DEFINING THE RIFT

By Henry Spelter

U.S. economist examines the consequences of the differences in U.S. and Canadian stumpage valuations.

If America had Canada's stumpage system, then there wouldn't be much of a dispute. But the reality is there are two distinct models of timber valuation, and the core of America's complaint vis-à-vis Canada is that, as a result, there is an asymmetry in the market where the two sides compete: on the one hand all producers have equal access under the same rules and standards to the U.S. lumber market, but at the timber supply level a different and exclusionary Canadian lumber pricing model provides wood at rates that disadvantage U.S. competitors. Canadians acknowledge that Canada has a competitive advantage in the way it prices timber, but claim it's not a subsidy.

To better explain this central issue, let us review market dynamics and industry trends from the viewpoint of a "typical" sawmill in, say Georgia. Figure 1 shows quarterly unit gross revenues for such a mill over the last five years.

Using representative regional costs, let's deconstruct this into its component parts. Over this period estimated variable costs (fully loaded labor, energy, supplies) accounted for about $66 to $78 per thousand feet. Fixed costs (administration, depreciation, overhead) accounted for a further $28 to $32. Granting this operation a 5% allowance for profit and risk, a key

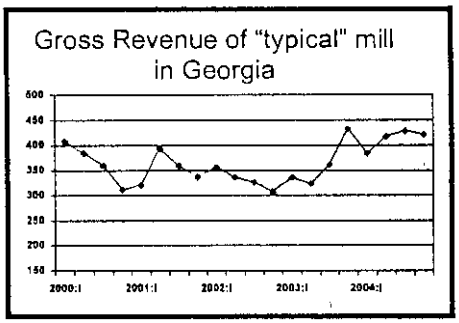


Figure 1

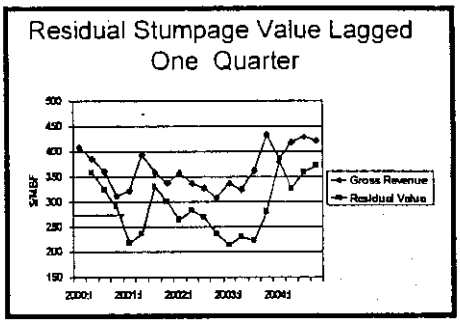


Figure 2

postulate in the process, takes out an additional $15 to $22.

Converting the remainder from lumber tally basis to log scale and subtracting the costs of harvesting and hauling ($87 to $95) creates an estimate of the residual value of the wood on the stump ("stumpage"). Lag this by one quarter and you get an approximation of the way in which stumpage is determined in many Canadian jurisdictions (Figure 2).

This seems to be an eminently fair system. When lumber prices are up, stumpage is up, when they are down, stumpage is down, I cannot imagine many lumbermen, North or South, who, if given a choice, would not prefer such a stumpage pricing system over the uncertainties or competitive markets. Except that such a system is generally not available to U.S. producers, where timber is scattered across a wide range of ownerships and sold at arm's length auctions.

When we compare these residual stumpage values to actual market prices, we find significant and sustained differences between them (Figure 3). Now imagine two mills identical in every way except in their timber procurement. One gets timber from a single supplier priced according to the model described above on the basis of the mill's costs, the other at prevailing open market rates. To see how each would fare, consider the percent differences in timber costs between them (Figure 4).

Over the entire live years, the two prices are essentially the same (i.e. within the margin of error). This perhaps generates the claim that Canadian timber is not subsidized. But even if so, in 11 quarters of a 13 quarter period, stretching from the fourth quarter of 2000 to the fourth quarter of 2003, the market depen-

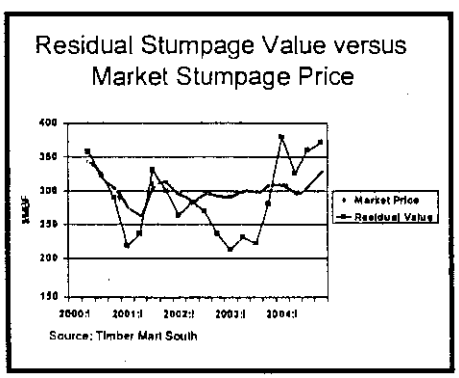


Figure 3

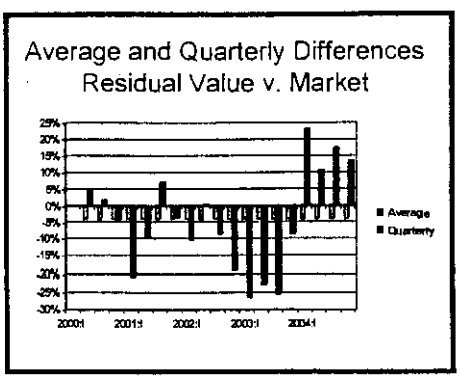
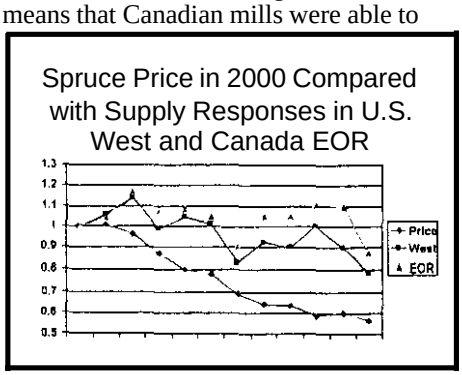


Figure 4

dent mill would have incurred cost disadvantages of up to 25% in timber. If reserves (or the tolerance of leanders) allowed, over the five-year period the mill would make up these losses, but even then consider which mill owner would be more willing to invest in technology to stay competitive and which would more likely shoulder the burden of curtailments when prices were weak. This in my view is the crux of the difficulty in having two different stumpage systems, one which embeds a profit margin for the processor, the other in which profit results from the ebbs and flows of market transactions.

The dynamics of prices between a dominant (i.e. lumber) and a derivative market (i.e. timber) is captured in a statistic called the elasticity of price transmission (EPT). This has been estimated for southern pine at various times to be inelastic (i.e. less than 1), a result confirmed here also (Table 1). Likewise, Western U.S. regions showed inelastic EPT values (Table 2). This means that timber prices are "sticky" and are not fully responsive to swings in lumber prices. But, if they aren't, then the difference must be made up elsewhere and of course that is in the bottom line (i.e. profits). By contrast, a pure residual value pricing model will produce unitary or higher elasticities, meaning more stable profitability. For example, for the period 1999:04 to 2004:09, I estimated the EPT for Ontario at 1.2.

This difference has real world ramifications as illustrated by events in the year 2000 (Figure 5). Lumber prices started out high but fell as the year unfolded, ending at almost half the starting value. In response, Western U.S suppliers gradually reduced production. Compare that to the more inelastic response of Canadian producers east of the Rockies. The divergence in total domestic U.S. supply versus imports from Canada was even sharper. Year 2000 price elasticities of supply by various regions are listed in table 3 and are lower for Canadian regions. Thie means that Canadian mills were able to produce under low prices longer, which is attributable in the first place to lower costs. An advantage in timber costs is one likely reason for this along with other factors, such as a low valued Canadian dollar at the time.



Region	Elasticity of price transmission	Source
Southern pine	0.64	Haynes
Southern pine	0.60	Holley cited in Haynes
Southern pine	0.36	Adams cited in Haynes
Georgia	0.36	Spelter
Alabama	0.35	Spelter
Texas	0.30	Spelter

Table 1

Region	Elasticity of price transmission	Source
Western lumber	0.45	Haynes
West Coast lumber	0.38	Haynes
Rocky Mtn. Lumber	0.35	Adams cited in Haynes
West Coast lumber	0.36	Vauz cited in Haynes
Oregon	0.27	Spelter
Montana	0.42	Spelter

Table 2

Canada EOR	Br. Columbia	U.S. South	U.S. North	U.S. West
0.09	0.22	0.26	0.30	0.36

Table 3

In summary, the North American lumber market is integrated and under normal conditions provides unhindered access to all suppliers. North American log markets, on the other hand, function on different principles in which a profit allowance for the wood processor plays a role in timber pricing in one while in the other it is a byproduct of the give and take of arm's length market negotiations. The first is characterized by high elasticities of price transmission and, at times of market weakness, by low elasticities of product supply, the other by the opposite of these benchmarks. This can result in asymmetric supply responses in weak markets to the detriment of U.S. producers.

Americans often have the belief that their systems of economic organization represent the pinnacle of human development. In the case of timber marketing, an argument to the contrary could be made based on a history of periodic booms followed by busts, the breaking of contracts and bankruptcies. But in the U.S., to paraphrase a noted fellow civil servant, you participate in the lumber business on the basis of the timber markets you have rather than the timber markets you would want or would like to have in the future.

The challenge in the lumber dispute is to devise a system of timber pricing that creates a playing field where the rules and parameters are the same for everyone. In this sense the lumber dispute is perhaps the vanguard of a wave of future disputes with assorted countries in this era of globalization in which issues of "fair" trade in the context of free trade rise to greater prominence. TP

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