

Quality Hardwood Stumpage Price Trends In Southern New England

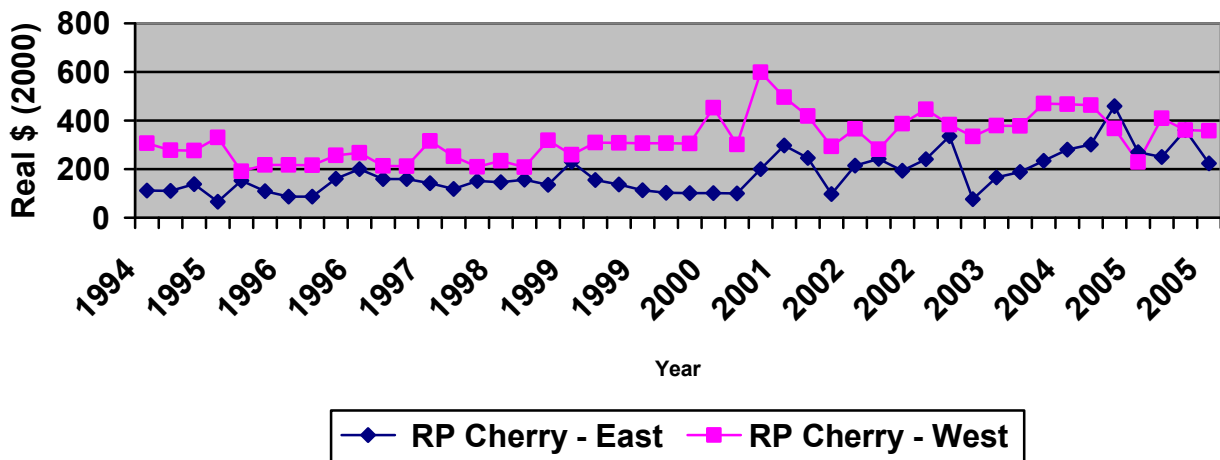
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Harvests of oak, sugar maple, cherry, and a few other species found in Connecticut traditionally flow in domestic and overseas markets for quality hardwoods, especially furniture and paneling. Some of these species, grouped as quality hardwoods in this report, demonstrate increasing scarcity in the form of rising real prices. This report examines the recent price trends and comments on the likelihood of continuation of current trends.

Cherry and Sugar Maple

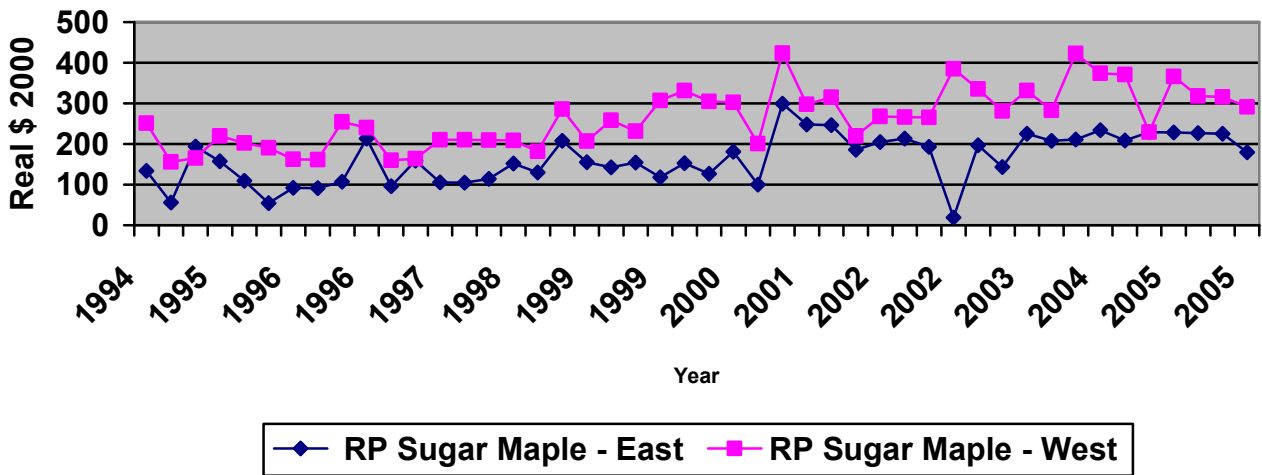
Cherry is an interesting species to start with because it flows into the highest quality furniture and paneling markets. The Price trends are illustrated in figure 1.

Figure 1: Cherry real price movements, 1994-2005

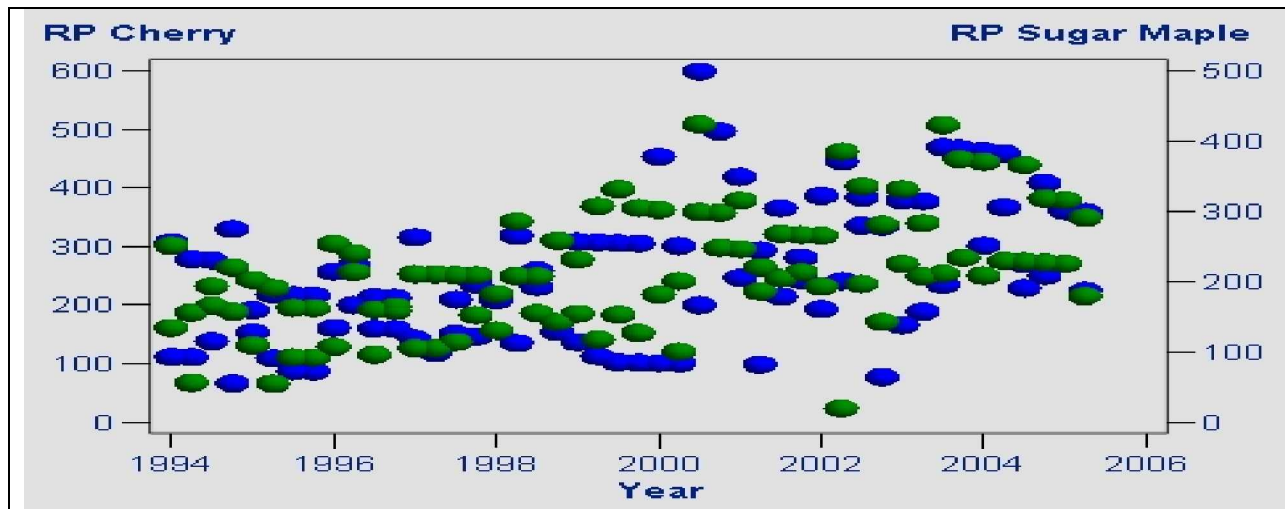


In general, quality hardwood prices are higher west of the river than east of the river. In the case of cherry, the prices west of the river are 65% higher. Cherry stumpage prices in real terms are rising at a rate of 6.8% per year. The 95% confidence interval is 5% to 8.6%. Time and location explain most of the variation in real price ($R^2 = 0.65$).¹

Figure 2: Sugar Maple real price movements, 1994-2005



Sugar maple, which is almost as valuable, demonstrates the same general trends. A 6.3% annual rate of price increase and an almost 53% higher price west of the river follow the same pattern as cherry. The explanatory power of time and location are lower than for cherry ($R^2 = 0.50$), and the 95% confidence interval is 4.2% to 8.4%. The similarity in price trends is more obvious in an overlapping scatter diagram of the real cherry and real sugar maple prices.



¹ The Statistical methods used are summarized in CFPA Research Note No. 1 (Bentley 2005).

The rates of real price increase vary by location for both species. The rate of price increase east of the river is higher for Cherry, but it is higher west of the river for Sugar Maple.

West of River
East of River

	<i>Cherry</i>	<i>Sugar Maple</i>
<i>West of River</i>	5.2%	6.1%
<i>East of River</i>	6.5%	5.4%

Oaks and Ash

Red oak was the leading species for sustained price increases until recently. Holmes, et al (1990) used red oak as the base line for estimating price trends in other species. Over 1994-2005, however, oak and ash prices have been slowly declining. Red oak still commands the highest real prices of any Connecticut timber species.

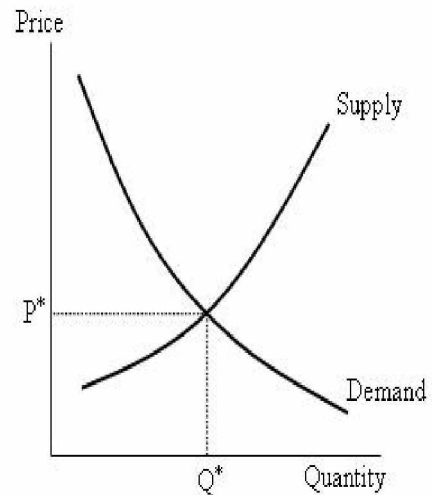
	Red Oak	White Oak	Other oaks	White Ash
West of River	-2.1%	-4.5%	-1.7%	-5.1%
East of River	-1.1%	-1.5%	-0.1%	-10%

Tulip poplar, which has only been reported since mid-1997, is also losing real value at about 1.9% per year.

Economic Interpretations

Real price can increase because (a) demand shifts out relative to supply, (b) supply shifts back relative to demand, or (c) some combination of both movements of shifts. With timber species, often both are happening at the same time. As the inventory of high quality timber declines with harvest, the annual supply shifts backward. This is happening throughout the Northeast for cherry and sugar maple. It also is happening with red oak and probably still is.

Red oak demand may be stagnant or falling. After several years of increasing demand for red oak paneling and furniture, tastes may be shifting away from the grainy, more textured woods toward the finer hardwoods. Also, Chinese buyers shifted to Siberian sources and away from North America. When demand shifts out again, the almost stagnant inventory of quality red oak timber will cause the symptom of scarcity – rising real prices – to again occur.



White oak has a steady demand for cabinet wood and feeds into a small wood barrel market where its advantages are storage of liquids, especially wine and other valuable fluids. However, these demands are unlikely to shift out rapidly against a declining resource inventory.

Black oak, scarlet oak, and other oaks with traits like red oak are substitute in many markets and uses. While there is no reason to expect real price increases near term, the “other oaks” prices will rise in real terms as red oak rises.

White ash has been a declining species in economic terms for several years because of disease problems and replacement of ash by other materials (e.g., aluminum baseball bats). The Emerald Borer, an invasive insect from Asia, adds to the difficulty of sustaining inventories of white ash.

Investment and Managerial Implications

Real price increases add to the investment potential of quality hardwood species. In the case of cherry and sugar maple, the real price increases add 5% to 8% to the biological growth of 3% plus an improvement in log quality if managed properly.

While red oak no longer has the real price rise characteristic of the 1960-90 period, it does have high per unit values. The value per board foot is even higher for top grade logs.

All three species are worth managing for if

- ◆ they occur naturally
- ◆ the site favors them; for example, on the generally the higher agricultural productivity soils, especially those of a granitic origin west of the river
- ◆ a sequence of thinning harvests from below can concentrate diameter growth on quality stems.

Investments in cherry, sugar maple, and red oak are most profitable if timber stand improvement can favor existing quality stems. The investment costs are low – and often can be covered by values received from thinnings in the form of fuelwood, pulpwood or stumpage for pallet lumber. The time periods are 10 to 25 years, rather than 80 to 100 plus years when starting from natural or artificial regeneration, which means the returns are higher.

In future reports, timber investment opportunities will be summarized for different timber stand types and stages in Connecticut.

Related Readings

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