance in the inevitable downturn. Demand across the spectrum of repair and remodeling goods varies by project type (see Exhibit 4).

Exhibit 4

Demand continuum for repair & remodeling products



Source: Moody's Investors Service

Some home repairs — like fixing a leaking roof — are necessary and must be done quickly, so demand for roofing materials tends to be resilient. Residential roofing repair is a pocket of stability within the sector and provides a steady stream of earnings and less demand volatility because of their non-discretionary nature. The upfront costs for roof repair or replacement are worth the investment compared with the potential cost of repairing long-term damage from water infiltration.

New Construction

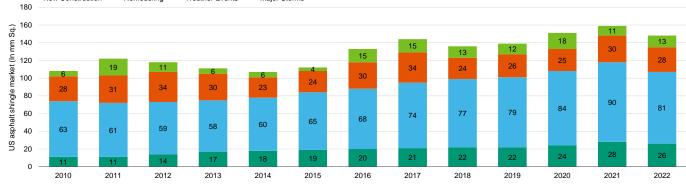
This benefits companies such as Compagnie de Saint-Gobain (Baa1 stable), subsidiary CertainTeed, Standard Building Solutions (Ba3 stable), formerly Standard Industries, as well as Owens Corning, which relied on the strength of its roofing business to offset weakness and operating losses in other segments during the Global Financial Crisis (see Exhibit 5).

Exhibit 5



Weather Events

Major Storms



Source: Owens Corning

TAMKO Building Products (B1 stable) and the three biggest roofing distributors, ABC Supply (Ba2 stable), Beacon Roofing (Ba3 stable) and SRS Distribution (B3 stable), will continue to benefit from strong fundamentals. Storm activity adds some unpredictability, but we believe demand for roofing material and related products will remain strong in 2023, though somewhat lower relative to last year. Inelastic demand for roofing material is a tremendous offset by the volatility in price for oil, a key material for roof shingles, and other input costs such as energy. Further, we believe price increases can be passed to consumers, because roof repairs cannot be delayed.

New plumbing products are also essential if there are leaks. Masco's two primary businesses — plumbing and decorative architectural (paints and stains) — and Fortune Brands Innovations Inc.'s (Baa3 positive) plumbing products business showed resilience during periods of economic uncertainty, compared with other building products such as cabinets and windows. They are also an inexpensive way to spruce up a kitchen or bathroom. Meanwhile, painting is a cheap and easy do-it-yourself way to refresh a house. Also, a home for sale is often painted before going on the market and repainted once new owners take possession.

We also expect Lennox (Baa2 stable), a manufacturer of heating and air conditioning systems, will perform well. Heating systems are replaced as soon as possible, especially by homeowners in cold climates. Air conditioning systems may not be repaired as immediately since there are suitable options, such as window units or fans. However, faulty air conditioners will be repaired or replaced eventually, not only for comfort, but to enhance a home's value. Ferguson plc (Baa2 stable), a distributor of heating and plumbing materials, also benefits from inelastic demand for its products.

Beyond roofing, plumbing and HVAC, many other home repair and remodeling projects can be postponed. Manufacturers catering to more discretionary needs generally saw a greater decline in demand during the last downturn, as homeowners delayed or avoided projects, such as kitchen and bathroom renovations or energy-efficiency improvements. Fortune Brands' cabinets, Cabinetworks (Caa1 negative), CP Atlas Buyer (B3 stable), known as American Bath, and other cabinetry and bathroom companies are most susceptible.

Nonresidential new construction is softening, but offers stability long term

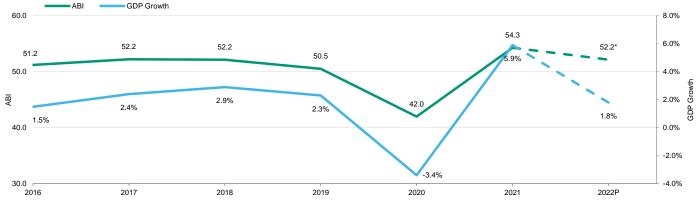
Building products companies also derive revenue from nonresidential construction, which has shown long-term stability with growth potential. We expect a 0.6% increase in total US construction spending this year, relative to 2022, with some impact from the \$1 trillion infrastructure bill voted into law in November 2021 (see Exhibit 6). Healthy recovery in public and nonresidential construction will drive spending higher. We believe the growth in this sector will come from warehouses and other institutional structures, which will benefit the roofing business of Carlisle Companies Inc. (Baa2 stable) and Quikrete (Ba2 stable). Mueller Water (Ba1 stable) and Advanced Drainage's (Ba1 stable) pipe business will benefit too, as water flow and drainage are critical to any construction project.



Exhibit 6 Infrastructure spending forecast through 2023

Our performance expectation for nonresidential construction also considers trends in the American Institute of Architects' Architectural Billings Index, or ABI, a key indicator of expectations for construction projects over the next 9 - 12 months (see Exhibit 7). The ABI fell in November to 46.6, versus 47.7 for October, and markedly lower than 51.0 for November 2021. These figures show the seasonality in the construction business. We would anticipate monthly results in the winter to be lower than the yearly average (Exhibit 7). Index readings below 50 indicate an aggregate reduction in billings. <u>Core & Main</u> (Ba3 stable), <u>Foundation Building Materials</u> (B2 stable) and <u>White Cap</u> (B2 stable), distributors that rely on nonresidential construction as their main revenue driver, will gain from this sector whether there is new construction or renovating and remodeling of existing buildings.

Exhibit 7 ABI index indicates some softening for nonresidential construction



* First 11 months average for FY 2022

Source: The American Institute of Architects and Moody's Macroeconomic Board

How companies deploy their capital presents greatest risk for sector

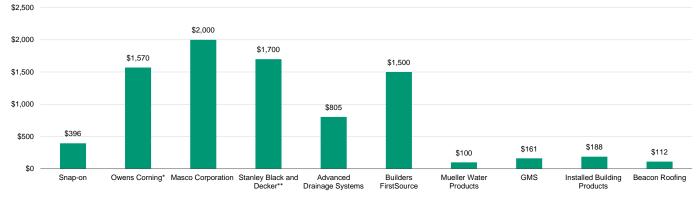
A risk to building products companies and related distributors' credit metrics is how they use capital for acquisitions and shareholder compensation via repurchases or dividends.

Companies generally have potential acquisitions as part of their growth strategies and the distribution space is ripe for consolidation. <u>SRS Distribution</u> (B3 stable), for an example, continues to buy roofing and pool goods distributors, after having acquired AquaCentral in January 2022, becoming the second-largest distributor of pool-related products in the US. Beacon Roofing already bought two companies during the first week of this year. Builders FirstSource expanded its capabilities to manufacture floor and roof trusses by acquiring two companies in September 2022 for about \$400 million, funded with cash on hand and borrowings on its revolving credit line. We expect these, as well as other distributors, to continue pursuing bolt-on acquisitions.

Other companies are streamlining their businesses and using proceeds from asset sales for debt reduction. Stanley sold its Electronic Security & Healthcare Businesses in mid-2022 for \$3.2 billion, allowing it to focus on its tools, accessories and outdoor products. Likewise, Fortune Brands in December completed the separation of its cabinet business (Masterbrand Inc.), receiving a one-time \$940 million cash payment.

Share repurchases for large publicly-traded companies loom large. As of September 30, Stanley had repurchase authorization for around 20 million shares, which could cost upwards of \$1.7 billion (assuming \$85 per share), though we do not expect any buybacks in the near future. In late November, Builders FirstSource authorized \$1 billion in share repurchases, having alredy bought about \$3.6 billion since the beginning of 2021 (see Exhibit 8 for a breakdown of some companies' remaining authorization for share repurchases). We expect share repurchases to continue, with lower stock prices making them more favorable.





Building product companies have plenty of capacity to buy back shares Remaining authorization for share repurchase of select building product makers (\$ in millions)

*Owens Corning: 17.4 million shares assuming \$90.00 per share ** Stanley Black & Decker: 20.4 million shares assuming \$85.00 per share Source: Most recent company filings

From the beginning of 2015 through Q3 2022, Masco spent about \$5.5 billion for share repurchases. Over the same period Owens Corning spent about \$2.0 billion and has said it aims to return about 50% of cash generated from operations, after capital expenditures, to shareholders. Advanced Drainage completed almost half of its \$1 billion stock repurchase program initiated in February 2022 by the end of Q3 2022. This is capital that could otherwise be used to enhance liquidity, for potential acquisitions, or for debt reduction.

We also believe family-controlled companies will continue to pay dividends. ABC Supply, 84 Lumber and Standard Building Solutions, for example, have significant capacity to incur debt for dividends. Each has paid dividends in the past and more are possible, which is a credit challenge and weighs heavily on their ratings because of the uncertainty regarding timing, size and the type of financing.

Partial sale of a company versus outright sale is another way owners reap rewards. TAMKO's founding family retains control, but affiliates of The Carlyle Group have a significant, non-controlling interest. <u>Kodiak BP</u> (B1 stable), a national distributor of building materials and provider of construction services, is majority owned by Court Square Capital Partners (CSC), while management, including a founding member, retains a minority interest.

Private equity owners will look for opportunities to monetize investments through debt-financed dividends, utilizing revolver credit facilities and avoiding the capital markets. Such actions could cause significant deterioration of credit metrics and affect a company's long-term ratings. LBM Acquisition (B3 stable), dba US LBM, utilized its revolver to pay a \$650 million debt-financed dividend to owner, Bain Capital Private Equity LP, using revolving credit facility borrowings. This dividend monetized all of Bain's remaining equity investment in US LBM and led US LBM rating to be downgraded from B2 to B3 in late November 2022.

Liquidity buys time, flexibility to face moderating conditions

Liquidity at rated US building products companies is relatively good. Companies extended debt maturities when rates were low, with many facing no substantial long-term maturities other than revolvers — which we expect would be extended. Also, leverage profiles, especially for higher rated issuers, are well positioned to contend with some softness in their respective end markets.

Most companies have "covenant-lite" structures. Revolving credit facilities generally have only springing fixed-charge coverage tests, and building products companies and related distributors should maintain enough borrowing capacity to avoid testing those covenants. For companies that recently refinanced their capital structures at substantially lower interest rates, lower debt-service requirements will also bolster free cash flow generation. Advantageous bank facilities, along with leaner cost structures, give building products companies more flexibility. This allows companies to focus on positioning themselves for growth amid ongoing economic and global uncertainty. Rising interest rates will stress cash generation for companies that rely on term-loan financing. Companies with low ratings will be particularly affected, since high interest costs are already making material cash generation difficult such as <u>ACProducts Holdings, Inc.</u> (Cabinetworks, Caa1 negative), whose large and rising interest burden was one reason cited for its negative rating action. Refinancing term debt at higher rates will further stress cash flow.

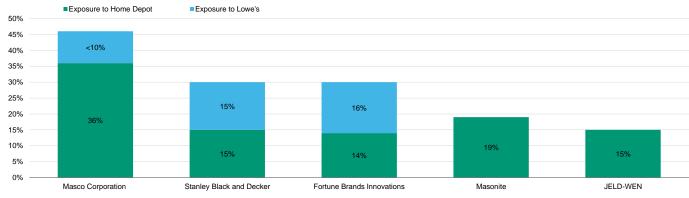
Home improvement retailers create distribution channel concentration

A presence in <u>Home Depot</u> (A2 stable) and <u>Lowe's</u> (Baa1 stable) is necessary for many building products companies' business models, though it creates distribution-channel risk. These retailers are high-volume purchasers with strong bargaining power, making it tough for building product companies to implement price increases and expand margins. Sales could also decline if the retailers engage in inventory destocking, especially when home centers are consolidating relationships and reducing suppliers.

Exposure to each home center differs by company (see Exhibit 9 for figures as reported by the respective companies in recent 10-K filings). Masco has significant exposure to Home Depot, which accounted for 36% of its revenue, largely tied to BEHR paint. Stanley Black & Decker is another company with material exposure to home centers, aggregating to about 30% of revenue, with well-known brands such as Dewalt, Black+Decker and Craftsman. Stanley Black & Decker needs the shelf space in the home centers, which offer access to a large number of retail customers.

Exhibit 9

Home Depot, Lowe's represent key distribution channels for many building product companies Exposure for key companies by retailer



Source: Most recent 10-K for each respective company

Appendix

Exhibit 10

Appendix A: US Building Products Manufacturers, Ratings

ompany	Current Rating (as of January 18, 2023)	Outlook	Lead Analyst
Snap-On	A2	Stable	Peter Doyle
Acuity Brands	Baa1	Stable	Natalia Gluschuk
Guardian Industries	Baa1	Stable	Emile El Nems
Owens Corning	Baa2	Positive	Peter Doyle
Allegion	Baa2	Stable	Griselda Bisono
Carlisle	Baa2	Stable	Griselda Bisono
Lennox	Baa2	Stable	Natalia Gluschuk
Masco	Baa2	Stable	Peter Doyle
Crane	Baa2	RUR*-DNG	Emile El Nems
Stanley Black & Decker	Baa2	Negative	Peter Doyle
Fortune Brands	Baa3	Positive	Griselda Bisono
Kennametal	Baa3	Stable	Emile El Nems
Advanced Drainage	Ba1	Stable	Peter Doyle
James Hardie	Ba1	Stable	Natalia Gluschuk
Masonite	Ba1	Stable	Natalia Gluschuk
Mueller Water	Ba1	Stable	Peter Doyle
Southwire	Ba1	Stable	Scott Manduca
Quikrete	Ba2	Stable	Emile El Nems
Resideo	Ba2	Stable	Natalia Gluschuk
AZEK	Ba3	Stable	Natalia Gluschuk
JELD-WEN	Ba3	Stable	Natalia Gluschuk
PGT	Ba3	Stable	Natalia Gluschuk
Standard Industries	Ba3	Stable	Peter Doyle
Mannington Mills	B1	Stable	Griselda Bisono
MI Windows and Doors	B1	Stable	Natalia Gluschuk
ТАМКО	B1	Stable	Peter Doyle
WireCo	B1	Stable	Nirali Patel
Associated Materials	B2	Stable	Griselda Bisono
Alliance Laundry	B2	Stable	Justin Remsen
Cornerstone	B2	Stable	Emile El Nems
Foley Products	B2	Stable	Nirali Patel
Hyperion Materials	B2	Stable	Nirali Patel
IPS Corp	B2	Stable	Nirali Patel
Janus	B2	Stable	Peter Doyle
Wilsonart	B2	Stable	Griselda Bisono
American Bath	B3	Stable	Motoki Yanase
Chamberlain Group	B3	Stable	Griselda Bisono
DiversiTech	B3	Stable	Justin Remsen
Oregon Tool	B3	Negative	Justin Remsen
Apex Tools	Caa1	Negative	Motoki Yanase
Cabinetworks	Caa1	Negative	Griselda Bisono
Werner	Caa2	Negative	Justin Remsen

Source: Moody's Investors Service

Exhibit 11

Appendix B:US Building Products Distributors, Ratings

ompany	Current Rating (as of January 18, 2023)	Outlook	Lead Analyst
Ferguson	Baa2	Stable	Griselda Bisono
Builders FirstSource	Ba1	Stable	Peter Doyle
SiteOne	Ba1	Stable	Justin Remsen
TopBuild	Ba1	Stable	Peter Doyle
84 Lumber	Ba2	Stable	Peter Doyle
ABC Supply	Ba2	Stable	Peter Doyle
GMS	Ba2	Stable	Peter Doyle
Installed Building Products	Ba2	Stable	Peter Doyle
Wesco	Ba2	Stable	Scott Manduca
Beacon Roofing	Ba3	Stable	Peter Doyle
BlueLinx	Ba3	Stable	Natalia Gluschuk
Core & Main	Ba3	Stable	Griselda Bisono
Kodiak	B1	Stable	Peter Doyle
Foundation Building Materials	B2	Stable	Peter Doyle
U.S. Lumber	B2	Stable	Peter Doyle
White Cap	B2	Stable	Peter Doyle
PrimeSource	B2	Negative	Nirali Patel
Visual Comfort*	B2	Negative	Nirali Patel
Cook & Boardman	B3	Stable	Nirali Patel
Interior Logic	B3	Stable	Nirali Patel
JPW Industries	B3	Stable	Justin Remsen
SRS	B3	Stable	Peter Doyle
U.S. LBM	B3	Stable	Peter Doyle
Associated Asphalt	Caa1	Stable	Justin Remsen

*Visual Comfort methodology: Consumer Durables

Source: Moody's Investors Service

Appendix: Chart Data Details

Exhibit 3: NAHB in January released its RMI survey for the prospects of remodeling activity for the fourth quarter of 2019, a key indicator for the building products sector. The RMI is measured on a scale of 0 to 100 and index readings above 50 signal an expansion in the market while values below 50 indicate weakening conditions. The RMI historically dips in the first quarter of each calendar year when cold weather in the US Northeast and Midwest stalls home improvement activity.

The Remodeling Market Index (RMI) is based on a quarterly survey of NAHB remodeler members that provides insight on current market conditions as well as future indicators for the remodeling market. The Remodeling Market Index is calculated by averaging the Current Marketing Index and the Future Market Indicators Index.

Exhibit 3: The Conference Board Consumer Confidence Index (CCI) is based on consumers' perceptions of current business employment conditions as well as their expectations for a sixmonth period regarding business conditions, employment and income. The CCI uses 1985 (1985 = 100) as a baseline with 40% of the value based on current conditions and 60% based on projected conditions.

Exhibit 5: Source: Owens Corning management estimates based on data provided by Asphalt Roofing Manufacturers Association - Summary of Asphalt Roofing Industry Shipments, National Oceanic and Atmospheric Administration, National Association of Realtors,

U.S. Energy Information Administration, Moody's Analytics, Oxford Economics reports, U.S. Bureau of Labor Statistics and U.S. Bureau of Economic Analysis.

Exhibit 5: A roofing square is an area of roof that measures 10 by 10 feet to make up a total of 100 square ft. A bundle refers to how the asphalt shingle manufacturer packages the product. The package or bundle must be able to be lifted and moved around the roof fairly easily, which is why the manufacturer limits each package to a manageable weight. The contractor will determine the number of bundles needed for a project based on the measurements taken and the number of squares on your roof. Typically, three bundles cover one roofing square.

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- » Homebuilding US: Year of declines in 2023, but homebuilder liquidity and leverage will remain strong, 24 January 2023
- » Building Products US: Elevated risk among discretionary product categories could lead to further downgrades, 24 January 2023
- » Scenario analysis: Homebuilders, building material firms can best cope in downturn, 23 January 2023
- » Housing Advanced Economies: Housing booms are over, with some markets at risk of large price corrections, 8 December 2022
- » Homebuilding US: Revenue, margin will decline with demand in 2023, but stay above pre-pandemic levels, 25 October 2022

Macroeconomic Report

» <u>Global Macro Outlook 2023-24</u>: <u>Global economy faces a reckoning over inflation, geopolitics and policy trade-offs</u>, 10 November 2022

Rating Methodology

- » Distribution & Supply Chain Services Industry
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- » Consumer Durables

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