Abstract
Financial analysts and investment bankers have generally accepted the notion that forest products companies should not own timberland. Most of the largest forest products companies have undertaken some form of reorganization or restructuring of their timberland assets, partly as a result of this conventional wisdom. For example, Georgia-Pacific created a letter stock for it timberland holdings, Plum Creek Timber has announced that it is forming a timberland real estate investment trust (REIT), and Champion International has been realigning its timberland holdings across the United States and expanding its holdings in South America.

But, what has the markets response been to the restructuring of timberland holdings? An examination of stock prices shows that forest products company stocks have not kept pace with the Standard & Poor 500 index. Stock prices of companies that have added to their timberland holdings have done no better or worse than companies that have liquidated all their holdings. Master Limited Partnerships (MLPs), letter stocks and other innovative structures have had little impact on improving stock prices.

The conclusion reached from this preliminary work-in-progress is that selling of all its timberland will not cause a forest product company’s stock price to rise.
A study by Binkley and Washburn (1994), looked at where different asset classes lie in relation to the Security Market Line. Briefly, this work showed that timberland generates high rates of return relative to its systematic risk, while forest products stocks generate low returns relative to their systematic risk. The forestry MLPs fall somewhere between. Further work by Binkley (1998) confirms that the general results of this analysis have not changed with additional data from the last few years. Binkley’s work also suggests that some of the newer investment vehicles (e.g., REITs, MLPs and Letter Stocks) have characteristics similar to those of corporate stocks: they are more subject to overall market
volatility than are private timberland investments.

Part of the difference in returns is due to timberland returns being negatively correlated with both the S&P 500 and forest products returns (Figure 2). This negative correlation results in part because timberland returns are not well correlated with timber and wood product prices. A discussion of this phenomenon is presented in Appendix B. In addition, timberland returns are counter-cyclical with the general economy, while forest products returns are strongly cyclical. Because paper and wood products sales are closely tied to the general state of the economy, forest products earnings tend to rise and fall with the business cycle. Being counter-cyclical, timberland returns can soften the impact of the business cycle on an investment portfolio that includes private timberland assets.

Market Response to Timberland Adjustments—Preliminary analysis

Given all the talk about the market’s position on timberland ownership by forest products companies, what has been the market’s response to all the monetization activity? We have been collecting most Friday closing prices for many forest products company stocks since mid-1995 from The Wall Street Journal. There are a few missing points due to Friday holidays and missing issues of the Journal. There are also occasional typographical errors. However, the overall pattern of each company’s stock is clear.

We have plotted these stock prices against the S&P 500 to see if timberland monetization has had a positive impact on company share prices. A number of these charts are presented in Appendix A. Visual analysis of the charts suggests that, in general, there is no impact on stock prices from owning, acquiring or divesting timberland. None of the innovative investment vehicles appear to have outperformed the market.

The question remains: why would a company divest itself of its most desirable assets? Why would it sell its timberlands and retain its converting facilities?

We stress that this is a preliminary analysis, using visual examination of charts with missing data and a few obviously bad data points. A more rigorous analysis would include some statistical analysis such as developing correlation coefficients for share prices and the S&P 500. There are some companies that have announced strategic changes and it would be useful to look at correlation coefficients before and after the strategic change. For example, has Georgia-Pacific stock behaved differently after the creation of The Timber Company?

Also, a more complete picture can be obtained by looking at total returns, rather than stock prices.

Finally, a forest products company that has divested itself of its timberland may in fact be better off than one that has not, even if there is no change in stock price. The divesting company will have traded an illiquid asset (timberland) for a liquid asset (cash).

REFERENCES


Figure 3--Share values for Timber Master Limited Partnerships (MLPs)

Note: Shares of IP Timberlands and Rayonier Timberlands have been repurchased by their parent companies.

Figure 4--Share Values of Timber Letter Stocks
Figure 5--Share Values of Georgia-Pacific and The Timber Company

Note: The first few Timber Company share prices shown are the estimated "when issued" price.

Figure 6--Share Values for Major Timberland Owners
Figure 7--Major Timberland Owners--International Paper and IP Timberlands

Figure 8--Major Timberland Owners--Rayonier and Rayonier Timberlands
Figure 9--Timberland Sellers--Bowater

![Graph of Bowater's stock price from July 7, 1995 to July 2, 1999 compared to the S&P 500 index.]

Figure 10--Timberland Sellers--Fort James

![Graph of Fort James's stock price from July 7, 1995 to July 2, 1999 compared to the S&P 500 index.]

Legend:
- Red: Bowater
- Dotted red: S&P 500
- Blue: James River
- Green: Fort Howard
- Black: Fort James

Price per Share

S&P 500
**Figure 11--Timberland Sellers--Smurfit-Stone Container**

![Graph showing the price per share of Smurfit-Stone Container from 07-Jul-95 to 02-Jul-99. The graph includes the S&P 500, Smurfit Stone, Jefferson Smurfit, and Stone lines.](image)

**Figure 12--Timberland Acquirers--Willamette Industries**

![Graph showing the price per share of Willamette Industries from 07-Jul-95 to 02-Jul-99. The graph includes the S&P 500, Willamette (Nasdaq), and Willamette (NYSE) lines.](image)
Figure 13--A Comparison of a Timberland Acquirer (Willamette), Seller (Bowater) and Holder (Weyerhaeuser)