

Alabama Stumpage Price Trends

Forests dominate the landscape of Alabama. Non-industrial private forest owners own 72 percent of the state's forest land. Generating income through timber sales is a primary objective for many landowners. The sale of timber significantly influences the rate of return of their timberland investment.

Non-industrial private forest landowners typically sell their timber on the stump to loggers or forest products firms. The price of standing timber is called stumpage. Since many landowners sell timber infrequently, they may not be well informed about the current level and future trend of stumpage. What is the trend in stumpage in Alabama? Is there any difference between southern pine and hardwood and between pulpwood and sawtimber? What is the rule in determining whether to harvest timber this year or next? This article provides some answers to these questions and will help non-industrial private forest landowners maximize their financial gains from timber sales.

Current Price Level

For many years stumpage prices were not recorded in Alabama. This situation changed in 1977 when Timber Mart-South, Inc., started a stumpage reporting service for the 13 southern states. Today, *Timber Mart-South* is published by the Daniel B. Warnell School of Forest Resources at the University of Georgia. Price data from *Timber Mart-South* is reported quarterly. Timber Mart-South

generates stumpage price data from timber buyers, consultants, and timber sellers, and a simple average price is reported for each product (pine sawtimber, pine pulpwood, hardwood sawtimber, hardwood pulpwood, etc.) in each region. This reporting method has several drawbacks: it does not report sale volumes or number of sales, and the selection of reporters is not systematic. It is nevertheless the primary reporting service in the South. The data used in this document are from *Timber Mart-South*.

Alabama is divided into two reporting regions: Southern Alabama and Northern Alabama (Figure 1).

The shaded area between these regions is a transitional area where stumpage prices may more

closely resemble one region or the other, depending on the individual sale characteristics.

A quarterly stumpage update from Timber-Mart South is provided by Auburn University and distributed to all Alabama Cooperative Extension System county offices. Forest landowners who sell timber infrequently or who do not know the current stumpage price level can contact their county Extension office. However, the stumpage prices that individual landowners receive may not be identical to these reported (average) prices. Stumpage prices for individual forest tracts depend on species composition, volume, wood quality, location, harvesting conditions, sale methods, use of assistance foresters, and other factors.

Stumpage Price Trends

Southern Pine Sawtimber

Figure 2 shows the trend in nominal (not adjusted for inflation) southern pine sawtimber stumpage prices. It indicates that the nominal stumpage price was high in 1980 and in 1992-97. Over the last 20 years, stumpage prices increased on average at an annual rate of 5.7 percent. In 1996, stumpage prices were about 3 times of the price level in 1977.

Figure 2 also shows the real (corrected for inflation) southern pine stumpage prices calculated by dividing the nominal stumpage price by the producer price index. Since this price adjusts for inflation, it represents the "true" stumpage price. Between 1977 and 1996, much of the apparent

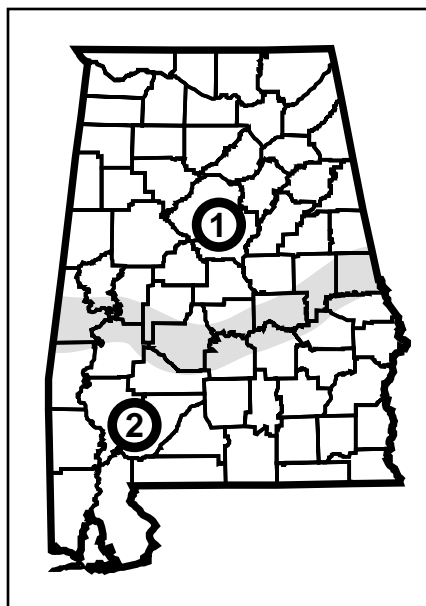


Figure 1. Timber Mart-South reporting regions in Alabama.

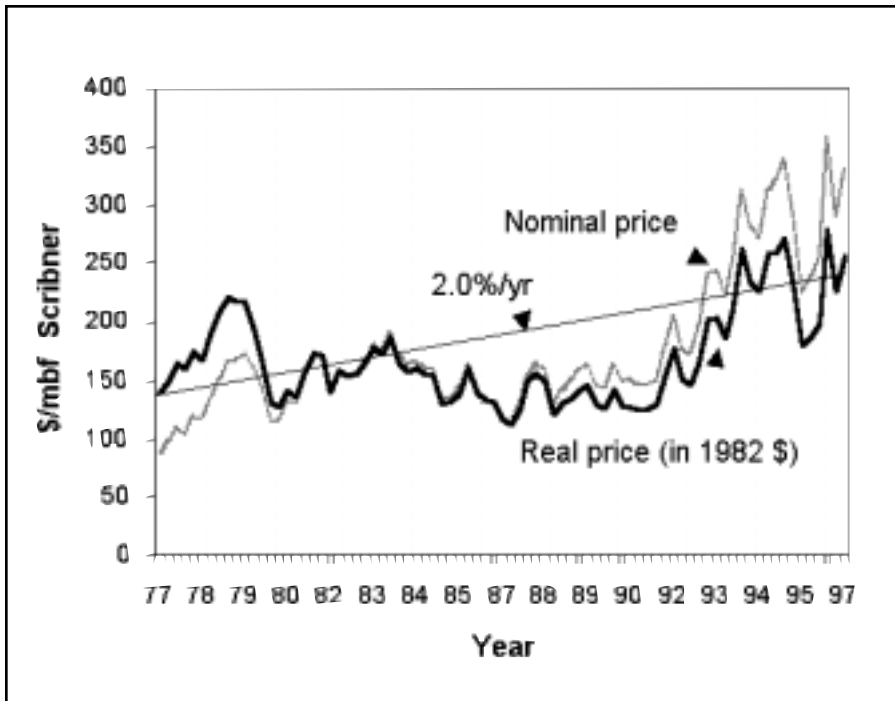


Figure 2. Southern pine sawtimber stumpage price.

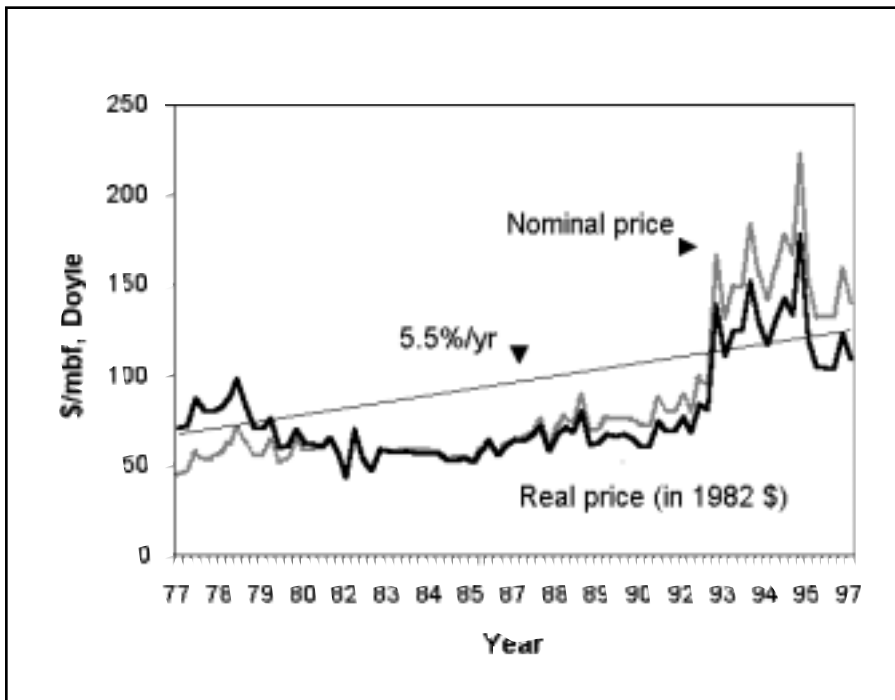


Figure 3. Hardwood sawtimber stumpage price.

price increase is a result of inflation. The real price increased at an annual rate of 2.0 percent. Real southern pine sawtimber stumpage prices (in 1982 dollars) increased more than 40 percent in the 20 years, from \$153 in 1977 to \$222 per thousand board feet (log rule, Scribner Scale) in 1996.

Hardwood Sawtimber

The trend exhibited by hardwood sawtimber stumpage is similar to that of southern pine sawtimber (Figure 3).

However, the real stumpage appreciation for hardwood sawtimber is much greater than that

of the southern pine stumpage. From 1977 to 1996, the nominal rate of price appreciation in hardwood sawtimber was 9.2 percent, and the real rate was about 5.5 percent annually. Real hardwood sawtimber stumpage prices nearly tripled in the last 20 years.

Southern Pine Pulpwood

Southern pine pulpwood stumpage prices parallel those of southern pine sawtimber (Figure 4).

From 1977 to 1996, the rate of real price appreciation was about 1.5 percent annually, resulting in an increase of 33 percent in southern pine pulpwood stumpage.

Hardwood Pulpwood

Perhaps the biggest (and, for some landowners, the most pleasant) surprise is the dramatic increase in real hardwood pulpwood stumpage. Figure 5 shows that real hardwood pulpwood prices increased steadily and more than tripled between 1977 and 1996.

This means that the real hardwood pulpwood stumpage prices appreciated at an annual rate of 6.4 percent.

A Misperception About Pulpwood Stumpage

Forest products prices have risen in the last 200 years, outpacing all other natural resources (Manthy 1977, Clawson 1979). However, there is a misperception about pulpwood stumpage prices. Based on timber sale data from national forests from 1920 to 1975, several studies concluded that real sawtimber stumpage had been going up while real pulpwood stumpage had not. This has certainly not been true in Alabama during the last 20 years. Data from *Timber Mart-South* suggests that pulpwood stumpage increased at least as fast as sawtimber stumpage in the last 20 years.

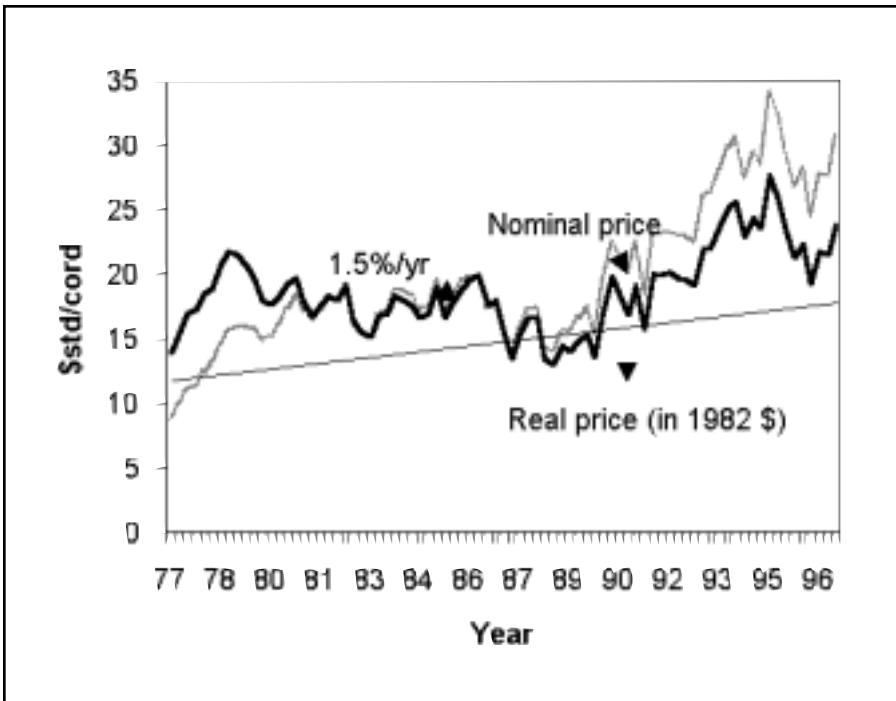


Figure 4. Southern pine pulpwood stumpage price.

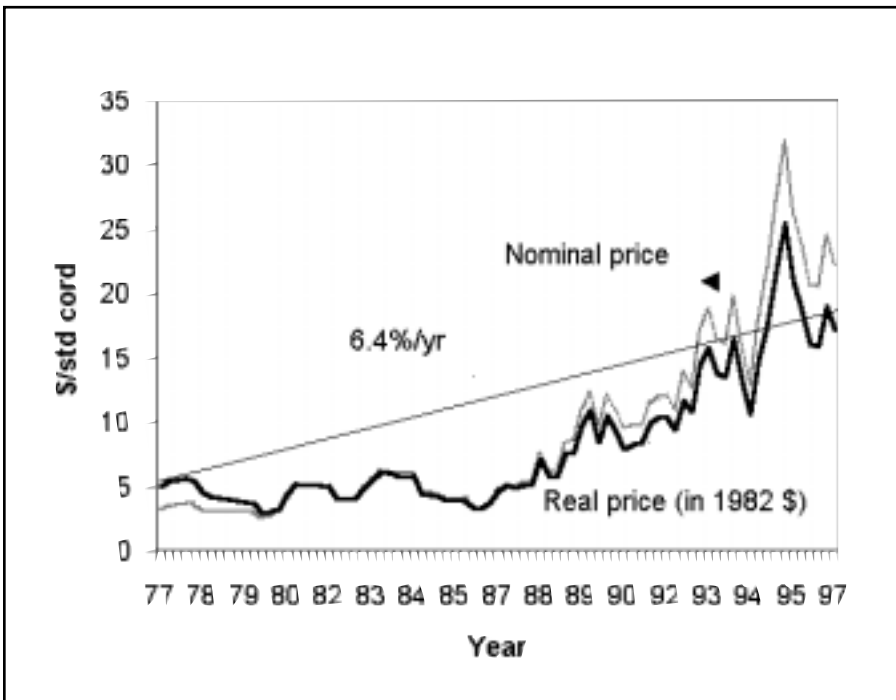


Figure 5. Hardwood pulpwood stumpage price.

Hardwood pulpwood and sawtimber stumpage prices increased more than southern pine in the last 20 years because technological advances in the paper industry and recent developments in the furniture industry in Alabama have increased the de-

mand for hardwood. Hardwood was rarely used in pulp and paper production in the 1970s. As southern pine pulpwood stumpage prices increased, the industry responded by developing technology that utilizes a cheaper resource—hardwood pulpwood.

At the same time, the furniture and other secondary industries also started to invest in Alabama and demand for hardwood sawtimber increased as well. Today southern pine stumpage is still higher than hardwood stumpage, but the gap between them has narrowed in the last 20 years.

A Simple Rule For Predicting Stumpage Price Changes

Many analysts have observed that the stumpage price increase in the last few years in the South coincides with the cutbacks in timber production from public forests in the Pacific Northwest. It seems reasonable to attribute the increase in southern stumpage to the reduction of timber harvesting in the Pacific Northwest. However, there is a more fundamental reason for the increase in stumpage prices.

In the long run, percentage change in stumpage price plus percentage change in growth (growth rate) equals the interest rate of the economy. Although this is not always true, it does mean that many thousands of forest landowners, acting independently in timber harvesting, produce this result as long as there are not significant volumes of timber imports from other countries. Therefore, some landowners can hold their forests for an extra year, gain additional growth and stumpage appreciation, but lose interest generated by revenues from timber sales. If this rule does not hold, opportunities arise for forest landowners to either gain extra revenue by holding their timber for an extra period, or sell immediately. For example, if the percentage price in stumpage change plus the growth rate is larger than the interest rate in a particular year, landowners will make more money by postponing timber harvest for another year.

From 1995 to 1996, Alabama's forest has grown 1,185 million board feet, representing an increase of 5.2 percent in inventory in 1 year, approximating the annual rate for the last 20 years (Teeter 1997). On the other hand, real interest rates in the market were about 6 to 7 percent in the last 20 years. Therefore, it is not surprising to see that the real prices appreciate at an annual rate of 0.5 to 2 percent.

Determinants Of Southern Pine Sawtimber Stumpage

Individual forest landowners generally cannot change the biological growth rates of their forests in the short run without incurring costs. They know their current and expected personal interest rates. Therefore, they need one additional variable stumpage price forecast in order to plan their timber harvesting activities. The stumpage price level for the next few years is influenced by many supply and demand factors. Pine sawtimber, hardwood sawtimber, pine pulpwood, and hardwood pulpwood stumpage prices correlated (meaning that the others will follow if one goes up or down). Listing the determinants will give forest landowners a general idea of the factors influencing the stumpage price movement.

- One significant determinant of southern pine sawtimber stumpage is the price of softwood lumber. The price of lumber is in turn influenced by housing starts

and interest rates. More housing starts in the United States means higher sawtimber stumpage prices. Interest rates, however, have two opposite impacts on sawtimber stumpage. High interest rates negatively affect the construction industry and housing demand. But on the other hand, high interest rates make stumpage prices appreciate more in the future. The overall impact is that an increase in interest rates will have a positive impact on stumpage prices.

- Significant amounts of softwood lumber have been imported from Canada in recent years. Therefore the exchange rate between the United States and Canadian dollars has a significant impact on southern pine sawtimber stumpage. The higher the exchange rate (expressed as \$CND/\$US), the lower the stumpage prices.

- Southern pine sawtimber stumpage in Alabama is not influenced by season. Some believe that more timber is harvested in the summer and early fall when logging sites are usually dryer. Therefore stumpage prices might be expected to be lower in these seasons than the others. However, the seasonal price difference is not significant enough to conclude that there is seasonality in stumpage at the state level, although stumpage prices may still be seasonal at the local level (which is most important to landowners).

Conclusions

Non-industrial forest landowners who sell timber infrequently might find the price reports by *Timber Mart-South* (available from county Extension offices) useful when deciding to sell timber. Managers, who purposely grow hardwood or southern pine species, pulpwood or sawtimber, should be encouraged by increasing stumpage prices.

Owners contemplating a timber harvest should consider the relationship between the biological growth rate of their forests, the growth rate of forests in Alabama and surrounding states, their personal interest rate, and possible stumpage price changes. If landowners think the rate of stumpage price change plus the biological growth rate of their forests is larger than their personal interest rates, they should hold the forest for at least 1 extra year. Otherwise, they should cut the forests immediately.

Finally, those who want to know the rate of change in stumpage prices should closely follow forecasts on housing starts, interest rates, and exchange rates between the United States and Canadian dollars.

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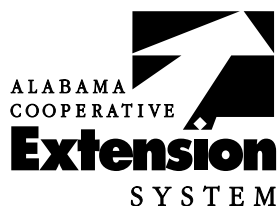
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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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