



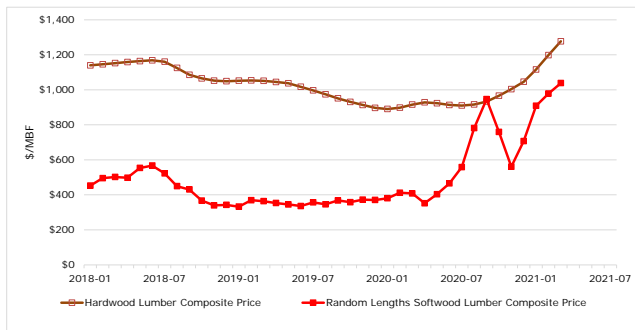
Spiking Lumber Prices and Flat Stumpage Prices

Much has been written recently about sharply higher lumber prices and how stumpage prices have not responded to that. In this *Research Note*, we look at the data to see what is going on. As is often the case, softwood markets have behaved differently than hardwood markets.

Lumber Prices Are Up Sharply

There is no doubt that softwood lumber prices are up sharply, and hardwood prices are up from recent lows (Figure 1).

Figure 1. Lumber Prices Since 2018



Sources: *Random Lengths. Hardwood Market Report and Hardwood Review Weekly*

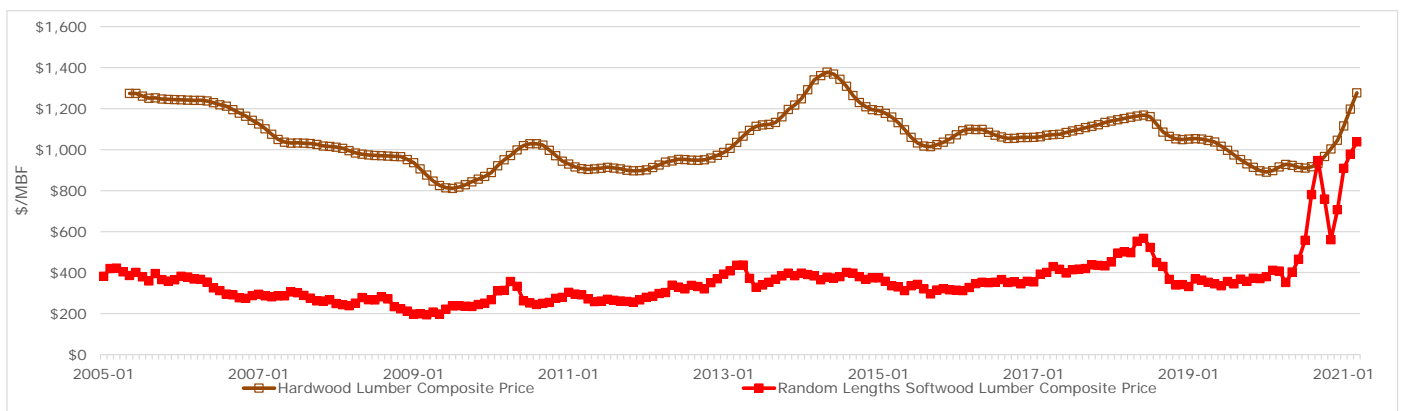
The softwood price is the Random Lengths Framing Lumber Composite, which is a mix of

softwood species, grades and sizes. The hardwood price is a weighted-average of red oak, hard maple, and yellow-poplar which account for about 40 percent of the hardwood timber inventory in the north and Appalachia regions. The price for each species is an average of the FAS and #1 common kiln dry and green 4/4 lumber.

Both species groups saw a decline in mid-2018 as the tariff war with China began (see Vol 17 No 4, *Exports, Tariffs and Pandemics*). Softwood prices had leveled off by the beginning of 2019, but hardwood prices kept falling for another year. The graph shows that prices for both groups are up in 2020 and 2021, but softwood prices are up 173 percent since January 2020, while hardwood prices are up “only” 43 percent(!).

As always when dealing with timber markets, a longer historical look can be helpful (see, for example, Vol 7 No 3, *China Exports in Perspective*). Figure 2 shows lumber prices since 2005. Here we see that hardwood prices are up, but they have been at this level twice in the past 15 years. On the other hand, softwood lumber prices have never been this high (our data series goes back to 1998).

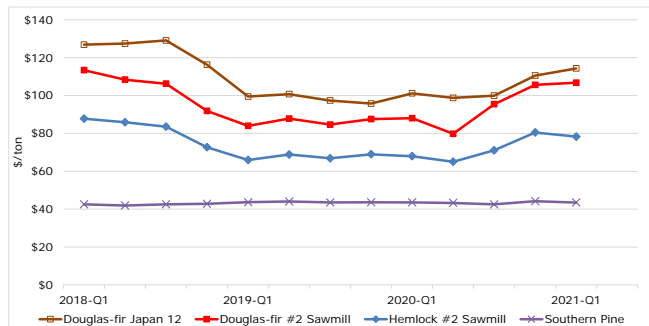
Figure 2. Lumber Prices Since 2005



Sources: *Random Lengths. Hardwood Market Report and Hardwood Review Weekly*

Stumpage and Log Prices Aren't Up Sharply

Figure 3. Softwood Log Prices Since 2018

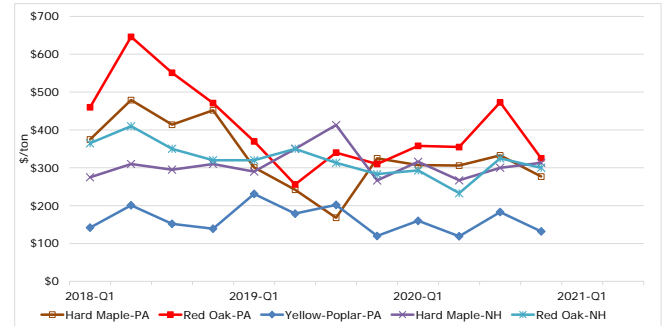


Sources: *Log Lines, OR/WA Log Market Report, OR Dept of Forestry, Timber Mart-South*

Figure 3 and Figure 4 confirm that timberland owners have not seen the spike in lumber prices move through the supply chain to their trees. Western softwood log prices (Figure 3) have seen some improvement over the past six months, but nothing like what has been seen in softwood lumber prices. Southern landowners have seen no change in prices for many years.

Hardwood stumpage prices have also shown little impact from recent lumber price improvements (Figure 4). These prices are for northwestern Pennsylvania and northern New Hampshire. The chart shows that Pennsylvania prices were hit hard by the tariff war beginning in mid-2018, but did manage to recover and level off during 2020.

Figure 4. Hardwood Stumpage Prices Since 2018

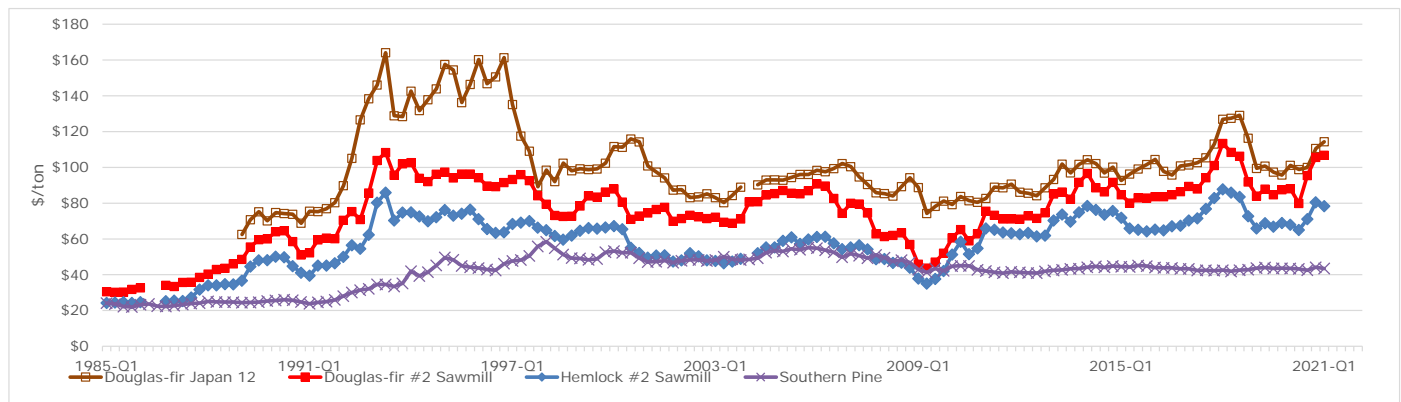


Sources: *PA Cooperative Extension, NH Timberland Owners Association*

The next two charts show longer series of log and stumpage prices. They clearly show that neither species group is currently experiencing record-high prices.

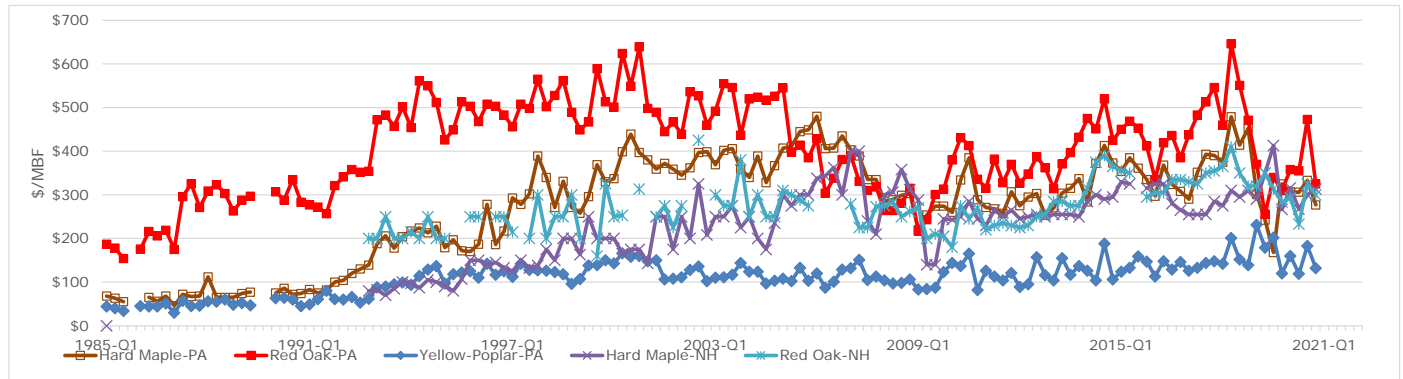
With lumber prices spiking and stumpage prices low, this should be a great time for sawmills to make a *fortune*, right? Those mills should be sawing every stick they can get out of the forest, right? But US softwood lumber production has increased only slightly, Canada's production is down, and US hardwood lumber production fell to record low levels in mid-2020 and has not recovered to pre-tariff war levels (Figure 7 and Figure 8).

Figure 5. Softwood Log Prices Since 2005



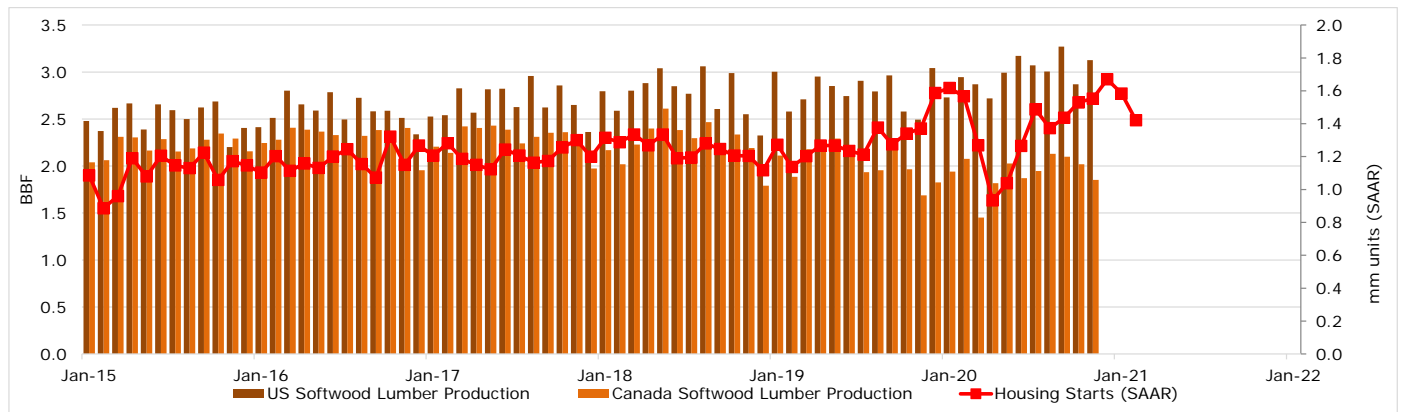
Source: *Sources: Log Lines, Pacific Rim Wood Market Report, OR/WA Log Market Report, OR Dept of Forestry, Timber Mart-South*

Figure 6. Hardwood Stumpage Prices Since 2005



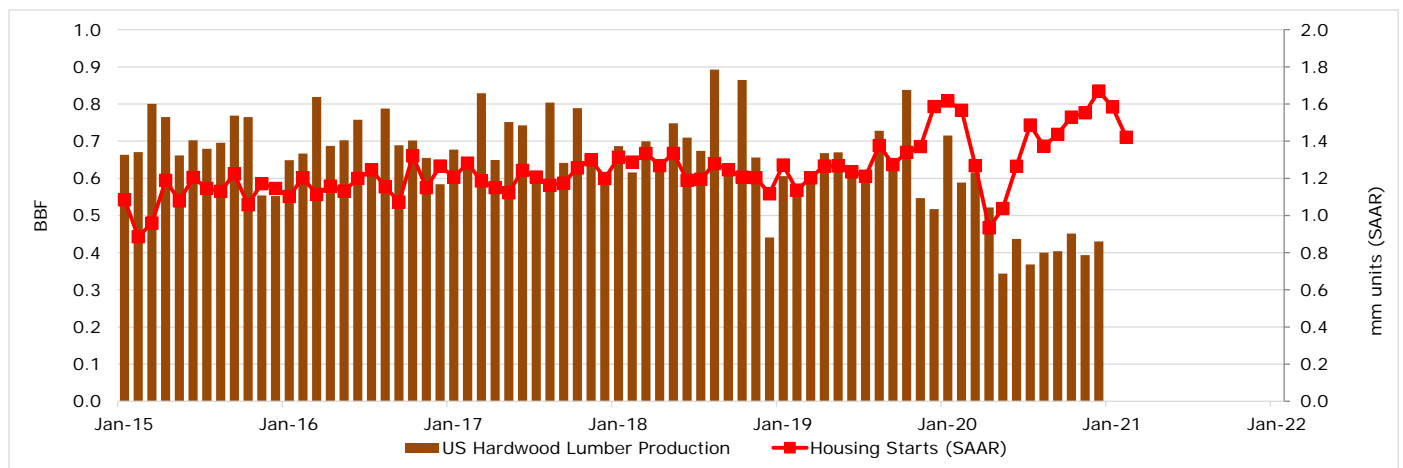
Sources: PA Cooperative Extension, NH Timberland Owners Association

Figure 7. North American Softwood Lumber Production and US Housing Starts



Source: Western Wood Producers Association, Southern Forest Products Association, Statistics Canada, US Department of Commerce

Figure 8. US Hardwood Lumber Production and US Housing Starts



Source: Hardwood Market Report, US Department of Commerce

Causes for Lumber Price Spike

Lumber prices have spiked because there is a shortage of lumber and mills have been unable to increase production to meet the demand.

Strong Demand

Housing starts hit 1.4 million units in 2020, the highest annual number since 2006 (1.7 mm units). It was often reported that people stuck at home during the pandemic were buying a lot of lumber for DIY projects. The Joint Center for Housing Studies at Harvard University showed steady increases in home improvement expenditures over the past year. Overall, lumber demand increased strongly in 2020.

But supply did not and could not. There are plenty of trees in the forest. They just can't be turned into logs and lumber for now.

Labor Constraints—Coronavirus

Mills had to close temporarily as the pandemic hit. There are no exact numbers, but based on press reports and announcements by some of the larger softwood lumber producers, it is likely that every sawmill in the US and Canada shut down for 2-4 weeks in 2020 to deal with COVID cases and outbreaks and physical changes to production lines and break rooms to keep workers safe.

Labor Constraints—Unemployment Benefits

In the US, the federal government provided significant supplements to state unemployment insurance payments that encouraged some workers to stay home when mills tried to reopen or expand production. Some jobs at sawmills require you to sit in an air-conditioned/heated, sound-proofed booth in a comfortable chair, pushing buttons and moving a joy stick. Other jobs (e.g., green chain) have you exposed to heat and cold and biting insects, moving heavy green lumber from a moving conveyor to a bin or cart by hand—and if you were paid almost as much to stay home as to work, you might stay home while high unemployment payments lasted.

So, mills have not been able to add days or shifts to produce more lumber. They also have had trouble getting more logs to saw into lumber.

Log Supply Constraints—Labor

Logging companies also had to deal with the pandemic. It seems less likely that the virus would be spread in that workplace—most(?) loggers now sit in the climate-controlled cabs of expensive logging machines. But mill shutdowns would cause logging shutdowns, putting the logging crews on unemployment.

Trucking companies also had to deal with the virus, mill shutdowns and unemployment payments.

Log Supply Constraints—Pulp Mill Closures

Hardwood sawlog supplies in the northern US and in Canada have also been constrained by pulp mill closures. As schools and businesses closed and sent their students and employees home to learn and work, demand for printing and writing papers dropped sharply. A lack of markets for hardwood pulpwood can halt logging operations because landowners don't want that low-value material left behind.

Summary

US housing starts finished strong in 2020 in spite of a sharp drop in March and April, and home improvement spending remained strong.

Sawmill closures resulted in the loss of 2 or 3 (and possibly 4) weeks of production for the year. That drop in lumber production in the face of strong demand led to increasing lumber prices. But sawmills have not been able to add hours or days or shifts because they can't get more workers or logs.

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