



2023
Building Products Market Overview
Second Edition



November 2023

Table of Contents

Fourth Quarter Industry Outlook	
U.S. Key Takeaways	1
Building Products Market Overview	3
Residential Market Drivers	4
Nonresidential Building Trends	4
Building Products Manufacturer Spending	6
Building Products Sector Trends	
Drywall	8
Flooring	8
Plumbing	9
HVAC	9
Roofing	10
Insulation	10
Windows and Doors	11
Total Material Value at the Manufacturer Level	12





Fourth Quarter Industry Outlook

Last year FMI altered the base case assumptions for our forecasts to include a multiyear recession. The timing of the recession has stalled in recent quarters, and FMI now finds economic contraction beginning as soon as late 2023 or early 2024. These timing expectations are based on a range of predictive economic indicators with the spotlight on the yield curve. Duration of economic contraction is expected to be dependent on policy response, but as with historical cycles, the impact on the construction industry will likely be longer lasting.

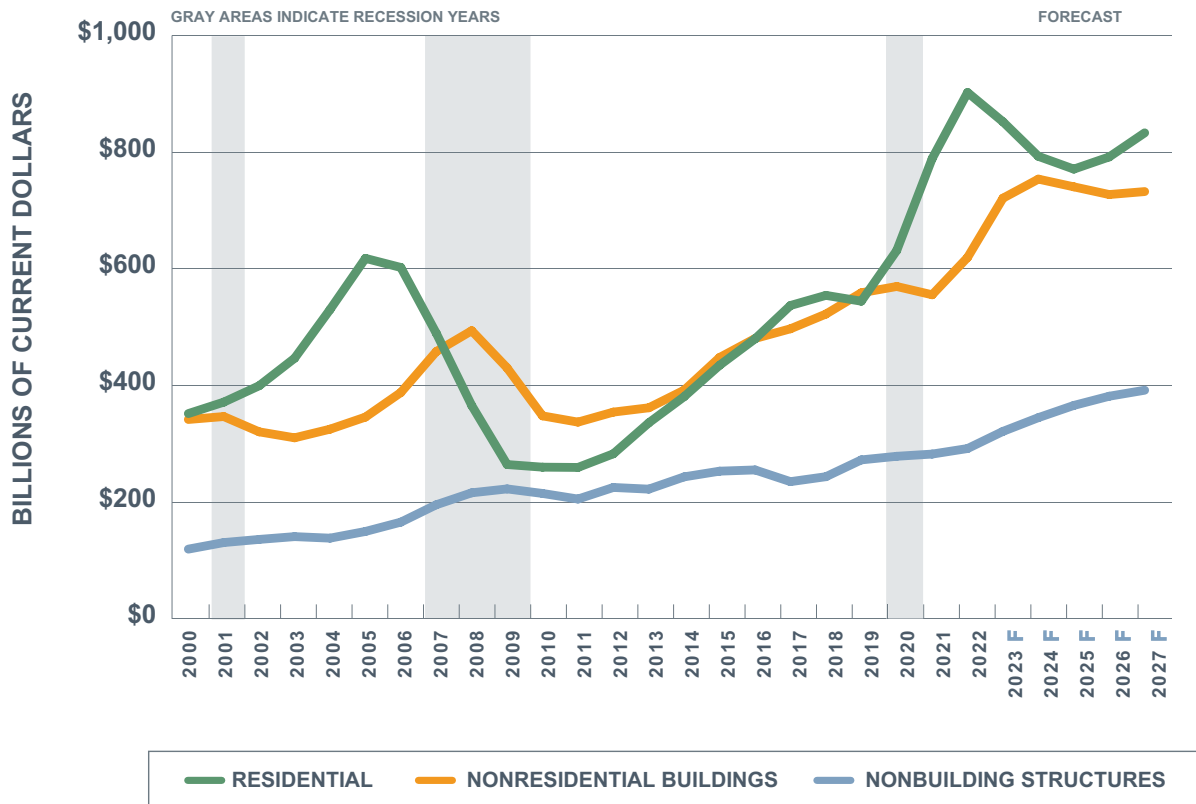
Recent economic factors influencing this forecast include the resumption of student loan payments; a potential forthcoming government shutdown; and the rise in longer-term treasury bond yields, energy prices and the U.S. dollar. These factors are met with continued tightening of lending standards, shortages of labor and key materials, constraints on global logistics infrastructure, and real estate volatility. Inflationary pressures significantly eased through the beginning of the year and appear to have stabilized at high levels due to housing and rising energy costs through the third quarter. Further, labor force participation and unemployment rates have slowly trended higher, while the Federal Reserve appears to be finished (or nearly complete) with interest rate increases through the end of the year. We also considered wartime and economic turmoil in various countries (e.g., Russia, Ukraine, China) adding to strain and uncertainty on each of the items listed above.

[Read the Fourth Quarter 2023 Engineering and Construction Outlook.](#)

Key Takeaways

- Total engineering and construction spending for the U.S. is forecast to end 2023 up 5%, compared to up 12% in 2022.
- Record growth in manufacturing, combined with exceptional growth in various nonresidential and nonbuilding structures segments, will uphold industry spending in 2023. The several segments that are anticipated to reach strong, double-digit growth rates through the end of the year include multifamily residential, lodging, manufacturing, highway and street, sewage and waste disposal, water supply, and conservation and development.
- Religious and communication are the only segments that will grow at roughly the same rate as historical inflation this year, between 0% and 4%.
- Single-family residential will experience a major decline this year from 2022 levels. Falling investment levels across all residential segments, including single-family, multifamily and improvements, are expected through 2026.
- The Nonresidential Construction Index (NRCI) fell to 45.9 in the fourth quarter from 49.8 in the third quarter. This marks the sixth consecutive quarter that the index is less than 50, suggesting ongoing challenges and difficult industry conditions. The reported declines bring stakeholder sentiment back to levels last seen in late 2022.
- NRCI sentiment declined due to weakened perceptions toward the overall U.S. and local economies, engineering and construction business outlooks, backlogs, and ongoing challenges with labor, materials and productivity. Optimism improved in the lodging and office segments, but fell across all others with commercial having the weakest sentiment.

Total Construction Put in Place Estimated for the U.S.



SOURCE: FMI FORECAST Q4 2023

Fourth quarter forecast is based on second quarter actuals and third quarter assumptions.

The background image shows a modern building interior. The ceiling is high and features a complex network of white pipes and ductwork. Large windows on the right side of the frame let in bright, warm light, creating a lens flare effect. The floor is made of light-colored tiles. The overall color palette is dominated by blues and oranges.

Building Products Market Overview

The estimates presented herein represent total material value at the manufacturer level for both new and renovation as well as replacement spending. Key sources combine construction and engineering industry data from RSMMeans and NAHB with government figures reported by the U.S. Census and Energy Information Administration (EIA). Product values consider detailed estimates and analysis on construction put in place, square footage of new and existing buildings, alongside trends and drivers within each of the product categories.



BUILDING PRODUCTS MARKET OVERVIEW

As we look to 2024, building product manufacturers find themselves in a unique position as the construction industry is undergoing a series of significant changes, led by a combination of economic, demographic, environmental and societal trends that have the potential to reshape the building landscape. To thrive in this changing landscape, manufacturers should assess how sustainability initiatives, technological advances and acquisition activities will influence how to position for success.

Energy efficiency and decarbonization remain top-of-mind considerations for public companies focused on environmental, social and governance (ESG) initiatives. These owners continue to view building planning and design as opportunities to improve energy efficiency and reduce carbon emissions. As a result, building product manufacturers are adapting and developing products that align with these considerations. Product innovations highlighting sustainable materials and processes will be an opportunity for manufacturers to remain competitive and align with building owner priorities.

The integration of technology into construction building products is becoming more commonplace. Remote monitoring of products and the inclusion of internet-enabled products provide builders and owners with enhanced capabilities in terms of performance monitoring, predictive maintenance and energy management. Manufacturers are investing in research and development to incorporate these features into their offerings to ensure they remain relevant and competitive.

Acquisition activity in the building products space is expected to be driven by a dual emphasis on adding sustainable products to portfolios and consolidation to enhance competitiveness, broaden product offerings and increase geographic reach. As the industry evolves, manufacturers are considering strategic alliances to secure their positions in the market, keeping an eye on emerging players and potential partnerships to stay ahead.

Residential Market Drivers

The single-family construction market faces continued challenges from high interest rates and affordability concerns. Along with these challenges, there is still a shortage of several million homes in the U.S. To address current challenges, the market has transitioned to smaller, more affordable homes. According to analysis by the U.S. Census and NAHB, median single-family square floor area declined to 2,191 square feet, the lowest reading since the end of 2010. As a result, these homes are focused on cost-effective, energy-efficient building products.

The multifamily construction market, characterized by a substantial inventory of existing units, continues to thrive. Renting remains more affordable than buying in many cities, ensuring consistent demand for units. Products designed for routine maintenance, remodeling and energy-efficient upgrades are sought after. Additionally, with the growth in delivered multifamily units over the last several years, demand for renovations and improvements is anticipated to be favorable over the long term. An interest in modular building for multifamily continues to gain traction due to the shortage of housing, coupled with the ability to expedite project schedules utilizing a factory production approach.

Nonresidential Buildings Trends

Specific subsegments within the nonresidential construction market are leading near-term opportunities for building products. The rapid evolution of artificial intelligence (AI) will propel continued data center construction, providing a substantial growth opportunity in the market. Similarly, the emphasis on sustainability is driving demand for energy-efficient materials and technologies in nonresidential retrofits and renovations, offering a strategic niche for manufacturers. Although warehouse construction is anticipated to experience a slowdown, there is potential for expansion in the burgeoning cold storage sector.

Education and health care are anticipated to provide a stable volume of construction spending over the forecast period. Health care will see demand from large hospital expansions and a resurgence in outpatient facilities. Education spending is being strengthened by the Inflation Reduction Act (IRA) and is expected to experience an increase in energy efficiency programs.

In contrast, while the advanced manufacturing sector surged in 2022 and 2023, driven by high-profile projects like electric vehicle, battery and chip plants, the long-term outlook is uncertain, necessitating a strategic approach to navigating and determining the opportunity for building products in the advanced manufacturing segment.

Looking to 2024 and beyond, the construction industry is lined with opportunities and challenges for participants. Building product manufacturers need to consider the evolving market trends, invest in sustainable and technologically advanced products, and identify attractive avenues for growth. By understanding the unique demands of the single-family, multifamily and nonresidential construction markets, manufacturers can position themselves as product leaders.

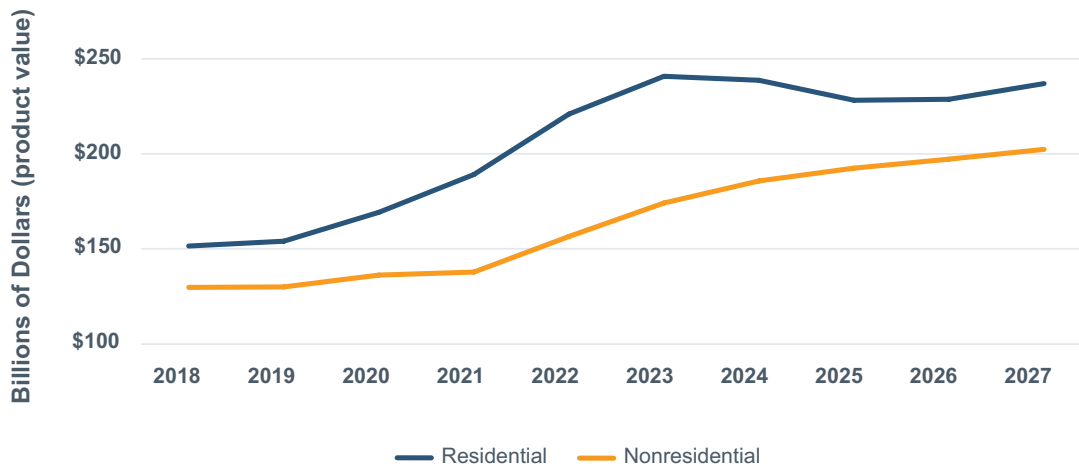


Building Products Manufacturer Spending

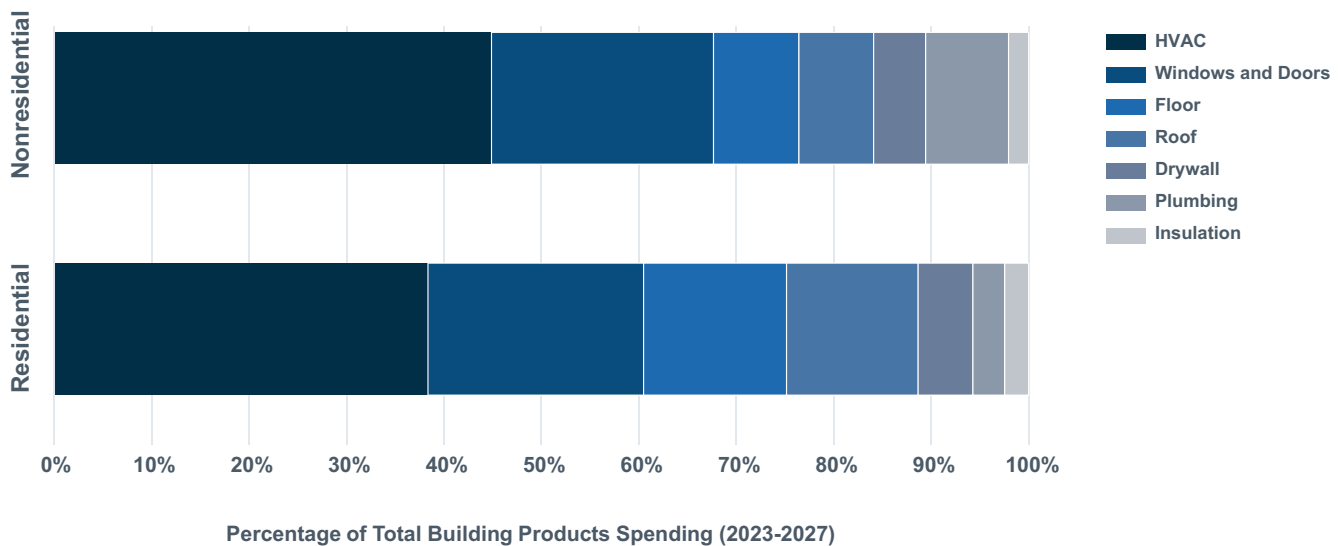
FMI forecasts spending on building products to end 2023 up 5% from 2022 and reach \$391 billion.

- Overall, building products spending is anticipated to experience growth through 2024 with a slight dip in 2025 due to residential spending declines and a return to growth in 2026.
- Residential building product spending experienced favorable growth beginning in 2020 through 2023. A slight year-over-year decline is expected in 2024 with additional declines in 2025. Residential building product spending is anticipated to experience an uptick in 2026 continuing into 2027.
- Spending on nonresidential building products is anticipated to yield year-over-year growth through the forecast period with 2024 experiencing annual growth of more than 6.5%.
- Across both residential and nonresidential building product spending, heating, ventilation and air conditioning (HVAC) is anticipated to represent the largest volume of spending, followed by windows and doors, over the forecast period.
- Windows and doors, roofing and HVAC are expected to yield the highest growth rates over the 2023 to 2027 forecast period.

Residential and Nonresidential Building Products Spending



Distribution of Building Products Spending

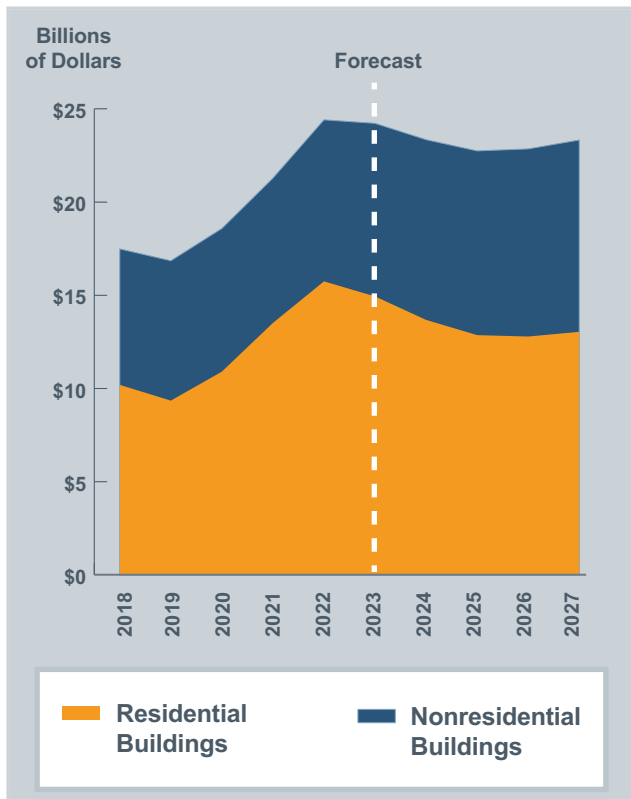




Building Products Sector Trends

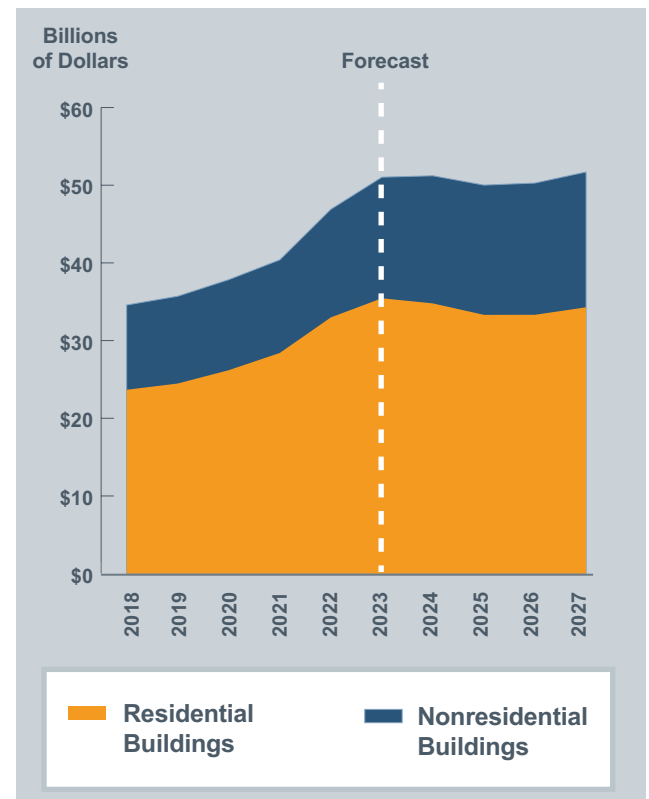


DRYWALL



- Continued declines in residential construction through 2024 and 2025 are expected to limit growth for drywall products since demand is closely tied to housing activity.
- Product development and improvement continue to be driven by durability, impact resistance and acoustics. Additionally, sustainable drywall materials and innovative design that contribute to better insulation will become increasingly important.
- Drywall contractors across the country are continuing to increase the utilization of prefabrication to address challenges with labor shortages, quality inconsistencies and scheduling.

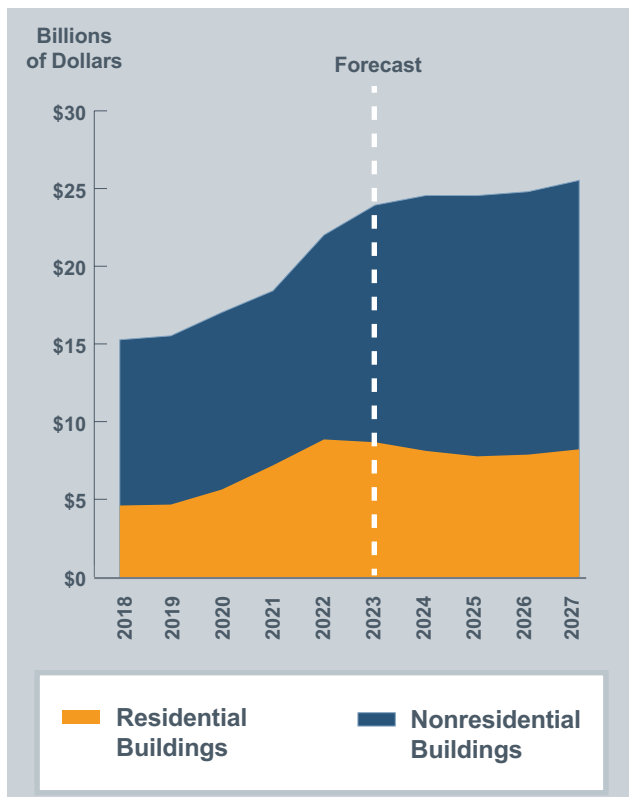
FLOORING



- As organizations increase their return to office policies, higher-end flooring products are expected to benefit as companies upgrade/renovate office spaces. Most of this activity will likely occur as companies upgrade existing Class A space or attempt to move to this category.
- Smart flooring is an emerging technology that incorporates sensors and electronic equipment that can detect pressure and movement. These products will have applications in security, safety and home automation and are expected to increase over the forecast period.
- Coated and polished concrete is gaining popularity in public, high-traffic spaces such as warehouses, retail and government. It is durable, low-maintenance and versatile and provides a modern aesthetic. Additionally, resilient flooring, such as luxury vinyl tile, is also growing in popularity due to its versatility and ease of upkeep.

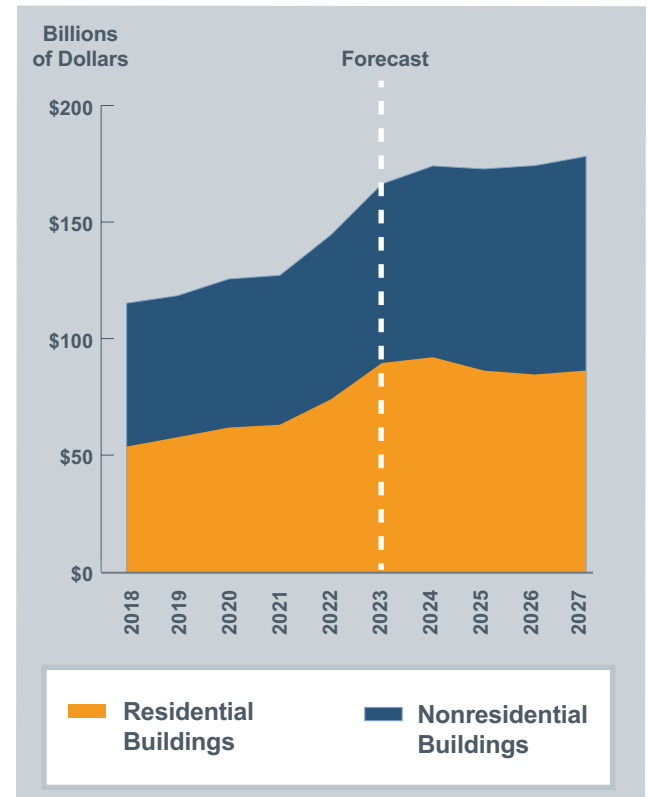


PLUMBING



- Plumbing product spending in the nonresidential sector is anticipated to see favorable growth over the forecast period. Institutional owners are incorporating innovations in plumbing design to support specific needs (e.g., reduced consumption, facility requirements, etc.).
- Demand for plumbing products in the residential market is influenced by repair and replacement spending. With the current emphasis on low-cost inputs for new home construction, it is anticipated that renovations in the five- to 10-year time frame will emphasize upgrading current fixtures.
- Plumbing product designs are being driven by a growing emphasis on reliability, sustainability and ease of use. These are contributing to product developments focused on improved flow rate, remote monitoring and integration with other connected appliances.

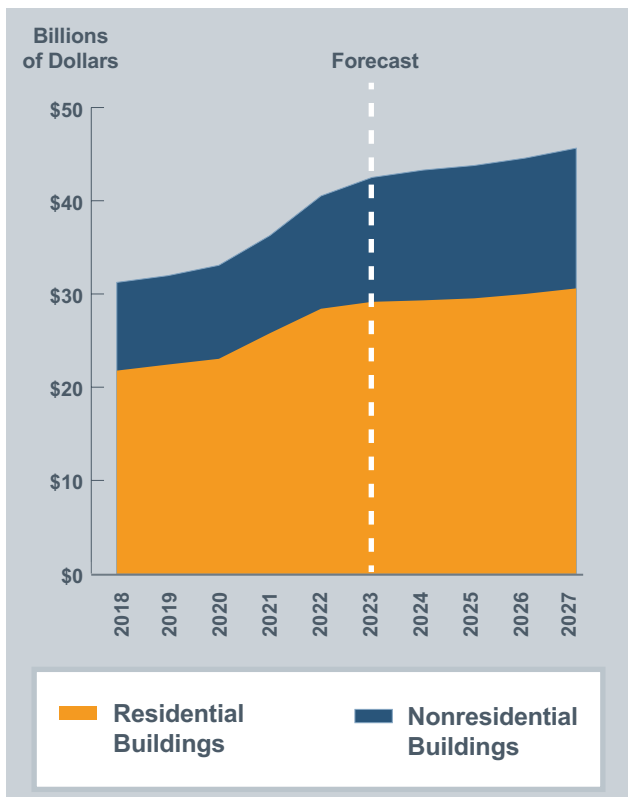
HVAC



- Environmental concerns and sustainability initiatives are consistently cited as current trends influencing the HVAC industry. As these trends continue, product requirements and demands will require the installation of new and evolving product technologies.
- A key end-use market driving HVAC growth is data centers and other infrastructure. As AI becomes more prevalent, cooling and processing requirements will increase.
- Modular HVAC systems are seeing an increase in utilization on large industrial projects, which can be attributed to schedule advantages and quality control. However, transportation, logistics and customization were noted as potential challenges with the adoption of modular HVAC systems.
- Additional influences include government and policy changes. For example, in November 2022, the Las Vegas Valley Water District prohibited new permits for commercial and industrial buildings that plan to use evaporative cooling.

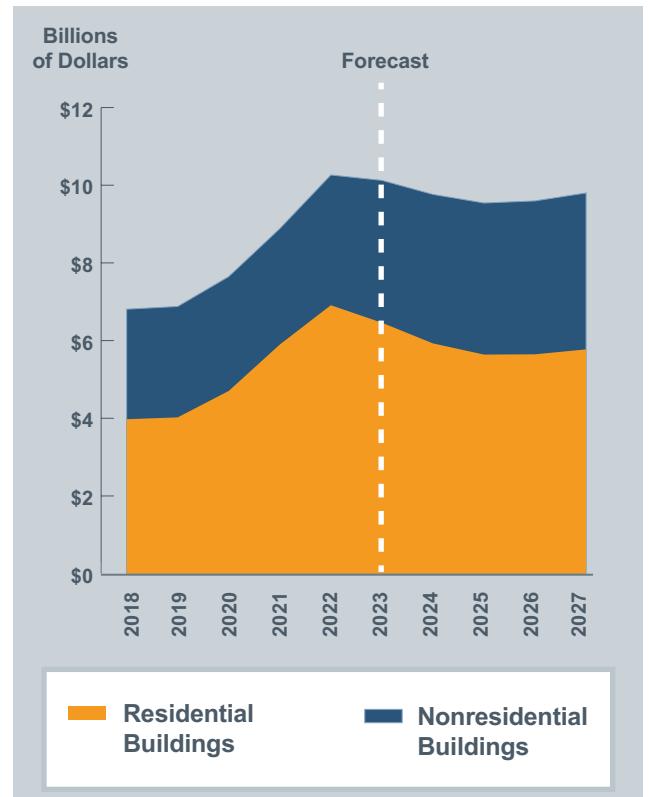


ROOFING



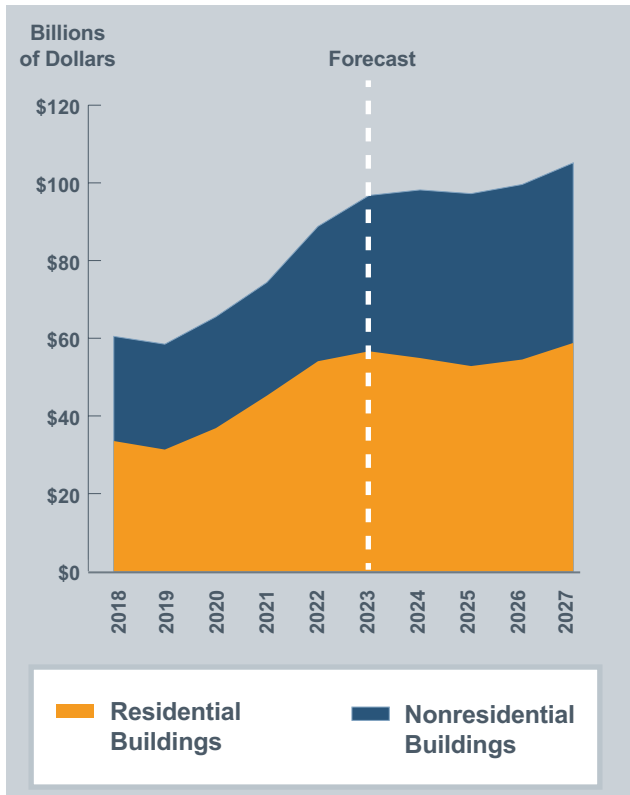
- Across both residential and nonresidential markets, roofing demand will be driven by reroofing and replacement efforts. Reroofing and replacement are expected to represent more than 70% of spending over the forecast period.
- Asphalt shingles remain the top product utilized in the residential roofing market. On the nonresidential side, single-ply roofing continues to lead the market, including thermoplastic polyolefin (TPO), polyvinyl chloride (PVC) and ethylene propylene diene terpolymer (EPDM) roofs. Overpurchasing of single-ply roofing material in 2021 and 2022 has created challenges for manufacturers in forecasting near-term volumes.
- Metal roofing continues to grow in popularity due to its durability and versatility. The increasing frequency and severity of inclement weather make metal roofing more attractive to owners in areas prone to hurricanes, high winds and fire.

INSULATION



- A decline in new home construction will have an adverse effect on the insulation market. However, insulation replacements and upgrades are an increasingly popular way for owners to improve energy efficiency and should help steady demand.
- According to the National Insulation Association, residential owners can save 10% to 45% on energy spending by ensuring the insulation is installed per the 2021 International Energy Conservation Code.
- Continued innovation to improve insulation products is driven by a variety of factors, including the evolving demands of mission-critical facilities that require high-performance insulation to enhance thermal and moisture properties.

WINDOWS AND DOORS



- Window and door spending is expected to grow in residential and nonresidential over the forecast period. Demand for windows and doors continues to be centered around maximizing energy efficiency and decreasing energy costs.
- According to the Internal Revenue Service, homeowners can qualify for a tax credit of as much as \$3,200 for making energy-efficient improvements to their homes, including exterior doors, windows and skylights that meet applicable requirements.
- The window and door space is active with innovations, ranging from impact-resistant and energy-efficient glass to multipoint locking systems and integration with other smart home technologies and the internet of things. Electrochromic glass is one smart glass solution that integrates tinting technology with sensors and cloud-based intelligence to maximize glare control, interior comfort and energy savings.



Total Material Value at the Manufacturer Level

Millions of Current Dollars

	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
RESIDENTIAL										
HVAC	53,657	57,684	61,831	63,038	73,918	89,516	92,009	86,264	84,577	86,302
Plumbing	4,600	4,660	5,630	7,184	8,853	8,672	8,113	7,763	7,876	8,216
Roof	21,779	22,427	23,044	25,793	28,414	29,156	29,314	29,532	30,000	30,599
Drywall	10,195	9,351	10,907	13,517	15,748	14,939	13,681	12,864	12,789	13,039
Floor	23,670	24,471	26,188	28,408	32,982	35,445	34,783	33,309	33,321	34,281
Insulation	3,975	4,023	4,703	5,898	6,910	6,460	5,928	5,640	5,647	5,774
Windows and Doors	33,539	31,338	36,860	45,233	54,087	56,644	54,906	52,834	54,522	58,786
Total Residential	\$151,415	\$153,954	\$169,164	\$189,071	\$220,912	\$240,831	\$238,734	\$228,206	\$228,730	\$236,998
NONRESIDENTIAL										
HVAC	61,526	60,739	63,733	64,091	70,532	76,813	82,078	86,522	89,656	91,890
Plumbing	10,668	10,860	11,400	11,233	13,156	15,262	16,441	16,785	16,923	17,311
Roof	9,463	9,538	10,032	10,475	12,102	13,347	13,974	14,250	14,574	15,040
Drywall	7,293	7,503	7,678	7,769	8,664	9,285	9,667	9,882	10,064	10,289
Floor	10,906	11,238	11,654	11,984	13,916	15,590	16,430	16,704	16,958	17,420
Insulation	2,833	2,856	2,944	2,984	3,353	3,665	3,836	3,902	3,949	4,028
Windows and Doors	26,941	27,136	28,661	29,155	34,705	40,119	43,279	44,397	45,067	46,367
Total Nonresidential	\$129,630	\$129,868	\$136,102	\$137,692	\$156,428	\$174,081	\$185,704	\$192,443	\$197,191	\$202,345

Total Material Value at the Manufacturer Level

Change From Prior Year — Current Dollar Basis

	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
RESIDENTIAL										
HVAC	0%	8%	7%	2%	17%	21%	3%	-6%	-2%	2%
Plumbing	3%	1%	21%	28%	23%	-2%	-6%	-4%	1%	4%
Roof	4%	3%	3%	12%	10%	3%	1%	1%	2%	2%
Drywall	-4%	-8%	17%	24%	17%	-5%	-8%	-6%	-1%	2%
Floor	2%	3%	7%	8%	16%	8%	-2%	-4%	0%	3%
Insulation	3%	1%	17%	25%	17%	-7%	-8%	-5%	0%	2%
Windows and Doors	-3%	-7%	18%	23%	20%	5%	-3%	-4%	3%	8%
Total Residential	0%	2%	10%	12%	17%	9%	-1%	-4%	0%	4%
NONRESIDENTIAL										
HVAC	1%	-1%	5%	1%	10%	9%	7%	5%	4%	3%
Plumbing	4%	2%	5%	-1%	17%	16%	8%	2%	1%	2%
Roof	4%	1%	5%	4%	16%	10%	5%	2%	2%	3%
Drywall	3%	3%	2%	1%	12%	7%	4%	2%	2%	2%
Floor	3%	3%	4%	3%	16%	12%	5%	2%	2%	3%
Insulation	4%	1%	3%	1%	12%	9%	5%	2%	1%	2%
Windows and Doors	3%	1%	6%	2%	19%	16%	8%	3%	2%	3%
Total Nonresidential	2%	0%	5%	1%	14%	11%	7%	4%	3%	3%

The numbers include new, renovation and replacement spending.

ABOUT THE AUTHORS



Paul Trombitas is a partner with FMI's strategy practice and leads the building products sector. Paul is actively involved with clients in developing market strategy and is responsible for managing and delivering in-depth market insights. His unparalleled industry relationships and extensive knowledge of the nuances of building products and manufacturers help clients make data-driven decisions for running their businesses. Paul can be reached at paul.trombitas@fmicorp.com.



Brian Strawberry leads FMI's efforts in market sizing, forecasting, building products and construction material pricing, and consumption trends. He focuses on primary research methods, including the implementation and analysis of surveys and interviews. Brian also leads and manages various external market research engagements, and constructs tools and models for efficiently performing high-quality analyses. Brian can be reached at brian.strawberry@fmicorp.com.



Jim House is a senior consultant in FMI's strategy practice and advises clients across the built environment. He provides FMI's clients with insightful and data-driven analysis to support a broad range of contractors, engineers and building product manufacturers. Jim can be reached at jim.house@fmicorp.com.



Porter Wiley leads FMI Capital Advisors' Building Products team, which focuses on manufacturers and distributors of products and materials used in residential, commercial and infrastructure construction. With two decades of investment banking experience in the industry, he has worked with producers and suppliers of all types of products from the tiles on the floor to the shingles on the roof to the pipes underground. Porter can be reached at porter.wiley@fmicorp.com.



James Holmes is head of FMI Capital Advisors' Chemicals investment banking group based in Denver, bringing clients considerable expertise in sell-side and buy-side mergers and acquisitions advisory services for middle-market specialty chemicals companies. He offers experience in construction chemicals M&A, including adhesives, sealants, coatings, mortars, grouts and foam insulation, which are complementary to building products. James can be reached at james.holmes@fmicorp.com.



FMI is a leading consulting and investment banking firm dedicated to serving companies working within the built environment. Our professionals are industry insiders who understand your operating environment, challenges and opportunities. FMI's sector expertise and broad range of solutions help our clients discover value drivers, build resilient teams, streamline operations, grow with confidence and sell with optimal results.

CONTACT US



RALEIGH HEADQUARTERS
223 S. West Street
Suite 1200
Raleigh, NC 27603



919.787.8400

fmicorp.com

OFFICES

Denver
44 Cook Street
Suite 900
Denver, CO 80206
303.377.4740

Houston
1301 McKinney Street
Suite 2000
Houston, TX 77010
713.936.5400