

can influence the sales prices. This does not mean that a small number of actual participants on any particular transaction necessarily means that the market is not functioning. Rather, the more fundamental question is whether the market is contestable (*i.e.*, anyone who wants to bid or buy and use the fiber as they choose, depending on the form of sale, has a fair and open opportunity to do so).

In addition, to the extent that many producers are able to source all, or virtually all, of their wood fiber needs from crown tenure, these parties would not be active participants in the private market. As noted above, all other things being equal, the greater the number of market participants who must participate in the reference market or other competitive markets for a sizeable share of the furnish for their mills, the stronger the evidence that the reference market is open, competitive and functioning independently of the administered portion of a province's harvest and would, as a consequence, serve as an adequate reference point for assessing stumpage on provincial lands.

b. Quality of Information. The province must demonstrate that similar full and transparent information is available to all participants in the reference market about alternative commercial opportunities, particularly with respect to price. This is especially important in those instances in which a province intends to rely for its reference prices on a private market that is made up largely of bilaterally negotiated sales of standing timber on private lands, but would be important to the Department's assessment of any auction-based system as well.

Thus, for example, it would be particularly important for any private owner of standing timber to have access to current information on prices others are receiving for similar stands in assessing the amount he or she intends to charge. This would help sellers (either public or private) develop a "reservation price," a price below which the seller will not sell—one that is consistent with the fully allocated costs of the seller's investment in bringing the forest to a harvestable state. For small holders, this could ensure that they receive the "market price" even if only a limited number of buyers were making bids. This information flow could take the form of internet pages, trade publications, or other similar sources of public information.

In addition, a significant feature of any independently functioning market is the availability of sufficient information about the characteristics of timber being offered for sale in such markets to all buyers such that the seller and no individual buyer has an unfair advantage. The more significant the uncertainty about the quality of the timber, the higher risk that the uncertainty will result in lower prices for the timber in such markets. As a consequence, the Department will examine whether potential buyers in the reference market have the opportunity to survey the timber or there are commercial services available that will survey the timber in order to eliminate any potential advantages that preferential access to

information about a given stand might otherwise confer.

c. Direction of the Causal Link. The province must demonstrate that the prices established in the reference market are determined independently (*i.e.*, independent of any influence from distortions associated with provincial administered timber policies or the effects from pricing of stumpage on long-term tenures on provincial land). More to the point, in any attempt to translate prices established in an independently functioning market to stumpage charged on the administered portion of a province's timber, the Department will want to ensure that it is the prices found in private or otherwise independently functioning markets that is dictating the prices on the administered portion of the harvest (*i.e.*, that causality runs from auction sales or private markets to administered sales), rather than the reverse.

Thus, for example, in the case of a province that chooses to rely on a market for private timber within the province as a reference point for establishing prices on the administered portion of its harvest, the province must demonstrate that its pricing model ensures that firms or individuals with significant long term tenures cannot artificially force down prices in the private market to lower stumpage charged on the administered portion of the harvest.

d. Barriers to Entry or Exit in the Market. The province must demonstrate that there are no significant barriers to entry or exit into the reference market for either sellers (private woodlot owners, log traders, and, potentially, tenure holders) or buyers (lumber, pulp and paper mills, or other processors). Thus, for example, the Department will want to examine whether there are participation constraints that limit competition such as nationality requirements, conditions requiring that a bidder own a sawmill, or barriers to inter-provincial or international trade in private sector logs that affect the market to be used as a reference point.

e. Safeguards Against Collusive Behavior. In addition to examining the structure of the reference market for establishing the stumpage on the administered portion of its harvest, the Department must be assured that the market is free of any collusive behavior and that the province has in place adequate safeguards against such behavior. Such safeguards are particularly important when considering the design of any auction system for sales of public timber, but that is not the only environment in which such safeguards are relevant. Beyond auction design lies the consideration whether the market a province uses as a reference point on prices is protected against collusive behavior. The question is both one of law and of the enforcement activities of authorities responsible for administering the relevant jurisdiction's laws designed to ensure competition.

2. Transparency

Transparency is a key feature of both markets and sound administrative practice that the Department will examine with respect to any pricing system. The following discussion highlights three areas in which transparency will be factored into the

Department's analysis of whether a timber sales system is market-based.

a. Transparency in the Functioning of the Market Used as a Reference Point for Market Prices. A factor in considering the adequacy of any reference market is the transparency with which that market operates. For example, in the case of the auction of public timber, one of the key features of the market for standing timber that such a system generates is the timely publication of the results of the auctions so that all participants in the market have adequate information on which to set expectations for succeeding bids. At the same time, publication of the results will assist in providing a verifiable set of prices in a sufficiently robust market to afford an adequate basis for setting stumpage prices on the administered portion of the province's harvest.

Similarly, in the case of log markets, adequate public information about the transactions on the market would be essential to the ability of participants in the market to rely on the results in setting expectations for future bidding on logs. The Department would need to see a similar degree of transparency in the reporting of prices on transactions in a log market to be able to assess whether the market could serve as an adequate reference point for setting stumpage rates on public lands or otherwise provide assurances of the adequacy of remuneration.

To serve as an adequate reference market, a log market must place the logs for sale on reasonable terms to any bidder and operate on price, as opposed to "swaps," with sufficient volume moving through the market to ensure that it provides an adequate basis for setting stumpage. As reflected in the discussion above with respect to the number of market participants and entry and exit barriers, prices must result from a competitive process open to all interested buyers and sellers. In addition, the log markets must establish a way of ensuring that information about individual transactions is accurately reported and publicly available in order to inform market participants regarding the going rates for certain logs, as well as to serve as a useful reference point for setting stumpage on the public harvest.

Most private transactions for timber in Canada are conducted through a series of bilateral negotiations between buyers and sellers. While there is a good deal of information available on the going rates that certain market participants might offer or pay in the market, there is generally no systematic reporting of such transactions, through an active public exchange for example, that would ensure both a stronger market and a more reliable reference point for setting stumpage rates on the administered portion of a province's harvest. Demonstrating transparency in such markets would provide significant confidence in the results that the market produced and, therefore, in the market's reliability as a reference point. Transparency will also be critical in markets where previous transactions were not on a price basis, *e.g.*, log swaps.

b. Application of Prices Observed in Independently Functioning Markets to Stumpage Set on the Administered Portion of