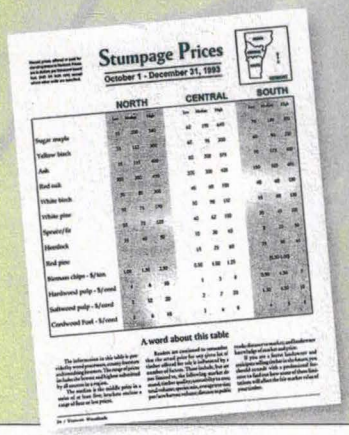
The Story of Stumpage


Stumpage Prices
October 1 - December 31, 1993
NORTH
CENTRAL
SOUTH
A word about this table

By Paul E. Sendak and Thom J. McEvoy

An assessment of the last 20 years wouldn't be complete without some examination of changing timber prices. The first issue of *Vermont Woodlands* included a chart of stumpage prices, a survey of the prices being paid for standing timber in the state. It would seem natural to simply compare those prices with a similar report from today. Unfortunately, the University of Vermont Extension, where the original data came from, stopped reporting stumpage prices in 2007.

HARDWOOD SAWTIMBER: Sugar maple and red oak are predominantly used in housing interiors, including furniture, cabinets, trim, paneling, and flooring. As such, their value is tied to changing consumer preferences. According to research conducted by the U.S. Forest Service, red oak enjoyed its 15 minutes of fame from the mid-1970s to the early-1990s, appreciating in value at a real rate of 3.2 percent. This growth came at the expense of maple, which lost value over this time. Fortunes changed, though, in the 1990s, with more consumers preferring maple to oak: from 1992 to 2007, red oak lost 2.2 percent of its value annually and maple gained 5.3 percent. Ash, similar in appearance to red oak, did not enjoy a period of price appreciation and followed red oak prices downward after 1992 – perhaps as a result of the lack of high-quality ash timber in Vermont and the loss of traditional markets such as sporting goods and tool handles. Yellow birch price trends followed those of sugar maple. They are similar in appearance and Vermont has ample high-quality yellow birch inventory.

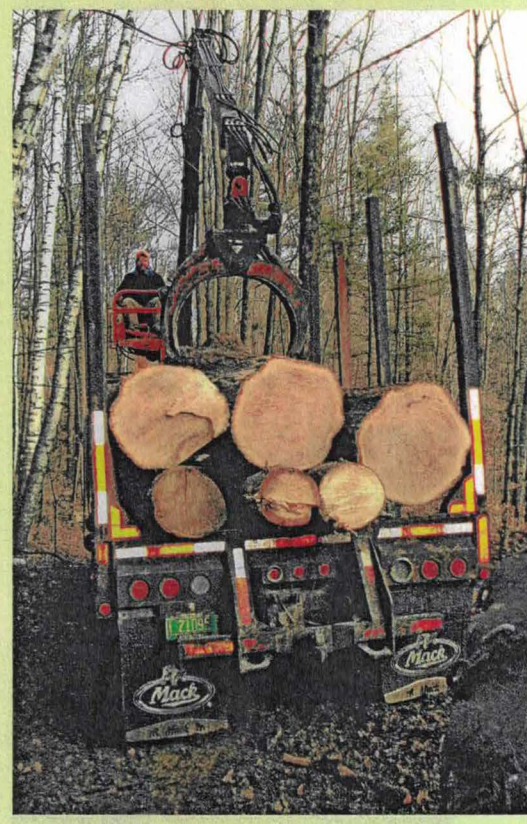
SOFTWOOD SAWTIMBER: Softwoods are predominately used in structural and exterior applications where appearance is secondary to physical properties. White pine, the most versatile of the softwoods, is used in millwork, furniture, and cabinets, as well as dimensional lumber and timber house framing. Spruce and fir are used to produce dimensional lumber and other construction products. Both species appreciated over the 25-year timeframe. (While both were among the hardest hit when the housing bubble burst in 2008, as evident in stumpage prices reported in adjacent states, we'll keep things positive and appreciate our modest victories.) Hemlock has various uses in rough construction, shipping pallets, wooden bridge planking, and timber house framing. But it's perceived as inferior to other softwoods in many applications, so the decline is not a big surprise. There always seems to be more hemlock available than the market calls for.

PULPWOOD: Pulpwood prices depend on the global demand for paper products and the general state of the global economy. In 1992-93, prices for softwood pulpwood in Vermont (mostly spruce and fir, with lesser amounts of hemlock and pine) rose abruptly and stabilized for about 10 years before dropping in the early 2000s. A number of factors were at play, but perhaps the most important was that a significant backhaul market developed whereby Canadian truckers transporting spruce-fir construction lumber into the United States hauled spruce-fir pulpwood back to Canada. At about the same time, Canadian sawmills began using spruce-fir logs as small as four inches in diameter for structural lumber. A third factor, perhaps not as significant, was the end of the salvage of spruce-fir harmed by the last spruce budworm infestation in the region. These factors, in turn, put pressure on the spruce-fir supply across northern New England and New York, resulting in increased stumpage prices. The sudden drop in prices resulted from the shutdown of a major pulp and paper mill in New York.

FIREWOOD: Demand for firewood in New England depends on the price of fossil fuels, particularly No. 2 fuel oil. (The price of firewood rises as fuel oil prices increase relative to firewood.) Fuel oil prices were low from about 1989 to 1999 and increased from 2000 to 2009, with corresponding trends in firewood prices.

In some ways, though, it's useful to end there. Lumber markets crashed along with the housing markets in 2008, radically altering the long-term curve. Prices are still recovering from this hopefully once-in-a-generation event, and the preceding decades probably offer a more accurate look at long-term trends.

For this we turned to Paul Sendak, research forester emeritus with the U.S. Forest Service, and Thom McEvoy, extension professor emeritus with the University of Vermont, who collected and reviewed data on a quarter-century of stumpage prices in Vermont. The table below shows the nominal (adjusted for inflation) and real annual percentage rate change (APR) in Vermont stumpage prices from 1981 to 2007 (some categories are broken into two sub-periods – the "Q" means quarter). The authors' notes and analysis help shed light on some of the changes that have taken place in wood markets in Vermont since 1994.



SPECIES		PERIOD	NOMINAL APR (%)	REAL APR (%)
Hardwood Sawtimber	Sugar maple	81Q3-92Q2	-0.3	-2.2
		92Q3-07Q1	7.6	5.3
	Yellow birch	81Q3-92Q2	-1.4	-3.2
		92Q3-07Q1	3.5	0.0
	White ash	81Q3-92Q2	NA	-0.4
		81Q3-07Q1	0.0	NA
		92Q3-07Q1	NA	-3.4
	Red oak	81Q3-92Q2	5.1	3.2
		92Q3-07Q1	0.0	-2.2
Softwood Sawtimber	White pine	81Q3-07Q1	3.1	1.2
	Spruce-fir	81Q3-07Q1	4.8	2.8
	Hemlock	81Q3-07Q1	0.0	-1.4
Pulpwood	Hardwood	81Q3-92Q2	-2.1	-4.0
		92Q3-07Q1	3.0	0.0
	Softwood	81Q3-92Q2	NA	-1.2
		81Q3-07Q1	0.0	NA
		92Q3-07Q1	NA	-4.65
Firewood		81Q3-92Q2	-1.8	-3.4
		92Q3-07Q1	2.3	0.0

As the economy continues to improve, demand for new and existing homes should raise stumpage values. However, we likely won't see a rapid recovery. While the housing market has improved, it's still sputtering. The economic problems in Europe and China don't help. When markets do return, they might be different, with increasing demand for engineered wood products such as wooden I-beams, laminated wood products, and structural building panels.

There are bright spots, however, in the development of new markets, such as bioenergy (chips, pellets, and torrefied wood) and chemical feedstock. The pulp and paper industry will continue to evolve as it divests itself of timberlands and relies, instead, on contracts with new timberland owners, wood purchased on the open market, and market pulp. How all this will affect stumpage prices is not easy to determine, but it is likely that there will be an expanding market for low quality timber.

The economy's slow recovery will eventually expand the market for Vermont sawtimber, returning stumpage prices to their previous levels. Some analysts project this could happen in the next five years. While we wait, there's solace in the fact that timber does not have to be harvested when market prices are low. It continues to grow, adding volume and quality, waiting for markets to improve. Two old clichés apply here: "Time heals all wounds" and "This, too, shall pass."