CONNECTICUT Forest & Park ASSOCIATION	*CFPA Note No. 3* **November 2005** **A series of reports on growing forest trees in Connecticut that is funded by the CFPA Farnum Research Endowment**

Price Trends for Low Quality Stumpage In Southern New England

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Harvests of many species found in Connecticut traditionally flow into low value products or only a small portion of the harvested volume flows into high value markets like cabinetry or furniture. An often stated desire of foresters and wood products manufacturers is to find new uses for low-value material. This report examines the recent price trends, comments on the likelihood of continuation of current trends, and offers some thoughts regarding the long-term prospects for high value uses.

Low-Value Hardwoods

Species	Rate of Real Price Increase/Decrease
Red Maple	-0.52%
Tulip Poplar	-1.92%
Yellow Birch	0.10%
Black Birch	0.76%
Paper Birch	-2.4%
Beech	- 5.5%
Pallet Hwd	-5.16%
Other Hwd	-2.87%

Low Value Conifers

Species	Rate of Real Price Increase/Decrease
Red Pine	-1.72%
Hemlock	-3.95%
Spruce	-2.46%
Other Sftwd	-6.54%

Mixed Species Material

Fuelwood	-5.58%
Pulpwood	-11.80%

These estimates were made using data from the Southern New England Stumpage Price Survey Results for each quarter over the past 11 years.[1] The nominal dollar prices were converted to real prices using the GDP deflator, and then the real prices were transformed into their natural logs. The estimated slopes are the rate of real price change. The quarterly prices exhibit considerable variation quarter to quarter, so the estimates are usually not significantly different than zero (stable prices).

[1] See http://www.canr.uconn.edu/ces/forest/pricesht.htm for University of Connecticut web pages.

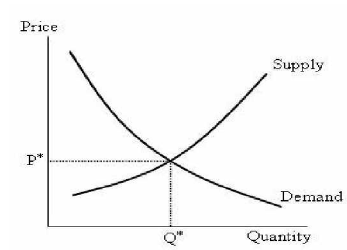
Biomass Energy

Biomass energy is one notable exception with an annual rate of real price increase of 16.4%. Part of this story is a very low starting price of under a $1 per ton, but the rapid increase is intriguing. The data is limited as sales did not occur in every quarter over the past decade. However, the high price of oil coupled with shifts in attitudes and policies regarding global warming and dependency on foreign oil and other energy sources suggests biomass energy is worth watching. Southern New England has enormous volumes of low-quality hardwood and conifer resource that could be tapped and the resource is near high energy using populations.

The great advantage over corn-based ethanol is that no energy is used in growing the material and harvesting and transport may be less expensive than for crop agriculture per unit of energy produced. Over the long term, it will not make sense to spend more energy than is produced, especially if the cost is expensive petroleum-based energy and the product is a lower valued bioenergy derivative. Future research notes will look more seriously at the future for woody biomass as an energy feedstock

Economic Interpretations

Real price can decrease because (a) demand shifts in relative to supply, (b) supply shifts out relative to demand, or (c) some combination of either movements or shifts. With timber species, both can happen at the same time. As the inventory of low quality timber increases with growth vs. low harvest rates, the annual supply shifts outward. This is happening throughout the Northeast for all the species listed above.



With stable to falling prices, demand is most likely fluctuating against a nearly horizontal supply curve. For species that are not scarce in the sense that the inventory of standing timber is slowly to rapidly declining, supply will be more or less horizontal over a wide range of prices. The price is determined by the costs of selling timber – inventory, marking, and other transfer costs. Because these costs are real, timber rarely is sold for a price of zero. Red maple, the birches, hemlock, and assorted other hardwoods are examples of this situation. Timber growth greatly exceeds harvest and other removals each year, and only a small portion of the standing timber has high quality log characteristics in terms of valuable end uses. Consequently, a really outstanding birch log may sell for a high price to the cabinet market, but in general birch has too many flaws to be used in quality end products.

Investment and Managerial Implications

The overall picture of low-value timber is not a happy one for timber investors. Real prices vary from stable to declining. Several causes are at work. The Northeastern pulp and paper industry is in transition with many older mills going out of production and total regional demand for fiber rapidly declining. The recent rapid recent rise in oil prices has not led to rapid increase in fuelwood demand and prices, although there is evidence that fuelwood prices are rising for the first time in years. A weak manufacturing economy may dampen demand for pallet wood and other hardwoods. The bulk of the remaining red pine is not especially high quality, and virtually all the hemlock is of low quality. With some exceptions, southern New England is outside the main range for producing quality spruce timber.

These problems said, a few positive points should be noted:

- Little if any inputs other than protection are required to regenerate and grow these species, and thinning and other intermediate treatments are not necessary to produce them.
- However, thinning these species out early in stand development often produces income from fuelwood, pulp, and pallet wood. This income pays for the cost of timber stand improvement of red oak, sugar maple, red oak, and white pine – all species with good to excellent price growth potential.[2]
- These species are pioneers that usually occur early in stand development following harvest or other disturbances. They critical for wildlife habitat, especially song and game birds. They add to the beauty of many forest settings, and they are critical in ecological dynamics because they recycle certain elements that are not recycled by later dominant species like white pine, oaks, and the fine hardwoods.

In 2006 and 2007, timber investment opportunities will be summarized for different timber stand types and stages in Connecticut. The relationships between low and high-value species, including the ecological dynamics will be included in analysis of investment opportunity in future reports.

Related Reading

Bentley, W.R. 2005. White pine stumpage price trends in Southern New England. *CFPA Research Note No. 1*. 6 pp.

Bentley, W.R. 2005. Quality Hardwood Stumpage Price Trends in Southern New England. *CFPA Research Note No. 2*. 4 pp.

Holmes, T. C., W. R. Bentley, T. C. Hobson, and S. Broderick. 1990. Hardwood stumpage price trends and characteristics in Connecticut. *Northern Jour. Applied Forestry* 7(1):13-16.

Wagner, John E., and Paul L Sendak. 2005. The annual increase of Northeastern regional stumpage prices: 1961-2002. *Forest Products Journal* 55(2): 36-45.

[2] See CFPA Research Note Nos. 1 and 2 for information on white pine and quality hardwood price trends.