Timber Price Dynamics Following A Natural Catastrophe

In the aftermath of Hurricane Katrina, many Mississippi forest landowners are concerned about the value of their damaged timber and are asking how the timber market will behave in the coming months and years. An article published in 2000 may provide an answer.

Jeffrey P. Prestemon and Thomas P. Holmes of the U.S. Forest Service developed a theoretical model to describe the short-run and long run effects of large catastrophes on natural resource prices. Because trees take a long time to grow, large reductions in timber stocks can lead to a price shift due to increasing scarcity and enhancement in value of remaining stocks. The authors studied the reaction of timber markets in South Carolina after Hurricane Hugo in 1989 as a case to test their model.

After analysis the authors come to two main conclusions that may help guide Mississippi landowners after Katrina. First, that southern pine stumpage submarkets are informationally efficient and that prices adjust efficiently to new information within the reporting period (2 to 3 months). They also conclude that catastrophic weather events cause a short-run supply pulse associated with a negative price spike and a long-run enhancement to residual forest stock. This means that once the timber salvage of Katrina with its price decrease is over, a longer-term increase in price may be anticipated. Indeed they reported that it happened in the Hugo case. The longer-term price increase for the sawtimber left after Hugo ranged from 6 to 32%.

These findings suggest that Mississippi landowners should try to retain all the pine sawtimber possible through the salvage period in anticipation of a price increase to follow. In Mississippi’s case the price increase seems likely since a large reconstruction effort in New Orleans and on the MS Coast will commence in the near future.

To view the entire publication click here (http://www.srs.fs.usda.gov/pubs/ja/ja_prestemon015.pdf). For questions about this research contact the authors. The complete citation is:


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