



RESEARCH BRIEF
Supply Chain Issues in Housing

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STATE OF THE RESEARCH

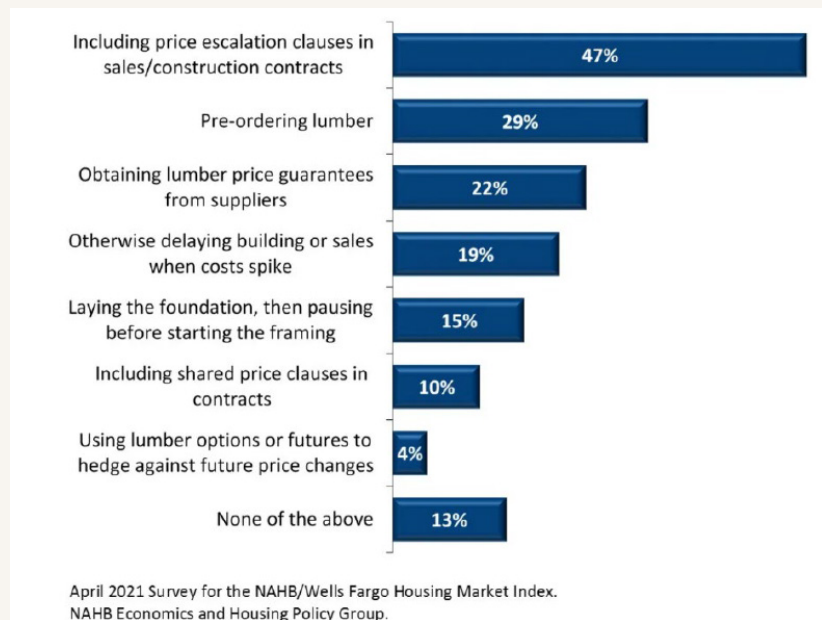
Given the spike in lumber prices experienced within the first half of 2021, a number of press outlets and trade associations are examining the impact of supply chain issues on housing production and housing prices. A number of issues—including labor shortages in production and transport, robust demand for new housing, and trade policies regarding lumber imports from Canada—combined to create a “perfect storm” that resulted in all-time highs for lumber prices in May 2021, up four times relative to pre-pandemic prices (\$1,600 per thousand board feet versus \$400 in February 2020). These supply chain-driven disruptions contributed to uncertainty in the housing market, delays in developments, and price volatility for builders and consumers alike.

BACKGROUND & SUMMARY

In April, the National Association of Homebuilders estimated the cost of lumber (at that time \$1,200 per thousand board feet) was adding \$36,000 to the cost of a typical single-family home and \$119/month in rent for a typical new multi-family unit. Economists suggest that the price jump was a typical case of supply/demand imbalance, resulting from a massive supply chain disruption, due to COVID-19. While producers and processors of lumber—similar to recessions past—had pulled back production in response to the anticipated economic downturn, home builders experienced robust demand for new units and retail consumers of lumber—stuck at home due to the pandemic—undertook home improvement projects. The lumber supply could not keep up. While lumber prices have abated due to the highs realized in May, they still remain twice as high as their pre-pandemic costs (as of late June 2021).

The impacts from supply chain shortages extend beyond lumber. Commodities such as steel and aluminum and durable goods such as appliances and home furnishings are likewise experiencing supply chain issues. These bottlenecks lead to price volatility that has led to some builders delaying projects and/or including price escalation clauses in sales/construction contracts (see Figure 1); both ultimately impact the end consumer as housing supply remains tight and the costs to the consumer remains uncertain. Builders are also seeking price guarantees for lumber from their suppliers; however, given the extreme volatility in prices, doing so has been more challenging than it typically has been.

FIG 1. HOW BUILDERS HAVE DEALT WITH THE RECENT INCREASE IN LUMBER PRICES



Source: National Association of Homebuilders



Sensitive to the impacts that runaway prices on any commodity may have on inflation, the Federal Reserve and the White House are monitoring these supply chain challenges and note that these issues resulting from COVID-19 are likely to be transitory. A brief issued by the White House Council of Economic Advisors in early June noted that 36 percent of small businesses are reporting delays with suppliers, including roughly 60 percent of respondents in manufacturing and construction reporting delays, holding back business activity. The brief notes, historically, markets have typically made their way back to equilibrium relatively quickly following supply chain disruptions in specific industries.

Beyond the supply chain challenges, some worry that the high cost of materials relative to historic norms coupled with robust demand for new housing, may reflect structural issues beyond the supply chain bottleneck. Freddie Mac estimates the US is already 3.8 million houses shy of meeting demand, and the National Association of Realtors estimates 5.5 million new residential units are needed to keep up with demand for the next decade; thus demand for building materials is likely to remain high. Builders also report continued difficulty in finding skilled tradesman to employ, noting that many workers left the building trades following the housing crisis and the subsequent recession. A trade publication examining supply chain issues, *Supply & Demand Chain Executive*, also notes similar labor shortages in the production and transportation sectors. Additionally, US trade policy—specifically tariffs imposed on Canadian softwood lumber—have likely contributed to supply chain shortages as well.

Once the supply chain issues with building materials abates—through increased production and more predictable pricing—it may be reasonable to expect the cost of building inputs could remain at or above historic norms, thus placing upward pressure on housing prices and rents. Further, there are some indications from industry analysts that, given demand for new housing, builders will be able absorb savings from any reductions in input costs while retaining the marginal savings as profit, which may continue to keep housing prices relatively high for the foreseeable future.

RELATED RESEARCH & COMMENTARY

How Builders Try to Deal with Rising Lumber Prices (National Association of Homebuilders): Available at <https://eyeonhousing.org/2021/04/how-builders-try-to-deal-with-rising-lumber-prices/>

How the lumber industry misread Covid and ended up with a global shortage and sky-high prices (NBC News): Available at <https://www.nbcnews.com/business/economy/how-lumber-industry-misread-covid-ended-global-shortage-sky-high-n1272542>

Why the Pandemic Has Disrupted Supply Chains (Why the Pandemic Has Disrupted Supply Chains): Available at <https://www.whitehouse.gov/cea/blog/2021/06/17/why-the-pandemic-has-disrupted-supply-chains/>

Lumber Shortage Is the Latest to Exhibit Supply Chain's Impact (Supply & Demand Chain Executive): Available at <https://www.sdexec.com/sourcing-procurement/article/21427201/lumber-shortage-is-the-latest-to-exhibit-supply-chains-impact>

Lumber Prices Are Way Down—but Don't Expect New Houses to Cost Less (Wall Street Journal) Available at <https://www.wsj.com/articles/lumber-prices-are-way-down-but-dont-expect-new-houses-to-cost-less-11626260401>

Lumber Prices Are Falling Fast, Turning Hoarders Into Sellers (Wall Street Journal): Available at <https://www.wsj.com/articles/lumber-prices-are-falling-fast-turning-hoarders-into-sellers-11623749401>



Supply chain issues still stymieing homebuilders (HousingWire) Available at <https://www.housingwire.com/articles/supply-chain-issues-still-stymieing-homebuilders/>

U.S. trade chief pressured to lift duties on Canadian lumber (Reuters): Available at <https://www.reuters.com/business/us-trade-chief-pressured-lift-duties-canadian-lumber-2021-05-16/>