STRONG DIY DEMAND
With more homeowners working from home and shifting income to home projects, the DIY market is booming.

UNCERTAINTY CONTINUES
Highs and lows abound for a market awash in uncertainty.

HARDWOOD SUPPLY
Demand has caught up to supply after production curtailments at the onset of COVID-19, but could we be heading in the opposite direction in 2021?
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**

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<thead>
<tr>
<th>NOLVs</th>
<th>Lumber</th>
<th>Building Materials</th>
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**Market Prices**

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<td>Hardwood</td>
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**NOLVs**

- **Lumber**: Increasing demand on the market has led to market price increases since a brief lull in activity at the onset of the COVID-19 pandemic. Since May, NOLVs have largely been on a positive trajectory due to the continuation of construction projects previously put on hold, a surge in DIY projects, and improved manufacturing efficiencies at lumber mills.

- **Building materials**: Similar to lumber appraisals, NOLVs for building materials largely benefited from resuming construction projects and a high level of DIY activity, which have spurred demand for both interior and exterior building materials.

**Sales Trends**

- **Lumber**: A healthy construction and DIY market has led to bullish demand, while elevated market prices for lumber have resulted in increasing sales dollars.

- **Building materials**: Sustained residential construction and DIY activity since the start of the third quarter has catalyzed demand and sales for both interior and exterior building products.

**Gross Margin**

Higher market prices for softwood lumber helped margins for mills that were able to take advantage and increase pricing to customers. Similarly, distributors of exterior products such as shingles and other roofing products implemented price increases in a market short on inventory. However, those distributors unable to implement price increases to customers were faced with higher acquisition costs, negatively impacting margins. Further, delays in material receipts forced some operators to use lower-margin safety stock to fill orders.

**Inventory**

The initial uncertainty stemming from the COVID-19 pandemic led to more conservative purchasing in nearly all construction markets. Operators were also subject to production shutdowns for materials such as shingles, which resulted in supply chain disruptions. However, surges in demand for many products beginning in the late spring led to bulk purchases and increasing inventory levels, while some pockets of lower-demand items, namely those goods used in interior projects, have resulted in a buildup of excess inventory.

**Pricing**

Pricing has risen for most products, specifically softwood structural lumber used in exterior construction activity. However, prices began to dip for softwoods in October as the traditional building season wound down. Prices for hardwoods have generally been increasing in recent months due to a combination of continued domestic demand, strengthening export activity, and more limited supplies as the result of production curtailments during the second quarter of 2020.
## Trend Tracker - M&E

| Used Pricing | Consistent — |
| Used Trade Movement | Consistent — |
| OEM Pricing | Consistent — |
| Technology Advancement | Consistent — |
| Auction Activity | Consistent — |

**Used Pricing:** After initial slowing due to the COVID-19 pandemic, the construction market has picked up over the last several months. Used prices for sawmill and lumber production machinery and operations have remained relatively stable. Private equity investments of the past several years have seemed to subside, which points towards creating efficiencies and effectiveness of current mill operations. Currently, OEM lead times are long, helping to maintain used equipment pricing for late model equipment. Most potential purchasers of woodworking equipment are taking a wait-and-see approach for large capital expenditures due to COVID-19.

**Used Trade Movement:** In the second half of 2020, used trade movement has remained fairly steady compared to the first half of 2020, although at reduced rates from prior years.

**OEM Pricing:** 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.

**Technology Advancement:** Many companies continue to spend investment dollars to automate with upgraded CNC controls and software to maximize efficiency returns.
Overview

According to the U.S. Census Bureau, the seasonally-adjusted annual rate for single-family housing starts in October 2020 increased 6.4% over September, marking the best pace for single-family housing starts since the spring of 2007.

The increase comes on the heels of an 8.5% increase in September 2020 over August. Increases in housing starts in recent months can be attributed to record low interest rates, as well as an increase in demand as consumers migrate to the suburbs and exurbs.

The U.S. economy rebounded sharply in the third quarter of 2020 after its deepest contraction in the last 73 years during the second quarter. However, recovery from the COVID-19 pandemic has reached a period of uncertainty, as the fiscal stimulus, which stimulated the increased activity, has been depleted. A second stimulus package has yet to be agreed upon but remains a high priority on Capitol Hill, and optimism for a bipartisan agreement is building.

Prices soared for many building materials in the spring and summer of 2020 due to decreased domestic lumber production as many mills reduced activity amid stay-at-home orders and socially distancing measures enacted by state and local governments at the beginning of the pandemic. Although mill operators anticipated a drop in housing demand due to the pandemic, the housing market reacted to the pandemic more positively than anticipated, and demand for lumber has increased.

Lumber prices decreased slightly in September as producers sustained high manufacturing volumes, fulfilling backlogged orders and focusing on making wood for already received orders. Lumber prices began to rise again midway through November due to strong demand for lumber amid ample construction activity and diminishing lumber supplies.

The sharp increase in lumber prices has added nearly an additional $16,000 to the price of a typical, new, single-family home, threatening the affordability of new homes and the housing market, which is a large driver in the nation’s economic recovery. Still, despite low housing affordability and elevated unemployment rates, the housing market is poised to continue its upward trajectory into 2021, catalyzed by projections of continued low interest rates and the hope of a COVID-19 vaccine on the horizon.

KEY FACTORS

Various stay-at-home restrictions throughout the U.S. stemming from the COVID-19 pandemic resulted in a surge of home improvement investments, raising demand for building materials.

Low interest rates, high material pricing, and heavy investments in real estate have led to low housing inventory levels and plummeting housing affordability.
Softwood Lumber and Panels

Softwood lumber, including genuses such as Spruce, Pine, Fir, and Cedar, is typically used for structural building purposes, as well as millwork. Market prices for many lumber products decreased in the late spring coming off the onset of the COVID-19 outbreak that led to shuttered businesses and vast layoffs. However, with most building material dealers and retailers being deemed essential businesses and suddenly being faced with record high demand from DIY consumers from the pandemic, prices rebounded at a significant level throughout the second half of 2020.

Aggressive demand from consumers in the third quarter prompted increased mill production, tightening supply, which sent prices soaring. With more disposable income traditionally used on vacations and more people working from home amid an uncertain future due to COVID-19, renovation work grew and demand exceeded supply by a wide margin, with lumber mills struggling to keep up. With prices at record highs throughout the third quarter, it was inevitable prices would eventually begin to decline as the building season ended. Towards the end of September and into October, dealers lowered sales expectations for the first time since the beginning of the pandemic back in March. Tempered buying, compounded by the effects from wildfires in the West and increased storm activity in late September through October, resulted in a 35% decline the composite softwood lumber price from early September through the end of October.

Buyers are recognizing less downside risk and are buying with more confidence, but not at a level that has offset the downward pricing trend. While prices have trended downward in the fourth quarter, they remain significantly higher than fourth quarter of 2019, with the composite price of lumber approximately 68% higher in October 2020 than October 2019.

Softwood panel pricing traditionally follows a similar trajectory to that of framing lumber. In the second half of 2020, supply shortages, similar to softwood lumber, made their mark as prices increased substantially due to more home construction and re-modeling, with prices increasing 133% in early September 2020 versus the same time last year. Similar to softwood lumber, the expected downward trend began to take shape towards the end of September through mid-November as a result of the building season ending and dealers buying more cautiously.
Hardwood lumber, including genuses 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. They are also used in the manufacturing of musical instruments, furniture, boats, truck trailer flooring, pallets, and other industrial applications. 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 downstream application in homebuilding, as well as its more diverse uses in other industries and its export outlets, provide some additional protections against sharp changes in pricing.

The hardwood lumber market has experienced strong demand from a number of secondary manufacturing markets as we entered the fourth quarter. As tight supplies across North America have met strong demand both domestically and overseas, pricing has continued to move in an upward direction. Shipments to both China and Vietnam have continued to increase over the second half of 2020, as year-over-year monthly increases of U.S. shipments to the Asian market are evident, while Europe remains well off the 2019 pace due to ongoing struggles with COVID-19.

Domestically, the strong private residential construction market, combined with large investments into the repair and remodel sectors, have been a boon for the hardwood lumber market in 2020. Residential housing starts began a steady recovery in July, peaking at 1.53 million units in October and reaching pre-pandemic levels.

In addition, the Leading Indicator of Remodeling Activity (LIRA) reversed course from downward projections early in 2020 to projecting annual growth in renovation and repair spending of 4.1% through the first quarter of 2021. Secondary manufacturing sectors such as cabinets, flooring, truck trailer flooring, pallet manufacturing, and wood furniture all report strong demand, mirroring macro economic indicators.

Unlike the first two quarters of this year, which saw a rapid decline in demand coupled with an oversupply in the marketplace lead to widespread production curtailments, supply-side concerns are now working their way into the hardwood market. It remains to be seen whether lumber supply will continue to meet demand as 2020 comes to a close and we enter into 2021 with expectations of continued strong demand for hardwood lumber.

Appraisal trends in this sector hinged on the effective date of the engagement, as the environment continued to evolve over the course of the year after COVID-19 regulations worked their way through the country. Valuations conducted prior to the second half of the year reflected a more cautionary environment as it was unclear if domestic demand within the housing market could be sustained. Appraisals conducted in the second half of 2020, with data reflecting consistent demand across a variety of species, led to improved results. Going forward, monitoring the continued impact of COVID-19 on the country, as well as any additional regulatory impacts, will be the key in determining if hardwood lumber remains on an upward trajectory.
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 industries, both categories respond differently regarding elasticities.

The sawmill and lumber production machinery industry has been relatively stable, seeing a modest increase in new machinery as private equity dollars are invested into this market. 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, which cannot operate with the economies of scale of larger operations and comprise the majority of industry participants. Through 2020, B. Riley Advisory Services has continued to monitor liquidations in the sawmill and furniture manufacturing spaces, and the aforementioned trend does not seem to have changed substantially from 2019.

B. Riley Advisory Services has seen a reduction in hardwood mill auctions throughout 2020, although machinery values are holding relatively steady. There have been minimal pinewood mill auctions, as the softwood mills have been faring better than the hardwood mills recently. The current dealer market is exhibiting a reduction in values for hardwood mill machinery. This reduction in activity was a trend that began in 2019 but has intensified due to the COVID-19 pandemic, which has caused most auctions to be held online only, rather than on site.

The woodworking and furniture manufacturing industries have enjoyed modest growth in recent years due primarily 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, maintaining efficiencies with shorter product changeovers.

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.
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.
LIQUIDATIONS
B. Riley Advisory Services 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 United States, 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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