

CHAPTER 22

22-19 Transfer-pricing methods, goal congruence.

1. *Alternative 1:* Sell as raw lumber for \$200 per 100 board feet:

Revenue		\$200
Variable costs		<u>100</u>
Contribution margin		<u>\$100</u> per 100 board feet

- Alternative 2:* Sell as finished lumber for \$275 per 100 board feet:

Revenue		\$275
Variable costs:		
Raw lumber	\$100	
Finished lumber	<u>125</u>	<u>225</u>
Contribution margin		<u>\$ 50</u> per 100 board feet

British Columbia Lumber will maximize its total contribution margin by selling lumber in its raw form.

An alternative approach is to examine the incremental revenues and incremental costs in the Finished Lumber Division:

Incremental revenues, \$275 – \$200		\$ 75
Incremental costs		<u>125</u>
Incremental loss		<u>\$ (50)</u> per 100 board feet

2. Transfer price at 110% of variable costs:

$$= \$100 + (\$100 \times 0.10)$$

$$= \$110 \text{ per 100 board feet}$$

	Sell as Raw Lumber	Sell as Finished Lumber
Raw Lumber Division		
Division revenues	\$200	\$110
Division variable costs	<u>100</u>	<u>100</u>
Division operating income	<u>\$100</u>	<u>\$ 10</u>
Finished Lumber Division		
Division revenues	\$ 0	\$275
Transferred-in costs	—	110
Division variable costs	<u>—</u>	<u>125</u>
Division operating income	<u>\$ 0</u>	<u>\$ 40</u>

The Raw Lumber Division will maximize reported division operating income by selling raw lumber, which is the action preferred by the company as a whole. The Finished Lumber

Division will maximize division operating income by selling finished lumber, which is contrary to the action preferred by the company as a whole.

3. Transfer price at market price = \$200 per 100 board feet.

	Sell as Raw Lumber	Sell as Finished Lumber
Raw Lumber Division		
Division revenues	\$200	\$200
Division variable costs	<u>100</u>	<u>100</u>
Division operating income	<u>\$100</u>	<u>\$100</u>
Finished Lumber Division		
Division revenues	\$ 0	\$275
Transferred-in costs	—	200
Division variable costs	<u>—</u>	<u>125</u>
Division operating income	<u>\$ 0</u>	<u>\$ (50)</u>

Because the Raw Lumber Division will be indifferent between selling the lumber in raw or finished form, it would be willing to maximize division operating income by selling raw lumber, which is the action preferred by the company as a whole. The Finished Lumber Division will maximize division operating income by not further processing raw lumber and this is preferred by the company as a whole. Thus, transfer at market price will result in division actions that are also in the best interest of the company as a whole.