A STRONG MARKET EARLY
A healthy market in early 2020 was quickly turned upside down with the onset of the COVID-19 pandemic.

SIGNS OF LIFE?
The lifting of various virus-related restrictions in many areas of the U.S. has led to some semblance of upward softwood pricing momentum in recent weeks.

MIXED SIGNALS FOR HARDWOODS
The elimination of tariffs on hardwood exports to China led to improved demand, but COVID-19 had other plans.
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

<table>
<thead>
<tr>
<th></th>
<th>Lumber</th>
<th>Building Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOLVs</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
<tr>
<td>Sales Trends</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
<tr>
<td>Gross Margin</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
<tr>
<td>Inventory</td>
<td>Mixed</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

**NOLVs**
Early in 2020, upward momentum on the building market set the stage for increasing NOLVs. However, the outbreak of the coronavirus and subsequent decline in market activity resulted in declining NOLVs. Changes in NOLVs were highly correlated to corresponding changes in market prices for various building materials.

**SALES TRENDS**
While a soft lumber market in 2019 resulted in some flat to declining sales trends for engagements completed early in 2020, an uptick in building activity in the new year led to improved sales in many engagements completed later in the first quarter. However, plummeting market activity and economic stagnation in the wake of the COVID-19 outbreak in the U.S. led to disappointing results in many Q2 engagements.

**GROSS MARGIN**
- **Lumber:** Higher market prices for lumber in early 2020 led to improved gross margins amongst distributors and sawmills, particularly for companies selling through lower-cost inventory purchased while market prices were lower in 2019. However, more recent declines in market prices, combined with increased tariff costs and declining demand for companies selling into China or from Canada to the U.S., resulted in subsequent gross margin decreases.

- **Building materials:** In certain cases, such as wallboard, price reductions from vendors have resulted in improved margins. Conversely, vendor prices increased for products such as shingles, negatively impacting margins. Further, distressed companies endured more fixed cost absorption related to lower sales volumes during the pandemic.

**INVENTORY**
Increases in building activity in early 2020 resulted in aggressive buying of many building products. In some cases, the timing of orders and favorable vendor pricing drove purchases. However, this was offset by some lumber companies holding lower-cost inventory purchased during a soft 2019 market, as well as efforts amongst many companies to reduce inventory levels to align to lower demand during the COVID-19 pandemic.

**PRICING**
Prices rose early in the year due to a healthy construction market after a soft 2019. This was somewhat offset for companies that heavily rely on export activity due to the early impacts from COVID-19 overseas that led to sales declines. In the U.S., anticipation of a strong 2020 led to aggressive purchasing of lumber and set the stage for bullish pricing on the market, which was subsequently neutralized by the COVID-19 virus in later months. Pricing for other building materials has been product-specific, with wallboard trending lower and shingles trending higher through portions of 2020.
## Trend Tracker - M&E

<table>
<thead>
<tr>
<th></th>
<th>Woodworking/Sawmills/ Furniture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Used Pricing</strong></td>
<td>Consistent</td>
</tr>
<tr>
<td><strong>Used Trade Movement</strong></td>
<td>Decreasing ▼</td>
</tr>
<tr>
<td><strong>OEM Pricing</strong></td>
<td>Consistent</td>
</tr>
<tr>
<td><strong>Technology Advancement</strong></td>
<td>Consistent</td>
</tr>
<tr>
<td><strong>Auction Activity</strong></td>
<td>Decreasing ▼</td>
</tr>
</tbody>
</table>

- **Used Pricing:** Prices for used sawmill and lumber production machinery have remained stable despite coronavirus-related disruptions within the industry, as long OEM lead times and efforts to create efficiencies in existing mill operations have kept pricing buoyant. Pricing for woodworking equipment has flattened as a recent trend in growth for high-production, late-model CNC machinery has subsided.

- **Used Trade Movement:** Equipment movement in the secondary marketplace has slowed, driven by a reduction in the number of auctions and private treaty liquidation sales. Longer lead times for newer European equipment have pushed many manufacturers to purchase used equipment.

- **OEM Pricing:** With the investment of new machinery into the lumber production sector softening, OEM pricing may see a retraction. The increase in Asian, particularly Taiwanese, machinery continues to negatively affect OEM pricing on European manufacturers.

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

In December 2019, building material prices were coming off a year of generally flat to slightly depressed pricing due to low levels of demand, flattened building activity, and producers looking to tighten supply. However, decreases in mortgage and interest rates, coupled with rising levels of affordable inventory, were promising signs for 2020.

According to the U.S. Census Bureau, the seasonally-adjusted annual rate of single-family housing starts in February 2020 represented a 35.4% increase from February 2019. However, construction starts began to decline in March before plummeting in April as the impact from COVID-19 and the economic recession was felt by the construction market.

The optimistic outlook at the beginning of 2020 led to an initial surge in market pricing for building materials, with demand outpacing supply. However, in the throes of the coronavirus pandemic during March and April, efforts to contain and limit the spread of COVID-19 prompted U.S. state and local governments to issue stay-at-home orders affecting over 90% of the U.S. population. The outbreak led to shuttered businesses and vast layoffs, with over 40 million filing jobless claims in the 10 weeks ended May 23. As was expected, market prices in the construction market subsequently declined in the wake of plummeting demand.

The U.S. Census Bureau reported that the seasonally-adjusted annual rate of single-family housing starts in April 2020 fell 25.4% from the prior month and 24.8% from the prior year. April would prove to be the low point for the construction industry through the first half of 2020, as the seasonally-adjusted annual rate rose slightly from April to May. Despite modest improvement in the wake of many businesses obtaining "essential" statuses and loosening of general restrictions in many states, the rate of construction starts through May 2020 lagged 17.8% behind 2019’s rate. However, with most building material dealers being deemed essential businesses and customers locked into price commitments, market prices rebounded in May and June. Although the market experienced slight month-over-month gains, the industry’s recovery is still in its beginning stages and remains uncertain, particularly with the threat of a second wave of COVID-19 outbreaks still looming.

KEY FACTORS

The outbreak of the coronavirus and subsequent government restrictions negatively impacted demand in the construction market, resulting in declining prices.

Despite building activity plummeting in March and April, market fundamentals remain somewhat healthy, as demonstrated by improved demand and higher pricing in May and June.
Softwood Lumber and Panels

Softwoods, including geniuses such as Spruce, Pine, Fir, and Cedar, are typically used for structural building purposes, as well as millwork. In January and most of February 2020, prior to the full-on COVID-19 outbreak in the U.S., prices for both softwood lumber and panels exhibited year-over-year upswings due to an optimistic outlook for market activity and aggressive purchasing by dealers, prompting increased mill production. Once COVID-19 hit full-force in April, softwood prices decreased dramatically amid an expected decline in demand due to market uncertainties. Although production slowed as well, supply remained greater than demand, causing mills to lower prices in hopes of receiving purchasing offers. However, closed job sites kept purchasing at a low, and prices were negatively impacted by states that initially deemed construction to be non-essential.

As economies began to reopen and most building material dealers were deemed essential businesses, May and June prices exhibited increased pricing year-over-year as supply that had tightened at the mill level in April faced demand increases in May and June. Furthermore, increased demand from box stores due to homeowners taking on do-it-yourself projects contributed to healthy pricing in May and June. Many dealers and retailers reported lumber and plywood flying off the shelves as consumers opted to stay home, working on do-it-yourself projects rather than vacationing this summer. In particular, demand from do-it-yourselfers has positively impacted the paneling market, especially within plywood, keeping prices buoyant. Further, restaurants have been rushing to install outdoor dining areas to adhere to new rules and regulations. Mills are currently scrambling to fulfill backorders, and it remains to be seen when the pent-up demand will be satisfied. As a result of mill curtailments in March and April and the subsequent run-up in demand, futures pricing has been on an upward trajectory recently, with lumber futures pricing up 85% between April and early July.

As a further positive for the market, despite the circumstances surrounding COVID-19, many homebuilders appear to be in a stronger position compared to the recession of 2008, with much less inventory on the ground and healthier backlogs. In a move that could set the stage for lower pricing in the future, the U.S. Department of Commerce (DOC) determined in February 2020 that current countervailing and anti-dumping penalties on Canadian softwoods should be reduced. The DOC announced in early June it is extending the deadline for the Final Determination of the First Administration Review to September 24, 2020, the second such extension since the onset of the COVID-19 pandemic.
Within the hardwood lumber market, depressed export activity to China drove prices downward during the course of 2019, particularly in species such as Red Oak. However, a strong domestic economy, coupled with China’s removal of tariffs on hardwood lumber, resulted in an uptick in pricing and demand to start 2020. The positive outlook was reflected across most species, including industrial lumber such as crossties and pallets, reflecting the strong manufacturing and commercial environment within the U.S. The U.S./China trade dispute had caused harm to a number of hardwood suppliers over the course of the last year, with exports to China falling about 40% by the end of 2019. Signs of an improving trade partnership led to hopefulness that 2020 was shaping up to be a welcome turnaround for the industry.

The tariff dispute between the U.S. and China beginning in 2018 led to a decrease in exports of hardwood to China for 2019 as the result of China levying tariffs on various U.S. products, including hardwoods. However, on January 15, 2020, the U.S. and China signed an initial trade agreement that commits China to purchasing $200 billion of U.S. goods by 2021 while preserving the majority of tariffs placed on $360 billion of Chinese goods. Under the Phase 1 trade deal, approximately $250 billion of Chinese imports will continue to maintain 25% tariffs and the 15% tariff on $120 billion of goods that was enacted in September 2019 will be reduced to 7.5%. On February 21, 2020, China announced it would remove tariffs on certain species of U.S. and Canadian hardwood lumber for one year beginning February 28.

As much of the country began the month of June in a phased reopening, increased sales have been reported throughout the hardwood supply chain. Purchasing remains conservative until a more sustained economic recovery becomes evident, but there is cautious optimism that the domestic housing market will be quick to recover with potential for strong demand toward the end of the summer and into the last quarter.

Appraisal trends in this sector hinged on the effective date of the engagement, as the demand environment shifted dramatically from Q1 into Q2. Valuations conducted in the early part of 2020 reflected an improved pricing and demand market with appraised valued generally increasing. This shifted as effective dates moved forward to March 31 and beyond, as consumer demand softened and valuation strategies reflected a potentially over-inventoried environment. Appraised values declined between one and 10 percentage points, depending on inventory levels and channels of distribution. Going forward, a continued slow recovery and healthy housing market would reverse the negative valuation impacts incurred in Q2 but will require monitoring.
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 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, GA has continued to monitor liquidations in the sawmill and furniture manufacturing spaces, and this trend does not seem to have changed substantially from 2019.

GA 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 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. GA 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. GA 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 GA Business Development Officer.

The information contained herein is based on a composite of GA’s 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. GA does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither GA 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.
LIQUIDATIONS
GA 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, GA 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, GA maintains contacts within the building materials and lumber and woodworking equipment industries that we utilize for insight and perspective on recovery values. GA is a subsidiary of B. Riley Financial, Inc., whose affiliate B. Riley FBR, is nationally recognized for its highly ranked proprietary equity research.
Great American Group is a leading provider of asset disposition solutions and valuation and appraisal services to a wide range of retail, wholesale, and industrial clients, as well as lenders, capital providers, private equity investors, and professional services firms. In addition to the Building Materials Monitor, GA also provides clients with industry expertise in the form of monitors for the chemicals and plastics, metals, and food sectors, among many others. For more information, please visit www.greatamerican.com.

Great American Group, LLC is a wholly-owned subsidiary of B. Riley Financial, Inc. (NASDAQ: RILY). B. Riley Financial provides collaborative financial services and solutions tailored to fit the capital raising and financial advisory needs of public and private companies and high net worth individuals.

The company operates through several wholly-owned subsidiaries, including B. Riley FBR, a full-service investment bank and institutional brokerage; Great American Group, a leading provider of asset disposition, appraisal, corporate advisory and valuation services; GlassRatner, a specialty financial advisory services and consulting firm; B. Riley Wealth Management, providing comprehensive wealth management services to individual and corporate clients; B. Riley Capital Management, which offer investment management to institutional and high net worth investors; Great American Capital Partners, which originates and underwrites senior secured loans for asset-rich companies; and B. Riley Principal Investments, which invests in or acquires companies and assets with attractive return profiles.

B. Riley Financial, Inc. is headquartered in Los Angeles with offices in major financial markets throughout the United States, Europe, and Australia. For more information on B. Riley Financial, Inc., please visit www.brileyfin.com.