



A Tale of Two Regions

(And a Little About a Third Region)

Softwood sawtimber is a key driver of timberland returns and demand for sawtimber is driven almost entirely by softwood lumber production—if you want softwood lumber, you have to have make it from a softwood sawlog.

The Northeast US dominated softwood lumber production (in what would become the US) from the early 1600s until the advent of the steam engine in the mid-1800s. The Northeast was able to use rivers to transport logs from the woods to the mills, power those mills and then ship lumber to the rest of the country and the world.

The South and West did not have the water resources of the Northeast. The steam engine allowed logs to be hauled out of the woods by logging railroads to steam-powered sawmills, and

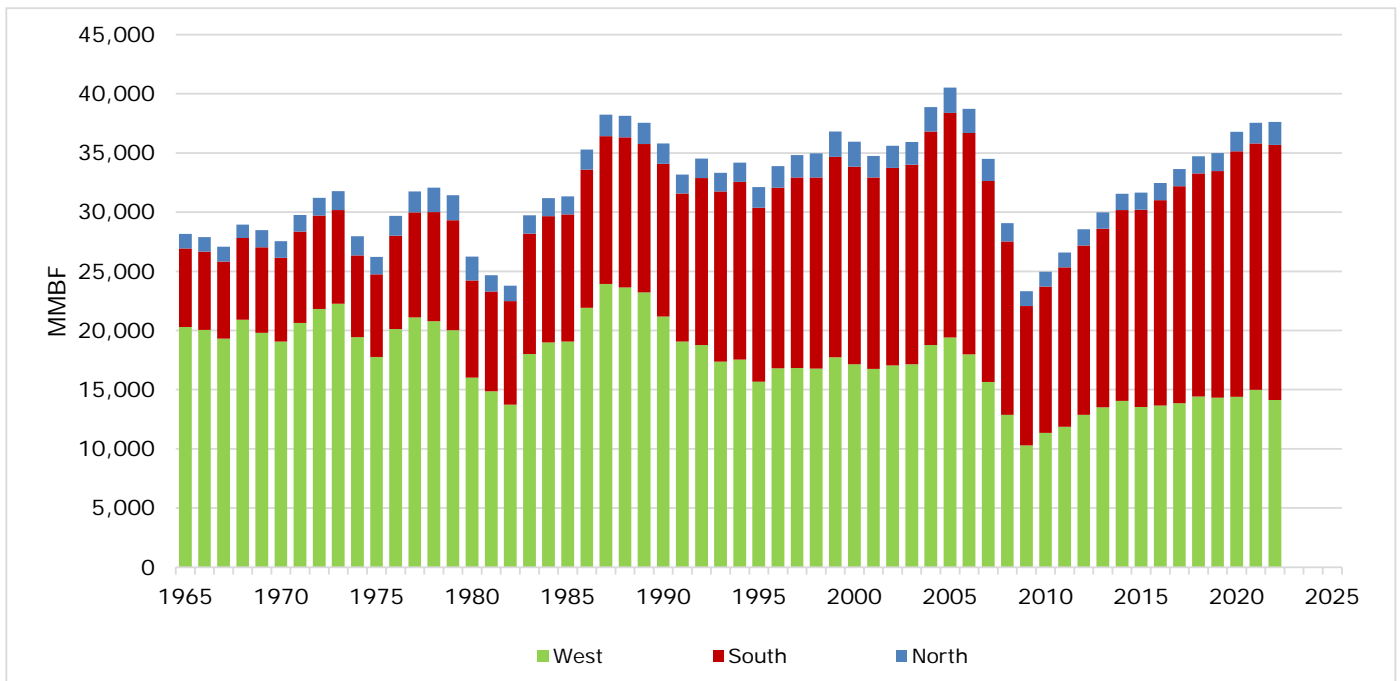
then ship lumber by rail to the rest of the country. (This was also true for the Lake States, which are now lumped into the North (that third region).)

Both the South and the West regions are larger in forested area and have greater softwood resources than the North. This allowed each of them eventually to vastly out-produce the North. Figure 1 shows annual US softwood lumber production for the 60 years beginning in 1965.

US production peaked at 40.5 BBF in 2005, then collapsed along with housing starts and much of the global economy. Production then rose steadily from the low of 23.3 BBF (lowest of the past 60 years) in 2009 to 37.6 BBF in 2022.

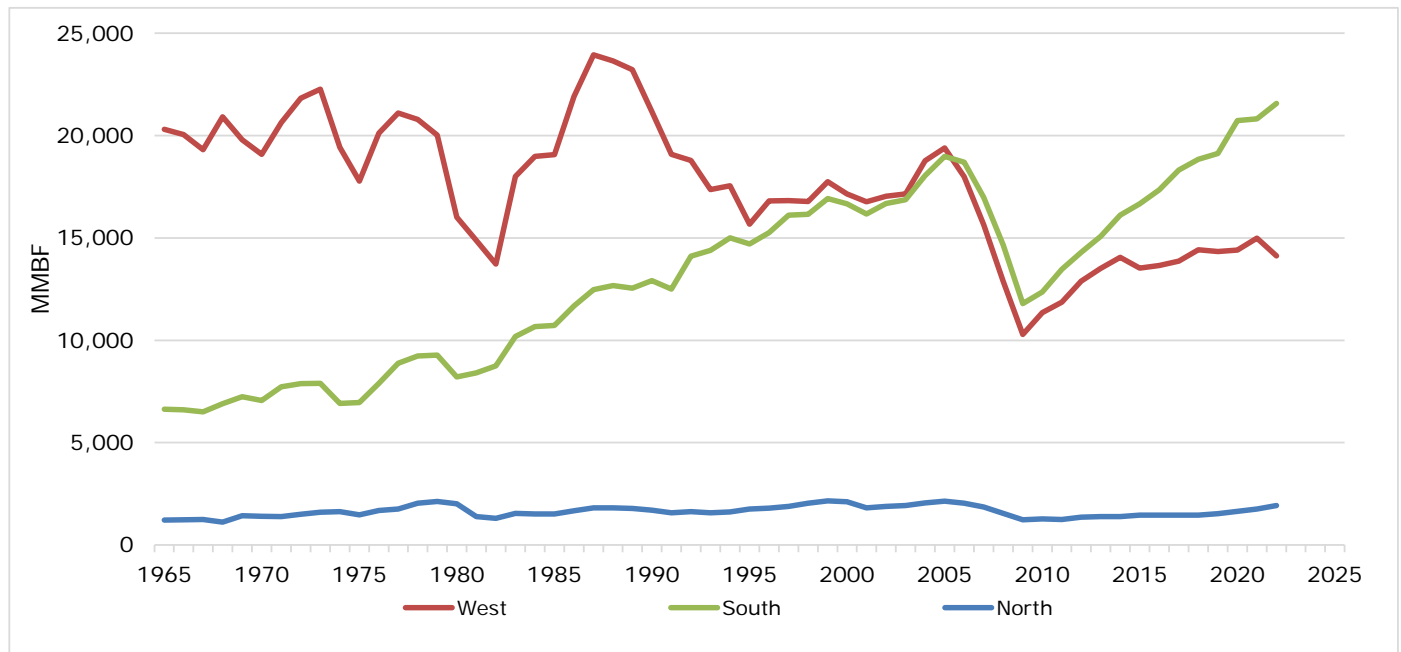
Figure 2 shows the same data in a format that makes it a little easier to compare the regions.

Figure 1. Annual US Softwood Lumber Production, 1965-2022



Sources: US Forest Service, Western Wood Products Association, Southern Forest Products Association

Figure 2. Annual US Softwood Lumber Production, 1965-2022



Sources: US Forest Service, Western Wood Products Association, Southern Forest Products Association

Softwood lumber production in the South increased steadily from the late 1960s until 2005, when it reached 19.0 BBF. Production fell to 11.8 BBF in 2009 and has been increasing very steadily since then. The region produced 21.5 BBF in 2022—its highest volume of the past 60 years.

Western softwood lumber production peaked at 23.9 BBF in 1987. A significant portion of the western timber supply was removed from the market in the early 1990s as timber harvesting was halted on western National Forests in an effort to protect the endangered northern spotted owl. But softwood lumber in the West increased very slightly over the next decade—it even rose more sharply in the run up to the Global Financial Crisis.

With the closure of the western National Forests, softwood lumber production volume in the two regions was nearly the same—the West produced less than 1 BBF more than the South between 1997 and 2005. The South has led the West in production since then. The West seemed to be keeping up with the South until 2014, when its rate of increase slowed significantly.

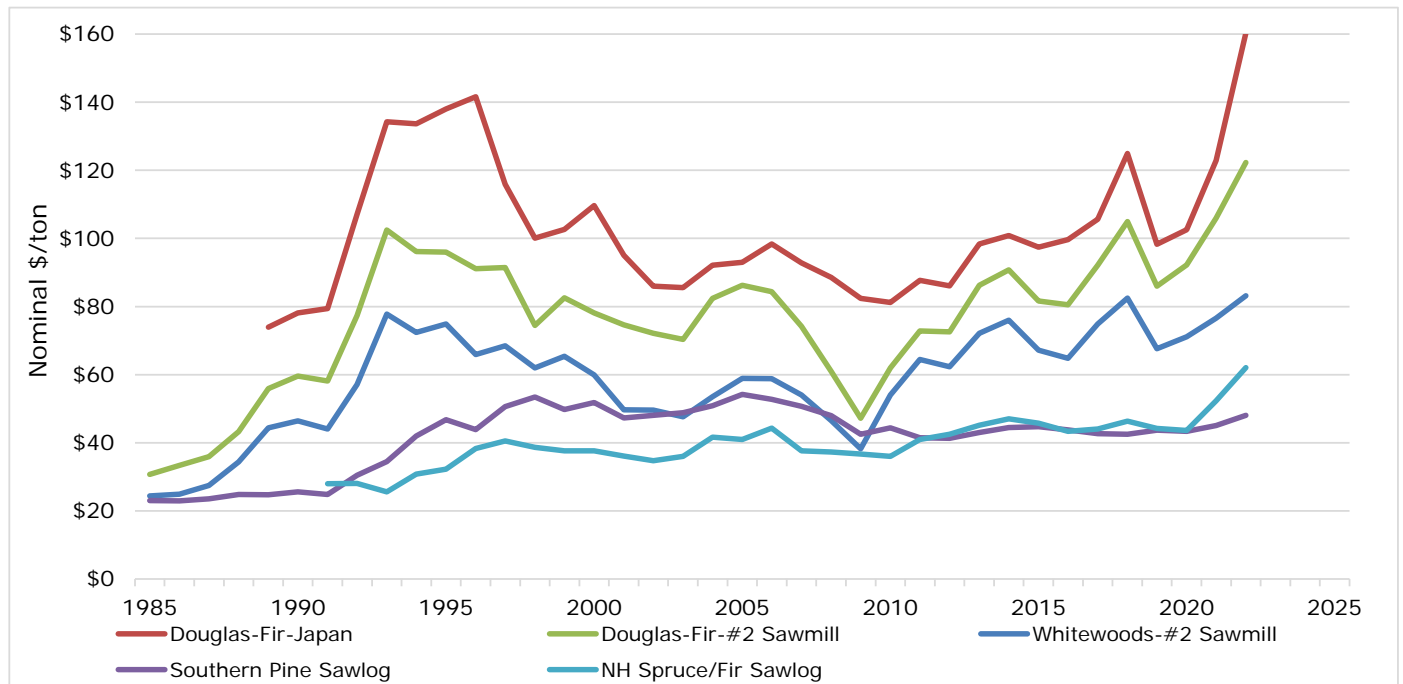
Sawlog Prices

How does demand affect sawtimber prices? Strong demand for lumber means strong demand for sawtimber and that should mean strong prices for sawtimber, right?

Figure 3 shows nominal average annual prices for delivered *sawlogs* since 1985. They include an export grade log and two domestic grade logs in the West and single produce prices for the South and the North. (The difference between the *stumpage* price and the *delivered log* price is largely harvesting and transportation costs—the two series are strongly correlated.)

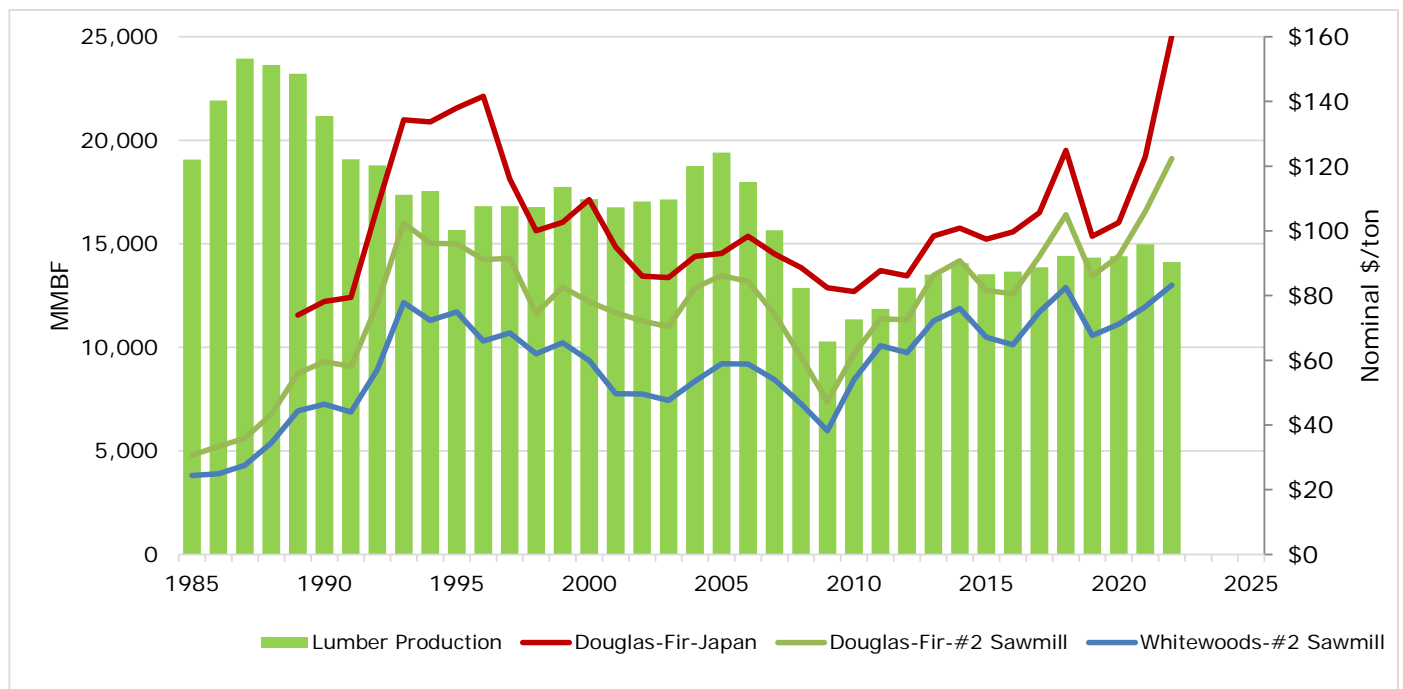
We see prices in the West spiking sharply when the National Forests were shut down, then crashing in 1997 with the collapse of several Southeast Asia economies that sharply reduced log exports to the region. Prices in the South rose more slowly and steadily until the great housing market crash in 2006. Western prices recovered quickly after 2010, but southern sawlog prices have not moved much since the crash.

Figure 3. Softwood Log Prices Since 1985 (Nominal \$/ton)



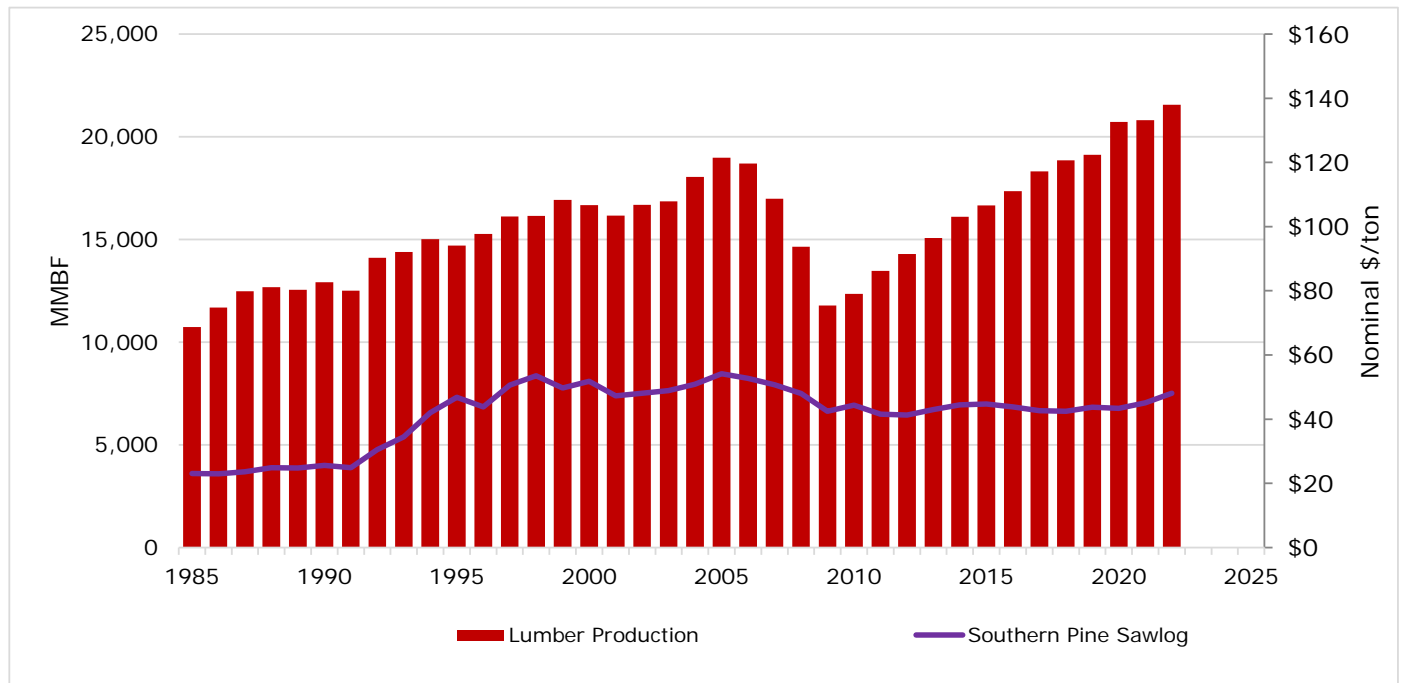
Sources: *Log Lines, Pacific Rim Wood Market Report, OR/WA Log Market Report, OR Dept of Forestry, Timber Mart-South, NH Timberland Owners Association*

Figure 4. Softwood Lumber Production and Log Prices in the West Since 1985



Sources: *US Forest Service, Western Wood Products Association, Log Lines, Pacific Rim Wood Market Report, OR/WA Log Market Report, OR Dept of Forestry*

Figure 5. Softwood Lumber Production and Log Prices in the South Since 1985



Sources: US Forest Service, Southern Forest Products Association, Timber Mart-South

Figure 4 and Figure 5 separate production and price data for the two regions. Southern sawlog prices (Figure 5) are strongly, positively correlated with lumber production ($R = 0.68$), but the continuous, strong increase in southern lumber production does not yet seem to have affected log prices.

Western sawlog prices (Figure 4) behave differently. The export grade is *not* correlated with Western lumber production ($R = 0.06$) and the domestic grades are *negatively* correlated ($R = -0.43$ to -0.54).

The different price behavior in the West is in part due to the export markets in the region. As those markets boom and bust, they have a direct impact on the supply and price of logs available for the domestic market. As prices for export logs increase—regardless of domestic supply and demand—domestic mills must bid higher for their logs, and as export log prices fall, domestic mills can find logs for less. The export market for southern pine sawlogs is much smaller than the market for the western species.

Summary

The West was the dominant softwood lumber producing region in the US from 1965 into the early 1990s, while the South was steadily producing more and more lumber. The two regions produced very similar volumes between 1995 and 2014, but the South has kept producing more while the West has leveled off.

Southern log prices have not responded to steadily increasing production, while Western log prices are more affected by export markets.

Forest Research Notes, Vol. 20, No. 2
Copyright © 2023, Jack Lutz

Jack Lutz, PhD
Forest Economist
Forest Research Group
78 Stoneybrook Way
Hermon, ME 04401
207-605-0037

jlutz@forestresearchgroup.com