

Why Are Hardwood Lumber Prices So High? Will They Remain High?

Hardwood lumber prices have increased over the last 18 months because the hardwood sawmilling industry has been unable to increase production fast enough to satisfy the increasing demands of hardwood users. It is a simple matter of demand and supply. But how extensive is this increase in demand and why hasn't the sawmilling industry responded to increasing lumber prices by increasing production?

Changes in Hardwood Lumber Demand

Although insufficient data makes it difficult to estimate changes in demand for hardwood lumber over the last 12

months, we do know that the Carolina/Virginia case goods industry appears to have slightly increased production over the last 12 months and employment in kitchen cabinet plants increased by 7 percent between November 1991 and November 1992. Also exports of hardwood lumber are up 7 percent over 1991 levels and flooring production is at the highest level since the resurgence of this industry in the early 1980's.

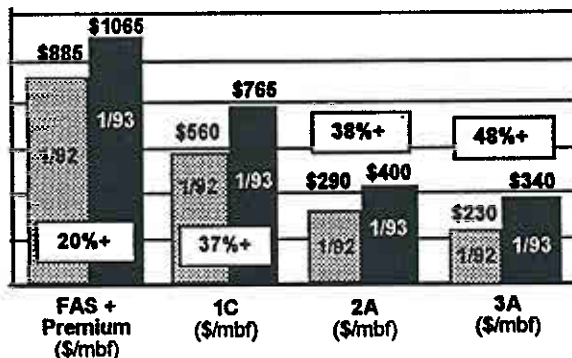
The increased domestic demand for hardwood lumber over the last 12 months has come not only from increased production of case goods, cabinets, and flooring, but also from the desire of firms in these industries to build lumber inventories.

This desire to build inventories has a dramatic effect on demand and price. In a given year, the combined lumber use of the furniture, kitchen cabinet, flooring, and millwork industries is at least 4 billion board feet. An increase of one additional month of lumber inventory by these industries translates into demand for an additional 333 million board feet of lumber.

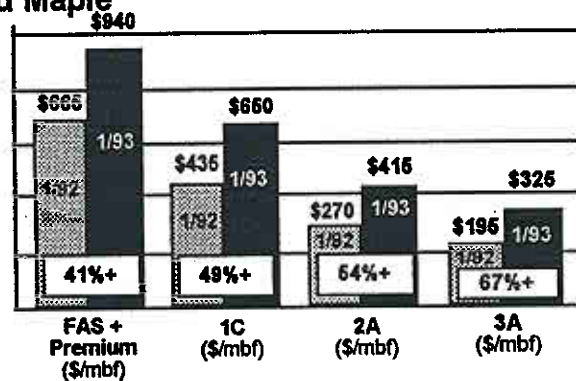
Changing technology at secondary processing plants has influenced hardwood lumber prices. An analysis of *Hardwood Market Report* prices over the last 12 months indicates that grades 2A and 3A lumber generally has been increasing at a faster rate than grade 1C and better (Table

Table 1. Changes in Appalachian hardwood lumber prices between January 1992 and January 1993 for major species and grades.
Source: *Hardwood Market Report*, Memphis, TN

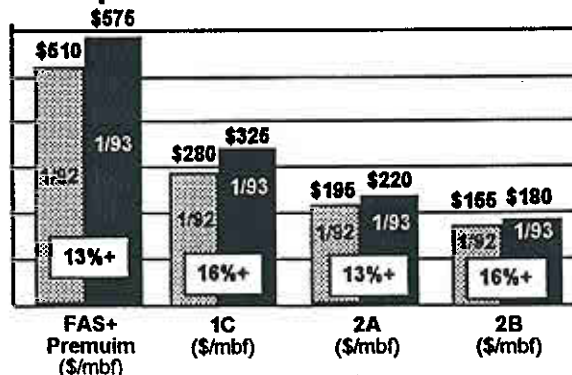
Red Oak



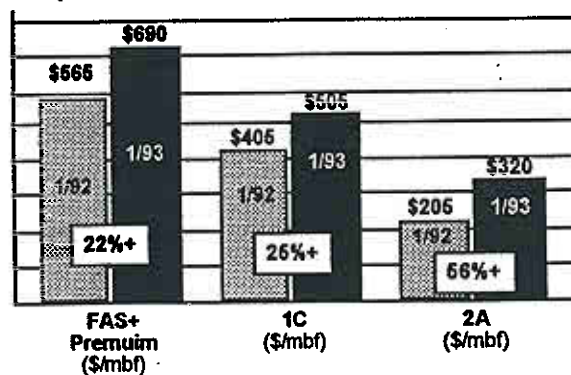
Hard Maple



Yellow-Poplar



Soft Maple



1). A major reason why secondary processors have been willing to pay relatively more for lower grade lumber is that improved technology has allowed greater yields from this material. Secondary processors who formerly utilized grade 1C lumber are now utilizing more grade 2A, while processors formerly using grade 2A lumber are now using grade 3A. Because of the increase in low-grade lumber prices, hardwood sawmills are sawing more cants into boards.

An additional factor that has affected low-grade lumber demand is increased demand for railroad ties; this increase began in 1991 and apparently is continuing. Because ties are produced from boxed hearts, tie demand affects the lower grade more than the higher grade lumber market.

Changes in Hardwood Lumber Supply

There are several reasons why the hardwood sawmilling industry has not increased production quickly enough to alleviate the current demand/supply imbalance. These reasons differ among mills but include a lack of operating capital, the desire to maintain a relatively constant rate of production, and an inability to secure adequate log supplies. Even though the log supply issue will be discussed last, it is a major factor affecting the current demand/supply imbalance.

Capital availability is a problem facing many U.S. businesses. This problem is the result of more conservative bank lending practices following the savings and loan crisis. Unfortunately sawmills need operating capital to purchase timber and to make improvements. Overcapitalization of many mills prior to the recession combined with the reluctance of some banks to lend money to lumbermen has caused the sawmilling industry to be especially hard hit by the current credit crunch. The lack of credit along with higher timber prices seems to be the major reason why the many part-time and portable sawmills have not responded to increases in lumber price.

Many of the larger mills that survived the recession are not eager to increase production even though hardwood lumber prices are at an all-time high. Many mills have a longstanding tradition of keeping production relatively constant for various reasons. Some mills maintain

relatively constant production to remain in balance with their stumpage holding or local log supplies. Other mills believe that quality control and long-term profits will decrease if production is increased. Still other mills believe they have inadequate supplies of labor to increase production or that prices will drop as soon as production is increased.

The inability of many hardwood sawmills to secure adequate log supplies is one of the most pressing issues facing the hardwood sawmilling industry today. One reason for the lack of log supplies is the continuing wet conditions that have existed in the eastern United States over the last 12 months. However, there are several additional factors affecting log supply, including increased timber demand by other industries, increased cost of logging and fewer loggers, and reduced timber supplies.

In the last 20 years, hardwood timber use by the pulp, paper, and composite products industries has increased by 88 percent. Nearly 70 percent of the hardwood timber consumed by these industries is in the South-Central and South Atlantic regions. Some of the timber being used in the southern pulp and composite industry is lower quality sawlogs. There also has been an increased use of sweetgum and yellow-poplar sawlogs by the southern plywood industry. The result of increased timber demands by the pulp, composite, and plywood industries in the South is decreased supplies of hardwood sawlogs to southern hardwood sawmills. These reduced supplies have especially affected industrial sawmills that cater to the flooring, pallet, and railroad tie industries.

In many hardwood regions there has been a lack of available loggers. Again, there are several reasons for this shortage, including the difficulty of the job, the lack of capital, and an increased need for logger certification and training. Logging is dangerous, difficult, and dirty work that does not always pay well. The loggers who are currently working find it necessary to purchase increasingly expensive equipment. Environmental regulations are making logging more difficult, and more loggers are being required to become certified and take mandatory courses in safety and logging practices.

In recent years, institutional changes have reduced both the amount of timberland commercially available and the

amount of timber that can be harvested economically. These changes especially affect national Forests and other public lands. Included in these changes are increased acreage in wilderness areas, reduced use of clearcutting, and fewer below-cost timber sales on National Forests.

Institutional changes that affect both timber sales on public and private lands are increased environmental regulations related to logging in wetlands, riparian zones, areas of steep terrain, and other areas considered environmentally unique or fragile. It is difficult to assess the true impact of environmental legislation on hardwood timber supply. However, environmental legislation has increased the cost of logging on both public and private lands, affecting the delivery price of both sawlogs and pulpwood.

The Future

Hardwood demand, supply, and price have always been cyclical. Lumber production eventually will increase as new mills come on-line and existing mills increase production. Lumber inventories will increase at distribution yards and at secondary processing plants. Users of hardwood lumber already have begun to examine substitute materials such as medium-density fiber board or softwood lumber. Loggers will be more efficient, and private landholders will become more willing to part with their timber if stumpage prices remain high. All this means that hardwood lumber prices are going to decrease. Given the dramatic increases in price in the last year, the subsequent decreases stand a chance of being equally as dramatic. However, reduced timber supplies combined with increased demand for lower grade lumber and timber will mean that relative prices of lower grade hardwood lumber probably will not return to the relatively low level that existed prior to 1991. ■

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Current Trends in the Price and Availability of Pallet Lumber

by

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Between December 1985 and December 1987, the overall price of hardwood lumber increased by more than 14 percent after adjusting for inflation. The greatest increase was for the oaks; the price of 2C red oak increased by 41 percent. Even the price of 2C yellow-poplar increased by 8 percent. The only major group of species that showed little or no price increase was gum.

Because hardwood lumber and pallet production vary greatly from region to region, some pallet manufacturers have not experienced as severe a shortage as others. Also the apparent cause of the shortage is not universal across regions. However, the current shortage and higher prices of hardwood lumber have been a bigger problem for a greater proportion of the industry for a more prolonged period than in the past.

Here I will discuss the reasons for the current price and supply trends in the lower grade hardwood lumber market and discuss what changes the future may bring. However, to understand what is currently happening, a short discussion of the past is in order.

A Historical Overview

Today the pallet industry is the largest user of hardwood lumber and is the major market for lower grade lumber and logs (Fig. 1). However, 25 years ago, the pallet and container industry only consumed about 20 percent of the hardwood lumber produced. What is now considered pallet material was also in strong demand for flooring, rural construction, dunnage, and miscellaneous industrial products.

During the 1960's, the pallet industry expended rapidly. This expansion coincided with a rapid decline in hardwood flooring demand (Fig. 2). Technological changes also slowly reduced the use of hardwood lumber for construction, dun-

nage, and industrial uses. The large volumes of low-grade oak that had been used by the flooring industry found a new market in the pallet industry. The oak pallet became the benchmark product of the industry. Lower grade lumber of other species was also in ample supply for pallet manufacturers who sold non-oak pallets.

Except for periodic shortages due to rapid increases in pallet demand in some regions, the availability of hardwood materials was not a prolonged concern for most pallet manufacturers. During the spot shortages, the pallet industry reduced lumber off-fall, reduced lumber use per pallet, increased transformation of low-grade logs into pallet lumber, and increased usage of softwood materials. The long-term result of the periodic short-

ages combined with market competition was the evolution of the pallet constructed primarily from full-dimensioned, air-dried oak, to a product that could be constructed from green materials of nearly any species or dimension.

The Changing 80's

The 1980's were ushered in with 3 straight years of declining pallet production. Raw material was not a problem for most manufacturers. The supply of pallets, cants, and lumber was greatly enhanced by relatively good markets for exports and solid furniture and the relatively poor market for railroad ties. There were ample supplies of lower grade material as 1C and better subsidized the

price of pallet lumber and cants.

As the economy recovery occurred during 1983, pallet demand increased and the price of 2C oak followed suit. However, the price increased in part because of activities in the kitchen cabinet and flooring industry. This notion is supported by the fact that flooring production started to increase in 1983 and 2C prices of most species other than oak remained stable.

In 1984, the hardwood lumber market took off with a surge in the demand for every

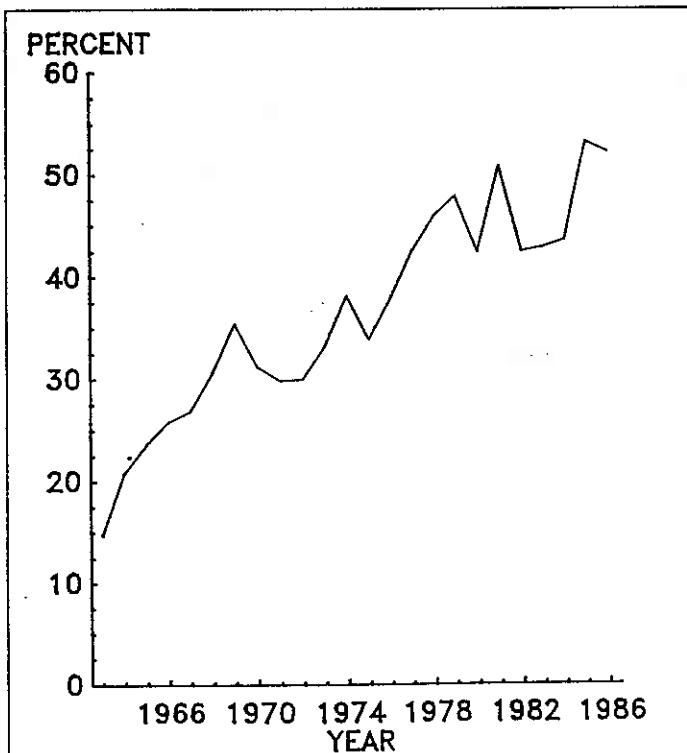


Figure 1. Hardwood lumber usage by the pallet industry as a percentage of hardwood lumber production, 1963-1986.*

* Hardwood lumber production includes lumber produced by sawmills associated with pallet mills.

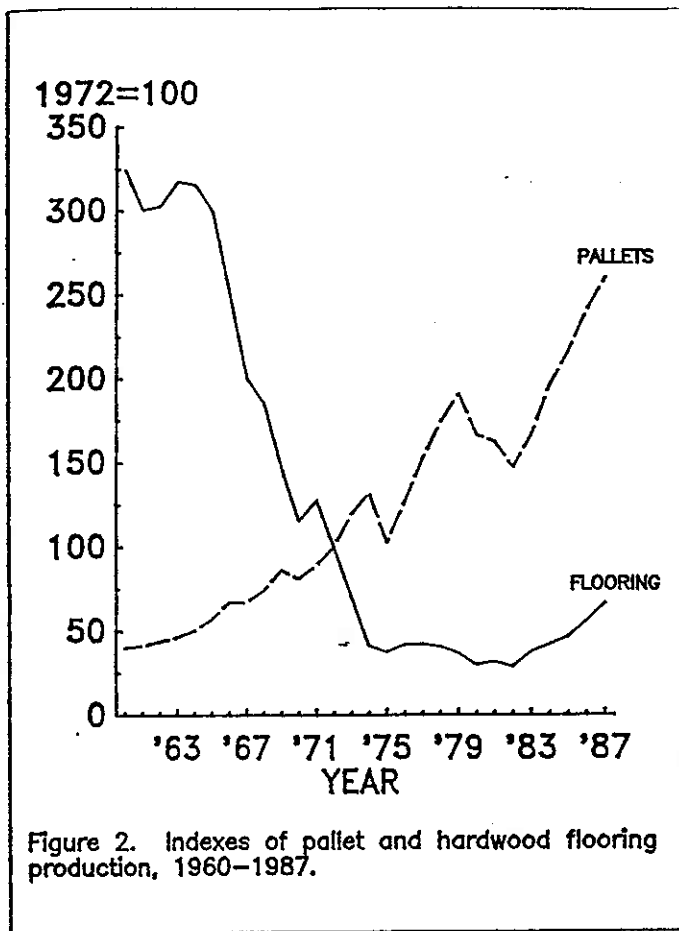


Figure 2. Indexes of pallet and hardwood flooring production, 1960-1987.

hardwood product and especially furniture, cabinets, and flooring. The production capacity of the recession-based lumber industry was insufficient to meet the rapid increase in demand. Prices increased for nearly every species and grade of hardwood lumber. Although the market cooled rapidly in the summer of 1984, the slowdown was short-lived and prices started to climb again in 1986.

The Post - 1986 Market

What makes the post-1986 hardwood lumber market different from past markets is the strong demand for all grades of appearance lumber (oak, ash, cherry, etc.) but a relatively weak demand for 1C and better lumber of other species that are in ample biological supply. This market has increased not only the prices paid for oak lumber but also the concentration on a few "hot" species.

The hardwood industry's concentration on a few species and grades is not new; grade hardwood mills have never been in business to produce pallet lumber. However, the degree to which the hardwood industry has concentrated on a

stronger pallet demand.

Anyone who is remotely familiar with the hardwood industry is used to seeing the boom and burst cycles. The normal reaction to these cycles is that after the current market for oak, cherry, and ash is over, things will revert to normal. Lumber will then be available at relatively lower prices. Although this expectation may have been true historically, there are some fundamental forces that may make it less true today.

A Changing Market

In the last 20 years, pallet producers have paid relatively low prices for hardwood lumber and cants because the supply of pallet materials has exceeded demand. Today the demand for material by pallet manufacturers is greater than ever. There is also a strong demand for low-grade lumber in the more important species by cabinet, flooring, and even furniture manufacturers. This strength in demand has occurred when there is reduced incentive to supply lower grade material. The obvious result is higher prices.

few select species is greater now than in the past. When the price of 3A oak rivals the price of mill-run, mixed hardwoods and the price of 2C cherry and ash rivals the 1C and better price of many other species, there is a strong stimulus for sawmillers to be more selective in log and stumpage purchases. Today a grade 2 log of a minor or less desirable species has a greater probability of finding its way to a pulp yard. The end result is a lower willingness of sawmillers to supply lower priced pallet material during a period of

Current trends do not indicate any immediate relief from the demand and supply squeeze. Currently there is a growing number of prime consumers - 25 to 44 year olds. The number of people in this age group will remain high until the end of the century. This population growth coupled with the increased desire for wood flooring, cabinets, furniture, and millwork will cause prices of the lumber used in these products to remain high. Furthermore, one could expect to see increased use of species such as poplar and sap gum if prices of oak, cherry, ash and maple stay relatively high.

Continued economic growth, whether strong or moderate, will at some time result in an increase in railroad tie demand. There is also increased research into the use of hardwood materials for the construction of bridges and other construction. These changes only point to a future decrease in the supply of hardwood material for the pallet industry.

The pallet industry will react to higher prices through better and more direct utilization of low-grade logs and better pallet design, and some of the demand pressures should decrease. However, one can still expect the supply of lower grade lumber to be tighter in the future than it has been in the past.

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