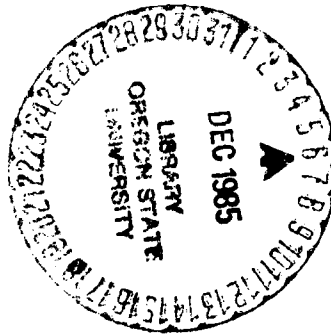


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School of Business

Studies in Management and Accounting for the

FOREST PRODUCTS INDUSTRIES

Unique Financial Reporting Considerations for
Readers of Forest Products Companies
Financial Statements

by Patricia M. Bedient

Studies in Management and Accounting for the
FOREST
PRODUCTS
INDUSTRIES

Unique Financial Reporting Considerations For Readers of
Forest Products Companies Financial Statements

Patricia M. Bedient
Arthur Andersen & Co.

INTRODUCTION

This monograph provides an introduction to the accounting and tax concepts of the forest products industry. It is intended for those unfamiliar with the industry who seek only a general orientation or desire an overview before delving into the detail of specific areas. Users would include bankers, investors, accountants, attorneys, etc. The monograph will cover common accounting methods and policies, unique financial statement accounts and footnote disclosure.

DISCUSSION OF MAJOR FINANCIAL STATEMENT CAPTIONS

Before beginning a discussion of the financial statements themselves, a word of caution is advised. As with many other industries any analysis of the financial statements is incomplete without a careful reading of the footnotes to the financial statements. Understanding the accounting methods and policies used to prepare the financial statements is vital. Knowing whether the methods used between years are consistent is also essential to any trend analysis or comparison between years or between companies. This type of information may only be obtained from the footnotes.

Accounts Receivable

Although accounts receivable comprises a large percentage of current assets, reporting considerations are not significantly different from other industries. Usually sales are made to a variety of customers and as such dependence upon one customer as a dominant sales outlet is unique. Aging for receivables from plywood and lumber sales should be relatively current as these receivables turn quickly, however, terms for pulp and paper may be much longer as a result of overseas shipments.

Inventory

Inventory includes a variety of raw material components and finished products. Work in process is usually not material to the balance sheet due to the relatively short production cycle for most products. Major products include logs, lumber, panels, pulp, paper and chips.

Determination of Physical Quantities

Logs - Logs are defined as trees or portions thereof which have been cut down and sawn into usable lengths. Standing trees or timber are carried in a separate balance sheet caption and will be discussed later.

Log quantities are usually measured in terms of "thousand board feet" (MBF). One board foot is defined as the amount of wood equal to 12" x 12" x 1" or 144 cubic inches. The initial quantity for each log is determined by a scaler based upon the length, diameter, defect, taper etc. of the individual log using recognized scaling rules. Most logs are not counted in inventory until they are scaled. Because most of the scaling is done at the mill or log yard, logs which are cut but still in the woods are typically not included in inventory.

A variety of scaling rules are used around the country and footage will vary depending upon the scale used. For example, the Scribner scale is widely used in the West and will normally result in higher volumes than the Doyle scale which is commonly used in the South and Northeast. In addition, there are variations of each of these scales as well. The differences in scaling rules are compensated for in valuing the inventory. For example Doyle scale would result in a lower value per MBF than Scribner.

Decked logs are the most common form of log inventory. Logs are typically decked by species and size. Many companies use a "locked in" deck system for determining quantities. As logs are brought into the yard they are scaled into a given deck until the deck has been completed. Quantity for the deck is accumulated from the scale tickets. The deck will be left untouched "locked in" until the logs are needed for production. Logs will be used by deck such that each deck will be cut-out before a new deck is opened. When the deck is fully cut-out it is compared to the quantity on the perpetual records and the perpetual is adjusted accordingly. This method enables the physical inventory to be adjusted as each deck is used without having to take a physical inventory of the entire yard.

Logs may also be stored in the water using either a raft system or loose within a pond, however, because of environmental concerns the significance of inventories stored in the water has declined. If a raft system is used volume is accumulated from the scale tickets as the raft is built. This method is similar to the locked-in deck system in that the volume does not have to be adjusted until the raft is cut-out.

Loose logs in ponds are somewhat harder to measure due to sinkers (logs below the water line) and because there tends to be more airspace between the logs. Usually an overall estimate is made by counting the number of logs and multiplying the total by an average volume per log. Another method is to estimate the percent the pond is full. By comparing this to the amount the pond normally holds when full an approximate volume can be derived. These estimates are compared to the perpetual records as a check on the reasonableness of the perpetual.

Lumber - Lumber is generally easier to inventory than logs because of the absence of bark and because it is stacked by similar grades, sizes and species. Many companies utilize a tag system for maintaining a perpetual record. Volume is measured in MBF. The value of lumber can vary greatly depending upon species and grade.

Plywood, Reconstituted Panels and Veneer - Softwood veneer and plywood is typically measured in thousand square feet (MSF). However, a square foot is defined as 12" x 12" x 3/8" or its equivalent cubic volume. Hardwood veneer and plywood are typically based on 1/4" thickness. Other panels such as particleboard, medium density fiberboard and waferboard are also measured in MSF based on a given thickness.

Chips - Chips may be produced from portions of the log not used in plywood or lumber production or may be produced by chipping the whole log as in the case of pulpwood. Chips are measured in bone-dry units (BDU's). A BDU is equivalent to that quantity of wood chips that will weigh 2,400 pounds in an oven-dry condition. Chips are stored in piles with quantities maintained on perpetual records. These perpetual records are periodically tested by use of aerial survey or ground techniques to estimate the height of the pile to determine its approximate cubic volume. An important factor in determining chip quantity is the compaction factor. The higher the pile the more compact the chips will be. Therefore, once the cubic volume of the pile is known it must be divided by the appropriate compaction factor to determine the approximate number of units.

Pulp and Paper - In addition to logs and chips discussed previously, inventories at pulp and paper mills may include roll stock, baled pulp and paper in addition to wastepaper and a variety of chemicals. Weight is the most common basis for measurement of pulp, paper and rollstock. Chemicals include lime, caustic, chlorine etc. A pulp and paper operation often carries a material inventory of spare parts. When significant these parts are capitalized.

Inventory Costing and Valuation

Last-in, first-out (LIFO) is the most common method of inventory costing. The reasons for its popularity in this industry are much the same as those found in other manufacturing industries. The LIFO method of inventory valuation matches current costs with current revenues thereby reducing the impact of inflation on income. More importantly, use of the LIFO method for federal income tax purposes allows companies to deduct these higher costs currently rather than inventorying them in the balance sheet. (Internal revenue service regulations prevent companies from using the LIFO method for income tax purposes unless it is also used for financial reporting purposes, however Congress is currently considering abolishing this conformity requirement.)

When evaluating a company's financial position or results of operations there are other impacts to consider which result from use of the LIFO method. Because LIFO charges current costs to the income statement the costs inventoried in the balance sheet may not be representative of the inventory's current value. This is especially true for a company which has used the LIFO method for a number of years. As a result, working capital or current ratios may not compare favorably to a company using a different inventory valuation method. The LIFO method will usually result in decreased earnings per share in times of inflation again because current costs are charged to the income statement. However, if a company significantly reduces inventory from one yearend to the next, income may be artificially high as a result of charging previous years' lower cost inventory to the income statement. (Due to the fluctuation in raw material and labor costs the average cost of a previous year's LIFO layer may be greater than current year costs. In this instance a LIFO liquidation will result in higher costs being charged to the income statement.) Because of the above differences in inventory valuation it is important to review the footnotes to financial statements. These notes will disclose information regarding the valuation method used, the financial

statement impact of any significant LIFO liquidations and the difference between LIFO inventory recorded in the balance sheet and what the value would have been using an average cost or FIFO method. (A reader wanting a more detailed discussion of the LIFO method may wish to refer to a separate monograph published by the Oregon State University College of Business entitled, "LIFO Inventories in the Forest Products Industry.")

The average cost method of inventory valuation is often used for internal reporting purposes. It is sometimes used for external reporting but is not as prevalent as LIFO. Average cost is derived by applying a per unit production cost computed over a given period of time (a month or year) to all units in ending inventory. This calculation is usually very simple and straight forward because most manufacturers have mill operating statements which will determine the per unit costs. Multiplying the unit cost times the number of units in inventory yields the inventory dollar value. However, the simplicity of the calculation can also lead to distortions. For example, the per unit average cost is usually applied to all units in inventory regardless of end-product value. If the mix of the production period is not comparable to the mix of ending inventory the cost may not be representative. In addition, costs incurred throughout the year can be very seasonal and subject to fluctuation. Logging costs, for example, can vary greatly depending upon the terrain or weather. For this reason, many companies use an annual average cost rather than a monthly cost in order to minimize these swings. As an alternative, certain costs may be annualized for purposes of the calculation to prevent these distortions.

The first-in, first-out (FIFO) method of inventory is often used to value supplies or chemical inventories, however, it is not generally used for the more significant components such as logs, chips, or finished goods.

Joint-Products and by-products

Joint-products and by-products occur in many stages of wood products operations. Joint products are defined as those products which are produced simultaneously from the same raw material and which have significant economic value. In contrast, by-products are usually of minor or incidental value.

The problem of assigning costs to joint products begins with the harvest of timber. Logs produced from a given tract may vary considerably in value depending upon whether they are pulp logs, sawmill logs or peeler logs. The problem arises as to how the cost of timber should be assigned to the logs produced. The costs of logging and hauling the logs to the point of manufacture are also joint costs. The joint cost problem does not end with the delivery of logs to the mill. A sawmill operator derives products of varying grades from each log. The plywood manufacturer is confronted with a similar problem since varying quantities of "face stock" and "core stock" will be obtained from the logs. Although joint products are frequently produced, the method of allocating costs to these products is not very scientific. The most common practice is to assign an overall average cost of raw material to the end products regardless of the varying sales realization for each product.

Typical by-products found in the industry include bark, chips, saw dust and shavings. By-products may be used internally by the operation. For example, bark is often burned to generate power for running the mill. Revenue from by-product sales are often credited directly to cost of sales, sales, or reflected as a reduction in inventoriable cost. If by-product revenue is credited directly to sales or cost of sales the effect on net income will be the same. However, if it is reflected as an offset to inventoriable cost net income will differ depending on changes in inventory volume.

A product, by definition, may change from a by-product to a joint-product depending on market conditions. A prime example of this is the production of wood chips. Historically chips were treated as a by-product with little cost assigned to them. However, the relative value of chips has, at times, increased such that logs normally sawn into lumber are converted to chips. Chip income has become a significant factor to many mill operations.

Property Plant and Equipment

Due to the capital intensive nature of the forest products industry fixed assets and related depreciation are significant financial statement accounts.

Depreciation is typically calculated on a service-life basis using either a set time period or unit-of-production method. Because of the cyclical nature of the industry the unit-of-production method has gained popularity in recent years. Depreciation rates are usually calculated on broad asset classifications as opposed to separate rates for each individual piece of equipment.

It is common practice for mills to perform major maintenance or repairs during a one or two week shutdown period each year. Significant repairs are usually capitalized. In addition, maintenance costs incurred as part of the annual shutdown period are often annualized for interim reporting purposes.

When a company brings a new plant on stream or has major expansion of an existing facility start-up costs are often incurred. Many companies defer these costs and amortize them over a period not to exceed the life of the asset. Such deferral is proper under the theory of matching costs with the related revenue to be generated. Costs may include testing or debugging the system, training a new labor force etc. The point at which start-up costs should no longer be deferred is somewhat subjective. However, no costs should be deferred if production or operating results are less than normal due to factors which are not production related (i.e. poor markets).

During significant construction projects interest is computed on the outstanding construction balance and capitalized as a cost of the project.

Timber and Timberland

Timber is defined as growing trees. There are two basic methods of securing a timber supply; outright ownership and cutting contracts.

Fee Timber

Timber that is owned outright is often referred to as fee timber. A fee timber holder has a deed to the land as well as the timber. A major advantage of fee timber is control of a timber supply and increased self-sufficiency. Historical cost reported in financial statements varies widely depending upon the year of acquisition. Therefore, in evaluating the fee timber dollar amount it is important to know the volume and species it represents. In addition, because timber is a renewable resource, timber volume acquired years ago will have increased unless there has been significant cutting.

Timber and the related timberland is reported on the balance sheet as a non-current asset at original purchase cost less depletion (referred to as Cost of Timber Harvested or COTH), usually immediately before or after Property, Plant and Equipment. No portion of the asset is considered to be a current asset, even though it may be fairly certain that some portion of the timber will be harvested in the coming year. Carrying costs such as property taxes, insurance, interest and insect control usually are expensed as incurred. Reforestation costs (which may include cost of seeds, seedlings, nurseries, site preparation and fertilization), on the other hand, are capitalized as part of the timber account, because they are related directly to regrowth.

Cutting Contracts

A cutting contract is a contractual agreement giving the company the right to cut timber in a specified location, at a specified price within a designated period of time. There are two major categories of cutting contracts. One category is referred to as "pay-as-cut". This contract specifies a rate paid per MBF cut. The rate is specified by species. The second category is referred to as "lump-sum". Under a lump-sum contract the buyer pays a designated fixed amount for the right to cut all timber on a given tract of land. There is usually no guarantee of volumes and as a result it is extremely important to have an accurate estimate of the amount of timber on the tract prior to settling on a price.

Many contracts require advance deposits. As timber is removed it is applied against the deposit. As the deposit is used the buyer is required to make additional deposits.

From the buyer's perspective, acquisition of timber cutting rights can sometimes be a means of increasing timber supply without increasing liabilities on the balance sheet as many of these contracts are not recorded as assets or liabilities. Additionally, although advance deposits or bonds may be required, cutting contracts are to some degree, self-financing since payment is not required until harvest. A major advantage from the seller's perspective is that agreements can be structured so that the seller retains an economic interest in the timber thereby deferring payment of capital gains tax until the timber is actually cut.

The primary source of timber sold under cutting contracts is the government. Such contracts are more prevalent in the West where the government has vast timber holdings. The U.S. Forest Service manages and sells timber in National Forests and the Bureau of Land Management controls and sells timber on public domain lands. In addition, timber is sold by a variety of state governments under cutting contracts. Most government agencies sell timber at public auction. The timber is sold to the highest bidder, which is determined by multiplying the rates bid per species by the volume estimated by the agency. As discussed before the agency does not guarantee the volume actually cut. These contracts may also include clauses for changes in prices to be paid based on fluctuation of end-product prices. These are referred to as escalation and de-escalation. The timber must be cut within the time period specified in the contract, although extensions have been granted in certain cases. Discounts are also sometimes given for early harvesting.

There are many other variations of timber acquisition methods including timber deeds, timber leases and exchanges. These transactions usually take place between private parties and are more common in the South as most of the timber is owned by private land holders as opposed to the government.

Although cutting contracts vary, they are generally recorded using one of two basic methods. If the risk of ownership is with the buyer, then the transaction is recorded as a purchase, with the quantifiable amount of the commitment recorded as an asset and a liability. However, if the risk of ownership is with the seller and title does not pass to the buyer until the timber is cut, the cutting contract is recorded as a purchase of inventory and liability as the timber is cut.

Advance deposits on cutting contracts usually are recorded as an asset and credited to reflect payment for timber as it is cut. These deposits are classified in the balance sheet in many different ways. Some companies believe that a deposit may have a current and non-current portion. The portion that will be used to offset timber removals within one year is classified as current; the portion that will not be utilized within one year is non-current. Some companies classify the entire amount of the deposit as part of the timber account and disclose that policy. When advance deposits are made to ensure that the buyer performs in accordance with the contract and the deposits remain outstanding for the full term of the contract, they are usually classified as a non-current asset.

On individual contracts, it is common for the value of timber removed to exceed the advance deposit at some point in time. When this occurs, a liability is set up, normally as a current liability within accounts payable.

Cost of Timber Harvested

The charge for cost of timber harvested is based on a unit of production concept. The total cost of the timber is divided by the total estimated recoverable volume of timber resulting in a per unit (usually expressed in terms of thousand board feet) charge. There is no generally accepted method

of computing the cost of timber harvested within the industry. Some of the more common methods include:

A single composite rate for all timber owned, representing a cumulative average of all acquisitions. This is a common method among small- and medium-sized companies whose timber holdings are located in one general area and used to supply one or perhaps two mills.

Separate composite rates for each major block of timber constituting an operating unit. Here again, the rates are cumulative averages of all acquisitions making up the block. This method is frequently found in large companies having major timber holdings spread over a wide area with each block supplying separate mills. The blocks may also be distinguished by differences in the primary species.

Separate rates for each individual tract based upon the acquisition cost of the particular tract. This method may result in substantial variation in the cost of logs of similar species and quality, depending upon the particular tract from which they are cut.

Sustained yield concept. Some companies are able to manage their timberlands on a sustained yield basis whereby the timber resource is continually renewed through reforestation and residual growth such that the growth equals the amount of timber harvested from a given period. Under such condition, cost of timber harvested may be computed by dividing the original purchase price of the timber plus reforestation costs incurred and expected to be incurred during the growth cycle by the projected footage which will be available during the growth cycle.

Roads and Road Amortization

Logging roads are constructed to provide access to the timber which is to be harvested. Such costs can be significant depending on the terrain and length of road. Roads which serve large areas and will be in use until all the timber in a given tract is logged are referred as mainline roads. The costs of building mainline roads are usually capitalized and amortized as the timber is harvested. The costs of branch or spur roads that serve relatively small areas and will only be used for one logging season are often charged to expenses as incurred. Capitalized road costs are reported as a non-current asset either in the property caption or timber caption on the balance sheet.

Income Taxes

It is not uncommon for forest products companies to have an effective tax rate that is lower than the ordinary income tax rate. One of the primary reasons for this is a special tax statute which allows, under certain circumstances, the harvesting of timber or the disposal of timber with a retained economic interest to result in the realization of income taxable at the capital gains rate (28%) instead of the ordinary income tax rate (46%). Prior to the

Revenue Act of 1943, no specific rules existed for determining the character of income from timber operations. Where a taxpayer made an outright sale of his interest in timber, the gain was treated as a capital gain provided the taxpayer did not hold the property for sale to customers in the ordinary course of his trade or business. Thus, a taxpayer who harvested his own timber and subsequently sold the logs or used them in his own sawmill, plywood mill, pulp mill or other trade or business, reported his gains as ordinary income. On the other hand, if he sold the standing timber, in most cases he would be able to report his income as capital gains. As a result of this situation, many timber owners found it more profitable to sell their holdings, thus breaking up acres that were naturally suited for integrated reforestation and operating practices. Also, returns to owners were not proportionate to the risks involved in nurturing and holding timber over the long periods to maturity. Consequently, many timber owners were reluctant to carry on sustained yield forestry.

Section 631 of the Internal Revenue Code was devised as the best way of providing a strong incentive to encourage practices that would ensure the nation of a permanent and sufficient supply of timber for its economic needs.

Section 631 applies to two types of transactions; Section 631(a), which allows capital gain treatment to be applied to the cutting of timber, and Section 631(b), which allows capital gain treatment to be applied to timber sold under a cutting contract when the taxpayer retains an economic interest in the timber.

Section 631(a) capital gain on the cutting of timber applies to the difference between the cost of the timber cut and its fair market value on the first day of the fiscal year in which it is cut. The timber must be held as of the beginning of the fiscal year and owned for at least six months. However, if it was acquired prior to June 21, 1984, the holding period is twelve months. This treatment is available for fee timber as well as timber held under a cutting contract.

Section 631(b) applies to the sale of timber. It was enacted because, without it, those selling timber under cutting contracts would be discriminated against compared to those selling their timber all in one lump sum. One of the requirements, however, is that the seller retain an economic interest in the timber. An economic interest in timber is retained by an owner when payments to be received under a contract are solely dependent on the severance of the timber. This is usually satisfied when the seller retains the risk of loss. This means that if the timber is destroyed between the date the cutting contract is entered into and the date the timber is actually cut, the seller is not entitled to any payment for the timber.

The gains or losses on Section 631 transactions are combined with any other gains or losses from the sale of business assets. The net gain is treated as a long term capital gain and a net loss is treated as an ordinary loss.

The follow example illustrates how the use of the alternative tax computation resulting from capital gain income affects a company's taxes payable given varying mixes of capital and ordinary income.

| | <u>Case 1</u> | <u>Case 2</u> | <u>Case 3</u> | <u>Case 4</u> |
|-------------------------------------|---------------|-----------------|-----------------|---------------|
| Taxable income (A) | 50,000 | 26,000 | 18,000 | 36,000 |
| Capital gains (B) | <u>36,000</u> | <u>36,000</u> | <u>36,000</u> | <u>36,000</u> |
| Balance (C) | <u>14,000</u> | <u>(10,000)</u> | <u>(18,000)</u> | <u>-0-</u> |
| Regular tax (A X 46%) (D) | <u>23,000</u> | <u>11,960</u> | <u>8,280</u> | <u>16,560</u> |
| Alternative tax | | | | |
| B X 28% | 10,080 | 10,080 | 10,080 | 10,080 |
| C X 46% | <u>6,440</u> | <u>-</u> | <u>-</u> | <u>-</u> |
| (E) | <u>16,520</u> | <u>10,080</u> | <u>10,080</u> | <u>10,080</u> |
| Federal Income tax Lesser D or E | <u>16,520</u> | <u>10,080</u> | <u>8,280</u> | <u>10,080</u> |
| Effective tax rate | 33% | 39% | 46% | 28% |

In Case 1 above, the alternative tax in Column 1 saved \$6,480 in taxes (\$23,000 - \$16,520).

The market for end products in the forest products industry can fluctuate widely. As a result, in some years, companies may actually have more capital gains than net taxable income. This situation is referred to as being in a "capital gains position" (GAP) or an "ordinary income deficit" (OID). Case 2 illustrates this so called "GAP." In this case, the company could have recognized \$10,000 of additional ordinary income without having to pay any additional tax. Such situations require careful tax planning in order to maximize benefits from capital gains.

Case 3 is an example where capital gain income exceeds net taxable income to the point where no benefit is received from capital gains.

Case 4 illustrates the ideal mix of capital vs. ordinary income and results in the lowest effective tax rate of 28%.

From time to time Congress has considered abolishing these special capital gain considerations for the forest products industry. Such a proposal is under consideration at the present time.

Other features of the tax law such as accelerated depreciation and investment tax credits are also of great importance to the forest products industry due to its capital intensive nature. However, because these provisions are not unique to this industry, they are not discussed here in detail.

DISCLOSURE ITEMS

In addition to disclosures specific to certain financial statement captions the footnotes to financial statements contain useful information regarding other aspects of a company's financial position or operations.

Commitments and Contingencies

If a company has made significant commitments for capital expenditures or raw material for the coming year it should be disclosed in the footnotes. This type of information is valuable in assessing cash flow requirements.

As discussed previously, many companies secure a portion of their raw material supply by entering into timber cutting contracts. These contracts will provide valuable insight into the resources available to the company in terms of a fiber supply to operate its mills. In addition, due to the cyclical nature of end-product prices in the industry, these contracts may contain inherent losses if converted and sold at current market prices. Often these losses will not be recorded in the financial statements due to the uncertainty of what end-product prices will be when the timber is eventually harvested. However, the footnotes should give information regarding the amount (volume and/or dollars) of timber under contract, the period covered by the contracts, the company's policy for recording losses on these commitments and whether any significant inherent losses may exist.

If the company is engaged in any litigation which could have a material impact on the company it will be disclosed in the footnotes. Often the company cannot estimate its liability, if any, and therefore nothing will be recorded in the financial statements. The footnotes will discuss the range of possible liability and whether or not management has formed an opinion as to its outcome.

Segment Reporting

The most significant issue for forest products companies subject to segment reporting requirements is the allocation of timber and timberland operations. The problem is that these operations involve a high degree of integration with the other segments of the company. As a result although timber assets support most segments including wood products, pulp and paper etc. they are usually not allocated to any particular segment because identification of specific timber assets with a given segment is not possible. Because any allocation

would be arbitrary, the identified asset and capital expenditure disclosures usually do not contain an allocation for timber and timberlands.

Supplementary Financial Data Adjusted for Inflation

Companies meeting certain criteria must include information in the footnotes to financial statements regarding the effect of inflation. This information is unaudited but must be presented in accordance with the requirements of Financial Accounting Statements #33 and #82. In general the information may provide some insight into the impact of inflation on a company's financial position and its results of operation. However, because the information deals with only certain aspects of inflation and uses a number of subjective assumptions and estimates sole reliance on the data to accurately portray the impact of inflation may be misleading. Therefore, it is important that the reader have a good understanding of these assumptions and methodology used before attempting to interpret this data. The importance of this understanding is highlighted by the disclosure of the current cost of timber. Some companies utilize a replacement cost approach which is determined by aggregating the annual cost of forest management and reforestation while others base the current cost of timberlands on the change in the Consumer Price Index since their acquisition. Although both methods are acceptable in meeting the disclosure requirements they may not bear any relationship to the true market value of the timber.

Summary

There are many unique financial reporting considerations in the forest products industry. This monograph has hopefully provided the reader with an appreciation for the importance of understanding these unique items and served as a general orientation to financial reporting in this industry.

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MONOGRAPHS PUBLISHED TO DATE

1. "The Rush to LIFO: Is It Always Good for Wood Products Firms?" issued in 1976.
2. "Accounting and Financial Management in the Forest Products Industries: A Guide to the Published Literature," issued in 1977 and 1981.
3. "A Decision Framework for Trading Lumber Futures," issued in October 1975.
4. "Capital Gains Tax Treatment in the Forest Products Industries," issued June 1976.
5. "Measurement Difficulties in the Log Conversion Process," issued June 1976.
6. "Capital Budgeting Practices in the Forest Products Industry," issued March 1978.
7. "A Reporting and Control System for Wood Products Futures Trading Activities," issued July 1978.
8. "Selected Issues of Financial Accounting and Reporting for Timber," issued November 1978.
9. "Pool Log Transfer System," issued August 1979.
10. "Fundamentals of Financing Major Timber Acquisitions," issued February 14, 1980.
11. "LIFO Inventories in the Forest Products Industry," issued July 1980.
12. "Accounting Controls for a Forest Products Firms," issued January 1981.
13. "Log Inventory Controls," issued April 1981.
14. "Accounting Treatment for Wood Products Futures Trading Activities," issued October 1981.
15. "A Reporting and Planning System for a Wood Products Operations," issued November 1981.

(continued)

16. "Boise Cascade's Productivity Improvement Program," issued January 1982.
17. "Information Systems Planning in Weyerhaeuser Company," issued August 1982.
18. "Developing a Strategic Plan for a Forest Products Company: A Case Study," issued March 1983.
19. "Company/Employee Gainsharing Programs," issued July 1983.
20. "Productivity Improvement Programs of Knowledge Workers in the Forest Products Industry," issued November 1983.
21. "Microcomputer Modeling in the Forest Products Industry," issued May 1984.
22. "Control and Measurement of Chips," issued September 1984.
23. "Accounting for Buying Back Timber Cutting Contracts," issued December 1984.
24. "Developing Cross-Hedging Strategies Based on Lumber Price, Change Variation and Seasonality," issued May 1985.

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This series of monographs is published by the School of Business, Oregon State University, to disseminate information, research findings, and informed opinion about current problems and opportunities in the management of, and accounting for, enterprises in the forest and wood products industries.

Additional information about these Studies may be obtained from the program director, Dr. Robert E. Shirley, at the School of Business, Oregon State University, Corvallis, Oregon 97331.

