GREAT AMERICAN GROUP



Monitor Mulding Materials



A FAR CRY FROM LAST YEAR

DOMESTIC DEMAND

The optimism persisting on the domestic construction market over the past few years is waning, despite the impending building season

CAUTION ABOUNDS

Wary of further price drops, market participants limit purchasing

HARDWOOD TUMULT

The domestic hardwood market is working to cope with falling export demand

In This Issue

MONITOR BUILDING MATERIALS GREATAMERICAN.COM JUNE 2019 800-45-GREAT 301

Trend Tracker	10	Building Materials Reference Sheet
Overview	11	Monitor Information
Softwood Lumber	12	Experience
Softwood Panels	13	Appraisal & Valuation Team
Hardwood Lumber	14	About Great American
Lumber and Woodworking Equipment		
	Overview Softwood Lumber Softwood Panels Hardwood Lumber Lumber and Woodworking	Overview 11 Softwood Lumber 12 Softwood Panels 13 Hardwood Lumber 14 Lumber and Woodworking



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	Decreasing ▼	Decreasing ▼
Sales Trends	Decreasing ▼	Increasing A
Gross Margin	Decreasing ▼	Mixed
Inventory	Mixed 🔷	Increasing

NOLVS

- Lumber: NOLVs generally declined over the past quarter and versus the prior year as pricing declined from the mid-2018 peak as a result of lower demand and higher inventory levels on the market, resulting in declining gross margins. In addition, hardwood tariffs have reduced export demand, negatively impacting NOLVs.
- Building materials: NOLVs declined among most segments due to higher wallboard pricing and less favorable market conditions for other building materials.

SALES TRENDS

- Lumber: Sales trends for lumber declined due to a lack of demand on the market as a result of a high level of caution among builders and distributors.
- Building materials: Sales trends have largely been positive, particularly for wallboard. Further, M&A activity has spurred improvements among items such as mouldings and wallboard.

GROSS MARGIN

 Lumber: Gross margins have been declining due to supply outstripping demand, with high production volumes in the second half of 2018 combined with low export demand as a result of tariffs, as well as slowed domestic demand.

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

Building materials: Gross margins have been mixed, as
prices for items such as wallboard and vinyl siding have
climbed, in some cases due to tariffs for products such as
steel studs and tracks. Depending on the ability of a given
company to implement price increases, this has resulted
in either short-term margin gains or losses.

INVENTORY

- Lumber: High inventory levels remaining after the summer of 2018 have led to cautious buying on the market.
 Inventories have remained inflated in some cases, while others have curtailed production and purchases enough to lower inventories.
- Building materials: Higher wallboard prices have inflated inventories, while the upward pricing effects of tariffs on certain metal products have lingered.

PRICING

- Softwoods: Low demand and cautious buying resulted in a precipitous drop in pricing since last summer.
- Hardwoods: Trade conflicts since last year have hurt export demand, resulting in year-over-year price drops for many hardwoods. Strong domestic demand, shifts in production and target markets, and low supply levels thus far in 2019 have resulted in short-term price increases.



Trend Tracker - Machinery & Equipment

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



- Used Pricing: While the secondary market for woodworking
 machinery has been relatively flat for several years, a recent trend
 of consistent growth in values of high production, late model CNC
 machinery and the onshoring movement of furniture manufacturing
 has subsided as well.
- Used Trade Movement: Equipment movement in the secondary marketplace continues to see an increase as indicated by more sawmill and woodworking auctions and private treaty liquidation sales.
- 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 Taiwan) machinery continues to negatively affect pricing for European manufacturers.
- Technology Advancement: Technology and automation are consistent. With the recent availability of private equity funds, many companies continue to spend investment dollars to automate with upgraded CNC controls and upgraded software to maximize efficiency returns. Some of the efficiency returns are being seen with emerging 3D prototyping technologies as they become affordable across most levels of business.



Overview

After a period of significant gains and losses, the construction materials market began to normalize in late 2018 and is currently marked by caution. Pricing has largely normalized, but may be poised to increase.

At the time of the prior release of GA's Building Materials Monitor in December 2018, the construction materials market was beginning to normalize after a period of significant gains and losses. Pricing hit 20-year highs in the early summer of 2018, catalyzed by tariffs, poor weather conditions, and transportation issues, in addition to a generally expanding domestic construction market.

However, pricing fell precipitously in the third quarter, carving out a downward trajectory that saw five consecutive months of softwood pricing declines on the heels of a softening construction market and the alleviation of many of the aforementioned issues. While tariffs persist, many of the other mitigating factors have been lessened or removed from the equation.

Cautiousness currently characterizes the market. With demand surging this time last year, inventories ballooned with high-cost product amid transportation concerns that extended lead times throughout the market. After prices fell in subsequent months, sellers saw tight margins and even losses at the tail end of 2018. Wary of further price declines, distributors have reduced purchase levels thus far this year.

While pricing has largely normalized in 2019, there are few indications that a bullish pricing run is on the horizon, at least in the short term. According to Dodge Data and Analytics (Dodge), the money spent on construction starts year-to-date through April 2019 was \$224.5 billion, a decrease of 8% from the prior year. The overall decline in construction starts has extended to all three major construction categories, with non-residential declining 3%, residential declining 12%, and non-building declining 10% through the first four months.

With a lack of affordability in the homebuying market, declining construction indicators for both single-family and multifamily housing, and inventory levels at near-saturation points throughout the industry, pricing is poised to remain in check in the coming months. While the market is still relatively healthy and a long way from panic-mode, the lack of upward price movement heading into what is traditionally the building season is concerning to say the least.

KEY FACTORS

Oversupply on the market has resulted in cautious buying over the past 12 months.

The upward trajectory that building material pricing typically takes heading into the traditional building season has yet to take shape.



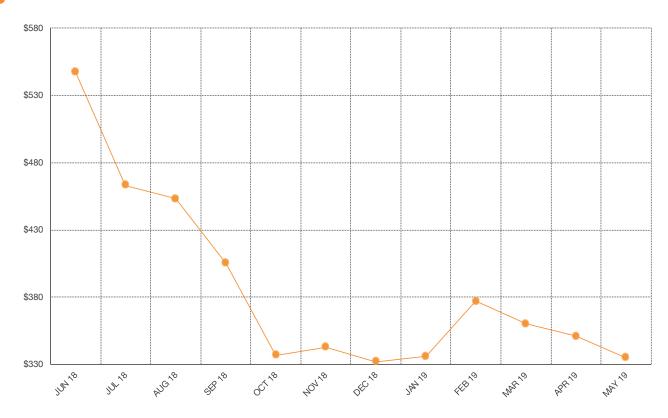
Softwood Lumber

Softwood lumber, including genuses such as Spruce, Pine, Fir, and Cedar, is typically used for structural building purposes, as well as millwork. Inventories across the market are outpacing current demand, despite the impending building season. Mortgage rates and home prices remain high, deterring homebuyers.

Although the devastation caused by Hurricanes Harvey and Irma previously drove demand and pricing in the run-up to record high pricing in mid-2018, poor weather conditions had the opposite effect in subsequent months. Heavy rains in the South and snow in the North delayed projects in the winter, but the anticipated boost when projects commenced in the spring failed to materialize.

Despite relative health in the domestic building market, buyers and builders alike are taking a wait-and-see approach thus far in 2019 – and with good reason. According to Random Lengths, the framing lumber composite price rose from less than \$400 per thousand board feet (mbf) in June 2017 to over \$580 per mbf in June 2018 before reversing course through the remainder of 2018. It remains to be seen how the industry responds to warmer weather and the traditional building season, particularly one year removed from such market volatility. Construction activity has failed to impress thus far in 2019 and is unlikely to match last year's pace; on the flip side, the pricing stability through the first half of the year might be a welcome change for some parties still smarting from a tumultuous 2018.

1 Softwood Lumber - Price per MBF





Softwood Panels

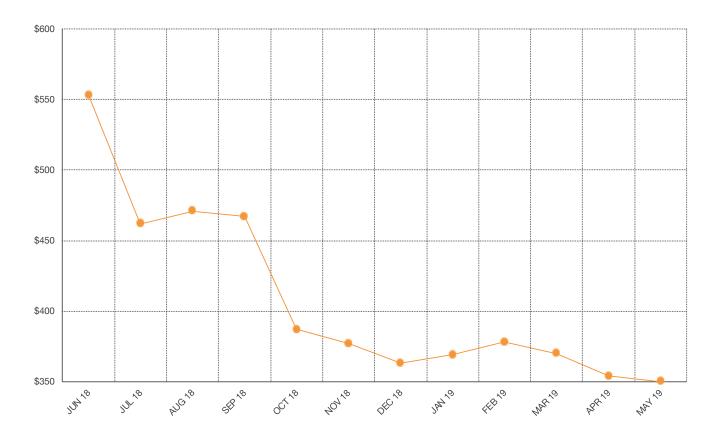
Softwood panel pricing traditionally follows a similar trajectory to that of framing lumber. As can be seen in the graph below, the course of softwood paneling has nearly mirrored that of its lumber counterpart. Supplies continue to outpace demand by a large degree. Random Lengths reports that pricing has continued to decline unabated since last summer. In some cases, such as 7/16 inch Western Canada oriented strand board, prices are as low as they have been since 2011.

Similar to the softwood lumber market, the softwood panel market remains leery after a torrid end to 2018. Buyers on the market have settled into a pattern of replenishing inventory only to meet current demand, avoiding any hint

of overexposure. Efforts have been made at the mill level to curtail production and keep inventories lean, but upward pricing momentum has failed to materialize, particularly in the South, where a stormy April caused a multitude of project delays.

The general negative feeling in the panel market comes with the caveat that activity is likely to pick up in the summer. Further, one significant storm and the resulting efforts to rebuild communities can be enough to catalyze major price surges for panels. Still, with summer construction looking more and more likely to fall short of last year's activity, the prevailing opinion amongst all concerned is to proceed with caution.

Softwood Panels - Price per MBF



Hardwood Lumber

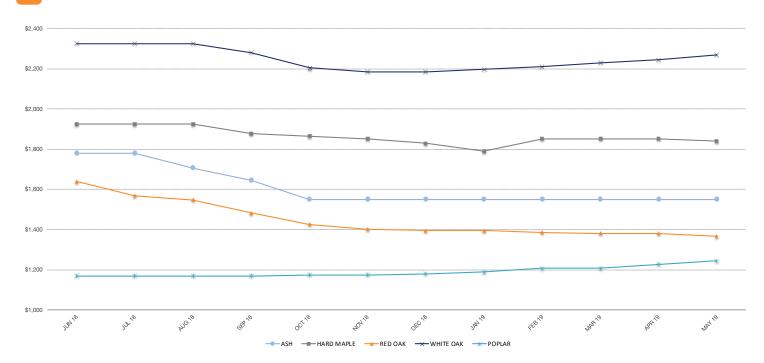
Consistent with historical trends, hardwood lumber pricing typically exhibits a far lower level of volatility as compared to softwood lumber. However, the market segment is not immune to fluctuations, as can be seen in the graph below. In recent months, the industry has experienced a significant decline in export momentum but solid domestic demand.

Consistent with GA's prior *Building Materials Monitor* released in December 2018, uneasiness on the export market resulted in a downward pricing trajectory for hardwoods at the tail end of the year. Since then, the trade war between the U.S. and China has created further tumult on the hardwood market. The U.S. raised tariffs from 10% to 25% on hardwood lumber imported from China, effective May 10, 2019, which was countered by the enactment of Chinese tariffs of up to 25% on hardwood products imported from the U.S.

Many U.S. exporters have reported cancelled or delayed purchases in the wake of these tariffs. In response, domestic hardwood mills have shown a high level of caution in their output. Certain mills have intentionally slowed production, while other mills have shifted production based on demand, targeting specific markets such as cabinet and flooring manufacturing or specific products such as ties.

Domestically, certain factors have exerted upward pricing pressure. In the South, weather conditions have limited production, keeping supplies low. While certain species such as Red Oak and Ash are suffering from a dearth of demand both domestically and internationally, supplies of species such of White Oak and Poplar are being consumed readily by the market. Although demand certainly is not booming, it remains healthy overall. The National Association of Home Builders' Remodeling Market Index posted a reading of 54 in the first quarter of 2019. Despite declining three points from the prior quarter, any reading above 50 indicates improvement in the market indicated by respondents.





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, each category responds 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 began investment into this market to take advantage of the apparent resiliency of housing and commercial construction markets. This investment has bolstered secondary pricing of used machinery as lead times from OEMs became longer. The most recent IBISWorld report states that the woodworking machinery industry continues to be in a position for 0.8% growth during the next five years.

The overall number of sawmill and wood production enterprises has declined at an annualized rate of 1.5% over the last five years, although employment and revenue have increased at an annualized rate of 2.7% and 5.3%, respectively. The lumber and woodworking market continues to see fewer closures, consolidations, and restructurings within producers and wholesalers. Most of the closures have been single-location operations, which cannot compete with the economies of scale of larger operations and comprise the majority of industry participants.

Through 2019, GA continues to monitor liquidations in the sawmill and furniture manufacturing spaces, and this does not seem to have changed much from 2018. Even though 2018 produced a slight increase in auctions of used equipment, the current market for used mill and woodworking equipment is more stable than in previous years. This trend seems to be continuing into 2019. As larger and more regional sawmill production facilities become more specialized and niche due



to profitability concerns, the secondary market is seeing more general equipment as producers shed assets not deemed necessary to ongoing operations.

The woodworking and furniture manufacturing industries have enjoyed modest growth in recent years primarily 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 to maintain efficiencies. These equipment changes are also needed to remain competitive with foreign import products.

According to a recent IBISWorld report on household furniture manufacturing in the U.S., the recent growth trend is expected to turn, and revenues are forecasted to decline by an annualized rate of 1.3% over the next five years. This trend is due mainly to an increase of imported products, which will reach an estimated 55.1% of the domestic market in the next five years. These factors relate directly to the prices of used machinery in the secondary market, although with a noticeable lag. Recent tax cut incentives have allowed woodworking facilities to invest greatly in automation and more efficient machinery to bolster profits.

Building Materials Reference Sheet

SOFTWOOD LUMBER AND PANEL PRICING (\$ PER MBF)

	Year-Over-Year Change	Quarter-Over- Quarter Change
Average Softwood Framing Lumber (\$330 to \$590/mbf)	(42.4%)	(6.3%)
OSB (\$225 to \$505/mbf)	(53.8%)	(6.6%)
Pine Plywood (\$510 to \$690/mbf)	(25.0%)	(5.4%)

HARDWOOD LUMBER PRICING - GREEN - FAS GRADE (\$ PER MBF)

	Year-Over-Year Change	Quarter-Over- Quarter Change
Red Oak (\$905 to \$1,170/mbf)	(22.6%)	(5.8%)
White Oak (\$1,683 to \$1,775/mbf)	0.3%	1.2%
Ash (\$1,080 to \$1,285/mbf)	(13.6%)	(3.9%)
Poplar (\$820 to \$945/mbf)	15.2%	0.5%
Hard Maple (\$1,360 to \$1,515/mbf)	(9.0%)	(2.7%)

HARDWOOD LUMBER PRICING - KILN-DRIED - FAS GRADE (\$ PER MBF)

	Year-Over-Year Change	Quarter-Over- Quarter Change
Red Oak (\$1,360 to \$1,640/mbf)	(16.5%)	(1.4%)
White Oak (\$2,180 to \$2,325/mbf)	(0.3%)	2.6%
Ash (\$1,550 to \$1,780/mbf)	(11.7%)	0.0%
Poplar (\$1,170 to \$1,250/mbf)	7.3%	3.6%
Hard Maple (\$1,790 to \$1,925/mbf)	(4.4%)	0.5%

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.



Experience

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
- 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 highend 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.



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About Great American Group

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, food, and paper and packaging sectors, among many others. For more information, please visit www.greatamerican.com.

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