

Monitor

Building Materials



VOLUME
341

AN ACTIVE FIRST HALF

HEALTHY DEMAND

The housing market continues its high level of activity as builders struggle to keep up with demand

PRICE VOLATILITY

After skyrocketing towards record highs in May, softwood lumber prices normalized in June as the buying frenzy began to subside

HARDWOOD REBOUND

Mill curtailments and rebounding export demand set the stage for rising prices

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MONITOR BUILDING MATERIALS

BRILEYFIN.COM

JULY 2021

800-454-7328

VOLUME

341

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Deals are a moving target. A constantly shifting mix of people, numbers and timing. We're here to simplify this process for you. Our experts are dedicated to tracking down and flushing out the values you need even on the most complex deals, so you can leverage our hard-won knowledge to close the deal.

Trend Tracker - Inventory

	Lumber	Building Materials
NOLVs	Increasing ▲	Increasing ▲
Sales Trends	Increasing ▲	Increasing ▲
Gross Margin	Mixed ▲▼	Mixed ▲▼
Inventory	Increasing ▲	Increasing ▲

NOLVS

Lumber NOLVs have largely been on a positive trajectory due to a surge demand from both new construction and remodel activity during the COVID-19 pandemic. As recent market prices have outpaced the cost of inventory on hand, NOLVs for lumber have been positively impacted. Similarly, as demand for other building materials used for residential and non-residential construction has risen, NOLVs are generally increasing. Companies are benefiting from leaner inventories, coupled with rising prices.

SALES TRENDS

Sales trends have been positive due to a strong construction market and short supply of products, particularly in comparison to appraisals taking place before or during the early stages of the pandemic.

GROSS MARGIN

- **Lumber:** Gross margin for producing mills were positively impacted by skyrocketing market prices that allowed for price increases. At the distributor level, the success in passing through related price increases on to customers largely determined margin trajectory.
- **Building materials:** For products such as gypsum, gross margin was negatively impacted by a larger proportion of product being sold through the lower-margin residential channel. For other products, such as windows and

	Market Prices	
	Three Months	Year
Softwood	Increasing ▲	Increasing ▲
Hardwood	Increasing ▲	Increasing ▲

doors, price increases were able to be passed through to customers, positively impacting margins.

INVENTORY

Surges in demand for many products beginning in the second quarter of 2020 led to bulk purchases and increasing inventory levels. Concerns regarding current and future inventory shortages and extended lead times for a wide variety of building products led to price increases and encouraged purchases industry-wide. As commodity prices rise, inventory values on a dollar basis have increased within certain segments; however, inventory turns have generally increased, leading to leaner inventory levels, from a volume standpoint, up and down the supply chain.

PRICING

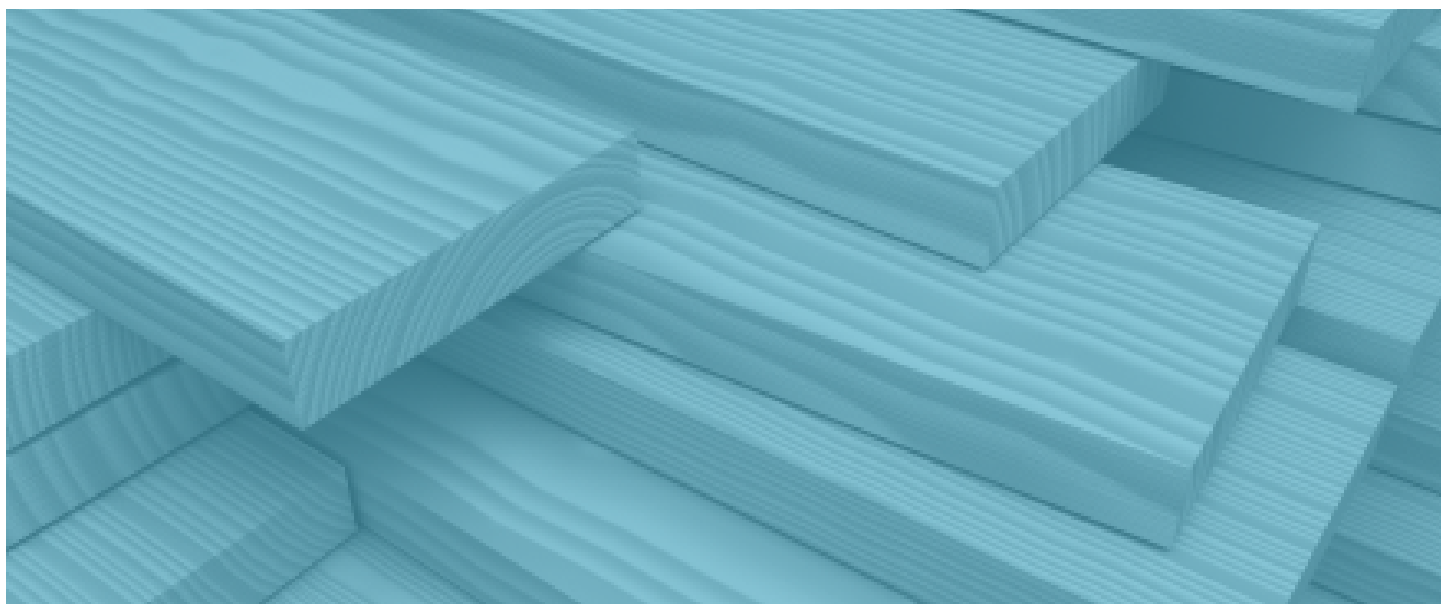
Pricing has risen for most products. The recent decline in softwood pricing in June 2021 marks a normalization of pricing, as opposed to an indication of a long-lasting downward trend, after a solidly upward trajectory thus far in 2021. Due to capacity reductions over time and rebounding export demand, hardwood prices across all regions and most species have continued to tick upward throughout the first half of 2021. Price increases for other building materials, such as windows and doors, have been successfully passed through to customers in many cases due to high demand.

Trend Tracker - M&E

	Woodworking/Sawmills/ Furniture
Used Pricing	Increasing ▲
Used Trade Movement	Consistent —
OEM Pricing	Consistent —
Technology Advancement	Consistent —
Auction Activity	Consistent —



- **Used Pricing:** After initial slowing due to the COVID-19 pandemic, rebounds in construction activity and record prices for lumber have caused prices for related used machinery to increase, especially for smaller and lower-capacity mill equipment as new players emerge in the market. Long lead times are also contributing to higher prices. In the used woodworking machinery market, many businesses are considering bringing purchases back on shore due to the COVID-19 pandemic, which could support higher prices.
- **Used Trade Movement:** In the second half of 2020 and throughout the first half of 2021, used trade movement has remained fairly steady, although at reduced rates from prior years.
- **OEM Pricing:** Consistent with recent trends, the increase in Asian, particularly Taiwanese, machinery continues to negatively affect OEM pricing on European manufacturers. It is likely that operators will look to purchase more domestically to reduce dependency on foreign suppliers, particularly as operators look to reduce reliance upon foreign suppliers in light of the COVID-19 pandemic.
- **Technology Advancement:** Many companies continue to spend investment dollars to automate with upgraded CNC controls and software, as well as more affordable 3D prototyping, to maximize efficiency returns.



Overview

According to the U.S. Census Bureau, the seasonally-adjusted annual rate for housing starts reached 1.572 million units in May 2021, 3.6% above the revised April estimate of 1.517 million units and 50.3% above May 2020 figures. Single-family housing starts rose 4.2% to 1.10 million units on a seasonally-adjusted rate.

Despite the higher construction rate, increased construction costs have deterred some residential construction activity. Mills curtailed lumber production at the onset of the COVID-19 pandemic, anticipating decreased demand due to government lockdown orders and social distancing measures. At the same time, demand for lumber increased, causing lumber prices to increase in the spring and summer of 2020 as mills could not keep pace with demand. Prices continued to increase throughout 2020 into 2021, reaching record highs in early May, driven by supply chain bottlenecks and strong demand.

Single-family building permits declined 1.6% to 1.130 million units in May, hitting the lowest levels since September 2020. Overall building permits decreased 3.0% to 1.681 million units. New home sales reached a seasonally-adjusted annual rate of 769,000 units in May 2021, a 5.9% decrease from April's revised rate of 817,000 units but 9.2% above the May 2020 estimate of 704,000 units. May's decrease comes on the heels of a 5.9% decrease in new home sales in April 2021. Higher lumber prices contributed to the decrease in

new home sales in May as the median price of new homes reached \$374,000, an 18.1% increase over May 2020. Overall, elevated lumber prices caused new home prices to increase nearly \$36,000 at their 2021 peak.

Lumber prices suddenly dropped in mid-June, as mills across the country ramped up production and some customers delayed purchases until prices fell. According to CNBC, lumber futures fell more than 40% in June, marking the largest monthly drop on record.

Although prices are expected to remain below the highs experienced in May, they are still expected to remain relatively high compared to historical averages due to the strong housing market. As of April 2021, Freddie Mac estimated the U.S. was 3.8 million homes shy of meeting current housing demand. This will help maintain elevated lumber prices in the coming years as it indicates that demand for wood products will remain buoyant in years to come.

KEY FACTORS

Curtailed lumber production and significant increases in demand for building products resulted in skyrocketing lumber prices through May 2021. The high material costs began to deter builders, resulting in recent indications that construction activity is slowing, despite remaining healthy.

In June 2021, lumber prices experienced their largest drop on record; while prices have fallen since hitting highs in May, healthy demand will likely keep lumber prices resilient in the coming months.

Softwood Lumber and Panels

Softwood lumber, including genres such as Spruce, Pine, Fir, and Cedar, is typically used for structural building purposes, as well as millwork. The second half of 2020 exhibited record high prices amid significantly high demand from DIY consumers, combined with tightened supply at the mill level. Despite many believing that prices would follow historical trends and decline during the less active winter months, the opposite trend began to take shape, as prices trended upward to levels seen earlier in the summer, when they reached record highs. Uncertainty regarding future supplies, the strong housing market, and the restarting of projects that had been put on hold earlier in 2020 were primary contributors to these increased prices. This was also compounded by staff shortages that continued to exist at the mill level due to COVID-19 issues.

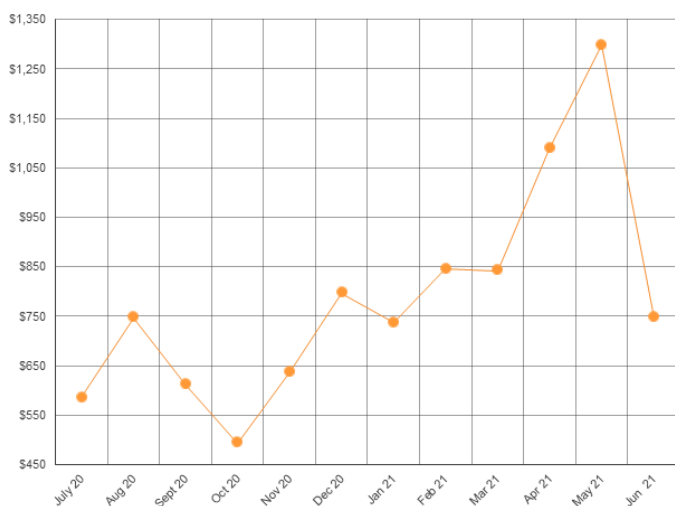
Up until very recently, 2021 has reflected a steady increase in softwood lumber pricing. As residential construction and

remodel activity continued to thrive, combined with renewed growth in non-residential construction and a growing export market, demand continued to outpace supply levels. However, in June, a combination of factors led to the sudden dip in softwood pricing at the end of the second quarter of 2021 and into the third. For the first time in a year, big box retailers reported a softening in DIY demand, which could be a reflection of both the sticker shock of lumber on the shelves, as well as the workforce beginning to make a return to a more normalized environment. In addition, reports of larger scale residential construction projects and remodel activity being delayed due to material shortages, as well as price sensitivity, also likely contributed to supply levels strengthening in recent weeks.

The recent price decline notwithstanding, softwood lumber prices remain at historically high levels. The worst of the pricing and supply issues may be behind us, and there is no expectation for a near-term decline in demand within new residential construction or the larger scale repair and remodel market. Prices are likely to remain elevated over historical norms for the remainder of 2021. Any additional unforeseen surges in demand, such as elevated storm activity during the hurricane season, could again drive prices upward on a short-term basis.

Softwood panel pricing traditionally follows a similar trajectory to that of framing lumber. Consistent with lumber, prices swung upward amid supply uncertainty before the start of the building season in 2021. By February 2021, prices were 122% above the same time period in the prior year, and prices remained high through May and into June. Although panel prices have not dropped recently to the same degree as dimensional lumber, the same factors recently impacting lumber prices are working their way through the panel market as well.

1 Softwood Lumber Futures - Price per MBF



Hardwood Lumber

Hardwood lumber, including genres such as Red Oak, White Oak, Poplar, Hickory, Maple, Cherry, and Ash, is used in a number of manufacturing settings. Hardwoods are most commonly found in interior building products such as flooring, cabinets, panels, doors, and other interior finish applications. It is also used in the manufacture of musical instruments, furniture, boats, truck trailer flooring, pallets, and other industrial products.

Unlike softwoods, hardwood lumber prices do not typically experience sharp pricing volatility, but rather gradual and sustained pricing trends. Although the market for hardwoods is tied to domestic housing demand and remodel activity, hardwood lumber's more diverse uses in other industries, as well as its export outlets, have historically provided some additional protections against sharp changes in pricing; however, recent market conditions have bucked that trend.

The hardwood lumber market has continued to be in a state in which strong domestic demand, in addition to a recovering export market, is outpacing supply. The combination of the ongoing trade war with China over the last few years and the environment created by COVID-19 resulted in price volatility not typically seen in the hardwood lumber market.

Due to capacity reductions over time, prices across all regions and most species have continued to tick upward throughout the first half of 2021. Export markets have rebounded, as shipments of hardwood lumber hit a 17 month high in March at 122.9 MMBF. Demand from both domestic and foreign sources has put pressure on what was already a sector with supply-side issues and has helped to drive prices upward.

Residential construction markets have remained strong since the fourth quarter of 2020, with May building permits and housing starts at 1.681 million and 1.572 million, respectively. In addition, the Leading Indicator of Remodeling Activity also maintained a strong outlook, projecting annual growth in renovation and repair spending of 4.8% in this sector through the first quarter of 2022.

Supply levels will be the area of concern going forward in this robust market. Across all secondary manufacturing sectors, such as cabinets, flooring, and furniture, strong backlogs of orders are common, as expenditures on home improvement and new construction remain elevated. However, capacity reductions at the mills and log availability continue to push out timelines for production.

An equally pressing issue is labor availability at the mill level. Governmental relief programs during COVID-19 made it difficult to entice employees back into the workforce. However, even prior to the pandemic, labor availability was on the decline, as skilled workers have dwindled in recent years. This prevents mills from pushing capacity limits, constrained by a diminished workforce.

Appraisal trends have been positive in this sector over the last several months. Hardwood mills and lumber distributors are benefiting from relatively lean inventories combined with rising prices and strong demand. Secondary manufacturers continue to pass on material price increases to the end user, save for certain sectors that face more price competition from less expensive imports, such as veneers and hardwood plywood. Going forward, the industry might continue to see a leveling off in the prices of hardwood lumber, but there is little expectation for a significant decline in demand or pricing through the end of 2021, unless there becomes a surge in the capacity for lumber production that does not currently exist.

Lumber and Woodworking Equipment

The machinery and equipment involved in woodworking can be divided into two main categories: furniture manufacturing and lumber production. While both industries are tangentially related to both the residential and commercial construction industry, both categories respond differently regarding elasticities.

The sawmill and lumber production machinery industry has been relatively stable, seeing a modest increase in new machinery, especially in the Southeastern United States. This investment has bolstered secondary pricing of used machinery as lead times from OEM's became longer. Activity surrounding closures, consolidations, and restructurings amongst producers and wholesalers appears to be stagnant at present. Although less frequent, most of the closures have been single-location operations that cannot operate at the same the economies of scale of larger operations and comprise the majority of industry participants. Through the first half of 2021, B. Riley Advisory Services has continued to monitor liquidations in the sawmill and furniture manufacturing spaces, and this trend does not seem to have changed substantially from 2020.

B. Riley Advisory Services saw a reduction in mill auctions throughout 2020, a trend that began in 2019 but intensified due to the COVID-19 pandemic. In 2021, the increase in economic activity, combined with high lumber prices, has caused the demand for good quality used equipment to increase, without a corresponding increase in available equipment. This has led to values for used equipment holding steady or in some cases increasing. Softwood mill equipment has fared better than hardwood mill equipment due to its primary use in the building materials market. The



woodworking and furniture manufacturing industries have enjoyed modest growth in recent years due to the improved housing market and an increase in disposable income. During this time, the furniture industry has seen an increasing demand for customized furniture.

Woodworking and furniture manufacturers are investing in automated smart woodworking machinery to respond to quick-changing customer demands with shorter product changeovers while maintaining efficiencies. These equipment changes are also needed to remain competitive with foreign import products. Demand for domestically-produced furniture manufacturing equipment is likely to continue to struggle due in large part to an increase of imported products, which impacts the prices of used machinery in the secondary market. B. Riley Advisory Services has seen a reduction in values and frequency of auction events throughout the year. The desirability window for used machinery has narrowed to the five-year range, with older vintage machinery seeing a more exaggerated decrease in values.

Monitor Information

The *Building Materials Monitor* relates information covering most building projects, including industry trends, market pricing, and their relation to our valuation process. B. Riley Advisory Services internally tracks recovery ranges for specialty and exotic hardwoods and softwoods, building product retailers and wholesale distributors, and specialty building products, but we are mindful to adhere to your request for a simple reference document. Should you need any further information or wish to discuss recovery ranges for a particular segment, please feel free to contact your B. Riley Advisory Services Business Development Officer. The information contained herein is based on a composite

of B. Riley Advisory Services' industry expertise, contact with industry personnel, liquidation and appraisal experience, and data compiled from a variety of well-respected industry publications and sources believed to be reliable. B. Riley Advisory Services does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither B. Riley Advisory Services nor any of its representatives shall be liable for use of any of the information in this issue or any errors therein or omissions therefrom.



Experience

LIQUIDATIONS

B. Riley Wholesale & Industrial Solutions has been involved in the liquidation of three National Home Centers building products locations, the liquidation of inventory and fixed assets across eight North Pacific Building Materials distribution centers, and the auctions of various woodworking companies, including Woodworking IVA, The Truss Company, Lux Cabinetry, LLC, and Graeber's Lumber & Millwork.

APPRAISALS

In addition, B. Riley Advisory Services has worked with and appraised numerous manufacturers and distributors within the building materials, lumber, and woodworking industries. While our clients remain confidential, they range in scale from smaller, more specialized regional businesses to major global and national industry leaders, and include the following sampling of companies:

- The nation's largest supplier of building materials for home building, as well as professional and contract builders.
- One of the largest roofing products distributors in the U.S., with locations throughout the country and sales exceeding \$2 billion annually.
- Global leaders in home fixtures and plumbing products, including faucets, sinks, toilets, and bath tubs, with presence in over 40 countries.
- Leading manufacturers of HVAC systems, serving residential, light commercial, and commercial applications, with annual sales exceeding \$1 billion.
- The largest publicly-traded roofing distributor in the U.S.
- One of the nation's largest producers of OSB, siding, and engineered wood products.
- The largest independent distributor of wallboard, acoustical, and other specialty building materials in the United States.

- One of the world's leading manufacturers of windows and doors.
- Regional sawmills, log processors, and producers of green and kiln-dried lumber.
- Manufacturers and distributors of fasteners and bolts used in light and heavy construction.
- Suppliers of iron and wood building components utilized in stair construction.
- Specialty producers of custom interior wood doors for the education, commercial, health care, institutional, and hospitality industries.
- A leading distributor of roofing materials with 60 distribution facilities nationwide.
- A manufacturer and distributor of exterior residential building products, primarily servicing professional contractors.
- Distributors of exotic imported hardwoods utilized in high-end building projects.
- Independent building material and plumbing product retailers and wholesalers, each serving distinct regional customer bases.
- A diversified holding company operating in the building materials supply industry, with a focus on more specialized supply services.
- A manufacturer and distributor of metal roofing and accessories for residential, light commercial, and agricultural applications.
- Various companies' woodworking machinery and equipment, including producers of dimensional lumber, hardwood lumber, plywood, and fiberboard.

In addition to our vast liquidation and appraisal experience, B. Riley Advisory Services maintains contacts within the building materials and lumber and woodworking equipment industries that we utilize for insight and perspective on recovery values. B. Riley Advisory Services is a subsidiary of B. Riley Financial, Inc., whose affiliate B. Riley Securities, is nationally recognized for its highly ranked proprietary equity research.

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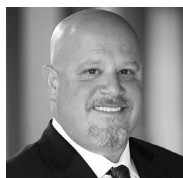
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About B. Riley Advisory Services

B. Riley Advisory Services works with lenders, law firms, private equity sponsors and companies of all types. Our Advisory Services are a unique mix of Valuation and Appraisal Services including asset-based lending (ABL) Valuations; Restructuring and Turnaround Management; Forensic Accounting and Litigation Support; Operations Management; Compliance, Risk & Resilience Services; and Transaction Support Services including Due Diligence and Quality of Earnings Reviews. B. Riley Advisory Services is the trade name for GlassRatner Advisory & Capital Group, LLC, Great American Group Advisory & Valuation Services, LLC, Great American Group Machinery & Equipment, LLC, and Great American Group Intellectual Property, LLC.

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B. Riley Financial provides collaborative solutions tailored to fit the capital raising and business advisory needs of its clients and partners. B. Riley operates through several subsidiaries that offer a diverse range of complementary end-to-end capabilities spanning investment banking and institutional brokerage, private wealth and investment management, financial consulting, corporate restructuring, operations management, risk and compliance, due diligence, forensic accounting, litigation support, appraisal and valuation, auction and liquidation services. B. Riley Financial is headquartered in Los Angeles with offices across the U.S. as well as an international presence. For more information, please visit www.brileyfin.com.



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B. Riley Financial (“B. Riley”) companies provide tailored financial solutions to meet the strategic, operational, financial advisory and capital needs of its clients. Our diverse suite of business capabilities goes beyond traditional financial service offerings. By leveraging cross-platform expertise and assets, our companies are uniquely positioned to provide full service, collaborative solutions at every stage of the business life cycle.

In February 2021, B. Riley acquired National Holdings Corporation. The combination created an enhanced wealth management platform and added over 700 registered representatives managing approximately \$20 billion in client assets. As a result of the acquisition, we have a synergistic footprint with offices now expanding from coast to coast.

ADVISORY SERVICES

Provides specialty financial advisory services to address complex business problems and board level agenda items.

- Appraisal & Valuation Services
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- Sales & Trading
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- Financial Advisory Services
- Liquidations & Loan Sales
- Principal Investments & Financing

RETAIL SOLUTIONS

Retail restructuring, advisory and disposition solutions that help retailers maximize their retail store portfolios and inventory positions, as well as a real estate services vertical focused on maximizing distressed real estate values.

- Dispositions
- Inventory Clearance
- Appraisal & Valuation Services
- Real Estate Solutions

SPONSORS COVERAGE

Provides dedicated resources that drive value with the firm’s alternative asset manager clients by developing and maintaining relationships with middle market financial sponsors.

VENTURE CAPITAL

Invests in late-stage private growth companies with a path towards public markets.

WEALTH MANAGEMENT

Strategic financial advisory services to address the various needs of individuals, families, business owners, foundations and endowments.

- Individual Client Services
- Business Client Service

WHOLESALE & INDUSTRIAL SOLUTIONS

Provides equipment management and capital recovery solutions through a suite of services in various industries.

- Auctions, Private Treaty & Liquidation
- Valuations
- Asset Planning & Recovery Strategies