Forest Products Marketplace

By Roy Anderson

Remaining Southern and Western Sawmills Stay Afloat–Barely

In the few days in early September that I have been working on this article, the stock market has swung wildly, unemployment remains well above 9 percent, and new home construction is anemic at best. In short, it's hard to find a bright spot in the economy. This begs the question: Can the US softwood sawmilling industry survive these difficult times?

A pair of recent competitive assessment studies completed by The Beck Group, a Portland, Oregon–based forest products planning and consulting firm—the company I work for—provides some insight on this question. As shown in Table 1, Southern yellow pine sawmills in the US South were, on average, profitable during 2010, whereas the average stud mill in the western United States and Canada lost money during 2010.

Methodology

Some important points to note about the information shown in the table are:

Revenue is a combination of the participating mills' average lumber sales price and the value received by the mills for byproducts (pulp chips, sawdust, hog fuel, shavings, etc.). Note that byproducts are typically bought and sold on a weight basis, but in this case have been expressed on a dollars-per-thousand-board-feet-of-lumber basis. In other words, the average, total dollar value of all byproduct sales was divided by the average volume of lumber produced.

Costs are a combination of two key categories: logs and conversion costs. Log costs are the total dollar value paid for logs divided by the number of board feet of lumber produced. Again, this differs from the normal expression of log cost, which is usually on a dollars-per-thousand-board-feet-of-log scale (not lumber scale) or on a dollars-per-ton basis (the convention in the South). Logs continue to be the largest component of total cost, at approximately 60 percent in the South and 50 percent in the West (including western Canada). Conversion costs include all costs incurred in the sawmill, log yard, dry kilns, planer mill, shipping, and general and administrative costs.

Pre-tax operating margin is expressed on an EBIT (earnings before interest and taxes) basis—for which costs such as depreciation have been included, but inventory changes and interest charges are excluded—were on average positive in the South and slightly negative in the West. When the pre-tax margin is expressed on a cash basis (excluding deprecation), both regions were about $15/MBM more profitable. While the overall averages were favorable, there were mills in both regions that were "underwater" on a cash basis.

In the South, 30 mills representing 17 firms participated in the study. In the West, 13 mills representing 11 firms participated in the study. In both cases, the firms participating represented an excellent cross-section of the industry, including representation by both publicly and privately held firms.

Financial Performance of Softwood Sawmills in the US South and US West in 2010

Revenue/Cost/Profit(Loss) Category	U.S. South ($/MBM)	Western U.S. & Canada Stud Mills ($/MBM)
Revenue		
Lumber & By-products	$327	$289
Costs		
Log and Conversion Costs	$318	$291
Pre-Tax Operating Margin(Loss)		
EBIT (earnings before interest, taxes)	$9	($2)

Table 1. In 2010, Southern yellow pine sawmills in the US South were, on average, profitable, whereas the average stud mill in the western United States and Canada lost money.

What Do the Numbers Mean?

The data indicate that southern mills sold their lumber and byproducts for a higher average value than the mills in the West. While that is interesting, these numbers should not be compared, because the mills in each region produce different types of products. In the West, the survey participants were stud mills (i.e., mills that produce 2x4 and 2x6 lumber eight to 12 feet in length). The mills in the South are producing a wider array of products, including 2x4 through 2x12 widths and lengths up to 24 feet. Another factor in the different average sales values is closer proximity to large markets among southern mills.

Regarding byproduct values, the numbers in both the West and the South are higher than they were in 2005, which is the last time a similar study was completed in both regions during the same year. In the South, however, the byproduct value is only 9 percent higher than it was in 2005. In the West, the byproduct value

("Marketplace" continues on page 11)

("Marketplace" continued from page 8)

is nearly 90 percent higher than it was in 2005.

The upward trend in byproduct value is driven by two factors. First, demand for pulp and paper products is relatively strong. Thus, chip prices have been high, especially as more saw mills have curtailed/closed and the supply of mill residue–derived pulp chips has dwindled. Second, there has been increased demand for biomass among other users such as biomass power and pellet/briquette plants, which in turn has supported higher prices.

With respect to log costs, it is again not quite valid to compare the two regions. The primary reason for this is that mills in the South tend to purchase larger logs in order to be able to produce wider and longer pieces of lumber. Despite the inherent underlying difference in log size (and therefore cost) between the mills in the two studies, log costs in the West were pushed higher than expected because of strong demand for logs in Asia and an accordingly "hot" log export market, especially toward the end of the year. Participating mills in the West likely would have been profitable in 2010 were it not for higher log costs caused by the strong demand in the log export market.

In the South, a number of mills reported that their survival strategy was to focus on reducing net wood cost by purchasing somewhat smaller (and therefore cheaper) logs and by being willing to run out of logs to apply downward pressure on log prices.

It is also worth noting that in both regions lumber recovery improved by 2 percent to 6 percent between 2005 and 2010. This occurred in the South despite the use of smaller logs in recent years, which typically hurts recovery when logs are measured on a weight basis (as is standard procedure in the South). The improved recovery in both regions has been largely driven by broader use of optimization technology (e.g., optimized log positioning prior to primary breakdown, optimized edging, and optimized trimming).

Another factor leading to lower log costs is higher lumber yield per unit of log measure. This was accomplished by mills reducing lumber thickness and width target sizes. For example, in 2010 in the South, the average green thickness target size was 1.70 inches for dimension lumber products. In 2005, the average reported target thickness was 1.72 inches. For kiln-dry dimension lumber, the finished thickness is 1.50 inches. Thus, an increasingly smaller amount of wood fiber is lost as shavings and sawdust.

Another big factor in the financial performance of the mills in both regions is that operating hours were reduced significantly in 2010 to bring production in line with market demand. For example, in both regions it is estimated that the mills in the studies operated at 70 percent to 75 percent of their capacity. While this strategy is necessary to match production with demand, it has the disadvantage of raising manufacturing costs (on a per unit basis) since it causes the fixed costs to be spread across fewer units of production.

Summary

The mills in both regions sold lumber in 2010 at 80 percent of the values they were receiving in 2005. However, because they have been able to reduce operating costs by paying less for logs and by getting more lumber out of the logs they buy, they are surviving.

Roy Anderson is an SAF member and a senior consultant with The Beck Group, a forest products planning and consulting firm in Portland, Oregon. Contact him at roya@beckgroupconsulting.com

("Field Foresters" continued from page 10)

Stewardship Award in 2009, and the Field Forester Award from the Oklahoma Division of the Ouachita SAF in 2007 and from the Ouachita state society in 2009.

District 10
Robert G. Heeke

Heeke has worked for the Suwannee River Water Management District (District) in Live Oak, Florida, since 1987. When hired as the land resources manager, the district had land holdings of approximately 12,000 acres and no permanent management staff. Since then, district fee land holdings have grown to more than 160,000 acres arrayed in corridors along the rivers of the region and with a nearly even proportion of upland and wetland forest. Throughout this time, Heeke has overseen all land management activities, including forest operations, facility maintenance, and public use. He has also had responsibility for monitoring the district's conservation easements, which now total more than 120,000 acres.

Given his knowledge and skillset, Heeke has implemented an ownership-wide forest inventory, including overstory, shrubs, and ground cover species; supervised the development and adoption of ownership-wide management plans in 2003 and 2011; developed and supervised the district's prescribed burning program; directed harvesting on more than 15,000 acres for natural community restoration; established the exotic plant control project at the district and served on the state-wide Invasive Species Working Group; directed the installation of hydrologic mitigation projects across the district; developed and implemented the district's Excellence in Land Management program; and directed the district's efforts to become the first SFI-certified public lands in Florida.

Heeke has been an active member of SAF since 1981, and in 2005 he received the Southeastern SAF's award for excellence in the general practice of forestry.

For information on nominating someone for an SAF Presidential Field Forester Award, visit the SAF website at www.safnet.org/about/awards.cfm.

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