EFFICACY OF CURTAILMENT ANNOUNCEMENTS AS A PREDICTOR OF LUMBER SUPPLY

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ABSTRACT

A practical method for tracking the effect of curtailment announcements on lumber supply is described and tested. Combining announcements of closures and curtailments with mill capacities enables the creation of accurate forward-looking assessments of lumber supply 1 to 2 months into the future. For three American and Canadian lumber-producing regions, the method produced projections of supply that were within 0.5 percent accuracy for a 7-month period encompassing June to December 2000. Announcements of production intentions are an important piece of market intelligence that can help guide assessments of demand-supply in a volatile market environment.

In the ebb and flow of commodity markets, demand and supply are often out of balance and producers and consumers have to continually adjust to uphold equilibrium. Usually the adjustments take the form of changes in price, but when an imbalance is prolonged, physical changes in production also take place.

Such was the case in North America in the year 2000 when rising interest rates dampened demand while past profitability led to a buildup of softwood lumber capacity. Prices began their yearlong decline in January, when the price for benchmark spruce-pine-fir (nominal 2- by 4-inch [standard 38- by 89-mm]) peaked at $350. By May, prices had fallen to $260, a level approaching the break-even point for many mills. At that time, the industry, which had been in full production mode, began to announce limited output curtailments. As prices continued to weaken into the summer and fall, the pace of announcements picked up, and by December more than 240 mills of an approximate universe of 1,250 had announced some form of action to curtail supply. In a volatile market, the item of greatest interest is price and its likely direction. Production curtailment is a response to price weakness that from the producers' viewpoint has reached unfavorable levels. Knowledge of future production (supply) is valuable as a guidepost to likely future price direction, and the question addressed here is how accurate were these announcements as predictors of near-term supply?

METHODS

As a production curtailment was announced, the number of affected working days was noted. The volume of lumber output foregone was calculated by multiplying the last known annual capacity' by the number of closed working days and dividing this by the number of working days in a year (i.e., 250 days minus holidays). These data were aggregated by region and month. Corresponding to each region and month, a baseline aggregate production was calculated by taking the production rate of the previous year (1999), dividing it by the number of working days in 1999, and multiplying that by the number of working days in the current year (2000). The projection for 2000 results from subtracting the calculated foregone output from this baseline. These projections were compared to the production figures as reported a couple of months later by various trade associations and statistical agencies.

RESULTS

Table 1 contains comparative production data between 1999 and 2000, as reported for three key producing regions, and 2000 production figures as projected by this method. Starting with the West region of the United States, we see

[1] Spelter, H. and T. McKeever. 1999. Profile 1999: Softwood sawmills in the United States and Canada. Res. Pap. FPL-RP-579. USDA Forest Serv, Forest Prod. Lab., Madison, WI. 76 pp.

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that the projections correctly forecasted declines in production compared to 1999, but actual reductions turned out to be even greater. The overestimation of output was on the order of 3 percent for the 7-month period.

For the South, the results were more accurate. A large underestimation in September was offset by a similar overestimation in October, which could have been due to a mill-reporting error to the data-gathering agency's statistician. The overall underestimation error was about 1 percent.

For British Columbia, production was also underestimated. From June through November, the underestimation error was a mere 1 percent, but a large 19 percent discrepancy in December brought the average to a more substantial 4 percent. A review of this with industry observers led to the conclusion that much of the announced downtime at year-end was actually normal holiday-related curtailment rather than a unique measure prompted by prevailing market conditions.

DISCUSSION

The amount of planned future production is a critical market variable. Data on lumber production are gathered weekly from a subset of mills in the United States and reported with a lag of about 2 weeks. Monthly production figures that include estimates for nonmember mills are reported with about a 2-month delay. Canadian production data are compiled by Statistics Canada and reported with about a 3-month lag. In certain times when markets are weak, announced cutbacks and curtailments may be used to augment these data to indicate prospective market supply. As gathered and compiled during the course of the second half of 2000, these announcements pointed to a 6.9 percent reduction in production in three major regions for the period June to December 2000 as compared to the same period in 1999. When the official data were compiled and reported, they showed a nearly identical 6.5 percent decline.

Curtailment announcements are not definitive indicators of future supply in and of themselves. First, mill capacities are often increased through improvements and de-bottlenecking projects as well as through new construction. New mills are generally known and can be accounted for, but capacity creep or even the change in the number of scheduled hours worked is beyond the radar screens of most observers. To the extent that mills not curtailing production have increased their capacities as compared to that of the prior year, this method overestimates the amount of reduction. Second, some of the announced curtailments may not be completely carried out. If the change in plans is not announced, curtailments will also be overestimated. Third, not all mills report their curtailment intention. In that case, this method leads to underestimation of the reduced output. Additional events that influence supply can include weather-related curtailments, strikes, and chip-disposal difficulties (for integrated mills). All of these can be incorporated in calculations of future supply to the extent the affected mills make known their situation, but over the study period such factors were not reported to have played a role.

The regional evidence from this cycle indicates a mixed bag of effects from these factors. In the aggregate, however, the errors generally cancelled each other out. In the 7 months during which the comparisons were made, the direction and magnitude of changes were closely predicted, with a less than 0.5 percent

TABLE 1. – Projected and actual softwood lumber production in three regions.

Region and actual/ projected production	Monthly production						
	June	July	August	September	October	November	December
	(MMBF)[a]						
West							
Actual 1999	1,577	1,466	1,511	1,464	1,476	1,438	1,407
Actual 2000	1,494	1,226	1,371	1,333	1,480	1,329	1,169
Projected 2000	1,539	1,329	1,463	1,325	1,491	1,347	1,209
Percentage of error (%)	3	8	7	-1	1	1	3
South							
Actual 1999	1,561	1,453	1,361	1,379	1,463	1,356	1,293
Actual 2000	1,507	1,343	1,424	1,338	1,390	1,270	1,112
Projected 2000	1,523	1,345	1,356	1,241	1.469	1,226	1,104
Percentage of error (%)	1	0	-5	-7	6	-3	-1
British Columbia							
Actual 1999	1,234	1,136	1,096	1,244	1,211	1,104	962
Actual 2000	1,189	1,038	971	1,069	1,195	1,132	967
Projected 2000	1,210	978	933	1,080	1,227	1,072	784
Percentage of error (%)	2	-6	-4	1	3	-5	-19
Total							
1999	4,372	4,055	3,968	4,087	4,150	3,898	3,662
2000	4,190	3,607	3,766	3,740	4,065	3,731	3,248
Projected	4,272	3,652	3,752	3,646	4,187	3,645	3,097
Percentage of error (%)	2	1	-0	-3	3	-2	-5

[a] MMBF = million board feet.

overall error rate toward overestimating curtailments or underestimating production. With additional follow-up to ensure that announced curtailments are market related rather than normal seasonal events, even better results might have been achieved.

In general, it is in the interest of producers to announce their production intentions. This can help market participants better evaluate the demand-supply balances at a given time and perhaps dampen pricing volatility. Several business and trade news organizations disseminate such announcements efficiently, providing both producers and purchasers with a piece of information that, if detailed and complete, can be used to accurately project supply several months in advance. Especially in periods of market weakness, significant curtailment announcements can have a beneficial psychological effect on buyers and prices, but if abused, such as announcing a routine holiday or maintenance closure as a major market-related measure, that impact of the announcement could be diluted.