



2023
Building Products Market Overview
First Edition



June 2023

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Second Quarter Industry Outlook

Last year FMI altered base case assumptions for our forecasts to include a multiyear recession spanning into 2023. As with historical cycles, impact on the construction industry will be longer-lasting.

Economic factors influencing this forecast include the recent banking challenges impacting expectations on lending standards and ongoing consolidation; shortages of key materials and labor across various industries; ongoing strain on global logistics infrastructure; volatility across real estate; Federal Reserve policy; and continued inflationary pressures. 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.

It is important to recognize that FMI anticipates the U.S. economy will fare better than most countries, as reflected by strong demand for labor and the long-term commitment to infrastructure investments. As a result, the engineering and construction industry is expected to play a major role in our economy's foundational strength over the coming years, offering a combination of both challenges and opportunities.

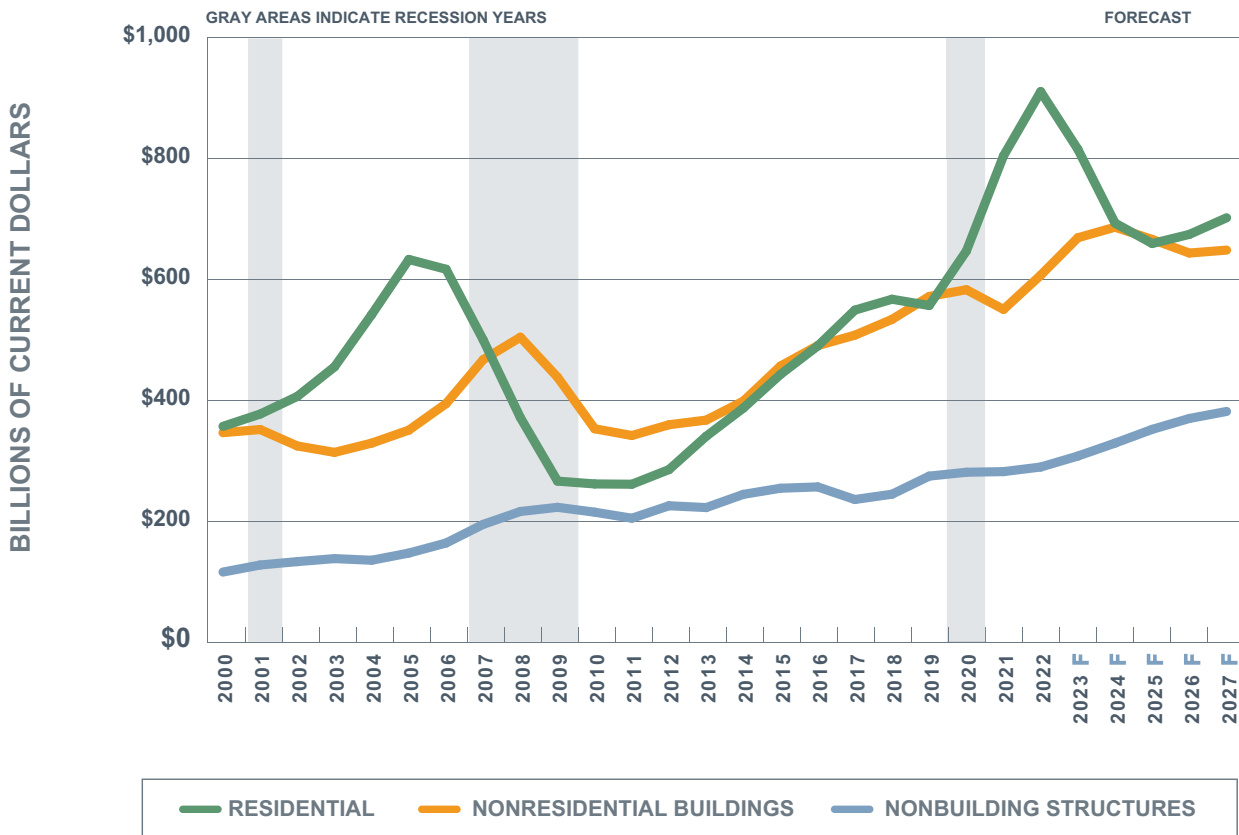
[Read the Second Quarter 2023 Engineering and Construction Outlook.](#)



Key Takeaways

- Total engineering and construction spending for the U.S. is forecast to end 2023 down 1% compared to up 11% in 2022.
- Steep declines in single-family residential and residential improvements will lead a contraction in overall industry spending while most nonresidential building and nonbuilding structure segments are expected to experience growth through 2023.
- Strong investment growth is expected across lodging, commercial, transportation, manufacturing, highway and street, water supply, and conservation and development, each with year-over-year growth rates nearing or exceeding 10%. Additionally, above-average investment growth is anticipated across office, health care, amusement and recreation, and sewage and waste disposal.
- Corrections in residential construction spending are anticipated into 2026, due to softening economic conditions tied to rate hikes and a recession. Consistent with historical industry cycles, similar corrections are expected to bleed over into nonresidential segments beginning late 2023 and into 2024.
- The **latest Nonresidential Construction Index (NRCI)** reflects the fourth straight quarter of ongoing challenges with a reading of 48.0, up slightly from 46.4 in the quarter prior. Sentiment this quarter was slightly improved based on increased optimism toward the overall U.S. economy and local factors impacting the economy and nonresidential industry where participants are operating their businesses. However, the index remains below the growth threshold of 50 and reflects declining engineering and construction opportunities ahead.

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



SOURCE: FMI FORECAST Q2 2023

Second quarter forecast is based on fourth quarter 2022 actuals and first quarter 2023 assumptions.



Building Products Market Overview

The estimates presented herein represent total material value at the manufacturer level for both new and renovation and replacement spending. Key sources combine construction and engineering industry data from RSMeans 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

With **overall U.S. construction spending** expected to decline 1% in 2023 and another 5% in 2024, understanding underlying markets and how tomorrow's dollars will be allocated is critical for building products manufacturers and suppliers to determine what products to offer and/or develop. Based on the trends highlighted below, FMI believes that many may need to shift their approach and assess critical strategic decisions to successfully serve rapidly changing core markets and maintain a competitive edge. The major trends driving both residential and nonresidential building products markets in the coming years are decarbonization of buildings and demand for more cost-effective inputs.

Buildings account for **40% of total U.S. energy consumption**, with a majority attributed to heating, cooling and electrical systems. Offering products that will help reduce the strain on the energy grid while also satisfying shifting regulatory requirements will be critical.

As more organizations pledge to reduce environmental impacts and carbon footprint, owners, designers, engineers and contractors will continue to work together to seek viable solutions. High-impact offerings today broadly include insul-

tation, windows and doors, lighting and heating, ventilation and air systems. By implementing the correct combination of energy-efficient building solutions, owners can make large gains in meeting their environmental objectives while also reducing costs.

Another trend affecting the industry is the rise in sustainable products and materials. This is particularly true for public companies and/or those looking to attract **environmental, social and governance (ESG)-focused** investment. Many of these owners have made public pledges and commitments to meet state or national climate-related goals and commonly seek building components as an important strategy in achieving their commitments. These owners are increasingly looking at building products solutions and materials that can demonstrate lower embodied carbon and/or have environmental product declarations (EPDs).

As a result, investment in research and development is targeting decarbonization and a shift to energy-efficient products. The race is on to meet these new demands. Manufacturers that can evolve their solutions today will be positioned to lead future changes in the industry.



Residential Market Drivers

The housing market is undergoing a shift, with the median home price in the U.S. **dropping through the first quarter** and for the first time since early 2020. However, today, there are about half as many homes listed compared to 2019. Within the last year alone, newly listed homes declined slightly more than 20%.

As the Federal Reserve continues to raise rates in combating higher-than-desired inflation, many would-be buyers are challenged by the low cost of their existing mortgages and are unable to financially justify even a lateral move in monthly payments. This is causing home listings and sales to stagnate and has been disastrous for refinance activity. Conditions also encourage buyers to consider new construction, albeit on a budget, in efforts to seek more options and savings via builder incentives (e.g., rate buydowns).

The decline in buyers' purchasing power is causing homebuilders to look for new ways to cut costs and offer more affordable options. Affordability conditions have encouraged homebuilders to refocus the mix of homes they're delivering, moving volume of deliveries into smaller, less luxurious homes. Additionally, to protect margins, builders have adopted lower-cost inputs and building products (e.g., faucets, doorknobs and other finishings) to minimize delivery costs while also meeting consumer demands.

A rapid increase in home prices prior to 2022 provided many with substantial equity to leverage for renovations and improvements. Though product selection was somewhat dictated by supply chain limitations, homeowners were more willing and equipped to incorporate higher-end products than they previously could rationalize. Now we are starting to see some reversal in these buyer behaviors as other living costs have caught up and home prices in many cases have declined year over year.

FMI anticipates construction put-in-place spending related to residential improvements to drop 8% in 2023 and 14% in 2024, alongside declining demand for luxury finishings. However, homeowners remain focused and interested in ways to reduce monthly and annual expenses by improving the energy efficiency of their homes, driving upholding stability in the market for replacements. There inherently will always be a large inventory of aged/outdated homes.

Manufacturers should consider broadening their portfolio of products to address the trend toward lower-cost and energy-efficient products, as well as meeting the ongoing (albeit handicapped) needs of their luxury and upgrade-oriented customers.



Nonresidential Buildings Trends

As a change of pace, nonresidential buildings will lead construction activity in the coming years, with 10% growth expected **in 2023, followed by 3% growth in 2024**. Strong nonresidential building segments over the next few years include health care, transportation, education, manufacturing and public safety.

Across these segments, many facility owners (particularly those that are owner-occupied) continue to emphasize quality, longevity and durability in their selections of building products since they typically plan for the long term. Conversely, owners in high-growth niche areas of the industry, including data centers and life sciences, are focused on products to help improve speed to market, flexibility and adaptability in their buildings so they can meet fast-paced evolving industry needs and building requirements.

Despite some recent easing, supply chain challenges remain, and the availability of products is still a top consideration in selection. Opportunities have emerged for building products providers when specified items are unavailable and they can quickly offer alternatives to keep or gain market share. Hav-

ing strong partners, reliable sourcing and stable distribution networks will differentiate product manufacturers and help deter competitive pressures stemming from recent supply chain limitations encouraging multisource buying behaviors.

Project complexities continue to expand while schedules compress. As such, the trend toward alternative delivery methods and the rise of prefabrication and modularization remain the solution for improving project efficiencies and deliveries. As these practices evolve, more parties will work closely with manufacturers and suppliers to satisfy unique customer needs, solve project challenges and meet timelines.

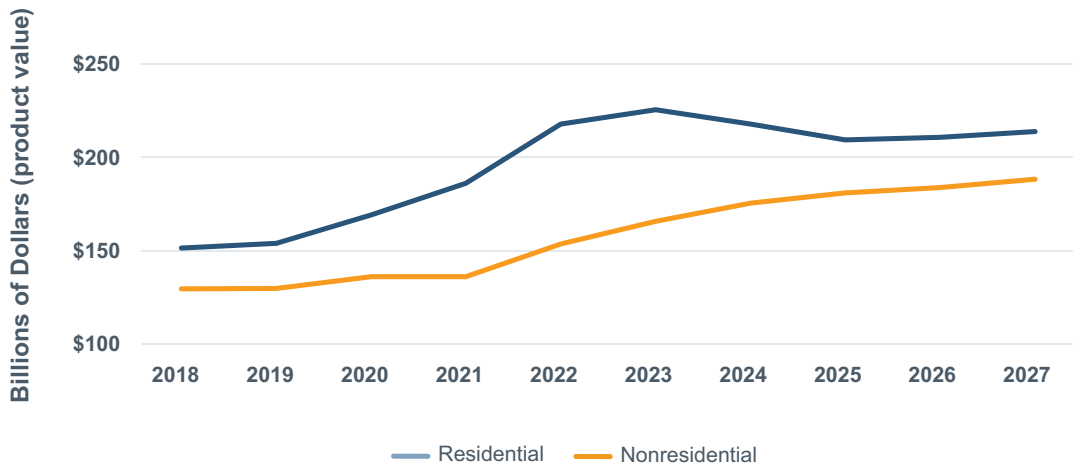
To address today's dynamics and challenges, manufacturers will be pressured to take proactive approaches and position themselves as trusted partners early in the project process to understand customers' project needs. Being a solutions-focused provider is more important than ever and will result in a long-term competitive edge with the ability to influence future decisions and the needs of the built environment.

Building Products Manufacturer Spending

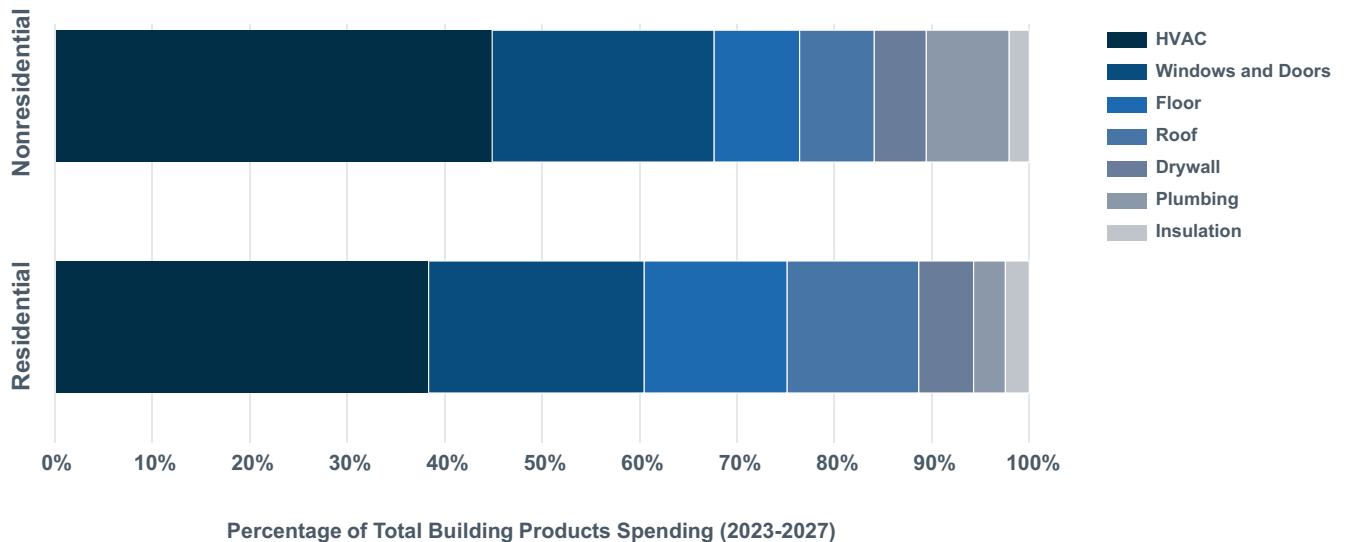
FMI forecasts spending on building products to end 2023 up 5% from 2022 and reach \$391 billion.

- Building products spending in the residential sector is anticipated to experience a year-over-year decline beginning in 2024 through 2025 with a return to growth in 2026.
- On the nonresidential side, spending growth is expected through the forecast period, with year-over-year growth through 2027.
- Over the 2023 to 2027 forecast period, building products spending on HVAC, windows and doors will account for more than 60% of volume.
- HVAC is anticipated to represent the largest volume of spending in both the residential and nonresidential sectors.
- Across building products spending on HVAC, roofing and plumbing is anticipated to yield the highest growth rates from 2023-2027.

Residential and Nonresidential Building Products Spending



Distribution of Building Products Spending

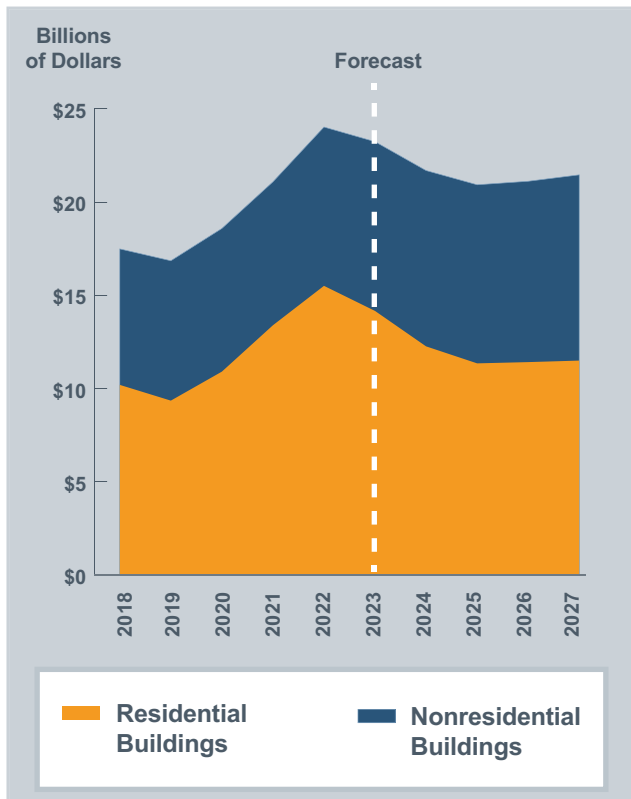




Building Products Sector Trends

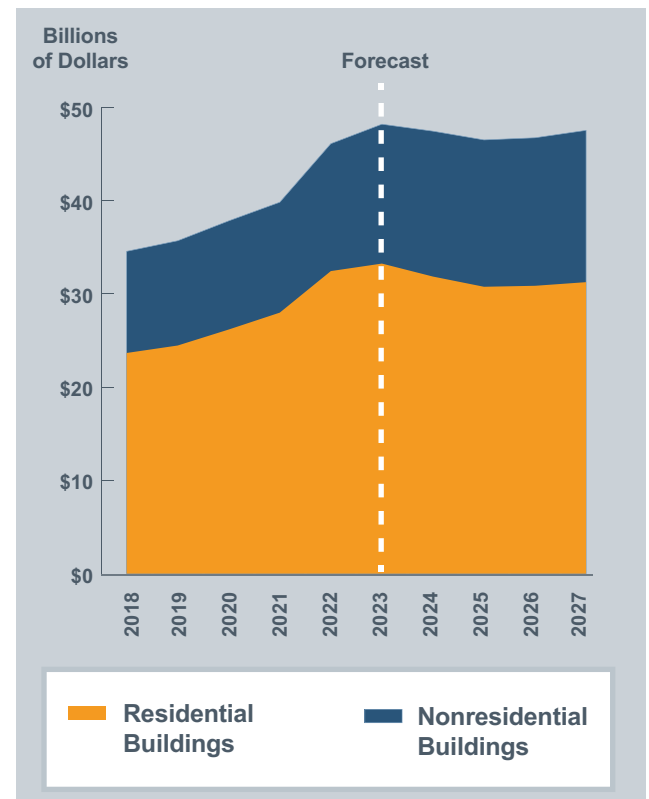


DRYWALL

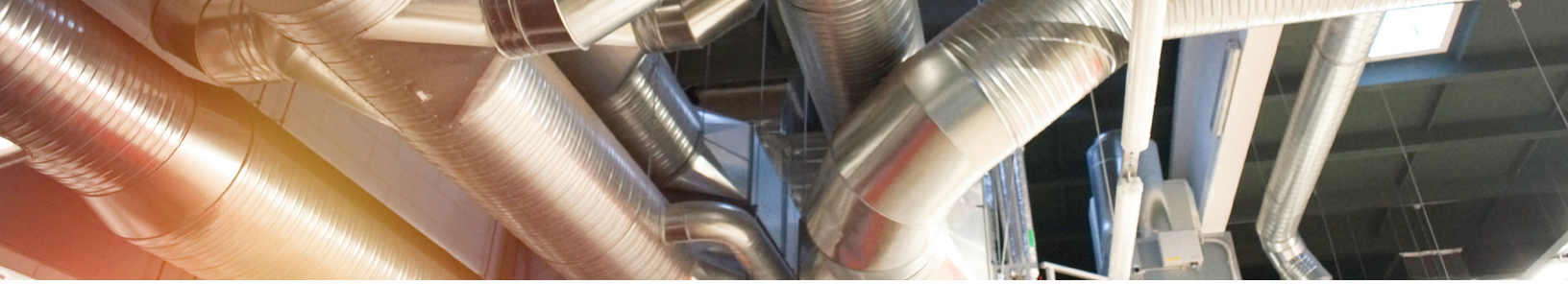


- Declines in residential construction spending are expected to slow growth for drywall products.
- Continued spending in nonresidential construction will provide a stable platform for drywall products over the forecast period.
- Evolving end-user demands and requirements continue to push advances in drywall products with an emphasis on resistive properties (fire and moisture) and energy efficiency.
- Drywall products are continually incorporated in the prefabrication process as the industry looks to better address the demands of increasingly expedited project schedules.

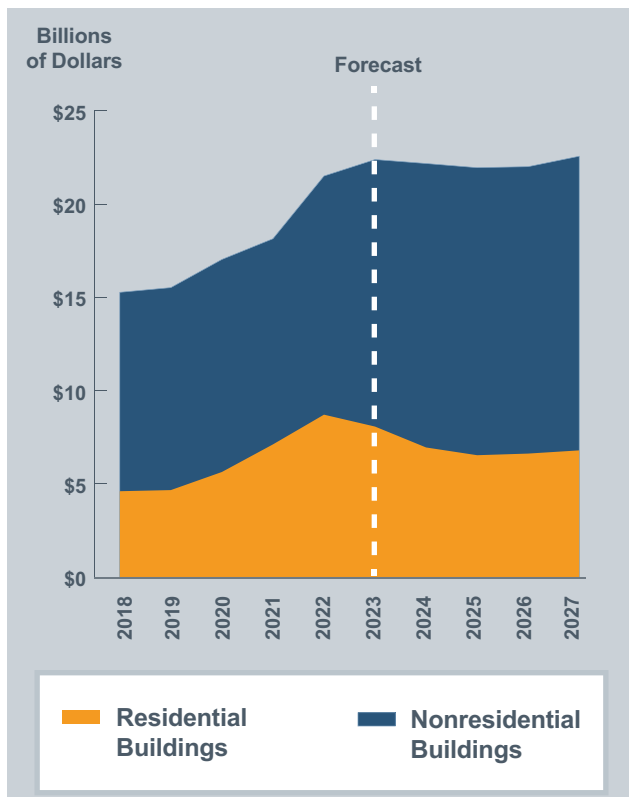
FLOORING



- Growth in large nonresidential facilities in the past several years (warehouse, data centers) and moving forward (high-tech manufacturing) will support continued flooring product spend.
- Hard surface flooring products (luxury vinyl tile) have continued to grow in popularity over soft surface flooring (carpet). Hard surface products are favorable options for high-traffic areas where durability and maintenance are key.
- Demand for smart-flooring technology increased as organizations look to optimize layouts, improve functionality and reduce maintenance costs.

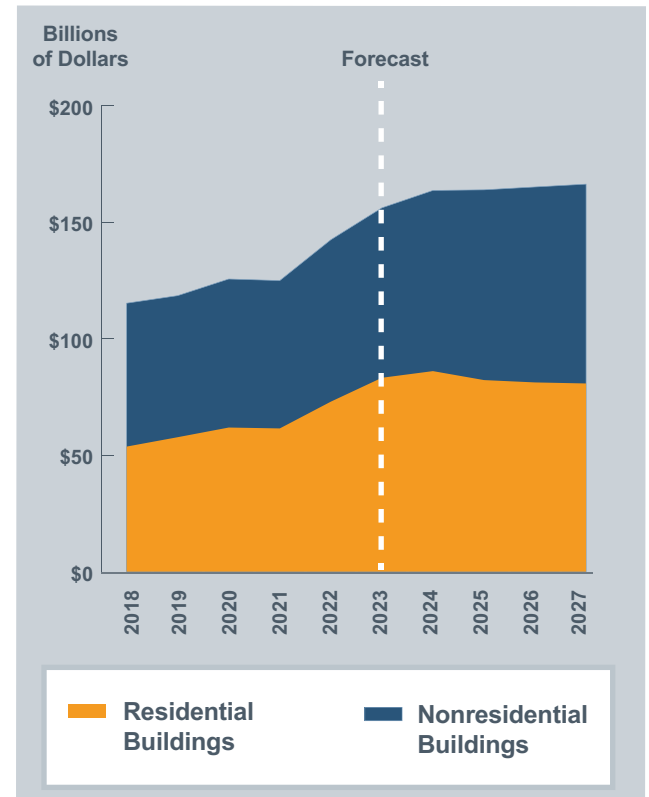


PLUMBING



- Sustainability and water conservation (rainwater harvesting, greywater recycling) are becoming increasingly important considerations for consumers and businesses. These have become critical areas of emphasis in higher education and owner-occupied commercial markets.
- Smart plumbing fixtures and systems (irrigation, toilets, showers, faucets) are gaining share as the industry seeks to address consumer demand for more efficient systems.
- Tankless water heaters continue to gain popularity over traditional water heaters as energy efficiency continues to drive consumer buying preferences.

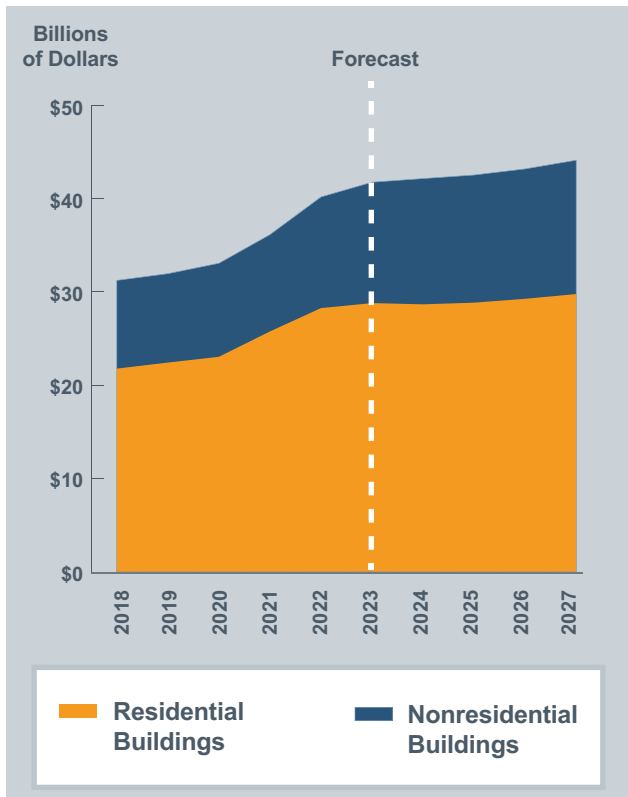
HVAC



- Demand for HVAC products is highly influenced by total construction volume, with challenges coming from an expected decline in new home builds through the forecast period.
- Demand for advanced HVAC systems is expected to remain strong in the nonresidential sector. These systems improve cooling efficiency, reduce energy consumption and mitigate the risk of equipment failure due to overheating.
- An emphasis on energy-efficient solutions is anticipated to drive growth of smart HVAC systems for both residential and nonresidential construction. These smart systems enable the ability to track performance and more effectively address product deficiencies.
- Electrification is anticipated to influence demand for HVAC products and place a greater emphasis on heat pump technology. This trend is likely to spur increased product development investment.

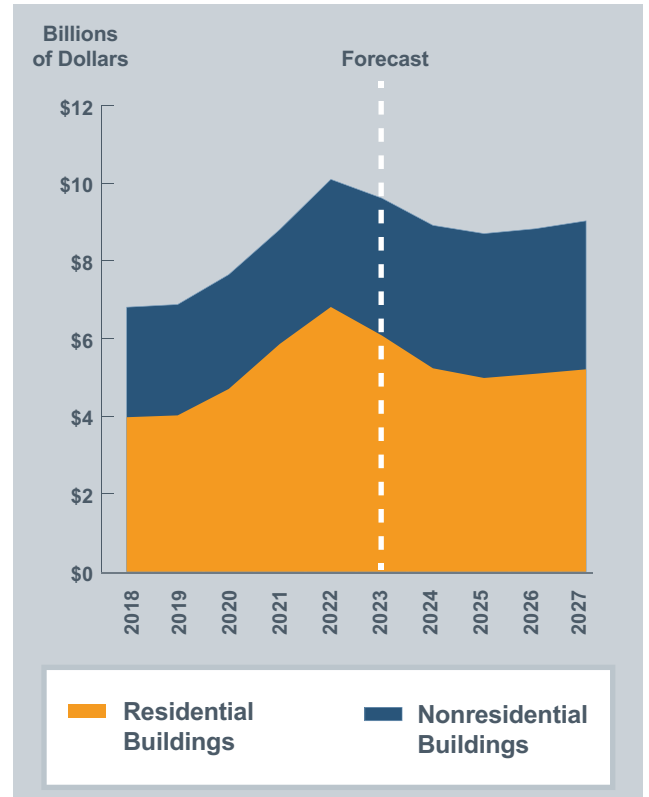


ROOFING



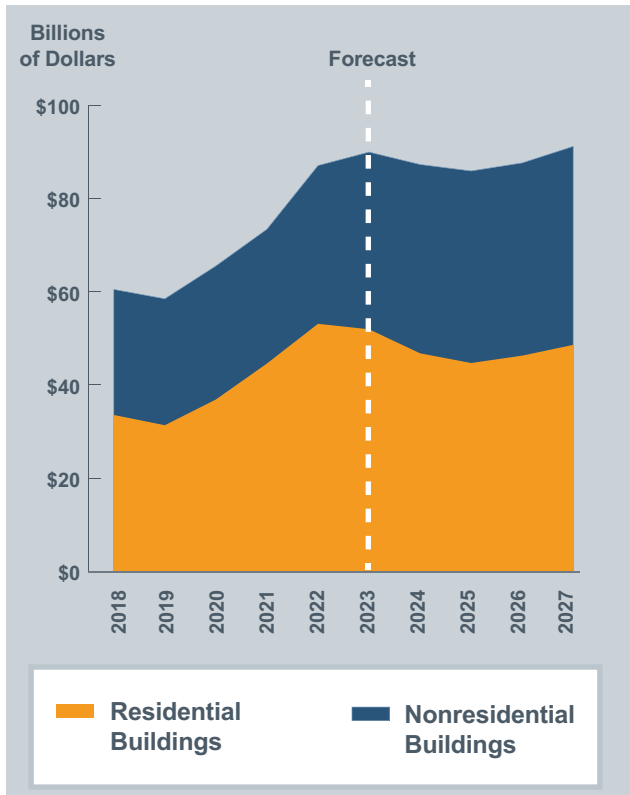
- Reroofing and maintenance activities across both the residential and nonresidential sectors will represent a significant percentage of spending and provide a favorable opportunity.
- According to the National Roofing Contractors Association’s state of the industry report, asphalt shingles will remain the top roofing system choice for the residential market, followed by metal roofing. In the nonresidential sector, single-ply membranes are noted as the most popular roofing system, with asphalt-based roofs anticipated to decline.
- Across the nonresidential sector, owners in the institutional and mission-critical segments have increasingly emphasized long-term cost considerations in roofing system selection and placed a greater priority on high-quality products.
- Solar roofing products will experience growth in both the residential and nonresidential sectors. This is being fueled by government incentives, rising electricity costs and grid reliability concerns.

INSULATION

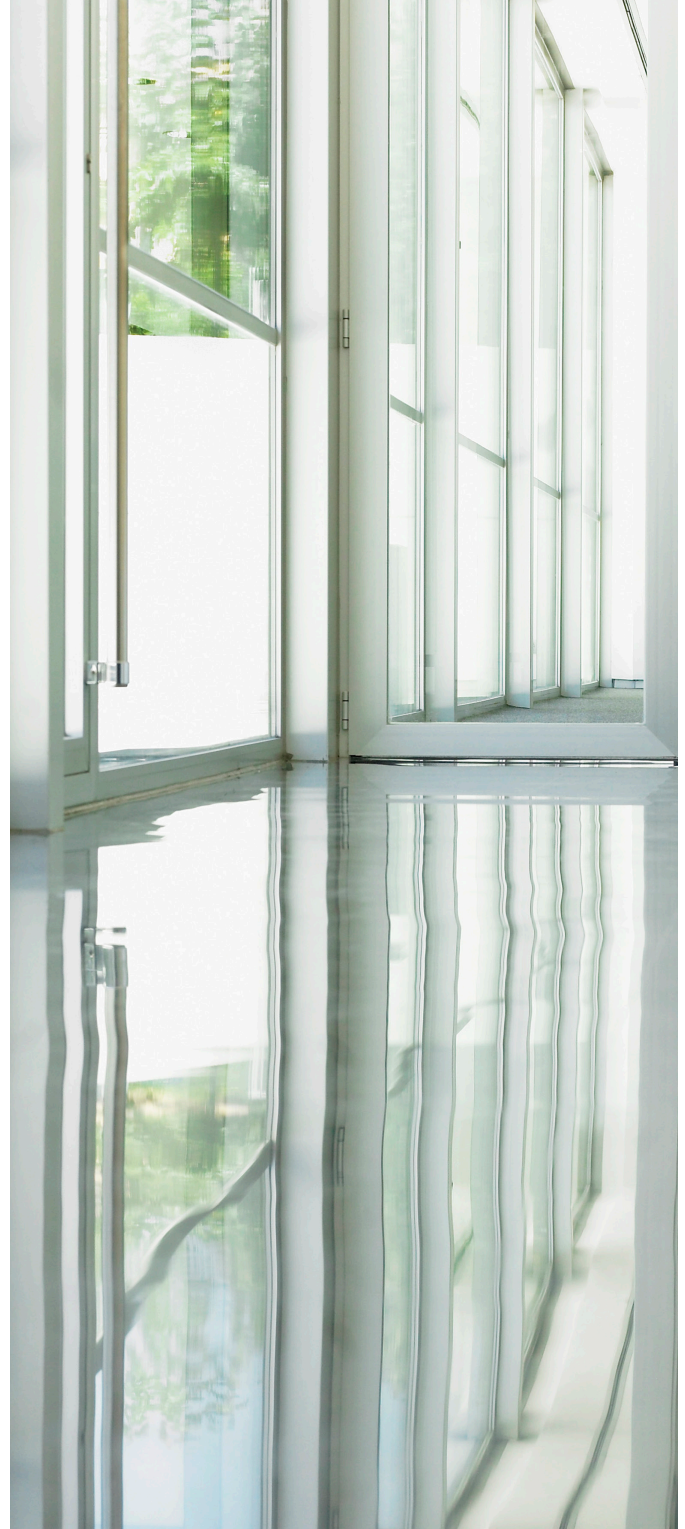


- Insulation product spending is forecast to be challenged by declining construction spending volumes in new residential buildings. However, replacing home insulation represents a cost-effective means for improving energy efficiency and addressing concerns with rising utility rates.
- Increasingly stringent building codes and regulations that require higher levels of insulation in new construction and renovation projects are expected to support additional spending on insulation products.
- Continued advancements in insulation technology (moisture, thermal) have led to the development of high-performance insulation products. These are experiencing increased demand from end users in the manufacturing and mission-critical segments.
- Like drywall, insulation products are increasingly incorporated in the prefabrication process to improve project delivery efficiency.

WINDOWS AND DOORS



- An aging housing stock and home equity appreciation will support continued demand for windows and doors in the residential sector.
- Trends in high-quality doors experienced an uptick during the pandemic as the number of employees working from home dramatically increased.
- Energy efficiency has become a key trend in the window and door space, with rising energy costs and increasing concerns about climate change driving demand for products that reduce energy usage and environmental impact.
- With the growing prevalence of building technology, windows and doors are being equipped with sensors, controls and automation features that can be managed and monitored through a mobile device.



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	61,448	72,936	83,184	86,040	82,193	81,187	80,739
Plumbing	4,600	4,660	5,630	7,110	8,705	8,067	6,946	6,531	6,618	6,790
Roof	21,779	22,427	23,044	25,764	28,269	28,806	28,674	28,852	29,268	29,774
Drywall	10,195	9,351	10,907	13,394	15,507	14,161	12,261	11,350	11,417	11,499
Floor	23,670	24,471	26,188	27,998	32,456	33,260	31,867	30,772	30,877	31,267
Insulation	3,975	4,023	4,703	5,862	6,814	6,079	5,235	4,985	5,093	5,209
Windows and Doors	33,539	31,338	36,860	44,580	53,098	51,924	46,765	44,684	46,271	48,577
Total Residential	\$151,415	\$153,954	\$169,164	\$186,158	\$217,784	\$225,482	\$217,788	\$209,367	\$210,731	\$213,854
NONRESIDENTIAL										
HVAC	61,526	60,739	63,733	63,440	69,474	72,909	77,520	81,635	83,868	85,525
Plumbing	10,668	10,860	11,400	11,030	12,800	14,322	15,230	15,422	15,388	15,776
Roof	9,463	9,538	10,032	10,384	11,924	12,967	13,492	13,695	13,935	14,358
Drywall	7,293	7,503	7,678	7,691	8,518	9,078	9,430	9,579	9,699	9,962
Floor	10,906	11,238	11,654	11,843	13,666	14,950	15,597	15,754	15,877	16,284
Insulation	2,833	2,856	2,944	2,947	3,286	3,536	3,680	3,718	3,734	3,822
Windows and Doors	26,941	27,136	28,661	28,815	33,954	38,020	40,517	41,208	41,350	42,583
Total Nonresidential	\$129,630	\$129,868	\$136,102	\$136,150	\$153,621	\$165,783	\$175,467	\$181,011	\$183,853	\$188,311

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%	-1%	19%	14%	3%	-4%	-1%	-1%
Plumbing	3%	1%	21%	26%	22%	-7%	-14%	-6%	1%	3%
Roof	4%	3%	3%	12%	10%	2%	0%	1%	1%	2%
Drywall	-4%	-8%	17%	23%	16%	-9%	-13%	-7%	1%	1%
Floor	2%	3%	7%	7%	16%	2%	-4%	-3%	0%	1%
Insulation	3%	1%	17%	25%	16%	-11%	-14%	-5%	2%	2%
Windows and Doors	-3%	-7%	18%	21%	19%	-2%	-10%	-4%	4%	5%
Total Residential	0%	2%	10%	10%	17%	4%	-3%	-4%	1%	1%
NONRESIDENTIAL										
HVAC	1%	-1%	5%	0%	10%	5%	6%	5%	3%	2%
Plumbing	4%	2%	5%	-3%	16%	12%	6%	1%	0%	3%
Roof	4%	1%	5%	4%	15%	9%	4%	1%	2%	3%
Drywall	3%	3%	2%	0%	11%	7%	4%	2%	1%	3%
Floor	3%	3%	4%	2%	15%	9%	4%	1%	1%	3%
Insulation	4%	1%	3%	0%	11%	8%	4%	1%	0%	2%
Windows and Doors	3%	1%	6%	1%	18%	12%	7%	2%	0%	3%
Total Nonresidential	2%	0%	5%	0%	13%	8%	6%	3%	2%	2%

The numbers include new, renovation and replacement spending.

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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.

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