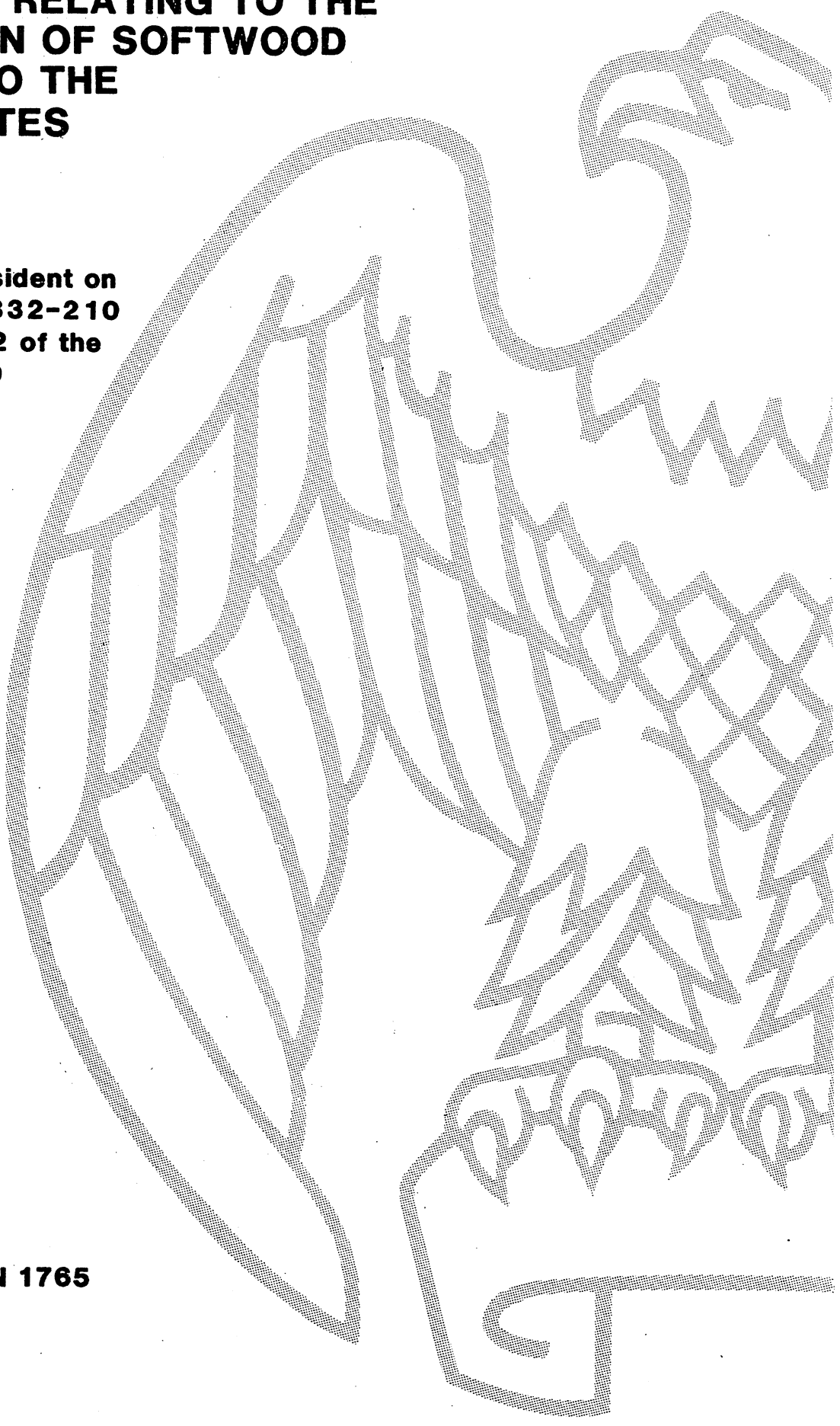
CONDITIONS RELATING TO THE IMPORTATION OF SOFTWOOD LUMBER INTO THE UNITED STATES

Report to the President on Investigation No. 332-210 Under Section 332 of the Tariff Act of 1930



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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PREFACE

On March 6, 1985, the United States Trade Representative (USTR) requested the United States International Trade Commission to conduct an investigation to update the Commission's April 1982 study, Conditions Relating to the Importation of Softwood Lumber Into the United States, 1/ and to report on all significant factors affecting the competitive status of the U.S. and Canadian softwood lumber industries. 2/ The USTR requested that the Commission examine conditions in the softwood lumber industry during 1982-84 and report any significant developments since its earlier investigation. On March 26, 1985, the Commission instituted the requested investigation. 3/

Effective May 31, 1985, the Commission extended the investigation by 3 months and scheduled a public hearing, which was held on July 23, 1985, in Washington, DC. 4/

The information presented in this report was obtained from fieldwork and Commission data files, and from information obtained from private individuals and organizations and Government sources in the United States and Canada. The information and analysis in this report are for the purposes of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under statutory authority covering the same or similar matter.

1/ Report to the President on Investigation No. 332-134, USITC Publication 1241, Conditions Relating to the Importation of Softwood Lumber Into the United States: April 1982.

2/ The request from the United States Trade Representative is reproduced in app. A.

3/ A copy of the notice of the Commission's investigation as it appeared in the Federal Register is reproduced in app. B.

4/ A copy of the Commission's extension of investigation and scheduling of the public hearing as it appeared in the Federal Register is reproduced in app. C and a list of the Witnesses appearing at the public hearing is shown in app. D.

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Executive Summary

United States and Canadian softwood lumber producers, together, comprise what is known as the North American softwood lumber industry and are the principal participants in the North American lumber market. Softwood lumber production in North America increased 31 percent from 40.7 billion board feet in 1982 to 53.4 billion board feet in 1984 in response to the increased housing starts in both countries. Combined, U.S. and Canadian housing starts rose from 1.2 million starts in 1982 to 1.9 million starts in 1984, or by 59 percent. This dramatic increase is a reversal of the 1979-82 levels of such starts; combined U.S. and Canadian softwood lumber production and housing starts fell 20 percent and 39 percent, respectively, during the 1979-82 period.

From 1978 to 1982, annual U.S. housing starts, the major determinant of consumption of softwood lumber in the United States fell by nearly half. Largely in response to this drop in housing starts, U.S. production, imports, and consumption of softwood lumber each dropped by about one-fourth. U.S. exports of softwood lumber increased over 40 percent from 1978 to 1981, as U.S. producers of softwood lumber expanded off-shore markets during this period of low U.S. housing starts. In 1983 and 1984, however, a reversal occurred in the declining trend in U.S. housing starts, largely reflecting improved general economic conditions. During these two years, housing starts were nearly two-thirds higher than in 1982, and U.S. production of softwood lumber rose by nearly one third over the 1982 level; consumption increased over one-third. Imports, mostly from Canada, increased by nearly one-half as the U.S. demand rose. Imports as a share of U.S. consumption increased from 28 percent in 1982 to 29 percent in 1984. By 1984, U.S. exports of softwood lumber were 16 percent below the level of 1981, largely reflecting the increased utilization of U.S. produced softwood lumber in the expanding U.S. housing market.

In accordance with the request from the United States Trade Representative, the significant factors affecting the competitive status of the U.S. and Canadian softwood lumber industries and particularlly the significant developments affecting the competitive status of the U.S. and Canadian softwood lumber industry since the Commission's report to the Senate Committee on Finance, Investigation No. 332-134, under the Trade Act of 1930, Conditions Relating to the Importation of Softwood Lumber into the United States (USITC publication 1241), April, 1982, are reported below.

1. A comparison of U.S. and Canadian Government policies and regulations

   - For Government-controlled lands in the United States, management functions are retained by the Government, and volumes of timber are put up for auction on a sale-by-sale basis; purchasers compete for each sale. In Canada, cutting rights are leased or licensed under a variety of arrangements to private companies that hold these rights over extended periods.

- Both countries assist their respective industries exist in order to improve economic conditions in certain regional locations, and to improve employment opportunities, and promote industrial expansion.

- Generally, the realized U.S. tax rate for forestry (logging and sawmilling) is lower than the Canadian tax rate. Overall, U.S. firms benefit from the ability to claim stumpage revenues as capital gains, but Canadian firms benefit from a significantly faster depreciation schedule on plant and equipment.

- Although a ban on U.S. log exports would affect the price and supply of stumpage, and to some degree the price of lumber, changes in the U.S. economy and the levels in housing construction would have a greater effect on prices and supplies.

2. A comparision of U.S. and Canadian Forest Resources

- The productive forest land in the United States is divided among 4 groups--farm and other private ownerships (58 percent); national forests (18 percent); forest industries (14 percent); and other public (10 percent). In Canada 80 percent is under Provincial crown authority and the remainder is under federal crown (12 percent) or private (8 percent).

3. A comparision of U.S. and Canadian stumpage prices and appraisal methods

- The appraisal systems used for sales of timber from Government lands in the United States and British Columbia are similar. Both are based on a residual system in which costs of converting the standing timber to final products, plus an allowance for profit and risk, are deducted from a price determined for the final products, resulting in an appraised price (calculated worth) for the standing timber. However, the remaining Provinces set their timber dues (similar to stumpage rates) by regulation.

- Standing timber on public land in the United States is usually sold at auction to the highest bidder (normally at a price that is higher than the appraised price), whereas in Canada it is offered under license to private companies, which generally pay the appraised price usually set by the Provinces. As long as they comply with Provincial regulations concerning their licenses, these companies are certain of a steady supply of timber over extended periods of time. The current available

supply of timber in most regions of Canada is more than sufficient to meet the productive capacity of the license holders. In the United States, the allowable cut (supply) from Government lands and the offerings from private lands have been held at fairly constant levels in recent years, resulting in intense competitive bidding for sales of both Government and private timber.

- Since 1982, the aggregate U.S. stumpage rate has risen approximately $10 to $104.16 per 1,000 board feet in 1984, largely reflecting the increased demand for wood products by the U.S. housing industry. However, the Canadian aggregate stumpage rate rose approximately $1 per 1,000 board feet during this period. The aggregate U.S. delivered log prices followed the stumpage rates, rising nearly $20 from $186.00 in 1982 to $204.99 in 1984 while the Canadian delivered log prices remained virtually unchanged.

3. Comparison of the United States softwood lumber industry, and fixed and variable costs of production

- During 1982-84, the U.S. industry had about five times as many sawmills and planing mills as the Canadian industry and over two and one-half times as many employees. U.S. employees worked about 300 hours more per year than their Canadian counterparts during this period. However, the Canadian employees produced about 100 board feet, per hour, more softwood lumber per hour than U.S.employees. Also, from 1982 to 1984, Canadian softwood lumber production increased by 28 percent, whereas the U.S. production increased 16 percent.

- The U.S. softwood lumber industry's total aggregate variable cost to produce softwood lumber--total less residual values--was $8 per 1,000 board foot higher than Canadian costs in 1984. Overall, the United States has a higher total aggregate variable cost and has higher residual unit values.

- Variable production costs in coastal British Columbia, and Oregon and Washington, such as material costs and wages, were the highest for all Provinces and States. In 1984, the average variable costs for the two areas were US$297 and US$306 per 1,000 board feet of lumber produced, respectively.

- The costs for wood delivered to the mill, the largest variable cost for lumber production, are lower in Canada than in the United States. In 1984 the average delivered wood costs for Canada were US$128 per 1,000 board feet of lumber produced and those for the United States were US$156 per 1,000 board feet.

- When neighboring Provinces and States are compared, similar differences in average delivered wood costs to the mill are apparent: US$125 per 1,000 board feet of lumber produced for British Columbia compared with US$184 for Oregon and Washington; US$107 for the interior of British Columbia compared with US$147 for Idaho; and US$132 for Quebec compared with US$108 for Maine.

- Wages are the second most important variable cost of production after delivered wood costs. In general, wages averaged US$20 higher per 1,000 board feet of production in the United States than in Canada and accounted for 30 and 27 percent of production costs, respectively, in 1984.

- Other variable costs of production such as fuel, work contracted to others, incidental materials, and packaging do not significantly differ between the U.S. and Canadian softwood lumber industries.

- Fixed costs appear to be higher in the United States than for Canada. This may be partly due to costs associated with ownership (e.g., timber stand improvement, protection) of timberlands for many U.S. firms.

4. <u>The market</u>

- Since 1982, production of softwood lumber in both the United States and Canada has increased. During 1982-84, U.S. production increased 30 percent, from 25.1 billion board feet to 32.8 billion board feet, and Canadian production increased 32 percent, from 15.5 billion board feet to 20.6 billion board feet. Canadian exports to the United States as a share of Canadian production increased from 58 percent in 1982 to 64 percent in 1984.

- Although increases of softwood lumber production varied by region, production in all U.S. regions rose during 1982-84. Production in the Western United States accounted for a greater share of total production in 1984 than in 1982 (up from 55 percent in 1982 to 58 percent in 1984) and continued to be the leading softwood lumber producing region in the United States. The South's share fell from 41 percent in 1982 to 38 percent in 1984.

- Canadian softwood lumber production rose in all regions during 1982-84, with the exception of coastal British Columbia; however, the interior region of British Columbia increased production by nearly one-third. During 1982-84, the western Provinces slipped from 71 percent of production to 70 percent. Production in all Canadian Provinces rose during 1982-84.

- The U.S. supply situation is complicated by the variety of timberland ownership, which differs significantly by region. In the North and South, private ownership dominates. In the West, two segments of the sawmilling industry emerge: Those producers dependent on others, especially the Government, for timber, and those producers with significant holdings of their own. In Canada, with a few exceptions, the sawmilling industry is entirely dependent on public timber.

- During 1982-84, the exchange rate of the U.S. dollar appreciated in real terms by 1.2 percent vis-a-vis the Canadian dollar, continuing a strengthening of the U.S. dollar which has occurred since at least 1977. This has given the Canadian producers a price advantage in selling lumber in the U.S. market.

5. A comparison of U.S. and Canadian marketing practices

- The U.S. and Canadian industries follow virtually the same marketing practices. Competition for sales of similar lumber species, sizes, and grades is almost entirely by price. Lumber prices for all major species grades and sizes have increased, by between 10 and 20 percent, in response to increased demand, although the price increases may have been mitigated because of increases in supply.

- In 1984, Douglas fir 2x4's (f.o.b. mill) sold at US$182 per 1,000 board feet (U.S. lumber) and $159 per 1,000 board feet (Canadian). 1/ Southern pine 2x4's sold at $230 per 1,000 board feet compared to spruce-pine-fir 2x4's (from the British Columbia interior) that sold at $154 per 1,000 board feet (f.o.b. mill).

- Canadian imports are shipped predominantly into the Southern United States and compete strongly with local production and shipments from producers in the South. Eastern Canadian producers ship into the northern U.S. and sell at similar prices to U.S producers in the same market.

1/ The softwood lumber prices are unweighted averages throughout the report because there are no weighted average figures known to exist.

- Shipments from British Columbia to the Northeastern and North Central States have declined in recent years. These have been replaced mostly by shipments from Eastern Canada. It is likely that these shipments will continue to compete strongly with Western and local U.S. supplies as well as with shipments from British Columbia, owing to shorter transport distances and lower production costs.

- Since 1977, shipments by producers in the Western United States into the Southern, Northeastern, and North Central States have gradually decreased. This is due to several factors, including high transportation costs, competition from Canadian and Southern U.S. shipments to these States, and growing markets in the Southwestern United States.

6. U.S. and Canadian transportation costs

- All Canadian lumber shippers to markets in the Eastern United States generally have lower costs for rail transport than Western U.S. lumber shippers. Rail shipments are the preferred method of shipment over long distances. Although recent changes in U.S. regulations concerning freight charges have led to more competitive rates in the United States, Canadian shippers still have lower in-country freight charges.

- Waterborne shipments of lumber from the U.S. west coast to the U.S. Atlantic coast are nonexistent, except in the rare case of the lumber first being shipped into Canada and then being shipped to the U.S. East coast. The required use of U.S. ships in intracoastal trade under the provisions of the Merchant Marine Act of 1920 have reduced waterborne shipments, and significant shipments of softwood lumber from British Columbia are now virtually the only shipments by water to the U.S. Atlantic coast.

Description and Uses

Description

The term "softwood lumber" (imports, exports, or production) relates to a wide variety of products--such as boards, planks, timbers, framing materials, moldings, flooring, or siding--produced from coniferous species of trees. 1/ However, for purposes of this investigation, the term "softwood lumber" refers only to those products included in the Tariff Schedules of the United States Annotated (1985) (TSUSA) in items 202.03-202.30 (rough, dressed, or worked softwood lumber). 2/ Specifically excluded are drilled and treated lumber, wood siding, and edge-glued or end-glued wood not over 6 feet in length or over 15 inches in width.

The term "softwood lumber," when associated with U.S. exports, generally will refer only to articles covered by Schedule B items 202.0420-202.3140 (rough, dressed, or worked softwood lumber), 3/ which excludes drilled and treated lumber, wood siding, and edge-glued or end-glued wood not over 6 feet in length or over 15 inches in width.

The U.S. softwood lumber production figures presented in this investigation are estimated by the staff of the U.S. International Trade Commission, from selected industry and Government statistics, and are comparable with U.S. Department of Commerce import and export data.

According to the extent or stage of manufacture, lumber (both softwood and hardwood) is classified in the TSUSA as follows:

Rough lumber--lumber just as it comes from the saw, whether in its original sawed size or edged, resawn, crosscut, or trimmed to smaller sizes.

Dressed lumber--lumber that has been dressed or surfaced by planing on at least one edge or face.

Worked lumber--lumber that has been matched (tongue-and-grooved), shiplapped (rabbeted or lapped joint), or patterned on a matching machine, sticker, or molder.

Most lumber is also classified into three general size categories--board, dimension, or timber. The term "board" is generally used to describe lumber less than 2 inches thick and 1 or more inches wide. Boards less than 4 inches wide and 1 inch thick are referred to as strips. Dimension lumber generally refers to lumber 2 inches thick, but can include lumber up to but not including 5 inches thick, and over 2 inches wide. Dimension lumber may be classified as framing, joists, planks, studs, rafters, and so forth. Timbers are 5 inches or more in the smallest surface dimension and are sometimes referred to as beams, posts, girders, and so forth.

1/ Hardwood lumber is produced from deciduous trees.

2/ For statutory descriptions of these item numbers, see the excerpt from the TSUSA in app. E.

3/ For descriptions of these item numbers, see the excerpt from Schedule B in app. F.

Lumber is classified according to its moisture content as green or dried. 1/ Often, more than half the weight of green lumber is moisture. Some lumber is used green, because various characteristics of the wood make such use easier or more economical. However, to prevent warping, most lumber is seasoned by drying before retail sale.

Generally, lumber is measured by the board foot, a three-dimensional unit which, for tariff purposes, is described as--

> The quantity of lumber contained in, or derived (by drying, dressing, or working, or any combination of these processes) from, a piece of rough green lumber 1 inch in thickness, 12 inches in width, and 1 foot in length, or the equivalent of such piece in other dimensions. 2/

The aforementioned description of a board foot is on a rough green basis. In addition, the American Lumber Standards for Softwood Lumber 3/ sets forth minimum measurements for dressed lumber. For example, a rough 2"x4" piece of lumber can be a minimum of 1-1/2"x3-1/2" when dressed.

Softwood lumber is graded at the sawmill on characteristics that affect its strength, durability, utility, and/or appearance. Some common defects that lower the grade are knots, splits, shake (separation of annual rings), wane (bark or lack of wood on corner or edge), and pitch pockets. Standard rules for grading of lumber are published by regional lumber manufacturing or marketing organizations; they vary with geographic regions and species of lumber. Figure 1 shows the three major softwood lumber producing geographic regions in the United States and figure 2 shows the Canadian Provincial regions, and the Territories.

The lumber standards (grading rules) used in Quebec and the Northeastern United States, accepted by the American Lumber Standards Committee in the late 1960's, grades the lumber originating from Quebec as having a higher stress rating than similar lumber in the United States--a result of tighter annual ring growth. Recently, however, U.S. producers, through the Northeastern Lumber Manufacturers Association, expressed concern that Canadian mills--primarily along the Quebec and Maine border--using U.S. grown timber (balsam fir and eastern spruces), were grading their lumber produced from such timber by the Canadian standards, thus giving it a higher stress rating than the U.S. product produced from such timber.

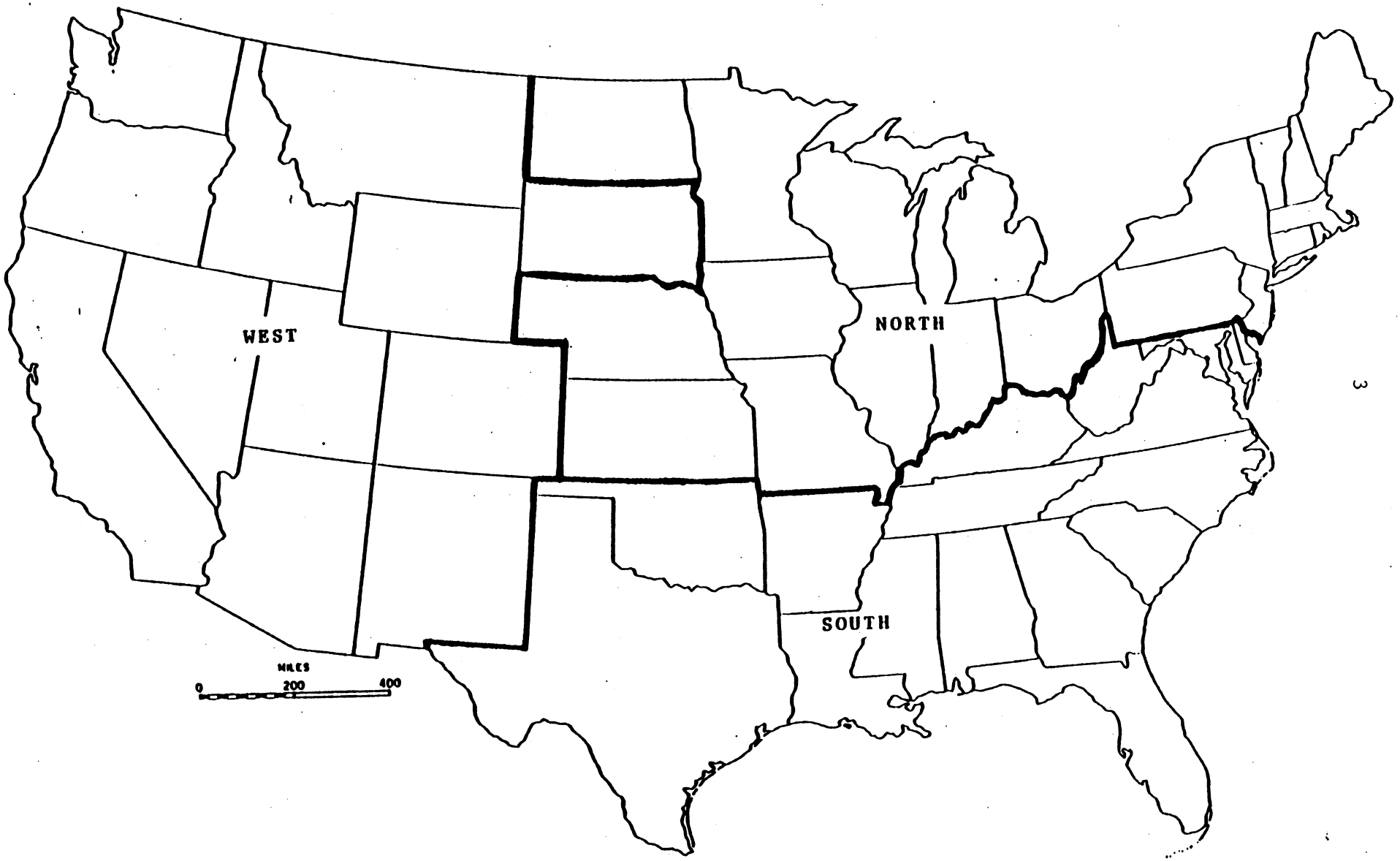
Although the stress rating difference between the U.S. and Canadian product is slight, it does have a large impact in certain designs used by the home-building industry. Through industry and Government (both U.S. and Canadian) discussions, it was recently agreed that the lumber standards used will be those in force in the country where the timber is grown. Thus, since July 1, 1985, all Canadian mills using U.S. grown timber have graded and stamped all lumber produced from such timber by the U.S., rules as set forth by the Northeastern Lumber Manufacturers Association.

1/ Generally, lumber with a moisture content of 19 percent or under is considered dried.

2/ Tariff Schedules of the United States Annotated (1985), p. 2-6.

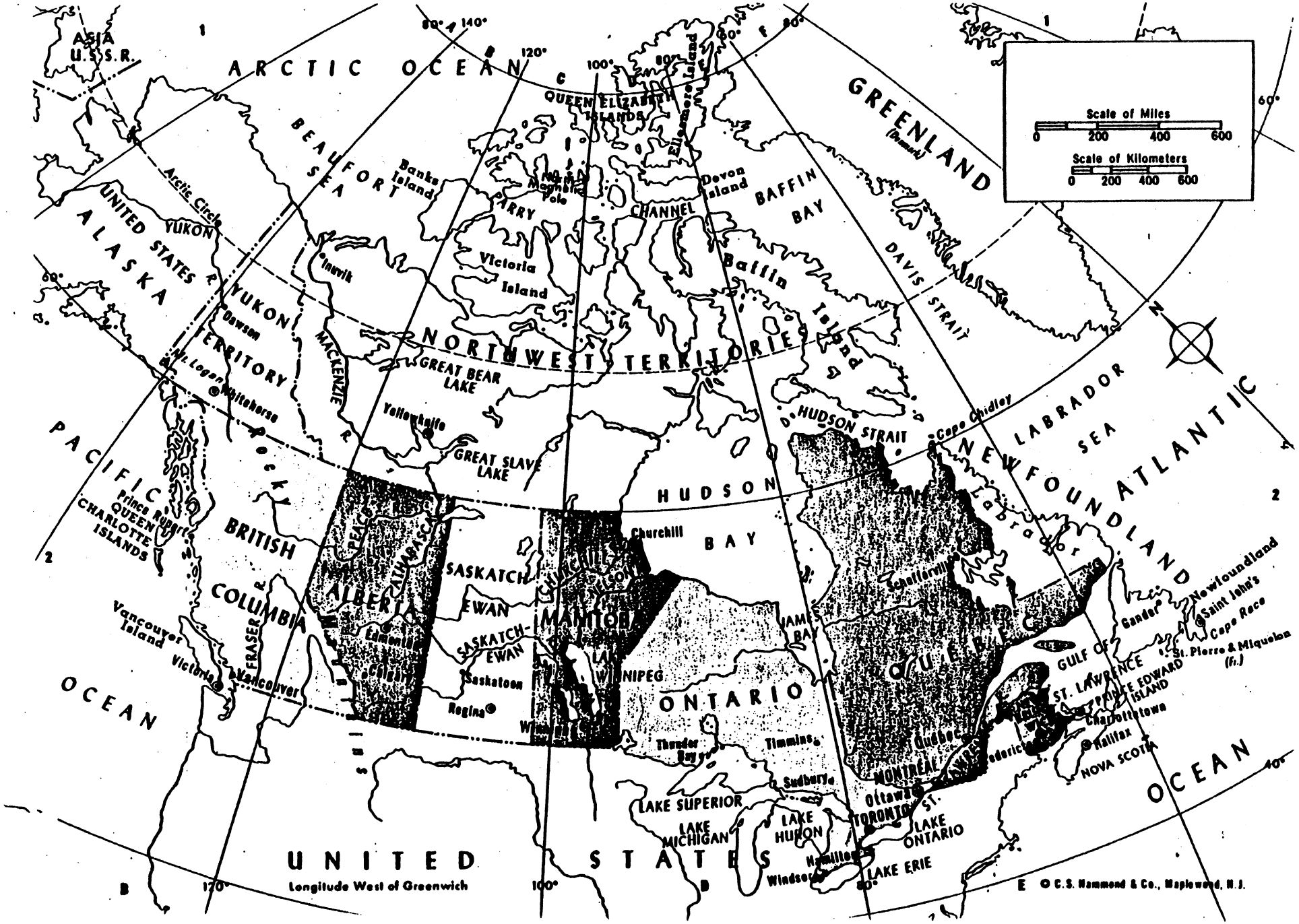
3/ These standards are published by the U.S. Department of Commerce in cooperation with manufacturers, distributors, and users.

Figure 1.--Geographic regions of the United States for lumber production.



Note.--Alaska and Hawaii are included in the west region. South Dakota is included in the west region for lumber production purposes but not for other U.S. Department of Commerce, Bureau of the Census purposes.

Figure 2.--Geographic regions of Canada.



Uses

Softwood lumber is readily workable, has a high strength-to-weight ratio, and is moderately durable; hence, it is widely used in the construction, shipping, and manufacturing industries. 1/ During years of average U.S. construction activity, it is estimated that about 39 percent of the annual U.S. consumption of softwood lumber is used in new residential construction (new housing), as shown in the following tabulation: 2/

End use	Percentage distribution of U.S. consumption
Construction:	
New residential (new housing)	39
Repair and remodeling	24
New nonresidential construction	16
Materials handling	11
All other	10
Total	100

In years of low housing starts, the share of softwood lumber consumed by new housing construction may be somewhat less than 39 percent, with the share accounted for by repair and remodeling increasing slightly.

For a given end use, softwood lumber of different species or from different regions is generally interchangeable. However, for some uses, a specific species is frequently preferred because of its particular characteristics--e.g., redwood and western redcedar for home exterior siding, and white pine for moldings. With respect to dimension lumber for new house framing, species preference is somewhat regional. West coast builders have a preference for Douglas fir and ponderosa pine; however, northeastern and southern builders often purchase spruce-pine-fir (SPF) for framing and millwork, as it accepts paint and stain better and is easier to work with. Southern pine is preferred for trusses and load bearing construction because of its high-strength qualities.

1/ Hardwood lumber, building boards (e.g., plywood and oriented strand board), certain paperboard products, and nonwood products (e.g., brick, concrete blocks, aluminum, and plastic products) compete with softwood lumber in many uses. These competitive products are often more economical for particular uses, or they furnish unique performance or appearance. Based on an index of 1977=100, the use of softwood lumber rose from a 5-year low of 78 in 1982 to 106 in 1984 (28 points) in contrast to plywood and particleboard that rose from 91 and 67, respectively, to 112 and 86, or by 21 and 19 points, respectively, thus indicating that the new surge in U.S. housing starts that occurred after 1982 utilized more softwood lumber relative to the use of competitive products.

2/ Based on estimated 1984 data supplied by the Western Wood Products Association.

Tariff Treatment

U.S. tariff treatment

As shown in appendix E, all of the items covered in this investigation 1/ have free rates of duty in column 1. Rates of duty for softwood lumber entered under column 2 (from countries under Communist domination or control) range from $1 to $4 per 1,000 board feet. The amount of softwood lumber imported under the column 2 rates is negligible. Most lumber entering the United States is subject to inspection for wood-boring insects; such insects have not been found in most imports offered for U.S. importation. Appendix F shows an excerpt from subpart B, part 1, schedule 2, of schedule B for softwood lumber exports.

Canadian tariff treatment

The Canadian tariff classifications for softwood lumber, shown in appendix G provides duty-free treatment for imports of such lumber.

Foreign tariffs affecting U.S. and Canadian exports

The major markets for U.S. or Canadian softwood lumber exports use the Customs Cooperation Council Nomenclature (CCCN) as the basis for their tariff classifications. The CCCN classifies softwood lumber under heading 44.05 (wood sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5mm), and 44.13 (wood planed, tongued, grooved, rebated, chamfered, v-jointed, centre v-jointed, beaded, centre-beaded or the like, but not further manufactured). The present rates of duty for the major export markets for the United States and Canada--the European Community and Japan--are given in appendix H. Such duty rates range from free to 4.3 percent ad valorem.

1/ On the basis of a petition filed by a group of U.S. softwood lumber producers and related trade associations, the U.S. International Trade Commission and the U.S. Department of Commerce conducted a countervailing duty investigation (Inv. No. 701-TA-197). Although the Commission's preliminary finding was favorable to the U.S industry, Commerce ruled that the few practices by the Canadian Governments that were countervailable, they did, however, total less than the de minimus level, thus, the case was terminated with a negative finding.

Overview of Government Resource, Industrial, and Tax Policies

Probably the most significant way in which the Governments of the United States and Canada influence the competitive conditions in the forest products industry is through the control of the timber supply from Government controlled lands. This is particularly visible for the softwood lumber producing industry because the U.S. Federal and the Canadian Provincial Governments control significant portions of the softwood sawtimber supply; 63 percent in the United States and 95 percent in Canada. The U.S. and Canadian Governments resource management, industrial, and tax policies affect competitive conditions between, as well as within, these countries.

Comparison of U.S. and Canadian land management policies

Both the United States and Canada are committed to maintaining an adequate supply of timber in perpetuity for a wide variety of uses. In the United States, the Federal Government bears the major responsibility for accomplishing this goal. In contrast, management of the timber resource in Canada is primarily the responsibility of the Provinces, with companies taking an active role in the planning process.

U.S. land management policy.--The principal agencies of the U.S. Government charged with administering forest lands are the U.S. Forest Service of the Department of Agriculture (USDA) (app. I shows the USDA Forest Service Statement of Policy) and the Bureau of Land Management (BLM) of the Department of the Interior. The BLM has a significant impact only in the State of Oregon where the BLM administers approximately 9 percent (about 2 million acres) of the commercial timberlands. 1/ Other Federal agencies and the States have less influence owing to the limited acreage of timberland they control in the United States. 2/ Management of private timberland is at the discretion of the landowners, although the tax and environmental policies of the Federal and State governments do affect the way landowners do business and harvest timber from their land.

The Federal Government owns over 50 percent of commercial sawtimber in the Western United States; in the remainder of the United States, the Federal Government controls only about 20 percent of commercial sawtimber. Accordingly, this analysis of Federal land management policies deals primarily with the effect of these policies in the West. The Federal agencies administering the Government's timberlands are charged with more than management of the timber resource. They must weigh other demands for the use of the forest against the demands for timber. The following data from the

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1/ The USDA Forest Service and the USDI Bureau of Land Management are currently undergoing steps to interchange management on about 30 million to 35 million acres of range and forest land. If finalized, the interchange would most heavily affect the management of the softwood sawtimber in the western portions of Oregon. See app. J for a map showing the proposed interchange lands.

2/ Data presented show An Analysis of the Timber Situation in the United States 1952-2030, U.S. Department of Agriculture Forest Service, Forest Resource Report No. 23, 1982.

U.S. Forest Service's annual report show revenues collected from the sale and use of forest resources under various major programs of the U.S. Forest Service in fiscal 1984: 1/

Use	Receipts (million dollars)	Percent of total
Timber and forest products	544.3	85
Minerals	51.6	8
Recreation	27.5	4
Grazing	9.6	2
Other	4.3	1
Total	637.3	100

There are many uses occurring on federal forest lands (mostly recreational) for which no revenue is collected. Activities on the national Forests other than timber sales affect the competitive conditions in industry when they may limit the supply of timber available, or when the revenue spent in the administration of these other uses is needed and not available for the administration of timber sales.

U.S. policy regarding timber sales addresses two conflicting groups. U.S. industry generally wants increased sales to both meet capacity requirements and to reduce pressure on raw material costs. 2/ Groups broadly classified as environmentalists argue for more reserves for recreation and conservation purposes. According to the Forest Service, about 25.2 million acres of productive forest land (over 5 percent of the U.S. total) were reserved or deferred from timber harvesting for wilderness, parks, wildlife refuges, and other uses as of 1977. 3/ If no other conditions were to change, the net effect of these timberland withdrawals would reduce timber supply and likely result in increased prices for stumpage, both public and private. In practice, the effect of timberland withdrawals is offset to some extent by more intensive management methods, 4/ which in turn lead to higher timber yields on remaining timberlands. Also, the higher prices paid for stumpage could result in additional standing timber being brought into the market from private lands.

In general, Federal timber sale policies are based primarily on biological as opposed to economical standards. Since 1973, the U.S. Forest Service has been managing sales of timber according to a principle called nondeclining even flow. 5/ Under this concept, principal harvests are based

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1/ Report of the Forest Service, Fiscal Year 1984, USDA, Forest Service, February 1985.

2/ This issue and the effect on consumer prices are discussed in Lumber Products and the Lumber Products Industry, Interim Report, Council on Wage and Price Stability, Washington, DC, October 1977.

3/ Data presented are based on An Analysis of the Timber Situation in the United States 1952-2030, U.S. Department of Agriculture Forest Service, Forest Resource Report No. 23, 1982.

4/ These include thinning, increased forest protection, more modern logging practices, use of genetically superior growing stock, and utilization of material not formerly removed from the forest.

5/ Eliot Cutler, "The Federal Timber Programs," a paper presented at the Forest Products Research Society conference on Timber Supply, San Francisco, CA, Oct 2-4, 1979.

on the productive capacity of the forest rather than economic conditions. Current harvests are managed to ensure that future harvests will be no smaller. Public pressure for increased cutting during periods of high demand is largely ignored by this process. This limits the supply during periods of high demand and thereby puts additional upward pressure on stumpage prices. In the administration of timber sales on Federal lands, the Forest Service bears most of the costs of such sales (e.g., setting the contract, laying out roads); however, certain environmental regulations and the Forest Service requirements in logging practices and in cleanup after logging add costs to the timber purchasers that they might not incur when logging private lands.

In the regulation and administration of timber sales, the Forest Service must take into account the effect sales will have on communities that are dependent on the lumber industry, as well as on individual businesses wholly dependent on the Forest Service sales for logs. At the present time, the Forest Service has a program that ensures preferential bidding to small businesses (Small Business Set Aside) when sales to businesses so defined (500 or less employees) fall below historic levels. 1/

Canadian land management policy.--In contrast to the U.S. Government, the Government of Canada has retained title to nearly all of the Canadian forest lands, and the Provincial governments under the British North American Act of 1887 control and administer the use of these lands. Provincial control encompasses 90 percent of the land classified as commercial forests. Appendix K gives an explanation of each Province's forest management policies.

The most overriding issue for all of Canada's commercial forest land is the large portion of old-growth timber that still remains. This timber is being destroyed by insects and diseases that eventually will leave much of the timber worthless. As a result, the immediate removal of much of the old-growth timber is necessary if it is to be profitably harvested. In some areas, before second-growth timber, which is generally closer to the mills, can be harvested, all of the old-growth timber must be removed.

Provincial laws and the degree to which Provinces administer control differ from one Province to the next. In Ontario, for instance, about 85 percent of the forest land is under public control. Three types of management are exercised: (1) company units, in which a single company is licensed to harvest timber from a tract of land; (2) Crown management units, in which several companies are licensed to operate within a single unit; and (3) Agreement Forests in which tracts under various small ownerships are grouped and administered by the Province. Crown and company management units are the most prevalent, constituting approximately 52 and 48 percent, respectively, of the provincially controlled lands (Agreement Forests being less than 1 percent). 2/ Ontario requires management plans for all units. These plans must provide for environmental and recreational interests and are

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1/ George M. Leonard, Timber Management Staff, U.S. Forest Service, from statement in hearings on H.R. 2799, the Federal Timber Sales Act of 1979, Washington, DC, Mar. 19, 1979, pp. 11-35.

2/ F.L.C. Reed and Associates, Ltd., Forest Management in Canada, vol. 1, Ottawa, January 1978, pp. 44-47.

updated to reflect accepted practices. Regeneration and stand management is the responsibility of the Province, which leaves harvesting to be carried out by private industry.

In Quebec, the Province controls about 90 percent of the forest lands, nearly all of which are managed by private companies under license. This form of control is being replaced by a volume allocation system in which private companies will be granted 20-year contracts with a harvest allocation controlled by the Province. 1/

In British Columbia, a complex system of licenses and tenures exists. These developed over time, reflecting changing conditions in the Province. Older forms are being gradually phased out, and today, three systems dominate: Timber Sale Harvesting Licenses (TSHL's), Timber Sale Licenses (TSL's), and Tree Farm Licenses (TFL's). 2/

The first two types accounted for approximately 77 percent of the timber volume removed from British Columbia Provincial lands in 1984. Under TSHL's, the British Columbia Ministry of Forests determines the inventory and allowable cut and approves a management plan provided by the licensee. A cutting permit is then issued by the Ministry based upon volume compilations made by the licensee. Harvesting and forest management, including reforestation, and the construction of certain roads are the responsibility of the licensee. TSL's are similar to the TSHL's.

TFL's are management agreements in which the licensee carries out virtually all management functions on a tract consisting of both his own and Crown lands. Costs are shared by the Province of British Columbia with the licensee according to the acreage of Crown land included under the license. The TFL's accounted for approximately 24 percent of timber removals in British Columbia in 1984 and are concentrated heavily in the coastal region of the Province.

Comparison of U.S. and Canadian industrial policies

Some aid programs for forestry and milling are evident in both the U.S. and Canadian economies. In the United States, this assistance is provided through provisions in the tax codes and the Forestry Incentives Program (FIP) and the Agricultural Conservation Program (ACP). Canada offers assistance principally through the Industrial and Regional Development Program, administered by the Department of Regional and Industrial Expansion, and the Export Development Corporation. Also, Quebec, British Columbia, Saskatchewan, Newfoundland, and other Provinces have their own aid programs.

1/ F.L.C. Reed and Associates, Ltd., Forest Management in Canada, vol. 1, Ottawa, January 1978, pp. 48-50.

2/ "British Columbia Forest Tenures and Licence Characteristics," Notes prepared for the U.S. International Trade Commission by the Ministry of Forests of British Columbia, January 1982.

The FIP and ACP provide financial cost-sharing incentives to owners of nonindustrial forests to increase timber production by doing reforestation and timber stand improvement. For individual projects, the Federal share for FIP ranges from 0 to 65 percent, with 50 to 65 percent being the normal allotment; and for ACP, the cost share ranges from 0 to 100 percent, with a normal allotment of from 50 to 90 percent. The following tabulation, derived from USDA Forest Service data, shows the area reforested or otherwise improved and the amount of direct payments by the Federal Government for each program during 1977-84:

Year	FIP		ACP		Total	
	Area	Payments	Area	Payments	Area	Payments
	1,000 acres	Million dollars	1,000 acres	Million dollars	1,000 acres	Million dollars
1977	308	10.3	76	2.2	384	12.5
1978	327	12.0	75	2.2	402	14.2
1979	340	14.5	113	3.4	453	17.9
1980	361	16.8	110	4.1	471	20.9
1981	314	17.8	130	5.0	444	22.8
1982	230	12.4	111	4.8	340	17.2
1983	203	10.2	103	5.0	306	15.2
1984	184	1/ 8.9	69	1/ 3.9	253	1/ 12.8

1/ Estimated by the staff of the U.S. International Trade Commission.

In 1984, 252,600 acres were improved under FIP and ACP. The USDA Forest Service estimates that during 1980-84, FIP and ACP provided incentives for almost one-half of all reforestation on private nonindustrial lands. 1/

Thirteen States have set higher landowner cost-share rates than required by the national FIP program. In these States, landowners shoulder more of the costs, making it possible to treat more acres with available funding. 2/

The capital gains treatment of income generated from cutting timber on property owned by the firm results in significant tax savings to U.S. companies that own such land. This savings was estimated at $155 million in 1976 and $355 million for 1984. 3/

Within the tax structure of both Canada and the United States, certain benefits are provided in terms of credits against taxable income. In 1982, the last year for which comparable data are available for both countries, U.S. corporations engaged in logging and sawmilling took investment credits valued at $14 million, and Canadian corporations in the same sector took investment credits of $17 million. The effect of taxes on competitive conditions are discussed later in this section.

1/ USDA Forest Service, Annual Report, 1984.

2/ Ibid.

3/ Derived from U.S. Department of the Treasury, Internal Revenue Service, Corporation Source Book, 1985.

In the first 9 months following its establishment in July 1983, the Industrial and Regional Development program (IRDP) made 42 offers of assistance to Canadian lumber companies and mills, totaling $5.4 million. 1/ These funds were typically used for acquiring new machinery and expansion of facilities. The assistance to the wood sector represented 8 percent of the total funds committed and 11 percent of all accepted proposals under this program. The Pulp and Paper Modernization Program, which was subsumed into the IRDP, provided $227 million in Federal assistance and $198 million in Provincial assistance to five eastern Provinces during 1979-84.

The Canadian Government also provided $179 million for forest access, reforestation, forest protection, and stand improvement between 1974 and 1980. 2/ British Columbia devoted $41 million of its funds for reforestation and fire protection over the past 5 years--the U.S. Forest Service devoted $1.7 billion to manage and protect U.S. public lands in fiscal year 1984. U.S. corporations are responsible for such management items on their corporate lands and occasionally on private lands other than their own.

Incentives to the forestry and paper sector are commonly provided at the Provincial level. For instance, the Quebec Industrial Development Corporation (QIDC, Societe de developement industriel du Quebec) contributed $9.7 million during the 1984 fiscal year to the small- and medium-sized companies in the wood products sector. Of this total assistance, grants accounted for $4.5 million and loans accounted for the remaining $5.2 million. QIDC also issued $5.2 million in grants to the Province's paper industry. 3/ Grants to the paper industry affect the lumber sector only when they significantly affect demand for raw wood products.

The Societe generale de financement du Quebec (SGF) is a holding company that invests in firms in key industrial sectors. Owned completely by the Province of Quebec, this company limits its operations to five industries: forest products, energy-related products, biotechnology, petrochemicals, and aluminum. SGF owns 56 percent of Donohue, Inc., an integrated forestry company with annual sales in excess of $284 million. Donohue produces lumber, wood fiber, commercial pulp, specialty papers, and newsprint. SGF also owns 18 percent of Domtar, Inc., a producer of forest products, construction materials, and chemical products with annual sales of $1.5 billion in 1983. Both corporations are oriented toward serving international markets, particularly the United States, and have engaged in heavy capital expenditure to construct modern milling facilities for forest products. 4/

1/ Industrial and Regional Development Program, "Annual Report 1983-84," Department of Regional and Industrial Expansion.

2/ D. Boulter, Taxation and the Forestry Sector, Canadian Forestry Service Economics Branch.

3/ Societe de developement industriel du Quebec, "Annual Report 1983-84,."

4/ Societe generale de financement du Quebec, "Annual Report 1983".

Provincial governments in Newfoundland, Manitoba, Saskatchewan, and British Columbia have also invested in firms operating in the forestry sector. Due to past problems in raising venture capital, it is not uncommon for Provinces to provide equity funding in a variety of sectors (e.g., fishing). Softwood lumber producers in the Northern United States, particularly in Maine, previously have complained about the adverse impact of Provincial programs on the profitability of their own businesses. 1/

The Export Development Corporation (EDC), the Canadian equivalent of the U.S. Export-Import Bank, supplies loan guarantees, lines of credit, and insurance against nonpayment of accounts receivable from foreign customers. In 1983, this Crown corporation provided $530 million in loan guarantees and insurance to the forest products industry. This total can be further divided in the following manner: wood fabricated materials, $263 million; wood pulp, $161 million; paper, including paperboard, $99 million; and crude wood materials, $7 million. 2/ Finally, research and development support is provided to industry through the Industrial Research Assistance Program (IRAP). Generally, the level of assistance is relatively small.

Comparison of U.S. and Canadian taxes

The principal difference between U.S. and Canadian treatment of income from forestry is that owners of timber land in the United States can claim stumpage revenue as capital gains instead of regular income. Since the tax rate for long-term capital gains (assets held more than 6 months) is significantly less than the tax rate for ordinary income (including short-term gains) of both individuals and corporations, this income treatment represents a considerable advantage for U.S. citizens and corporations. 3/ Private land holdings account for 67 percent of the annual U.S. timber harvest. Also, capital losses can be carried forward or backward to achieve the maximum reduction of tax burden. In Canada, where 91 percent of forest land is Government-owned, stumpage revenue is viewed as ordinary income. Profits made from an acquired cutting right are considered ordinary income in both countries. Therefore, U.S. firms have a tax incentive for acquiring title to forest land as opposed to merely purchasing a cutting right.

The United States and Canada both use capital consumption allowances and investment tax credits in determining the overall tax burden of firms. The Canadian investment tax credit is generally 7 percent, although it rises to 10 percent in some economically depressed regions and 20 percent in the Gaspé and Atlantic Provinces. In the United States, the Internal Revenue Code provides a 6-percent credit for 3-year capital property and 10-percent credit on all other capital property. Plant facilities (e.g., buildings) are not eligible for the U.S. tax credit.

1/ C. Charles Lumbert, written submission to U.S. International Trade Commission, Mar. 3, 1982.

2/ Economic Development Corporation, "Statistical Review--1983," pp. 27-28.

3/ Technically, in the case of long-term capital gains or losses, only 40 percent of the gain or loss is taxable or excluded, as the case may be.

Canada uses a 3-year depreciation schedule of 25 percent, 50 percent, and 25 percent on 115 percent of the value of plant and equipment. U.S. firms must follow the Accelerated Cost Recovery System in depreciating plants and equipment placed in service after 1980. Under this system, most machinery has a 5-year life and buildings can be written off in a minimum of 18 years (15 years between Jan. 1, 1981 and mid 1984). For plant and equipment purchased before 1981, a variety of depreciation methods may be used, such as straight line, double declining balances, and sum-of-years digits. Overall, Canadian firms benefit from a significantly faster depreciation schedule.

The Federal corporate profits tax rate in Canada is 36 percent, which represents the 46 percent basic rate less the 10 percent allowance for Provincial income taxes. Firms engaged in manufacturing and processing are subject to a 40 percent basic rate minus the 10 percent Provincial allowance. Provincial taxes vary widely, ranging from 5.5 percent in Quebec to 16.0 percent in Newfoundland and British Columbia. Quebec and British Columbia have a special additional logging profits tax of 10 percent. This tax can be credited against both the Federal and State profits tax until its effect is practically eliminated. The U.S. corporate profits tax is 46 percent, with a deduction allowed for State profits taxes. Long-term capital gains 1/ are taxed at a maximum rate of 28 percent for corporations and 20 percent for individuals by the U.S. Government. Municipalities and localities in both the United States and Canada charge widely vanging property taxes on forest land.

1/ Capital gains tax accords capital gains treatment to taxpayers who cut timber for sale in their trade or business (section 631(a) of the tax code) and to taxpayers selling timber under contract by virtue of which the owner retains an economic interest in the timber (section 631(b)). Sections 1221 and 1231 outline the conditions under which the gain from timber sold outright (without a retained economic interest) can still qualify for capital gains treatment. These sections deny capital gains treatment only when timber considered to be inventory or property held for sale in the ordinary course of business is sold outright. For individuals, under the current statutes, 60 percent of long-term (held more than 1 year) capital gains income is excluded from taxation and the remaining 40 percent is taxed at the ordinary tax rate, resulting in a maximum effective tax rate of 20 percent. For corporations, the long-term capital gains tax rate is 28 percent, compared with 46 percent for ordinary income.

The following tabulation shows the ratio of direct taxes to before-tax profits for corporations (classified as logging, sawmills, and planing mills) in the United States 1/ and Canada 2/ during 1977-82 (in U.S. dollars):

Year	United States			Canada		
	Tax	Profit	Ratio	Tax	Profit	Ratio
	Million dollars	Million dollars	percent	Million dollars	Million dollars	percent
1977	306	1,163	26.4	131	324	40.6
1978	382	1,565	24.4	214	592	36.1
1979	359	1,662	21.6	250	680	36.8
1980	114	346	33.1	128	436	29.4
1981	63	-207	-	9	38	23.1
1982	43	-211	-	-70	-84	-

The tax shown for the United States is calculated from the Statistics of the Income Division of the Internal Revenue Service, and includes tax credits for investment, energy saving, and job creation. These credits ranged from $15 million in 1982 to $148 million in 1979. The Canadian-realized tax rate includes collected Provincial taxes; the Canadian Federal Government reduces its base tax rate by 10 percentage points to allow for these taxes. The realized tax rate for the United States represents actual taxes paid in that year. For Canada, the realized rate includes future tax obligations arising from deferral of current income and from the differential in the book value of depreciation and the capital consumption allowance used for tax purposes. When a firm loses money in a particular year, that firm may avoid taxes on past income by revising its tax returns and charging income earned in past years to the year when losses are sustained. Thus, the Canadian figures in 1982 represent a reduction in tax burden due to income deferral by forestry firms.

Canadian logging firms pay a higher effective rate of income tax than their U.S. counterparts because of the capital gains provision in the United States and the higher Provincial taxes in comparison with State taxes. In the sawmill and plywood mill sector, Canadian and U.S. firms are subject to similar effective tax rates. An integrated U.S. firm has the ability to shift income to its logging operations in order to benefit from capital gains treatment, particularly during years of high profitability. On the other hand, firms try to divest themselves of land during rough economic periods in order to acquire cash. Thus, a high proportion of capital gains income might also be expected when profitability is poor.

1/ U.S. Department of Treasury, I.R.S., Corporation Source Book, Washington, DC, 1977-82.

2/ Corporation Financial Statistics, Statistics Canada, Ottawa, 1977-82.

The following tabulation shows the ratio of capital gains income to overall before-tax income for the U.S. forestry sector:

Year	Ratio (percent) of Capital gains income to before-tax income
1977----------	71.7
1978----------	68.6
1979----------	82.1
1980----------	60.3
1981----------	61.8
1982----------	31.5

As indicated, the proportion of capital gains income was highest in 1977-79 when overall industry profit was high. In those years, firms appear to have shifted income to logging operations in order to receive preferential tax treatment (capital gains). U.S. firms lost money in 1982, thereby reducing the incentive to shift income to capital gains.

Taxes on U.S. firms.--U.S. logging firms are subject to a basic Federal tax of 46 percent on ordinary income and 28 percent on long-term capital gains. The United States has no logging tax credit or manufacturing and processing deduction similar to that of the Canadian Federal tax system. State income taxes are deductible, but typically do not reduce the effective Federal rate by more than 3 or 4 percentage points. The State of Washington does not impose a State income tax, but Oregon imposes an income tax of 7.50 percent, resulting in a deduction of 3.45 percent from the Federal tax liability.

The effective Federal tax rate before depreciation in 1984 was therefore 46.00 percent in Washington and 42.55 percent in Oregon. When corporate profits are treated as capital gains, the effective rate drops by about 18 percent to 28.00 percent and 25.90 percent, respectively. The aggregate combined Federal-State rate on regular income in Oregon is 50.05 percent before depreciation. On capital gains, this rate drops to 33.40 percent, that is well below the combined Federal-Provincial effective rate of 52.00 percent in British Columbia.

For example, consider an integrated firm that derives two-thirds of its profits from long-term capital gains on timber and one-third from regular income from milling. That firm would pay an aggregate effective tax rate of 38.95 percent in Oregon and 34.00 percent in Washington before depreciation and the investment tax credit. The same firm, operating in British Columbia, would be taxed at a 50.00 percent rate.

Taxes on firms operating in British Columbia.--Logging firms operating in British Columbia are subject to a basic 36-percent Federal income tax, a 16-percent Provincial income tax, and a 10-percent Provincial logging tax. This logging tax is effectively removed through a 6.67-percent Federal credit and a 3.33-percent Provincial credit. Firms operating sawmills and plywood mills but not engaged in logging are subject to a Federal tax rate of 30 percent for manufacturing and processing as well as the 16-percent Provincial income tax.

Comparison of U.S. and Canadian profitability in the forest industries

There are many meaningful measures of profitability for all industries. For purposes of direct comparability between the forest industries of the United States and Canada, two measures will be discussed here. They are (1) before-tax return on assets (the ratio of before-tax profits (total receipts less total deductions) to assets), and (2) gross profit margin (the ratio of before-tax profits to total business receipts). Return on assets is a basic measure of an industry's profitability. It describes the financial position of the industry comparable with other industries or comparable with a similar industry in another country. When comparing the forest industries of the United States and Canada by this measure it is important to note that this is only a measure of pre-tax profitability, and that the tax policies of both countries will affect this measure.

As can be seen in the following tabulation, in terms of return on assets (pre-tax), the Canadian forest products industry apparently was better able to make use of its assets than the U.S. industry during 1977-81, with a slight margin in favor of the U.S. industry in 1981 and 1982 (in percent): 1/

	Return on Assets	
Year	United States	Canada
1977----------	8.3	10.0
1978----------	9.9	16.8
1979----------	8.9	17.5
1980----------	1.7	9.3
1981----------	-1.0	0.8
1982----------	-1.1	-1.8

As can be seen in the following tabulation, the gross profit margin for the forest industries of both the United States and Canada fell overall during 1977-82 (in percent): 2/

	Gross profit margin	
Year	United States	Canada
1977----------	6.9	6.5
1978----------	7.9	10.4
1979----------	7.0	11.8
1980----------	1.6	4.7
1981----------	-0.9	-0.4
1982----------	-1.1	-2.6

1/ The figures in the tabulation were derived from Corporation Source Book, 1977-82, Internal Revenue Service, U.S. Department of Treasury and Corporation Financial Statistics, 1977-82, Statistics Canada.

2/ Ibid.

During 1978-80, the net profit margin was higher in Canada than in the United States, thus favoring the Canadian industry. Losses were suffered in both the United States and Canada during 1981 and 1982. Despite these losses, Canadian firms invested substantially in plant and equipment over that period, indicating expectations of continued profitability in future years. 1/

Comparable data on profitability for only major forest industry firms in both the United States and Canada is not available for 1977-84, however, such data is available for selected U.S. forest industry firms. The following tabulation shows net profit margins (the ratio of after-tax profits to total business receipts) for major forest industry firms (annually, 26 major firms were surveyed for such data), from the Forbes Annual Report on American Industry, during 1977-84 (in percent):

Year	Net profit margin
1977	6.2
1978	6.2
1979	7.4
1980	6.0
1981	4.7
1982	3.3
1983	2.4
1984	3.7

The net profit margin for major U.S. forest industry firms declined irregularly during 1977-83. The net profit margin of the major firms turned upward in 1984, however, largely as a result of the improved housing market that began in 1983 and the continued growth in the do-it-yourself market. It is noted, moreover, the major firms did not suffer the losses taken by the industry as a whole during 1981 and 1982, as indicated in the previous tabulation, largely as a result of being heavily intergrated and thus, not heavily relying on any single market.

1/ See p. 167 of the July 23, 1985 public hearing transcript.

Forest Resources

United States 1/

The resource base.--Of the 2,255 million acres of land area in the United States, 737 million acres are classified by the Forest Service as forest land. Of this 737 million acres, 482 million acres are classified as commercial forest land. 2/ The commercial forest land is fairly well distributed among the three major regions of the United States, as shown in the following tabulation:

Region	Acres (millions)
South	188
North	166
West	128
Total	482

The States of Georgia (25 million acres), Alabama (21 million), and North Carolina (20 million) have the largest acreages of commercial forest land in the South; in the West, Oregon (24 million) and Washington (18 million) have the most commercial forest land; and in the North, Michigan (19 million), Maine (17 million), and Pennsylvania (16 million), are the leading States.

The forest resources of the United States are located in six major forest regions; three east of the Great Plains and three in the West. Figure 3, on the following page, shows the major forest regions of the United States. The Eastern forests, which are widely distributed, have both softwoods and hardwoods of commercial importance. However, in the western forests, it is primarily the softwoods that are of commercial value, with few commercial hardwoods available.

The northern forest region covers almost all of New England, New York, and the Great Lake States. It also extends from northern Pennsylvania through the Appalachian mountains to the northern reaches of Georgia. Although this region supplied most of the raw materials for the wood products industries of the United States during the first 250 years of U.S. settlement, it now supplies only about 10 percent of the U.S. softwood lumber supply, on a roundwood basis, of the U.S. industry's needs. The primary species of this region are balsam fir, northern white-cedar, eastern white and red pine, eastern hemlock, yellow birch, and maples.

1/ Data presented show An Analysis of the Timber Situation in the United States 1952-2030, U.S. Department of Agriculture Forest Service, Forest Resource Report No. 23, 1982.

2/ Commercial forest land is defined as land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Areas qualifying as commercial forest land have the capacity of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands. Inaccessible and inoperable lands are excluded.

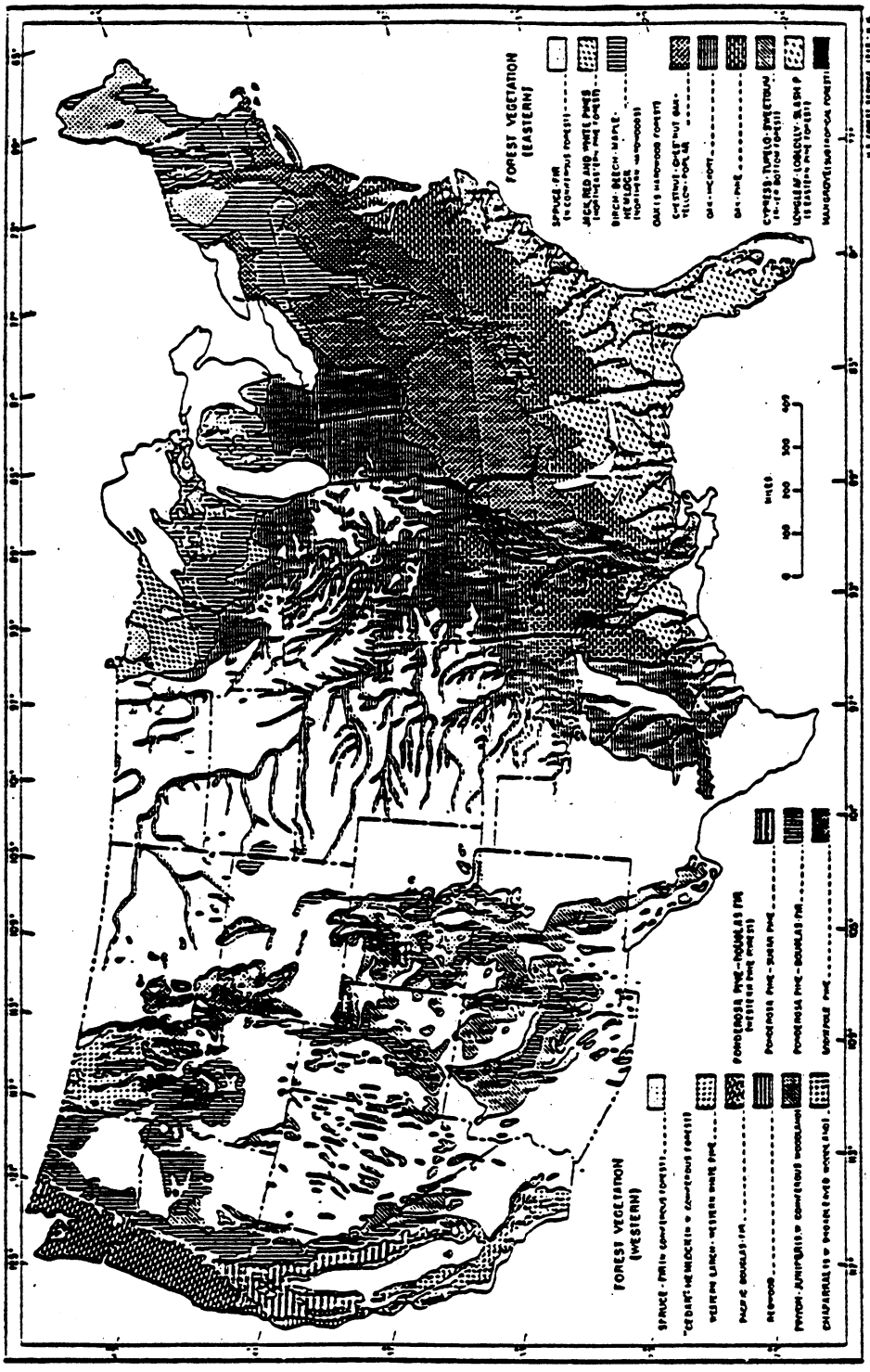


Figure 3.--The forest regions of the United States.

The central hardwood forest region is a vast area of hardwood trees, stretching from Cape Cod almost to the Rio Grande river in Texas, with the western boundry being the Great Plains. It is nestled between the Northern and Southern forests. As the name implies, it is a hardwood forest composed mainly of oaks, maples, beeches, elms, and a wide variety of eastern hardwoods. It supplies virtually no raw material to the softwood lumber industry.

The southern forest region extends along the Atlantic coastal plains (piedmont zone) from southern Virginia south to all but the lower end of Florida, west along the gulf plains to east Texas, and north up the Mississippi river valley into Missouri. This region supplies approximately 40 percent of the U.S. softwood lumber industry's raw materials, the primary species being the southern yellow pines--e.g., shortleaf, longleaf, slash, and loblolly pine.

The western forest regions comprise about one-half of the United States' source of raw materials for softwood lumber production.

The Rocky Mountain forest region extends from Canada to Mexico, and from the Great Plains to the Cascades and the Sierra Nevadas. The majority of commercial species (ponderosa pine, blue and Englemann spruce, and lodgepole pine) in this region are found at elevations starting at about 5,000 feet above sea level and continue up to the timberline at between 10,000 and 12,000 feet.

The Pacific coast forest region lies west of the Cascades and the Sierra Nevadas and between Canada and the San Francisco Bay area. During 1930-70, this region produced most of the United States' raw materials for softwood lumber, and it continues to be a major region. This area also has the nation's largest and tallest trees, which yield high-quality softwood lumber. The major species present in this region are Douglas-fir, western hemlock, true firs, and redwoods.

The Alaskan forest region is located primarily in the Alaskan panhandle (known as the coastal area) and in an area south of the tundra regions (known as the interior area). The forests of this region are found from sea level to about 3,000 feet above sea level. The coastal area is composed primarily of western hemlock and Sitka spruce. The interior area has vast areas of forests which have been burned by wildfires in the last 300 years and are still plagued by forest fires--in the last 50 years it was not uncommon for individual fires to range in size up to 1 million acres. The forests of this area consist mainly of spruce, aspen, birch, and cottonwood.

Forest inventory. 1/--Although the preceding data provide an overall view of the extent of commercial forest land of the United States, for the purposes of this investigation, the net volume of softwood sawtimber on commercial timberlands 1/ is a more important measure of resource supply. The net amount of softwood sawtimber on commercial forest land in the United States, as reported by the U.S. Forest Service for 1977, 2/ was 1,985 billion board feet, or 77 percent of the 2,579 billion board feet of all sawtimber (including hardwoods) on U.S. commercial forest land.

1/ All inventory figures represent 1977 data (latest data available from the Forest Service).

The softwood sawtimber, however, is not distributed evenly over all forest lands. The West has by far the greatest volume of softwood sawtimber--1,548 billion board feet, accounting for 78 percent of the U.S. softwood sawtimber resource base and for 60 percent of the softwood and hardwood sawtimber resource base. The South accounts for 341 billion board feet (18 percent of total softwood sawtimber), and the North (97 billion board feet--5 percent) accounts for the remainder. Table 1 shows the volume of softwood sawtimber, by geographic regions and selected States, in 1977.

The total volume of all softwood growing stock 3/ on commercial timberland in the United States was 456 billion cubic feet in 1977. As shown in the following tabulation, 133 billion cubic feet (29 percent) of the total was in Washington and Oregon:

Geographic region	Softwood growing stock (billion cubic feet) 1/	Percent of total
West:		
Washington and Oregon-----	133	29
All other----------	182	40
South----------	97	21
North----------	45	10
Total----------	456	100

1/ Because of rounding, figures may not add to the totals shown.

In order for the United States to maintain its forests for continued sawtimber supply, a combination of seedling plantings, direct seeding, and natural regeneration is needed to maintain forests that have been cutover. Although the Forest Service maintains its forests and provides assistance to the public for regeneration on private lands, the forest industry has replanted more acres per year than all other groups combined. The following tabulation shows the number of acres replanted by both seedlings and seeds by the forest industry and the Federal Government, and a total of all acres replanted during 1977-84: 4/

1/ Softwood sawtimber is defined as live trees of commercial species containing at least a 12-foot saw log, or two noncontiguous 8 foot logs, and meeting regional specifications for freedom from defect. Softwood trees must be at least 9.0 inches in diameter at breast height (4-1/2 feet above ground level).

2/ The U.S. Forest Service updates such data only once a decade; therefore, the data presented are the most current. State reported estimates for such data are available on only a limited basis.

3/ The volume of all softwood growing stock is included for comparison purposes. It includes timber that does not meet the requirements for sawtimber.

4/ Data presented here are from the U.S. Forest Service's publications titled, Forest Planting, Seeding, and Silvical Treatments in the United States, 1978-85.

Year	Forest industry (1,000 acres)	Federal Government (1,000 acres)	U.S. Total (1,000 acres)
1977---------	1,138	378	1,978
1978---------	1,146	422	2,089
1979---------	1,085	442	2,061
1980---------	1,172	499	2,267
1981---------	828	431	1,927
1982---------	1,348	403	2,375
1983---------	1,419	388	2,453
1984---------	1,395	385	2,553

The rise in the acres replanted by the forest industry (especially during 1982-84) has been primarily in the Southern United States. The private sector as a whole increased from 1.6 million acres replanted in 1977 to 2.2 million acres in 1984. It is estimated that 600,000 acres were restocked by natural regeneration in 1984.

In 1984, nearly all of the replanted timberlands were restocked with seedlings. It is estimated that 3.2 million acres were restocked in 1984: 79 percent with seedlings; 19 percent by natural regeneration; and 2 percent by seeding. Because there are no detailed data on all natural regeneration, the following tabulation shows acres replanted with seedlings and seeds during 1977-84 (in thousands of acres):

Year	Seedlings	Seeds
1977----------	1,885	93
1978----------	2,008	81
1979----------	1,950	111
1980----------	2,170	97
1981----------	1,840	79
1982----------	2,302	73
1983----------	2,290	64
1984----------	2,496	57

The primary reason that the seeding acres is so low is that it is not as effective as replanting with seedlings and when coupled with the high cost to prepare the site for direct seeding, it is used sparingly.

Forest ownership. 1/--Ownership of the 482 million acres of all commercial forest land in the United States in 1977 was concentrated in farmer and all other private ownerships (excluding forest industry), often referred to as private nonindustrial ownership. This group owned 278 million acres, or 58 percent of total U.S. commercial forest land. Another 69 million acres (14 percent) were owned by forest industries. Of the remaining 136 million acres, 89 million (18 percent) were in the national forests, and 47 million acres (10 percent) were in other public lands. 2/

1/ Data presented show An Analysis of the Timber Situation in the United States 1952-2030, U.S. Department of Agriculture, Forest Service, Forest Resource Report No. 23, 1982.

2/ The U.S. Forest Service updates such data only once a decade; therefore, the data presented are the most current. State reported estimates for such data are available on only a limited basis.

Table 1.--Softwood sawtimber: Net volume on commercial forest land in the United States, by types of ownership, geographic regions, and specified States, 1977

Ownership	West					North				South		
	Washington	Oregon	All other	Total	Percent of total	Maine	All other	Total	Percent of total	Total	Percent of total	Total, United States
	Million board feet					Million board feet				Million board feet		Million board feet
National forest	133,819	252,804	580,635	967,258	95.8	43	8,007	8,050	0.8	33,980	3.4	1,009,287
Other public	67,715	72,607	69,026	209,348	89.0	301	11,641	11,942	5.1	13,884	5.9	235,174
Total, public	201,534	325,411	649,661	1,176,606	94.6	344	19,648	19,992	1.6	47,864	3.8	1,244,461
Forest industry	75,974	65,030	64,148	205,152	65.3	13,570	9,164	22,734	7.2	86,390	27.5	314,276
Farm and other private	35,792	23,745	106,587	166,124	38.9	11,318	42,459	53,777	12.6	206,770	48.5	426,671
Total, private	111,766	88,775	170,735	371,276	50.1	24,888	51,623	76,511	10.3	293,160	39.6	740,947
Grand total	313,300	414,186	820,396	1,547,882	78.0	25,232	71,272	96,504	4.9	341,022	17.2	1,985,408

Source: Compiled from official statistics of United States Department of Agriculture, Forest Service, An Analysis of the Timber Situation in the United States 1952-2030, p. 370, Forest Resource Report No. 23, December 1982.

Note.--Because of rounding, figures may not add to the totals shown.

Ownership of softwood sawtimber in 1977 was not in direct proportion to ownership of all commercial forest land. Out of a total of 1,985 billion board feet, 1,009 billion board feet (51 percent) was in national forests, 549 billion board feet of that was in national forests in the Pacific Northwest (including 162 billion board feet in Alaska). This and other major ownership classifications of softwood sawtimber are shown in the following tabulation:

Ownership	Quantity (billion board feet)	Percent of total
National forest	1,009	51
Farm and other private	427	21
Forest industry	314	16
Other public	236	12
Total	1,985	100

The following tabulation shows that the ownership of all softwood growing stock is distributed in nearly the same manner as softwood sawtimber:

Ownership	Quantity (billion cubic feet)	Percent of total
National forest	208	46
Farm and other private	123	27
Forest industry	74	16
Other public	51	11
Total	456	100

Softwood log production, trade, and consumption.--For purposes of this investigation, discussion of log trade will focus on the effects of softwood log trade on raw material price and supply for U.S. softwood lumber manufacturers.

During 1977-84, the value of production of softwood logs fluctuated as stumpage values (see timber procurement section of this report) fluctuated, in part, as a result of speculation on Forest Service timber sales, primarily in the coastal Pacific Northwest, and as a result of the high value of exports to offshore markets of logs from the West.

Softwood log imports, primarily from Canada, fluctuated from a low of 79 million board feet, valued at $14 million, in 1978 to 142 million board feet, valued at $24 million, in 1983 (table 2). Such imports were primarily border transactions, resulting from special provisions as set forth by the Canadian Government (see Canadian exports policies, later in this section), or high-value clear logs (generally cedar or hemlock). During 1977-84, the aggregate unit value of the imported logs was generally less than that of domestic logs consumed in the United States.

Table 2.--Softwood logs 1/: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, 1977-84

(Quantity in million board feet, Scribner log rule; value in millions of dollars; unit value per thousand board feet)

Year	Production 2/	Exports	Imports	Apparent consumption	Ratio (percent) of-- Imports to consumption	Exports to production
	Quantity					
1977	29,292	2,980	140	26,452	1	10
1978	29,429	3,298	79	26,210	3/	11
1979	29,389	3,768	118	25,739	3/	13
1980	24,477	3,109	114	21,482	1	13
1981	22,573	2,377	88	29,284	3/	11
1982	22,575	3,115	99	19,539	1	14
1983	28,118	3,391	142	24,869	1	12
1984	28,373	3,369	117	25,121	3/	12
	Value					
1977	4,796	899	21	3,918	3/	19
1978	6,243	1,077	14	5,180	3/	17
1979	7,296	1,614	26	5,708	3/	22
1980	6,552	1,452	17	5,117	3/	22
1981	5,769	1,003	17	4,783	3/	17
1982	4,789	1,174	23	3,638	1	25
1983	5,974	1,068	24	4,930	3/	18
1984	6,214	1,079	15	5,150	3/	17
	Unit value					
1977	$163.73	$301.60	$150.57	$148.11	-	-
1978	212.14	326.58	182.62	197.62	-	-
1979	248.26	428.20	223.44	221.75	-	-
1980	267.68	466.92	152.11	238.20	-	-
1981	255.57	421.88	193.84	235.81	-	-
1982	212.14	376.95	232.17	186.00	-	-
1983	212.46	315.13	169.19	198.22	-	-
1984	219.01	320.30	125.19	204.99	-	-

1/ Used for softwood lumber.
2/ Estimated by the staff of the U.S. International Trade Commission.
3/ Less than 0.5 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce and from USDA Forest Service data.

U.S. softwood log exports rose from 3.1 billion board feet in 1982 to 3.4 billion board feet in both 1983 and 1984; however, the value of such exports declined from $1.2 billion in 1982 to $1.1 billion in both 1983 and 1984 (table 3). As in previous years, exports were of high-quality softwood logs, primarily destined for Japan, which received 52 percent of the total quantity of U.S. softwood log exports in 1984. China, which began purchasing logs from the United States in 1980, received 26 percent of such exports. Roughly 80 percent of U.S. softwood log exports leave from, and presumably are grown in, Washington and Oregon, with under 10 percent leaving from Maine. In 1984, approximately 85 percent of the U.S. exports of softwood logs to Canada were shipped from Maine, generally to Quebec border mills, with only 3 percent leaving from Washington, to British Columbia border mills. The remaining shipments to Canada were to border mills all along the U.S.-Canadian border. Exports accounted for between 10 and 14 percent of domestic production during 1977-84.

U.S. consumption of softwood logs used for softwood lumber production fell from 26.5 billion board feet in 1977 to 19.5 billion board feet in 1982, following the trend of softwood lumber production (table 2). As U.S. softwood lumber consumption rose in 1983 and 1984, largely in response to increased housing starts, so did softwood log consumption. Imports, as a share of consumption, were less than 1 percent during 1977-84.

Log export policy.--Since October 1973, Congress has banned the export of unprocessed timber from Federal lands in the West. 1/ Before this ban, exports from Federal land west of the 100th meridian had been restricted (since Jan. 1, 1969), to 350 million board feet annually by the Morse Amendment (82 Stat. 966). Softwood log exports from Federal lands in Alaska have been restricted since 1928 and from State-owned lands from 1960 to mid-year 1984. On May 22, 1984, the U.S. Supreme Court reversed a Court of Appeals holding that Congress has authorized Alaska's primary manufacturing requirement on softwood lumber, which would require the primary manufacturing of softwood lumber from logs within Alaska, and remanded the case to the lower court. 2/ As a result of the U.S. Supreme Court decision, Alaska now permits exports of softwood logs from State lands regardless of primary manufacturing.

However, the U.S. Supreme Court decision had no effect on the log export policy of the State of California. California continues to restrict all log exports from State lands, as it has for many years.

Also, as the result of a decision by an Oregon State's Attorney, the State of Oregon now permits the export of softwood logs from all common school lands in the State; however, the State continues to restrict exports from all other State lands as it has for many years. Recently, the Idaho State Legislature struck down previous legislation that restricted log exports from that State (effective 1985).

1/ Department of the Interior and Related Agencies Appropriations Act, 1974 (Public Law 93-120, Oct. 4, 1973), sec. 301.

2/ South Central Timber Development Inc. Petitioner v. Esther Wunnicke, Commissioner, Department of Natural Resources of Alaska, et al. No. 82-1608.

Table 3.--Softwood logs: U.S. exports of domestic merchandise, by principal markets, 1977-84

Market	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Japan	2,454	2,640	3,141	2,533	1,769	1,973	2,023	1,751
China	0	0	0	88	222	547	723	867
Republic of Korea	203	321	258	200	150	276	318	287
Canada	314	325	357	274	209	273	311	371
Hong Kong	0	0	1/	1/	11	27	3	61
All other	10	12	13	15	17	19	12	32
Total	2,980	3,298	3,768	3,109	2,377	3,115	3,391	3,369
	Value (1,000 dollars)							
Japan	810,973	950,685	1,468,097	1,290,941	822,869	829,156	688,565	631,416
China	-	-	-	41,435	89,211	211,854	227,828	271,835
Republic of Korea	49,002	80,391	85,555	75,357	48,020	84,882	94,872	84,630
Canada	35,111	38,168	50,023	35,694	31,673	30,718	51,154	62,729
Hong Kong	-	-	1	40	4,175	9,872	1,002	18,107
All other	3,662	7,971	9,879	8,224	6,899	7,695	5,059	10,485
Total	898,747	1,077,215	1,613,555	1,451,691	1,002,848	1,174,180	1,068,481	1,079,202
	Unit value (per thousand board feet)							
Japan	$330.48	$360.09	$467.41	$509.72	$465.24	$420.24	$340.37	$360.53
China	-	-	-	472.00	401.05	387.32	315.06	313.67
Republic of Korea	241.94	250.52	311.22	376.77	321.04	307.34	298.26	294.83
Canada	111.88	117.36	140.32	130.40	151.57	112.57	164.33	168.95
Hong Kong	-	-	1,318.00	754.09	383.63	368.72	309.93	296.40
All other	378.13	655.72	789.31	552.04	417.59	405.00	421.58	327.66
Average	301.60	326.58	428.20	466.92	421.88	376.95	315.13	320.30

1/ Less than 500,000 board feet.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Nationally, about 10 to 15 percent of the total softwood log harvest is exported. In the western parts of Oregon and Washington, however, softwood log exports account for as much as 40 percent of the total harvest, and in Maine, log exports have accounted for between 30 and 50 percent of that State's total harvest in recent years.

The effect of log export restrictions on resource supply, employment, and on lumber and stumpage prices is a subject of much debate. On one side of the issue, proponents of further restrictions in the Northwest claim that additional restrictions would lower stumpage prices by increasing the supply of available logs and through lower lumber prices enhance the competitive position of Pacific Northwest producers in both U.S. and foreign markets.

On the other hand, opponents of restrictions maintain that further restrictions would not guarantee lower stumpage and lumber prices, because Japan possibly would start importing lumber from the United States in the necessary quantities to replace its lost log imports, thereby continuing the demand on U.S. timber resources. As an additional point, some opponents claim that higher U.S. prices caused by log exports have led to increased incentives for management of U.S. forests (higher prices justify increased management, which in turn yields greater per acre volumes of better grade timber). If incentives were removed, it is claimed, management would deteriorate, resulting in decreased supply and higher prices in future years.

In a 1980 study by the Forest Service, 1/ projections of the effects of a log export ban were made using a multiple scenario approach. The scenarios are based on various assumptions ranging from Japan purchasing no additional softwood lumber from the United States to Japan purchasing the lumber equivalent of the log export volume that would have been exported. The results of this study indicate that prices for both lumber and stumpage could be expected to vary with a log export ban, dependent on each scenario.

Stumpage prices in the Douglas-fir region were predicted to decline in all scenarios, although all other regions examined had mixed stumpage price changes depending on the conditions of the scenario. The most likely scenarios indicate a stumpage price change of less than $\pm$15 percent (except for stumpage prices in the Douglas-fir areas, which could be expected to decline by more than 15 percent). The magnitude of the price changes found for lumber in the most likely scenarios would amount to less than a $\pm$2-percent change in the 1980's.

In addition to price changes, total U.S. timber harvest could be expected to decline (primarily in the Douglas-fir region) under all scenarios during a log export ban. In analyzing the results of this study, it is important to note that although a ban on log exports would certainly affect the price and supply of lumber and stumpage to some degree, changes in the U.S. economy and in levels of housing activity would have a greater affect on prices and supplies.

1/ David R. Darr, Richard W. Haynes, and Darius M. Adams, The Impact of the Export and Import of Raw Logs on Domestic Timber Supplies and Prices, U.S. Department of Agriculture, Forest Service Research Paper, PNW-277, 1980.

Canada

The resource base.--Of the 2,265 million acres of land area in Canada, 1/ 1,078 million acres are classified as forest land of which 1,059 million acres are available for the growing and harvesting of forest crops (production forest land). Of the 1,059 million acres, however, only 544 million acres (56 million of which are currently unstocked) are classified as being able to produce a merchantable stand of timber within a reasonable length of time (productive forest land). These 544 million acres of productive forest land are distributed among the Provinces of Canada, as shown in the following tabulation:

Province	Productive forest land (million acres) 1/	Percent of total
British Columbia	113	21
Ontario	93	17
Quebec	132	24
Alberta	53	10
Other Atlantic Provinces 2/	44	8
Manitoba	34	6
Other 3/	74	14
Total	544	100

1/ Because of rounding, figures may not add to the totals shown.

2/ Includes Newfoundland, Nova Scotia, New Brunswick, and Prince Edward Island.

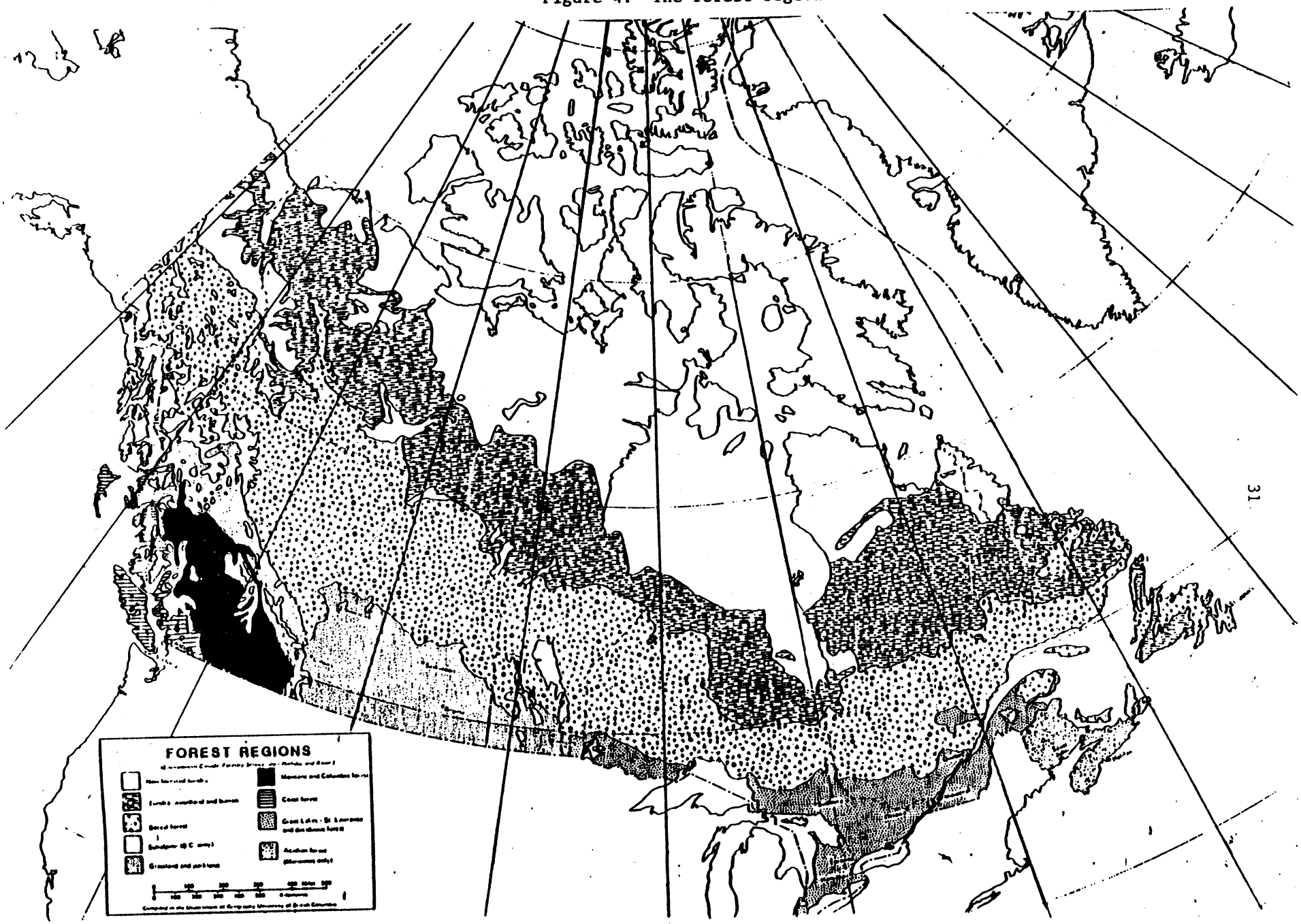
3/ Includes Saskatchewan, Northwest Territories, and the Yukon Territory.

Canada's forest resource consist of eight broad vegetation regions each of which have distinct vegetative types within them (see fig. 4 on the following page). Provinces may share common vegetative regions, the geo-political boundries are set, therefore, because of overlapping boundaries the percentages are approximations.

The largest region is the boreal region that includes lands from Nova Scotia to the Yukon Territory. This region accounts for 83 percent of the Canadian forested region and has the following species; white and black spruce, tamarack, true firs, jack and lodgepole pine, and an extensive area of mixed and pure stands of hardwoods (birch, aspen, popular, etc.). Much of this region is composed of even-aged immature stands, the result of wildfires that continue to effect the region to this day. Past wildfires, the result of lightning strikes, burned vast areas, often resulting in the destruction of areas in excess of 10,000 acres each. The current stands of timber are the result of natural regeneration. Although this region dominates in area, approximately one-half of it is inaccesible, thus being of little commercial value. Because the climate is severe, having a maximum growing season of 150 days, it has prevented many trees from reaching merchantable size. Other trees may be stunted or have small diameters, leading to excessive waste in the milling process.

2/ Statistics Canada, Catalogue 25-202, 1982 (includes lands previously reported as uninventoried acreage).

Figure 4.--The forest regions of Canada.



The Tundra region that borders on the northern edge of the boreal region lacks commercial forest land and therefore will not be discussed.

British Columbia and Alberta comprise an area made up of four regions: Sub-alpine (mountain uplands) composed of Englemann spruce, alpine fir, and lodgepole pine; Montane (dry interior plateaus) composed of interior Douglas-fir, lodgepole pine, and quaking aspen; Coast (west coast) composed of hemlock, sitka spruce, coastal Douglas-fir, Amarilis fir, and yellow cedar; and Columbia (interior wet belt) comproed of western red cedar, western hemlock, true firs, and some interior Douglas-fir. These four regions account for just 8 percent of the Canadian forested area, but nearly one-half of the standing softwood timber inventory. This is because the standing timber in these regions is considerably larger in size than in the other regions of Canada, In the other regions, there is a greater occurrance of stands composed of small diameter trees with little commercial value.

The Great Lakes-St. Lawrence and deciduous region is predominantly located in the southern portions of Ontario and Quebec. As the name implies, it borders the Great Lakes and the St. Lawrence Valley and contains approximately 8 percent of the total forested area in Canada. The tree species found in this region are eastern white and red pine, eastern hemlock, yellow birch, and a wide varity of mixed hardwoods.

The remaining forested area (1 percent of the total) is in the Acadia region (Eastern Maritimes) which has red and white spruce, balsam fir, yellow birch, and a wide variety of other species.

Forest inventory.--The volume of timber on Canada's stocked, productive forest land is about 694 billion cubic feet. Of this total, 550 billion cubic feet is softwood (the third leading country in the world). The following tabulation shows that almost half of this softwood inventory is in British Columbia: 1/

Province	Volume (billion cubic feet) 1/	Percent of total
British Columbia---	263	48
Ontario----------	73	13
Quebec----------	109	20
Other Atlantic 2/--	33	6
Alberta----------	28	5
Manitoba----------	16	3
Other 3/----------	29	5
Total----------	550	100

1/ Because of rounding, figures may not add to the totals shown.

2/ Includes Newfoundland, Nova Scotia, New Brunswick, and Prince Edward Island.

3/ Includes Saskatchewan, Northwest Territories, and the Yukon Territory.

Regeneration of Canadian forests has been of increasing concern. As the old-growth forests are cutover, regeneration becomes vital to continued supply of sawtimber. Currently, Canada uses a combination of natural regeneration, seedling plantings, and direct seeding to achieve continued sawtimber stocks.

Natural regeneration is the preferred silvicultural method for many sites and forests; there are varing degrees of intensity of natural regeneration. For sites and forests, which are remote, less intense silvicultural methods of natural regeneration are used. However, total reliance on natural regeneration systems to renew the forest is decreasing; the Provinces are shifting to artificial (planting and seeding) regeneration methods for more cut-over areas. This change will shorten the waiting period common in natural regeneration and will better control species composition and tree quality in areas where it is economically and biologically appropriate.

The general shift to more intensive timber management is evident in the increase in silvicultural work. In 1975, fewer than 200 million seedlings were produced. Expenditures on silvicultural work have steadily been increasing. The total harvest area is 2.0 million acres of which 1.7 million are clear-cut and 300,000 acres are harvested by modified means. Planting and seeding is done on more than 618,000 acres, or 40 percent of the clearcut area. Planting levels have almost doubled in the last 5 years and are scheduled to increase even further. Most of the remainder of the sites will be restocked by natural regeneration.

On sites where past reforestation efforts have proved unsuccessful or where significant losses have occurred because of fire and insects, programs are being instituted to accelerate the return of these lands to productivity; Can$200 million are budgeted for this type of work over the next 5 years in British Columbia alone.

Forest ownership.--The productive forest land in Canada is almost entirely Provincial Crown land. 1/ Of the 544 million acres of productive forest land, 437 million acres, or 80 percent, are Provincial Crown lands, with 62 million acres (about 12 percent) of Federal Crown lands 2/ and 44 million acres (8 percent) of private holdings. 3/

Ownership of timber in Canada is concentrated in Provincial Crown lands, which contain 503 billion cubic feet out of a total of 550 billion cubic feet (91 percent) of softwood timber in Canada on productive forest lands. Private lands account for about 26 billion cubic feet (5 percent) and Federal Crown lands contain only 20 billion cubic feet (4 percent).

Softwood log production, trade, and consumption.--For purposes of this report, this section will focus on the effects of softwood log trade as it affects the raw material price and supply for Canadian lumber manufacturers.

Canadian production of softwood logs used to produce softwood lumber steadily increased during 1977-84, with the exception of 1981, when Canadian producers were hit by strikes and an overall decline in the softwood lumber markets; such production rose from 12.7 billion board feet in 1981, to 16.2 billion board feet in 1984 (table 4).

1/ Public lands under Provincial Government jurisdiction.
2/ Public lands under Federal Government jurisdiction.
3/ Data obtained from B.C. Ministry of Forests.

Table 4.--Softwood logs 1/: Canadian production, exports of domestic merchandise, imports for consumption, and apparent consumption, 1977-84

(Quantity in million board feet, Scribner log rule; value in millions of U.S. dollars; unit value per thousand board feet)

Year	Production 2/	Exports	Imports	Apparent consumption	Ratio (percent) of--: imports to consumption	Ratio (percent) of--: exports to production
	Quantity					
1977	13,330	190	340	13,480	3	1
1978	13,715	137	372	13,950	3	1
1979	14,268	175	426	14,519	3	1
1980	14,232	232	360	14,360	3	2
1981	12,698	200	282	12,780	2	2
1982	14,940	255	292	14,977	2	2
1983	15,630	454	450	15,626	3	3
1984	16,169	702	521	15,988	4	3
	Value					
1977	1,804	42	32	1,740	2	2
1978	1,993	31	36	1,998	2	2
1979	2,254	47	49	2,256	2	2
1980	2,334	54	42	2,322	2	2
1981	1,993	43	35	1,985	2	2
1982	2,013	68	35	1,980	2	3
1983	2,666	107	57	2,616	2	4
1984	2,732	163	65	2,634	2	6
	Unit value					
1977	$135.33	$219.11	$95.46	$129.08	-	-
1978	145.32	227.16	97.65	143.23	-	-
1979	157.98	269.92	115.64	155.38	-	-
1980	164.00	230.79	117.03	161.70	-	-
1981	156.95	213.38	123.42	155.32	-	-
1982	134.74	268.35	121.09	132.20	-	-
1983	170.57	236.30	126.22	167.41	-	-
1984	168.97	232.07	125.14	164.75	-	-

1/ Used for softwood lumber.
2/ Estimated by the staff of the U.S. International Trade Commission.

Source: Statistics Canada

Note.--Import and export unit values based on unrounded figures.

During 1977-84, imports of softwood lumber consumption fluctuated. During 1981 and 1982, when Canadian softwood lumber consumption was at its lowest levels of the past decade, imports of softwood logs were at low levels. However, in 1983 and 1984, the level of imports rose to an alltime high, as did softwood lumber production in Canada. Nearly all of the softwood log imports were harvested along the U.S.-Canadian border, with the majority of such logs harvested in Maine and shipped by truck to mills along the Quebec-Maine border.

Canadian softwood log exports more than tripled during 1977-84, rising from 190 million board feet, valued at $42 million, in 1977 to 702 million board feet, valued at $163 million, in 1984 (table 5). This increase resulted from a quadrupling of exports to Japan, and the emergence of the People's Republic of China in the early 1980's as a significant purchaser of Canadian logs. Exports as a share of production rose from 1 to 3 percent during 1977-84.

Canadian consumption of softwood logs for softwood lumber rose from 13.5 billion board feet, valued at $1.7 billion, in 1977 to 16.0 billion board feet, valued at $2.6 billion, in 1984 (table 4). The unit value of such logs steadily increased from $129 per 1,000 board feet in 1977 to $165 per 1,000 board feet in 1984; largely a result of increased harvesting and hauling costs. Imports as a share of consumption rose from 3 percent in 1977 to 4 percent in 1984. Quebec was the largest consumer of such imports.

Log export policy.--Provincial laws prohibit the export of any unprocessed logs except when the log is considered surplus to Canadian needs (for a summation of log export policies by province see app. L). In British Columbia, in order to receive a permit for export, logs must first be advertised for public sale. If offers are received that meet the fair domestic price criteria, 1/ then such logs may be sold on the export market. The advertising and review process usually takes from 1 to 2 months. For all practical purposes, Canada's log exports are of minor volumes, although logs can be exported from some Indian-owned lands.

A comparison of the forest resources of the United States and Canada

The land areas of the United States and Canada each consist of about 2.3 billion acres. This and other points of comparison of the forest resources of the two countries are summarized in the following tabulation: 2/

1/ The fair domestic price is as determined by the Log Export Advisory Committee, which is governed by guidelines but not by law. The Ministry of Forests has the final decision as to whether the logs meet the fair domestic price criteria.

2/ Because of rounding, figures may not add to the totals shown.

Table 5.--Softwood logs: Canadian exports of domestic merchandise, by principal markets, 1977-84

Market	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Japan	109	90	120	142	131	130	241	401
United States	75	41	55	88	66	77	125	225
All other	6	6	1/	2	3	48	88	186
Total	190	137	175	232	200	255	454	702
	Value (1,000 dollars)							
Japan	27,125	22,498	31,870	37,752	29,984	37,089	66,013	105,116
United States	13,141	7,619	15,265:	15,181	11,634	15,455	18,217	14,289
All other	1,364	1,004	1	611	1,057	15,886	23,049	43,506
Total	41,630	31,121	47,236	53,544	42,675	68,430	107,279	162,911
	Unit value (per 1,000 board feet)							
Japan	$248.85	$249.98	$265.58	$265.86	$228.89	$285.30	$273.91	$262.13
United States	175.21	185.85	277.55	172.51	176.27	200.71	145.74	124.25
All other	227.33	167.33	-	305.50	352.33	330.96	261.92	233.90
Average	219.11	227.16	269.92	230.79	213.38	268.35	236.30	232.07

1/ Less than 500,000 board feet.

Source: Compiled from official statistics of Statistics Canada.

Resource	United States	Canada
Total land area -----million acres----------	2,255	2,265
Commercial forestland ----------do----------	482	544
Softwood timber inventory (billion ft^3)----------	456	550
Commercial forest land ownership:		
Public:		
National forest/Federal Crown 1/-percent-------	18	11
Other public 2/----------do---------	10	80
Private:		
Industrial----------do---------	14	5
Nonindustrial----------do---------	58	4
Total ----------do---------	100	100
Softwood timber ownership:		
Public:		
National Forest/Federal Crown 1/-percent-------	51	4
Other public 2/----------do---------	12	91
Private:		
Industrial----------do---------	16	3
Nonindustrial----------do---------	21	2
Total ----------do---------	100	100

1/ Includes National Forests in the United States and Federal Crown lands in Canada.

2/ Includes other Federal agencies and State lands in the United States, and Provincial Crown lands in Canada.

Beacuse of the existing export policies on the vast amount of land under public ownership in Canada, the United States enjoys a competitive advantage, in terms of resource allocation policy, over Canada in the world log markets, particularly with respect to the Japanese market. Although log exports are restricted from Western U.S. public lands and from some State lands, sufficient acreage of private lands and selected State lands (primarily in Washington) exists in the West to permit those Western U.S. softwood lumber companies with commercial forest lands, or access to certain State lands, to choose between sending their logs to either the log export market or consuming the logs at their mills. However, because log exports are severly restricted in Canada and not in the United States, the prices received for logs in Canada are lower than in the United States. It should be noted, however, that the majority of the logs exported from the United States are of such quality, that if they were consumed in the United States they would be used to produce veneer and to some degree clear lumber.

Both the United States and Canada have increased their efforts to regenerate their forests during 1977-84. According to industry and government sources, this increase is expected to continue, thus assuring a stable supply of timber in the coming years.

Timber Procurement

The major variable cost in the manufacture of softwood lumber is the raw material cost, herein called delivered log cost. There are two main elements--stumpage, and harvesting and hauling--that affect and influence delivered log costs for the U.S. and Canadian producers. From a delivered log cost, the wood cost (discussed later in the production methods and costs section) may be derived. Although the delivered log cost varies between countries, it also varies by regions and by the type of owner from whom the logs are purchased. Species differentials and terrain are not factored into the data presented in this section; however, the harvesting and hauling costs and roadbuilding costs are included in the delivered log cost to the extent possible. All data were generated from Government (Federal, State, and some local) and industry sources.

The term stumpage is defined as the monetary value of standing timber calculated before the tree is cut. This term originated from the early practice of charging a set price per tree cut, then counting the stumps to arrive at the total charge. Prices paid for stumpage vary across the United States and Canada and are determined by such factors as volume per acre to be cut, size of timber, species, terrain, location, markets, and ownership.

U.S. prices and trends

Since 1982, the aggregate U.S. stumpage rate has risen over 10 percent to $104.16 per 1,000 board feet in 1984, largely reflecting the increased demand for wood products by the U.S. housing industry. Although the stumpage rates in the North and West slipped (3 and 5 percent, respectively), the South rose over 40 percent as the demand for southern pine building products (e.g., lumber, plywood) surged upward. Delivered log prices followed the stumpage rates, rising 10 percent for aggregate U.S. delivered log cost.

Inventory review.--The ownership of the volume 1/ of standing timber harvested in the United States in 1976, the latest year for which data are available, is shown in the following tabulation, and in table 6:

Ownership	Percentage distribution of volume
Forest industry	37
Farm and other private	30
National forests	23
Other public	10
Total	100

The fact that the volume of timber harvested in the United States is evenly distributed among government, industry, and private lands, highlights a major factor in the wide range of prices paid for stumpage.

1/ All log volume data presented in this report are in board feet, Schribner log rule.

Table 6.--Softwood sawtimber: Removals of sawtimber on commercial forest land in the United States, by types of ownership, geographic regions, and specified areas, 1976

Ownership	West					North				South		
	Western Oregon and western Washington	Eastern Oregon and eastern Washington	All other	Total	Percent of total	New England	All other	Total	Percent of total	Total	Percent of total	Total, United States
	Million board feet					Million board feet				Million board feet		Million board feet
National forest	3,315	1,749	5,176	10,240	88.1	7	147	154	1.3	1,233	10.6	11,628
Other public	2,988	535	712	4,235	85.2	40	136	176	3.5	560	11.3	4,970
Total, public	6,303	2,284	5,888	14,475	87.2	47	283	330	2.0	1,793	10.8	16,598
Forest industry	8,140	904	3,146	12,190	62.6	510	167	677	3.5	6,605	33.9	19,472
Farm and other private	1,121	361	1,538	3,020	20.4	797	420	1,217	8.2	10,540	71.3	14,777
Total, private	9,261	1,265	4,684	15,210	44.4	1,307	586	1,893	5.5	17,145	50.0	34,249
Grand total	15,564	3,549	10,573	29,686	58.4	1,355	868	2,223	4.4	18,938	37.2	50,847

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service, An Analysis of the Timber Situation in the United States 1952-2030, p. 425, Forest Resource Report No. 23, December 1982.

Note.--Because of rounding, figures may not add to the totals shown.

Forest industry stumpage prices.--Forest industry timberlands are defined as land with standing timber, mature or otherwise, that is owned by a company engaged in any segment of the forest industry. Such land is purchased with the intent to harvest the timber at some point in time--usually within 1 to 80 years--and manufacture it into forest products (e.g., lumber, plywood, pulp) or sell the logs outright. Since most forest industry companies own timber at a book value much below current market values, actual stumpage price trends of forest-industry-owned timber are hard to determine. In many instances, companies are better off financially by accounting for stumpage at as high a price as is legally permissible in order to pay a capital gains tax (maximum 28 percent) on timber rather than pay income tax at the normal corporate (46 percent) rate. Lumber producers that own timberland, therefore, generally use current market prices in accounting methods rather than original costs. Currently, the Internal Revenue Service uses U.S. Forest Service or State bid stumpage prices to measure the validity of stumpage prices used by forest industry companies for capital gains calculations on timber cut from company lands.

Farm and other private land stumpage prices.--Generally, the prices paid for stumpage on farms and nonindustrial lands result from interactions between buyers and sellers. The states east of the Rockies, in the North and South, will be used in this discussion as an example of stumpage prices paid for timber cut from private lands. These prices are generally "cut-out and get-out" prices--no roadbuilding, site improvement, or cleanup other than at the landings.

Northern farm and other private harvested sawtimber accounted for about 2 percent of the softwood sawtimber harvested in the United States in 1984, the same as that in 1977 (table 7). The timber harvested in the North is generally smaller, and thus yields less lumber than any other area of the United States. In 1977, the average stumpage prices paid in the North were $27.92 per 1,000 board feet. That average rose to an alltime high of $46.40 per 1,000 board feet in 1981 in response to nationwide price speculation. However, as the expected increase in the markets for softwood lumber (for housing) did not materialize as high as expected, the stumpage prices paid dipped to $41.63 per 1,000 board feet in 1984.

In the South, farm and other private sawtimber accounted for about 15 percent of the sawtimber harvested in 1977 for U.S. softwood lumber production, and for about 20 percent in 1984. This timber is generally from second or third generation forests that tend to have uniform-sized timber, which is easily accessible. These forests usually are located in closer proximity to the mills than any other region of the United States. In 1977, the average stumpage price paid in the South was $69.49 per 1,000 board feet. With increased housing construction demand, that average rose to $102.72 in 1980. However, in 1982, the average stumpage price fell to $78.58 per 1,000 board feet as the rate of housing construction hit its lowest level in over 20 years. The average stumpage price then rose to $110.44 per 1,000 board feet in 1984, as housing construction rebounded. It must be noted that about 50 percent of the timber from the North and South comes from farm and other

Table 7.--Timber harvested 1/ by selected Regions and States, North, South, and West, 1977-84

Year and Item	Region and State												United States
	North			South				West					
	Maine	Wisconsin	Total	Georgia	Louisiana	Texas	Total	California	Idaho	Oregon	Washington	Total	
1977:													
Volume (MM board feet)	350	83	1,008	1,266	1,082	690	8,668	3,719	1,499	6,002	3,192	16,776	26,452
Stumpage ($/Mbf)	30.82	14.19	27.92	59.41	62.82	83.96	69.49	111.55	73.72	124.68	115.03	114.43	96.41
Delivered cost ($/Mbf)	107.93	87.30	104.53	99.24	107.03	126.56	117.07	188.45	166.75	203.98	195.07	194.13	148.11
1978:													
Volume (MM board feet)	401	100	1,209	1,290	1,020	706	8,863	3,475	1,486	5,861	3,087	16,138	26,210
Stumpage ($/Mbf)	34.59	24.40	31.71	84.91	92.23	108.21	97.51	157.02	134.69	131.78	130.99	136.96	118.76
Delivered cost ($/Mbf)	113.41	98.53	112.51	133.62	138.37	156.51	147.68	248.44	241.68	223.41	222.46	231.42	197.62
1979:													
Volume (MM board feet)	392	95	1,097	1,316	974	671	8,841	3,131	1,446	5,756	2,969	15,801	25,739
Stumpage ($/Mbf)	39.23	23.43	35.26	70.31	101.08	118.18	95.59	189.77	107.14	167.19	157.68	162.95	134.37
Delivered cost ($/Mbf)	128.89	109.99	125.20	116.31	143.05	154.08	139.98	305.77	237.08	271.48	264.27	274.20	221.75
1980:													
Volume (MM board feet)	444	92	1,148	1,382	742	597	7,763	2,473	1,094	4,540	2,420	12,571	21,482
Stumpage ($/Mbf)	44.23	34.09	42.11	72.68	115.77	105.29	102.72	183.04	86.20	207.56	175.03	141.47	122.16
Delivered cost ($/Mbf)	129.55	128.00	129.44	121.68	157.29	151.09	154.61	310.54	227.89	317.54	287.86	299.76	238.20
1981:													
Volume (MM board feet)	309	59	686	1,502	701	558	7,917	2,138	987	3,989	2,478	11,681	20,284
Stumpage ($/Mbf)	46.33	43.15	46.40	80.83	97.70	99.23	88.84	184.55	77.83	228.43	153.24	181.88	140.98
Delivered cost ($/Mbf)	147.93	134.21	145.75	121.13	143.38	139.53	130.51	315.55	238.93	353.54	273.02	312.46	235.81
1982:													
Volume (MM board feet)	400	48	787	1,530	698	606	8,210	1,855	962	3,558	2,341	10,562	19,559
Stumpage ($/Mbf)	45.99	20.47	42.75	74.17	77.36	90.79	78.58	127.69	37.73	109.10	117.43	109.07	93.57
Delivered cost ($/Mbf)	149.33	124.96	146.72	116.97	127.42	133.59	123.09	251.69	183.79	244.76	238.48	237.83	186.00
1983:													
Volume (MM board feet)	563	75	954	1,706	1,201	656	9,951	2,686	1,271	5,241	2,897	13,964	24,869
Stumpage ($/Mbf)	43.32	26.02	41.36	99.25	109.48	123.92	107.23	119.28	73.51	126.76	85.09	109.52	105.99
Delivered cost ($/Mbf)	142.58	131.62	141.29	144.65	163.81	174.72	156.62	242.78	219.75	242.72	207.02	231.76	198.22
1984:													
Volume (MM board feet)	571	83	979	1,810	872	716	9,898	2,811	1,398	5,352	2,964	14,244	25,121
Stumpage ($/Mbf)	44.28	28.60	41.63	104.01	116.31	119.56	110.44	121.03	53.48	112.72	98.23	104.10	104.16
Delivered cost ($/Mbf)	144.58	133.70	143.20	158.41	171.17	171.96	164.54	241.53	198.78	246.86	234.33	237.44	204.99

1/ These figures are for logs used for softwood lumber production only, and excludes export logs; all figures are based on Schribner log rule.

Source: All State figures are based on information obtained from each State, and the area and total United States figures are based on data from the States, U.S. Forest Service, Western Wood Products Association, and Southern Forest Products Association.

Note.--Delivered log cost includes any necessary roadbuilding costs.

private lands that have lower prices than Government timber, thus, prices presented here may be slightly higher than actual prices. The following tabulation shows stumpage prices in the North and South, during 1977-84:

Year	South	North
1977---------	US$69.49	US$27.92
1978---------	97.51	31.71
1979---------	95.59	35.26
1980---------	102.72	42.11
1981---------	88.84	46.40
1982---------	78.51	42.75
1983---------	107.23	41.36
1984---------	110.44	41.63

In the Northern and Southern regions of the United States, some private lands are leased to wood product concerns for a flat fee--this is called fee timber. Such timberland is normally leased for whatever length of time it takes to build any roads agreed to, harvest the timber, clean up as contracted, and replant as contracted; the length depends on the size of the property and the volume of timber to be removed. It is estimated that between 5 and 10 percent of the commercial forest land in these areas was leased under such arrangements during 1977-84.

Stumpage appraisal systems on public lands.--Federal and State and local forests comprise 18 and 10 percent, respectively, of the commercial forest land in the United States. Stumpage on such lands is appraised to establish a selling price for the timber. Although the U.S. Bureau of Land Management, and State and local governments have significant timber holdings, this discussion will focus on the U.S. Forest Service stumpage appraisal systems; most State and local government appraisal systems are similar.

The Forest Service uses two basic systems of stumpage appraisal: residual value appraisal (RVA)--it is used in one form or another on nearly all Government lands and comprises about 97 percent of Forest Service appraisals; and transaction evidence appraisal (TEA)--it is used in the two eastern forest regions (regions 8 and 9). 1/ The RVA system deducts the estimated costs of harvesting and hauling, production (based on a mill of average efficiency), and an allowance for profit and risk (between 9 and 18 percent) from the market prices for end products (e.g., lumber, plywood, wood chips) to arrive at an appraised stumpage value. The TEA system bases the appraised rates on formulas that use the last 4 or 8 quarters of data that is for comparable species, quality, and terrain. A few appraisals, called comparison appraisals (CA), are made by comparing results of other appraisals, market prices, or other forms of price construction. CA's are only used when sufficient data are unavailable or normal appraisal system use is impractical, such as in trespass or land exchange cases.

The RVA system is used in Forest Service regions 1-6 and 10 (all western regions). Region 1 currently shadows the RVA system with a TEA system of equations, to verify the equation's integrity and provide a measure of similarity between these systems. Regions 8 and 9 use a TEA system based upon

1/ See app. M for the descriptions of the regions of the Forest Service.

prior bids by species over the past 4 or 8 quarters in appraisal zones. Appraisal zones may include all or portions of individual forests. Currently, both RVA and TEA (where no formulas have been compiled) are the basis for stumpage price estimates on Government lands.

Prescribed minimum rates (i.e., base rates) are established by Regional Foresters. Minimum rates vary by species from US$1 to US$10 per 1,000 board feet. These minimum rates are the lowest at which timber may be sold, except for catastrophically affected timber. The lowest permissible stumpage rate is US$0.50 plus direct reforestation costs. Timber is offered for sale at the apprasised rate or the minimum rate, whichever is higher. Below cost-sales 1/ occur with greater frequency in the Intermountain West. Because some costs incurred in preparing and administering timber sales are not recorded, the Forest Service is developing an accounting system to help identify below-cost sales. One Regional Forester (region 2) has directed that below-cost sales will not be sold unless there are overriding reasons for the sales such as resource protection from insect damage. Appendix M shows the most recent Forest Service rule changes that apply to timber sale practices on public lands.

State and local stumpage appraisal systems vary from State to State and sometimes within a State. However, the basic concepts for appraisals on such lands is basically the same as is in force on Forest Service lands.

Stumpage prices and trends.--As indicated earlier, stumpage prices vary throughout the United States depending on the species, quality, volume, and accessability. The owner of the timber has a large bearing on the price received; he primarily is concerned with getting the greatest return possible. Because the U.S. Forest Service publishes its appraisal prices and timber offerings and has large timber holdings in the major producing regions, in contrast to private timber, competition for such timber is high. Over 85 percent of the volume of softwood sawtimber sold from U.S. Forest Service lands, during 1977-84, had more than one bidder; nearly three-quarters of such sawtimber received three or more bidders. Most sales with only one bidder were for sales of $2,000 or less. During 1977-84, the number of sales 2/ that can be converted to lumber, plywood, or pulp, had increase by nearly eight times. The following tabulation shows the number of sales on Forest Service lands, 1977-84:

1/ A below-cost sale is a timber sale in which the costs of preparing and administering the sale are greater than the expected revenues from the sale of timber. Such sales are measured by the sole criteria of cash recovery compared with incurred costs. Below-cost sales are not to be confused with a deficit timber sale which is a timber sale that is estimated to have insufficient value at advertised rates to cover the purchaser's production costs, including a margin for profit and risk. As all timber sales are sold at an established minimum rate that provides for a positive return to the Government, a deficit sale may or may not be a below-cost sale.

2/ Not included are sales of nonconvertible product sales (e.g. Christmas trees, cones, burls).

Year	Number of sales 1/	Volume of sales (billion board feet)
1977	44,466	9.9
1978	54,373	10.5
1979	64,135	11.3
1980	89,304	11.3
1981	92,041	11.5
1982	143,723	10.0
1983	235,585	11.1
1984	342,964	10.7

As can be seen, the number of sales has risen dramatically but the volume has remained between 10 billion and 11.5 billion board feet during 1977-84. Since 1978, the number of $2,000 and less sales, has risen from 51,017 (94 percent) in 1978 to 338,945 (99 percent) in 1984; the remaining sales account for most of the volume of timber removed from Forest Service lands.

The prices paid for stumpage on public lands are generally the prices bid through open auction, oral or sealed bid, with the highest bidder usually awarded the sale; the appraisal price is only the advertised price. The bid prices are available from the U.S. Forest Service and from most public owners, by region and by species. 1/ Because the stumpage bought by bid is usually sold under contracts that generally allow harvesting over a 3-to-5 year period, prices bid are reflective of expected future market conditions.

On all types of publicly owned land in Washington and Oregon (Forest Service data include a small portion of California), the largest concentration of such land in the United States, bid prices for stumpage increased steadily during 1977-80, despite declining lumber markets in late 1979 and 1980 (table 8). However, in 1981, prices bid (per 1,000 board feet) for stumpage dropped dramatically, reflecting the low demand of the previous 2 years, before rising slightly in 1983 and 1984, largely reflecting the increased demand for raw materials to produce building products that were needed for the increased housing starts, as shown in the following tabulation:

1/ Bid and paid prices for individual species may be misleading because of the method of timber sale employed by the Forest Service. When a stand of timber is sold, the successful bidder might only bid on a single species, which, particularly in western Washington and western Oregon, is often bid to rather high levels. These high prices are somewhat moderated by the other species of the sale that, when harvested, are billed at the appraised price, generally below the price on the bid-on species. In addition, on most Forest Service sales, a certain amount of timber is sold as per acre material. This material is below utilization standards and is sold on a per acre basis rather than on a scaled basis. Forest Service bid and cut prices presented in this study are obtained from cut and sold reports for all nine regions.

Year	Forest Service 1/	All public lands 1/
1977	US$140.29	US$146.03
1978	173.59	184.01
1979	251.12	267.66
1980	254.06	267.21
1981	208.60	213.67
1982	$72.69	$84.80
1983	96.45	108.43
1984	95.25	104.69

1/ Production, Prices, Employment, and Trade in Northwest Forest Industries, fourth quarter 1984.

In other States, where the bidding is less intense and the species mix less valuable, stumpage prices have not risen as rapidly nor as high as they have in Washington and Oregon. For example, the average stumpage price for public timber sold in Montana and Idaho was US$55.76 per 1,000 board feet in 1984, 47 percent less than the US$104.69 reported for Washington and Oregon. Average bid stumpage prices for timber sold from public lands in Montana and Idaho are shown in the following tabulation (per thousand board feet): 1/

Year	Forest Service	All public lands
1977	US$42.96	US$45.35
1978	56.00	63.16
1979	62.09	68.63
1980	41.80	50.11
1981	49.22	51.13
1982	28.95	31.25
1983	41.05	43.88
1984	53.60	55.76

Although bid stumpage prices are the most often quoted, they are not indicative of prices currently being paid for timber harvested. Bid stumpage prices (especially where there are no escalation clauses) can be interpreted as the expectations of market conditions at some time in the future, up to 7 or 8 years in some Forest Service sales. A more accurate indicator of actual stumpage prices is the Forest Service cut and sold reports, where current prices for cut and removed timber are listed. Although the prices paid for cut timber may not be truly representative of the actual market value of stumpage--the price being paid was determined by past bidding--they are indicative of the actual dollars being paid for stumpage being harvested at present.

1/ Although the species mix is not as valuable in Montana and Idaho as it is in Washington and Oregon, the method of timber sale also influences the prices being bid. East of the Cascade Mountains (eastside) timber is generally sold with a rate adjustment clause. Simply put, with an escalation clause, the timber purchaser will only realize 50 percent of any increase in timber value. West of the Cascade Mountains (westside) the rate adjustment clause usually is not included in timber sales, sometimes resulting in speculation and "over bidding." Montana and Idaho data obtained from Production, Prices, Employment, and Trade in Northwest Forest Industries, fourth quarter 1984.

In recent years (1979-81), speculation in the solid wood markets, and Government legislation affecting area available for timber harvest (wilderness bills) and volume that can be cut (a cap on allowable cut), have combined to cause bidding to go well in excess of the current prices paid for cut sawtimber. The following tabulation, derived from table 8, shows average prices bid and prices paid for cut softwood sawtimber, per 1,000 board feet, for all U.S. Forest Service sawtimber during 1977-84:

Year	Price bid	Price paid
1977	US$ 99.54	US$69.89
1978	120.81	84.79
1979	173.22	93.29
1980	172.60	79.52
1981	154.30	89.71
1982	61.24	50.27
1983	70.01	70.28
1984	65.84	72.01

As shown in the above tabulation, in 1983 and 1984 the prices paid for cut sawtimber were in excess of bid prices. This is a reflection of bid prices being more in line with current market conditions then in previous years. Shown in the following tabulation are average prices paid for softwood timber cut on all Forest Service land during 1977-84 (per thousand board feet):

Year	Western	Eastern and Southern	Average
1977	US$110.48	US$44.07	US$69.89
1978	141.95	62.51	84.79
1979	192.83	65.40	93.29
1980	194.73	70.64	79.52
1981	170.54	59.03	89.71
1982	61.69	59.03	50.27
1983	72.27	59.46	70.28
1984	67.79	56.32	72.01

Prior to 1982, the stumpage prices paid for softwood sawtimber removed from Forest Service lands was two to three times higher on western lands than elsewhere. However, starting in 1982, prices paid were within 4 percent of each other in all areas before rising to less than 20 percent in 1983 and 1984. Because new technology allows the use of smaller timber--at one time such timber was left in the woods or was used for pulp--the gap in prices paid for harvested sawtimber on western lands are not likely to regain the wide price advantage they held 3 to 6 years ago.

All harvested sawtimber used to manufacture softwood lumber harvested (includes State, Federal, and private--company and individual) in 1984 was valued at $104.16 per 1,000 board feet (table 7), or 26 percent less than the amount in 1981. The following tabulation shows the stumpage prices paid per 1,000 board feet for harvested timber from all lands, by regions, in 1977-84:

Year	Northern	Southern	Western	Total
1977--------	US$27.92	US$69.49	US$114.43	US$96.41
1978--------	31.71	97.51	136.96	118.76
1979--------	35.26	95.59	162.95	134.37
1980--------	42.11	102.72	141.47	122.16
1981--------	46.40	88.84	181.88	140.98
1982--------	42.75	78.51	109.07	93.57
1983--------	41.36	107.23	109.52	105.99
1984--------	41.63	110.44	104.10	104.16

Prior to 1983 and 1984, the Western United States stumpage prices were between 28 and 51 percent higher compared with prices in the Southern United States and between 60 and 78 percent higher than those in the Northern United States. The Western United States normally uses a 50-50 mix, private vs. public, of timber compared with less than 20 percent of public timber used elsewhere. However, in 1983 and 1984 it is thought that more private timber than public timber was used, in the Western United States. This is believed to have lowered the price for all western timber. Such timber was more than 40 percent less in 1981 than it was in 1983 and 1984.

Delivered log prices.--Delivered log prices, a combination of stumpage, harvesting, hauling, roadbuilding, and any other related charges, varied by area within the United States during 1977-84 (table 7). In 1984, the West had the highest prices, $237.44 per 1,000 board feet followed by the South and North whose prices were $164.54 and $143.20 per 1,000 board feet, respectively. The following tabulation derived from table 7 shows delivered log prices by areas, 1977-84:

Year	Western	Southern	Northern	Total
1977--------US$194.13		US$117.07	US$104.53	US$148.11
1978--------	231.42	147.68	112.51	197.62
1979--------	274.20	139.98	125.20	221.75
1980--------	299.76	154.61	129.44	238.20
1981--------	312.46	130.51	145.75	235.81
1982--------	237.83	123.09	146.72	186.00
1983--------	231.76	156.62	141.29	198.22
1984--------	237.44	164.54	143.20	204.99

The large price differential between the West and the rest of the United States is a result of the harvesting costs (e.g., techniques, terrain, species, size). In the West, the majority of timber harvesting is by manual felling, large logging crews, and high-cost roadbuilding. On the other hand, the South and North are split 50-50 between mechanical and manual harvesting, and most roads are already in place. It should be noted that the delivered log price data are aggregates of all species, all quality differences, and from all classes of lands (public, private, and industry).

Table 8.--Softwood sawtimber: Timber (excluding pulpwood) cut and sold on Forest Service lands, in all regions, 1977-84

Year and item	Forest Service region											
	1	2	3	4	5	(All) 6	(West) 6	(East) 6	8	9	10	Total
1977:												
Sold:												
Volume (MM board feet)---	1,011.5	304.1	283.0	402.4	1,589.6	4,765.2	3,242.2	1,523.0	1,071.9	491.2	0.9	9,919.7
Value (Million dollars)--	50.3	4.4	19.0	7.5	188.3	653.8	549.0	104.8	56.1	8.1	1/	987.4
Unit value ($/Mbf)-------	49.74	14.35	67.00	18.62	118.43	137.21	169.33	68.81	52.38	16.41	10.98	99.54
Cut:												
Volume (MM board feet)---	1,113.0	326.2	401.5	450.1	1,882.2	4,342.8	2,992.2	1,350.6	1,028.9	471.5	465.3	10,481.5
Value (Million dollars)--	48.3	5.2	21.3	23.9	158.5	423.1	327.3	95.8	43.4	6.9	1.9	732.5
Unit value ($/Mbf)-------	43.44	15.86	53.07	53.05	84.22	97.42	109.38	70.93	42.23	14.53	4.19	69.89
1978:												
Sold:												
Volume (MM board feet)---	1,029.0	386.7	386.4	381.6	1,940.2	4,987.7	3,393.6	1,594.1	1,108.4	616.6	159.2	10,481.5
Value (Million dollars)--	64.3	9.6	31.8	13.8	275.8	842.3	707.3	135.0	72.9	12.5	5.6	1,328.4
Unit value ($/Mbf)-------	62.47	24.72	82.20	36.16	142.13	168.87	208.42	84.69	65.74	20.29	35.08	120.81
Cut:												
Volume (MM board feet)---	945.4	282.2	380.4	385.9	1,775.3	4,340.7	2,990.7	1,350.0	1,032.8	479.6	457.8	10,079.5
Value (Million dollars)--	44.9	5.3	23.8	15.8	178.6	524.2	405.5	118.7	52.8	7.2	2.0	854.7
Unit value ($/Mbf)-------	47.53	18.84	62.56	40.95	100.59	120.77	135.59	87.93	51.12	15.09	4.40	84.79
1979:												
Sold:												
Volume (MM board feet)---	1,106.2	362.1	365.4	334.3	2,163.5	5,138.2	3,496.0	1,642.2	1,166.7	584.9	109.1	11,330.4
Value (Million dollars)--	72.0	2.9	34.9	13.6	432.2	1,280.2	1,075.0	205.2	100.3	15.2	11.2	1,962.6
Unit value ($/Mbf)-------	65.08	8.07	95.44	40.65	199.79	249.16	307.49	124.95	86.01	26.07	102.58	173.22
Cut:												
Volume (MM board feet)---	994.4	288.0	338.8	433.7	1,817.8	4,528.7	3,120.3	1,408.4	1,014.4	530.8	430.4	10,377.0
Value (Million dollars)--	57.3	4.6	23.7	17.2	185.9	612.2	473.5	138.7	56.3	9.3	1.5	968.0
Unit value ($/Mbf)-------	57.63	16.12	70.08	39.65	102.27	135.17	151.75	98.48	55.54	17.44	3.43	93.29
1980:												
Sold:												
Volume (MM board feet)---	1,133.2	323.5	334.7	363.8	1,921.0	5,126.4	3,487.9	1,638.6	1,281.6	606.2	199.6	11,290.0
Value (Million dollars)--	52.6	2.0	17.0	9.9	446.9	1,286.1	1,079.9	206.2	96.7	16.5	21.1	1,948.7
Unit value ($/Mbf)-------	46.43	96.06	50.74	27.19	232.64	250.87	309.63	125.81	75.43	27.24	105.51	172.60
Cut:												
Volume (MM board feet)---	835.6	250.0	365.4	306.2	1,450.3	3,628.7	2,500.2	1,128.5	1,297.8	562.6	481.5	9,178.2
Value (Million dollars)--	31.5	3.1	16.2	12.2	119.9	457.3	353.7	103.5	71.1	11.5	6.8	729.8
Unit value ($/Mbf)-------	37.76	12.56	44.44	39.93	82.64	126.01	141.48	91.74	54.80	20.70	14.09	79.52
1981:												
Sold:												
Volume (MM board feet)---	994.3	403.9	409.8	314.8	1,830.2	5,482.1	3,789.1	1,693.0	1,219.3	643.7	158.7	11,456.8
Value (Million dollars)--	59.3	3.7	35.4	5.2	291.5	1,233.4	1,009.3	224.1	113.8	17.8	7.6	1,767.7
Unit value ($/Mbf)-------	59.68	9.12	86.49	16.53	159.27	224.98	226.36	132.36	93.31	27.70	11.85	154.30
Cut:												
Volume (MM board feet)---	783.9	273.9	310.9	323.4	1,229.2	3,125.9	2,167.0	1,214.6	1,141.1	559.3	288.6	8,036.2
Value (Million dollars)--	36.8	3.2	18.1	7.8	131.2	426.2	308.1	118.1	78.4	12.6	6.7	720.9
Unit value ($/Mbf)-------	46.90	11.70	58.10	24.00	106.72	136.30	142.18	97.20	68.70	22.54	23.15	89.71
1982:												
Sold:												
Volume (MM board feet)---	974.0	351.5	331.2	348.0	1,588.4	4,641.6	3,253.8	1,387.8	1,124.9	589.4	80.6	10,029.6
Value (Million dollars)--	34.2	1.9	10.7	4.2	88.7	370.8	296.8	74.0	85.7	15.5	2.4	614.2
Unit value ($/Mbf)-------	35.11	5.51	32.43	12.00	55.84	79.89	91.22	53.31	76.20	26.38	29.53	61.24
Cut:												
Volume (MM board feet)---	716.6	250.0	176.2	261.6	918.5	2,525.4	1,464.3	799.4	816.3	609.5	473.2	6,747.3
Value (Million dollars)--	13.3	1.9	5.5	3.0	47.6	191.6	144.5	47.1	55.7	15.5	5.0	339.2
Unit value ($/Mbf)-------	18.55	7.55	32.04	11.60	51.84	75.86	98.70	58.86	68.18	25.51	10.47	50.27
1983:												
Sold:												
Volume (MM board feet)---	1,125.2	338.2	413.7	370.4	1,865.5	4,915.6	3,327.5	1,588.0	1,318.6	632.2	82.0	11,061.4
Value (Million dollars)--	48.2	4.4	12.4	7.4	123.4	461.4	314.1	147.3	97.9	18.1	1.2	774.4
Unit value ($/Mbf)-------	42.87	12.87	29.99	20.07	66.13	93.86	94.39	92.74	74.25	28.61	14.63	70.01
Cut:												
Volume (MM board feet)---	947.5	306.2	318.0	361.8	1,490.2	3,868.2	2,291.0	1,577.2	1,096.0	604.5	251.5	9,244.0
Value (Million dollars)--	31.6	3.2	11.8	7.3	135.9	354.1	241.8	112.3	88.6	16.7	0.7	649.7
Unit value ($/Mbf)-------	33.30	10.40	37.01	20.07	91.17	91.54	105.54	71.22	80.84	27.55	26.02	70.28
1984:												
Sold:												
Volume (MM board feet)---	917.1	414.0	363.4	396.1	1,457.7	4,962.1	3,319.6	1,642.6	1,324.8	774.1	52.3	10,661.7
Value (Million dollars)--	33.0	5.3	14.0	7.1	98.6	421.5	307.3	114.2	93.9	24.3	1.0	698.7
Unit value ($/Mbf)-------	36.01	12.79	38.46	17.84	67.64	84.95	92.57	69.54	70.88	31.44	19.14	65.84
Cut:												
Volume (MM board feet)---	968.5	339.5	387.2	380.0	1,657.5	4,538.9	2,853.2	1,685.7	1,275.4	740.0	261.5	10,548.7
Value (Million dollars)--	40.7	4.1	14.2	6.2	134.6	429.6	283.0	146.7	104.8	20.4	4.9	759.6
Unit value ($/Mbf)-------	42.05	12.01	36.65	16.42	81.22	94.66	99.18	87.01	82.18	27.56	18.60	72.01

1/ Less than $500,000.

Source: U.S. Forest Service Cut and Sold Reports, 1977-84

Canadian prices and trends

Canadian aggregate stumpage rates rose 12 percent, from US$10.57 per 1,000 board feet in 1982 to US$11.84 per 1,000 board feet in 1984. However, the delivered log cost (aggregate for all Canada) slipped from US$166.35 per 1,000 board feet in 1982 to US$166.10 per 1,000 board feet in 1984.

Stumpage appraisal system on public lands.--As discussed in the section on forest resources, each Province has its own stumpage appraisal system for sawtimber, unique in terms of quality, quantity, and accessibility. Over the years, these systems have been gradually modified to meet changes in particular circumstances in the Provinces. Each Province must ensure that environmental (e.g., watersheds, wildlife, and wilderness), recreational, and industrial demands are satisfied. They must also ensure that the forest resource, which is a major source of revenue for many Provinces, provides a reliable source of income. This then dictates that the Province must assure by its use of the forest that there will be a steady supply (sustained yield) of timber, in perpetuity.

This need for a steady supply of income has led to the emphasis on long-term tenures (also known as agreements) between the Province and purchaser. As stated by the Canadian Softwood Lumber Committe in its written testimony of February 4, 1983, before the Department of Commerce, "The Provinces have significant interest in finding large-scale, responsible operators who will establish themselves for a long period, cut large areas of Provincial timber, pay timber dues in a reliable fashion, and protect the diverse Provincial interest. Long-term tenures are also necessary to attract and retain the large timber users, since without a guaranteed long-term supply, industry would be unable and unwilling to invest large sums of capital to establish and maintain substantial operations."

In exchange for these long-term tenures, the Provinces have retained ownership while delegating many, if not all, of the responsibilities of ownership to the license holder. Such functions such as detailed forest management plans, roadbuilding, and reforestation and silviculture, in addition to timber dues or stumpage payments (in British Columbia), and other charges, are the license holder's responsibility.

In cases where the potential purchaser is not able to or willing to commit itself to a long-term agreement, the Province offers short-term tenures or small timber allocations; if there is a surplus of timber, short-term tenures are available. Both systems are based on a first-come-first-served basis unless there is more than one applicant. In such cases, the license is commonly sold at public auction or awarded to the applicant who satisfies the Province that it is able to make the best use of the timber, or otherwise will provide the Province with the most benefits.

In 1984, about 80 percent of British Columbia's timber harvest was from land requiring stumpage payments: Tree Farm Licenses; Forest Licenses, Timber Sale Harvesting Licenses, and Timber Sale Licenses. Approximately 10 percent of the harvest is from lands requiring royalty payments, and the remaining 10 percent is from private or Crown grant lands. Generally, the timber cut from Royalty lands and Crown grant lands is available to companies at a minimal cost, and is comparable with forest industry lands.

Holders of the various sale licenses in British Columbia are entitled to certain volumes of timber (quota) for which they have secured rights, assuming they meet the terms of the license contract. These quotas vary in the length of time during which the timber can be harvested; some run as long as 25 years. To maintain a quota, a firm must harvest at least 50 percent of its annual allowable cut each year, not varying by more than plus or minus 10 percent of its allowable cut for each 5-year period. If the liscensee does not maintain this limit, the Province will reallocate the amount of land that the liscensee controls. However, if they cut more than is allowed they will generally have their allowable cut scaled back until they are in compliance.

In British Columbia, timber appraisal on Provincial lands (about 80 percent of the harvest) is based on a residual method. Basically, an end-product selling price is calculated, and then milling costs (in the interior), operating costs, and a profit allowance are deducted from the selling price to calculate the amount charged for stumpage. Although this simplified explanation is the basic method of appraisal, the actual method is much more complex.

In British Columbia, two separate end products are used as the starting point in the appraisal method. On the coast, the price of logs by species and grade in the Vancouver log market is determined from a monthly survey of sales transactions, with the values for appraisal being the average of the last 3 months. In the interior (east of the Cascade Mountains), the value of random length lumber, studs, and wood chips is taken into account in the appraisal system. 1/

In addition, the British Columbia interior appraisal system (basically based on lumber and chip end-product prices) uses a prelegislated chip price of about Can$10.50 per Bone Dry Unit (BDU), which is below current chip market prices of between Can$40.00 and Can$60.00 per BDU. 2/ This prelegislated chip price was first developed to compensate for a very weak chip market for British Columbia interior mills, but more recently, most chips produced in the interior have been marketed at a price much above the prelegislated chip price. This difference in chip prices currently translates to about Can$20.00 per 1,000 board feet in terms of stumpage price. In 1981, however, most prices paid for stumpage in British Columbia were minimums, nullifying any effect this chip differential might have. In other years (1977-80 in particular), some, if not all, of this Can$20.00 per 1,000 board feet chip differential could be added to appraised stumpage values if a strict residual value-based appraisal method was in use.

The British Columbia appraisal system allowance for profit is 10 percent on the coast, and 12 percent in the interior. In addition, up to 13 percent can be allowed for risk on the coast and up to 18 percent in the interior. 3/ The risk allowance is broken into a number of different factors, such as market risk, defect risk, risk of chance, pioneering risk, and investment risk.

1/ There are some appraisals based on pulp logs in the Skeena zone of Prince Rupert District.

2/ The prelegislated chip price ranges from about Can$9.00 per BDU to about Can$11.00 per BDU for all species except cedar, which ranges from Can$0.00 to Can$8.00 per BDU.

3/ Note that coastal profit and risk allowances are based on log rather than lumber values.

In the case of very low or negative stumpage appraisals, minimum stumpage rates are set by the Province. On the coast, minimum stumpage is set at 8 percent of the average value of the log, based on the Vancover log market, for each species. 1/ In the interior, a minimum rate is set by taking 3 percent of the total product unit value (in most cases lumber and chips). In unusual circumstances such as salvage operations, minimum stumpage may be waived.

Generally, British Columbia timber dues are adjusted monthly (up or down) in response to a change in market value of not less than plus or minus Can$1.00 per cubic meter (about Can$5 per 1,000 board feet) for log-based appraisals (coast) and plus or minus Can$5.00 per 1,000 board feet or more for lumber-based appraisals (interior). These adjustments moderate for the buyer both the potential for profit in rising markets and losses in falling market.

In earlier years in eastern Canada--primarily Ontario and Quebec--the emphasis on timber utilization was in the pulp and paper industry. This is reflected in the timber agreements and prices paid for timber dues in Ontario and Quebec. The original agreements--"Order-in-Council Liscense" in Ontario and "Timber Limits" in Quebec--were primarily to ensure an uninterrupted supply of raw materials to the pulp and paper industry. However, in recent years the emphasis has been changing to better utilization of the resources by putting the control back into the hands of the Province. This is being done by coverting the older systems and any new allocations into "Forest Management Agreements" in Ontario and "Timber Supply Agreements" in Quebec.

Timber dues for the other nine Provinces are set by regulation or statute to provide a fair return to the Province for timber harvested. Ontario has indexed its timber dues quarterly, since 1978, for end-product market price changes. In Quebec, some timber dues rates were negotiated between the Province and individual company, however, most is through regulation depending on operating difficulties and timber quality in its four geographic zones. Quebec reviews the timber dues periodically and adjusts them to take account of material changes in market conditions; they also have used residual value studies to confirm that it is continuing to obtain a fair return from its timber resource.

Alberta sets its timber dues, under long-term management agreements, by regulation, and long-term tenures (a specified share of the annual cut) by regulation that sets a base rate and then adjusts for timber quality and harvesting conditions. Timber dues in Saskatchewan are set either by negotiation between the Province and the individual company, with adjustment according to end-product price, or by permits, issued upon request and set by regulation only.

Nova Scotia, Newfoundland, Prince Edward Island, New Brunswick, and Manitoba set timber dues by regulation (with or without adjustments) or at public auction. The majority of timber in these Provinces is used for pulp and paper companies and most of the agreements are for those companies.

Stumpage prices and trends.--Every Province requires purchasers of timber allocations to pay a variety of in-kind (e.g., silvicultural treatments) and monetary (stumpage payments and tenure dues) payments for the timber. Because there often is no competitive bidding, the stumpage prices are set by appraisal and periodic adjustments, as provided for in the tenure agreements.

1/ Six percent in the Prince Rupert Forest Region.

The available published stumpage prices for British Columbia are those prices received for stumpage from Tree Farm Licences, Timber Sale Harvesting Licences (Forest Licences) and Timber Sale Licences. In 1984, these sales represented 57 million cubic meters, or about 10 billion board feet, as reported in the Ministry of Forests' annual report.

In 1984, the average price received for all species of timber in British Columbia was US$10.74 per 1,000 board feet, representing a 1-percent increase from the 1981 price (table 9). Stumpage prices for all species during 1977-84 are shown in the following tabulation (per thousand board feet):

Year	Price 1/
1977	US$9.93
1978	22.73
1979	38.84
1980	36.76
1981	11.79
1982	9.68
1983	11.08
1984	10.74

1/ Road and silviculture activity expenses (under sec. 88 of the British Columbia Forest Act) are included in these figures.

Primarily owing to species differences, the stumpage payments from the coastal and interior areas of British Columbia differ substantially. In 1984, the average price paid for stumpage from the British Columbia coastal area was US$20.46 per 1,000 board feet, compared with an average of US$7.61 per 1,000 board feet for the British Columbia interior area. The following tabulation shows the prices paid for stumpage from the British Columbia coastal and interior areas during 1977-84 (per thousand board feet):

Year	Price	
	Coastal 2/	Interior
1977	US$15.82	US$6.31
1978	22.56	27.82
1979	47.68	34.69
1980	66.25	19.23
1981	19.50	7.87
1982	16.97	6.28
1983	19.56	6.97
1984	20.46	7.61

1/ Roads and silviculture activities (under sec. 88 of the Forest Act) are included in these figures.

2/ Stumpage prices for coastal British Columbia include some interior data from TFL No. 1 in Prince Rupert Forest District, but this is not believed to significantly affect the prices presented.

As can be seen in the above tabulation, coastal stumpage prices are 2 to 3 times higher than the interior prices, a result of higher quality and thus higher value timber. Since 1981, when combined prices fell nearly 70 percent, from 1980, the prices have not fluctuated more than US$2.60 per thousand board feet in either area.

Table 9.--Timber harvested 1/ by Provinces and total Canada, 1977-84

Year and item	Province							Total Canada
	British Columbia			Prarie Provinces	Quebec	Ontario	Maritime Provinces	
	Coastal	Interior	Total					
1977:								
Volume (MM board feet)-----	3,543	5,755	9,298	731	1,812	958	341	13,140
Stumpage (US$/Mbf)---------	15.82	6.31	9.93	5.84	9.24	15.15	16.55	10.16
Delivered cost (US$/Mbf)---	160.97	115.38	132.75	102.39	144.16	147.15	150.31	134.14
1978:								
Volume (MM board feet)-----	3,782	5,908	9,690	744	1,591	1,090	463	13,578
Stumpage (US$/Mbf)---------	22.56	27.82	22.73	5.61	9.56	15.41	15.74	21.59
Delivered cost (US$/Mbf)---	167.15	130.24	144.65	110.05	148.31	156.15	155.83	144.49
1979:								
Volume (MM board feet)-----	3,667	6,000	9,667	760	2,146	1,073	447	14,093
Stumpage (US$/Mbf)---------	47.68	34.69	38.84	6.02	10.86	17.24	15.48	30.96
Delivered cost (US$/Mbf)---	187.21	134.35	156.88	114.63	162.93	156.14	161.04	156.60
1980:								
Volume (MM board feet)-----	3,348	5,898	9,246	716	2,238	1,232	568	14,000
Stumpage (US$/Mbf)---------	66.25	19.23	36.26	5.83	8.03	16.45	12.57	27.48
Delivered cost (US$/Mbf)---	219.61	130.63	162.85	121.49	174.46	163.07	169.12	162.86
1981:								
Volume (MM board feet)-----	2,681	5,277	7,958	779	2,115	1,182	462	12,496
Stumpage (US$/Mbf)---------	19.50	7.87	11.79	5.40	10.99	17.25	20.49	12.09
Delivered cost (US$/Mbf)---	195.56	128.71	151.23	126.70	174.54	167.47	177.47	156.15
1982:								
Volume (MM board feet)-----	2,457	5,257	7,714	740	1,788	1,053	390	11,685
Stumpage (US$/Mbf)---------	16.97	6.28	9.68	5.40	10.67	16.37	21.75	10.57
Delivered cost (US$/Mbf)---	213.72	139.22	162.95	134.34	172.39	194.25	191.22	166.35
1983:								
Volume (MM board feet)-----	3,209	6,744	9,953	991	2,485	1,267	480	15,176
Stumpage (US$/Mbf)---------	19.56	6.97	11.03	6.89	10.23	17.80	24.75	11.63
Delivered cost (US$/Mbf)---	223.65	139.96	166.94	136.76	175.69	184.40	191.07	168.62
1984:								
Volume (MM board feet)-----	3,026	6,950	9,976	1,104	2,455	1,395	537	15,467
Stumpage (US$/Mbf)---------	20.46	7.61	10.74	6.76	11.96	19.27	22.89	11.84
Delivered cost (US$/Mbf)---	214.80	140.82	163.26	140.17	171.85	188.81	187.01	166.10

1/ These figures are estimated by the staff of the U.S. International Trade Commission and are for logs used for softwood lumber production only (excludes export logs); all figures are based on Schribner rule.

Source: Canadian Government, Provincial Governments, the "Cross Boarder Study," and industry sources.

Note.--Permanant roadbuilding costs and other miscellanoues costs are included in the delivered cost.

In eastern Canada and the Prairie Provinces, timber dues paid in 1984 for harvested sawtimber ranged from US$6.76 per 1,000 board feet in Alberta to US$22.89 per 1,000 board feet in the Maritime Provinces (table 9). The following tabulation shows average timber dues paid for harvested sawtimber in the Prarie and Maritime Provinces, Ontatio, and Quebec, 1977-84 (per thousand board feet):

Year	Prairie Provinces	Maritime Provinces	Quebec	Ontario
1977--------	US$5.84	US$16.55	US$9.24	US$15.15
1978--------	5.61	15.74	9.56	15.41
1979--------	6.02	15.48	10.86	17.24
1980--------	5.83	12.57	8.03	16.45
1981--------	5.40	20.49	10.99	17.25
1982--------	5.40	21.75	10.67	16.37
1983--------	6.89	24.75	10.23	17.80
1984--------	6.76	22.89	11.96	19.27

Clearly the Prairie Provinces have lower timber dues than other eastern Canadian provinces. However, the Prairie Provinces have the poorest quality timber, harshest climate conditions, and the most remote sites in all of Canada. Because these Provinces have a concentration of pulp and paper mills, the stumpage prices tend to remain stable.

Market log prices.--In British Columbia, the Council of Forest Industries (COFI) collects data on sales of logs in the Vancouver log market. The data are submitted on a voluntary basis for "arm's-length" transactions and represent about 15 percent of all logs sold in the Vancouver log market. The remaining 85 percent of the logs traded on the Vancouver log market primarily involve intracompany transfers.

In 1984, COFI reported about 0.8 billion board feet of logs sold at an average of US$210.12 per 1,000 board feet, 9 percent below the price in 1983, but only 1 percent above the 1982 price. The volume and average prices of logs sold in the Vancouver log market, as reported by COFI, during 1977-84, are shown in the following tabulation:

Year	Volume (billion board feet)	Average price (per 1,000 board feet)
1977----------	0.9	US$176.87
1978----------	.8	204.76
1979----------	.7	291.66
1980----------	.8	266.66
1981----------	.6	215.70
1982----------	.6	212.48
1983----------	.7	232.11
1984----------	.8	210.12

Cedars (including cypress) were the primary species sold on the Vancouver log market in 1984, as reported by COFI, accounting for about one-half of all timber sales (compared with about 27 percent of the coastal TSHL, TFL, and TSL harvest), which, in part, accounts for the high prices. Other major species

were hemlock (about one-fourth of sales, 38 percent of harvest), Douglas-fir (about one-eighth of sales, 13 percent of harvest), and all other species, (about one-sixth of sales, 22 percent of harvest), the majority of which are select (high-value) logs.

It is estimated that after purchasing softwood logs from the Vancouver log market, a cost of between $5 and $15 per 1,000 board feet is incurred transporting the logs to a mill.

Delivered log prices.--The delivered log prices discussed herein are, by definition, consistent with those discussed in the section on U.S. delivered log prices. Three Provinces produce nearly all of the softwood logs used for softwood lumber production--British Columbia, Quebec, and Ontario. The following tabulation gives average delivered log prices for the aforementioned Provinces and for Canada during 1977-84:

Year	British Columbia		Quebec	Ontario	Total, Canada
	Coastal	Interior			
1977	US$160.97	US$115.38	US$144.16	US$147.15	US$134.14
1978	167.15	130.24	148.31	156.15	144.49
1979	187.21	134.35	162.93	156.14	156.60
1980	219.61	130.63	174.46	163.07	162.86
1981	195.56	128.71	174.54	167.47	156.15
1982	213.72	139.22	172.39	194.25	166.35
1983	223.65	139.96	175.69	184.40	168.62
1984	214.80	140.82	171.85	188.81	166.10

British Columbia had both the high and the low delivered log costs for Canada during 1977-84.

As discussed earlier in the resources section, British Columbia has the most varied terrain in Canada; mountainous on the coastal section and hilly to high plateau on the interior section. The coast is a higher cost area for harvesting and hauling with high-quality timber, whereas, the interior has high harvesting and hauling costs but low-quality timber; thus explaining the cost differentials. Quebec and Ontario are similar in terrain and timber, thus the small difference in costs. They do, however, have a higher incidence of mechanical harvesting that keeps harvesting costs down.

Timber procurement comparisons between the United States and Canada

Stumpage appraisal and selling comparisons.--Stumpage appraisals in the United States and Canada, on both private and government lands, are similar in some cases but for the most part are not. In the United States the resources for softwood lumber producers come equally from three sources; government, private, and industry. However, in Canada nearly all such resources are from Crown lands, specifically Provincial Crown lands. As a result, the appraisal systems are varied. All Provinces, with the exception of British Columbia, in Canada, and nearly all private and industrial lands, in the United States, set stumpage prices, either by regulation (Canada) or based upon the current market value (United States). Such stumpage values are then subject to various adjustments that are normally controlled by the market.

The basic method used for the U.S. Forest Service and British Columbia Ministry of Forestry stumpage appraisal systems is similar. Both begin with an index of end-product values, deducting costs of production to arrive at a residual stumpage value. However, the British Columbia appraised value generally represents the price at which timber is sold, whereas in the Forest Service Region 6 timber sales, the average price at which timber is sold is well above the average appraised value. Key differences between the two appraisal and selling procedures are highlighted below:

- Most companies in Canada hold long-term licenses (tenures that are up to 25 years in length) granting timber rights on public land, whereas in the United States, companies harvesting public timber are required to continually bid on timber and generally have no long-term supply (they must remove the timber contracted for, usually within five years) of public timber.

- Generally, U.S. sales are sold on a competitive bid basis, with final stumpage selling prices more than the appraised value of the timber. British Columbia stumpage rights are granted in longer term tenures, with payments made at appraised values.

- Profit-and-risk allowances range between 9 and 18 percent in USFS appraisals compared with a range of between 10 and 30 percent in British Columbia.

- British Columbia stumpage sales have stumpage rate-adjustment mechanisms, eliminating much of the market risk in poor years, and limiting profit in good years. U.S. Forest Service currently indexes nearly all sales (by volume) to current conditions.

- Coastal British Columbia appraisals are based on Vancouver log market data; British Columbia interior and USFS sales are based on lumber and chip (sometimes plywood and pulp) prices.

- British Columbia public timber accounts for over 90 percent of the total harvest in that Province. U.S. public timber sales account for about one third of the total harvest in the United States. Privately controlled timber is utilized by companies much more so in the United States than Canada. This timber is generally available at a much lower cost than most publicly available timber.

Stumpage and delivered log price comparisons.--Owing to the differences in the measurement systems and the types of timber harvested in the United States and Canada, direct comparisons between the prices paid for stumpage (stumpage and timber dues in Canada) and delivered costs of logs are difficult to make. Of particular concern are the differences resulting because of the various species, quality, and grade of timber marketed.

Softwood timber resources in the United States are divided into three major areas--West, South, and North; Canada has two major areas--British Columbia and Eastern Canada. The areas and sub-areas normally compared with each other are as follows: U.S. Coastal Pacific Northwest and Coastal British Columbia; U.S. South and Interior British Columbia; U.S. inland (east of the Cascades and west of the Great Plains) and Interior British Columbia; and U.S. North and eastern Canada.

In general, the species mix of the U.S. Pacific Northwest is considered more valuable than that of British Columbia. Douglas-fir, a relatively high-valued species, occurs more frequently in Washington and Oregon. In British Columbia, Douglas-fir reaches its northern range limitation; and, therefore, occurs less frequently, and when it does occur, it generally yields a lower quality wood. Of the 1984 sawtimber harvest, about 44 percent of the Region 6 harvest was Douglas fir, compared with about 9 percent of the harvest in British Columbia. Other major species differences are the generally less valuable white spruce and lodgepole pine, which occur more frequently in British Columbia than in the Pacific Northwest, while a higher percentage of the generally more valuable cedars are harvested in British Columbia. Output in the South is composed primarily of southern yellow pine, which does not grow in Canada, and the output in North is composed primarily of balsam fir, northern white spruce, eastern white and red pine, and eastern hemlock, the same species as harvested in eastern Canada.

Overall, the U.S. species mix is primarialy composed of four groupings: Douglas fir; hem-fir; spruce-pine-fir; and southern yellow pine. Canada primarilly has two: hem-fir and spruce-pine-fir.

The price paid for stumpage or logs depends on the grade (quality and size) as well as on the species. Since log prices vary significantly from the lowest grade to the highest, even average prices paid for stumpage with adjustments for species are not completely comparable. There are many different opinions and little quantifiable data on the differences in stumpage and log quality between United States and Canada. To complicate the situation, the log grade specifications of the two countries are different, thus making any comparison a somewhat subjective one.

Timber quality in each country has some advantages over that in the other country. For example, U.S. producers point out that trees in Canada have a better growth ring count (due to slower growth), giving Canadian lumber better strength characteristics than U.S. lumber. Canadian producers, on the other hand, point out that U.S. producers get a higher percentage of knot-free wood. Differences such as these are extremely difficult to evaluate, but it is important to note that the stumpage prices presented here have not been adjusted for grade differences.

Stumpage prices.--Overall, Canadian stumpage prices and timber dues were from 9 to 23 percent of the U.S. stumpage prices. The following tabulation, derived from tables 7 and 9, shows U.S. stumpage prices and Canadian stumpage prices and timber dues, log scale, for 1977-84 (per thousand board feet):

Year	United States	Canada
1977	US$96.41	US$10.16
1978	118.76	21.59
1979	134.37	30.96
1980	122.16	27.48
1981	140.98	12.09
1982	93.57	10.57
1983	105.99	11.63
1984	104.16	11.84

During 1978-81, Canadian stumpage prices and timber dues were equal to about one-fifth of U.S. stumpage prices--this was the period of highest value stumpage since such statistics were kept. However, since 1982, stumpage prices and timber dues have fallen and stabilized at a point where U.S. prices are roughly 10 times the Canadian prices.

In the U.S. West, stumpage prices were generally many times greater than British Columbian prices. As shown in the following tabulation, since 1982, British Columbian prices have been considerably less than prices in the U.S. West (per thousand board feet):

Year	U.S. West	British Columbia
1977	US$114.43	US$9.93
1978	136.96	22.73
1979	162.95	38.84
1980	141.47	36.26
1981	181.88	11.79
1982	109.07	9.68
1983	109.52	11.03
1984	104.10	10.74

In the above comparison, it is apparent that British Columbian prices are more flexible than prices in the U.S. West. The data indicate that prices in the Western U.S. rose 29 percent in 1981. Stumpage prices paid in that year were negotiated as far back as 1976. British Columbian prices in 1981 fell 67 percent.

In the U.S. South, stumpage prices were also generally many times greater than the prices for interior British Columbia stumpage. The following tabulation shows U.S. South and Interior British Columbia stumpage prices during 1977-84(per thousand board feet):

Year	U.S. South	Interior British Columbia
1977	US$69.49	US$6.31
1978	97.51	27.82
1979	95.59	34.69
1980	102.72	19.23
1981	88.84	7.87
1982	78.58	6.28
1983	107.23	6.97
1984	110.44	7.61

As can be seen in the above tabulation, U.S. South stumpage prices trended upward during 1977-84, whereas, interior British Columbian prices after rising in 1978 and 1979, fell before leveling out during 1981-84.

In the U.S. North, stumpage prices during 1977-84 were several times higher than those of Quebec and Ontario. The following tabulation shows the U.S. North, and Quebec and Ontario stumpage prices, during 1977-84 (per thousand board feet):

Year	U.S. North	Quebec and Ontario
1977	US$27.92	US$10.95
1978	31.71	11.94
1979	35.26	12.99
1980	42.11	11.02
1981	46.40	13.23
1982	42.75	12.78
1983	41.36	12.79
1984	41.63	14.61

Delivered log prices.--During 1977-84, delivered log prices in the United States and Canada varied from $14 to $82 per 1,000 board feet. The following tabulation shows U.S. and Canadian delivered log prices, during 1977-84 (per thousand board feet):

Year	United States	Canada
1977	US$148.11	US$134.14
1978	197.62	144.49
1979	221.75	156.60
1980	238.20	162.86
1981	235.81	156.15
1982	186.00	166.35
1983	198.22	168.62
1984	204.99	166.10

Delivered log prices for both the United States and Canada trended upward during 1977-84. U.S. prices rose by $56.88 per thousand board feet, or 39 percent, and Canadian prices rose $31.96 per thousand board feet, or by 24 percent.

On the basis of area, the U.S. West had the highest prices for delivered logs between the two countries and interior British Columbia had the lowest. The following tabulation shows delivered log prices for the three primary producing regions in the United States, and for interior and coastal British Columbia, and for Quebec and Ontario, 1977-84:

Year	United States			Canada		
				British Columbia		Quebec and Ontario
	West	South	North	Coastal	Interior	
	Per thousand board feet					
1977	US$194.13	US$117.07	US$104.53	US$160.97	US$115.38	Us$145.19
1978	231.42	147.68	112.51	167.15	130.24	151.50
1979	274.20	139.98	125.20	187.21	134.35	160.67
1980	299.76	154.61	129.44	219.61	130.63	170.42
1981	312.46	130.51	145.75	195.56	128.71	172.01
1982	237.83	123.09	146.72	213.72	139.22	180.49
1983	231.76	156.62	141.29	223.65	139.96	187.63
1984	237.44	164.54	143.20	214.80	140.82	178.00

These are aggregate figures for all species and log grades; quantifiable data are not available and are extremely difficult to estimate.

Federal Timber Contract Payment Modification Act

The purpose of the Federal Timber Contract Payment Modification Act (the act) is to permit a requesting Federal timber contract holder (holder) to return to the Government a volume of the holder's contracts upon payment of a buy-out charge. The holder will thus be released from further obligation under such contract upon payment of the buy-out charge and completion of agreed obligations (e.g., roadbuilding). Appendix N shows the most recent Forest Service rule changes.

To qualify for relief under the act, a holder must have a contract bid prior to January 1, 1982, and still have possession of it. A holder of more than 27.3 million board feet of timber under contract, shall be entitled to buy out 55 percent of such timber volume up to a maximum of 200 million board feet. Such percentage limitation may be exceeded by a volume amount not exceeding the size of the smallest contract covered by the act, so long as the total does not exceed 200 million board feet. A holder having a contract(s) totaling 27.3 million board feet or less shall be entitled to buy out up to 15 million board feet or one contract, which ever is greater in volume.

The holder's loss on any qualifying contracts is determined by subtracting the current delivered log value from the delivered log cost based on the original bid price. If such loss is in excess of 100 percent of the net book worth of the holder, the buy-out loss shall be $10 for every thousand board feet of timber to be bought out. When the loss is in excess of 50 percent but not more than 100 percent, of the holder's net book worth, the buy-out cost is 10 percent of the contract overbid but at least $10 for every thousand board feet to be bought out. For any loss that is 50 percent or less of the holder's net book worth, the buy-out cost is 15 percent of the contract overbid but at least $10 for every thousand board feet to be bought out. A holder may otherwise elect to pay 15 percent of the contract bid in lieu of utilizing loss and net book worth determinations.

The following tabulation shows, by region, the U.S. Forest Service's timber under contract, as of September 30, 1984, with the expected "buy-out" (in millions of board feet):

Region	Volume under contract	Total expected buy-out	Uneconomical
1----------	3,986	1,000	0
2----------	1,227	0	0
3----------	1,125	0	0
4----------	1,004	0	0
5----------	6,975	3,400	2,200
6----------	18,336	7,400	3,000
8----------	2,870	0	0
9----------	1,909	0	0
10----------	460	0	0
Total----	37,892	11,800	5,200

As of the end of the U.S. Forest Service's 1984 fiscal year (September 30, 1984), approximately 37.9 billion board feet of timber was still under contract. It is estimated that about 11.8 billion board feet of this total will be "bought-out" under the act, principally in Regions 1, 5, and 6. With the exception of about 5.2 billion board feet of uneconomical timber, the remaining 20.9 billion board feet currently under contract will be harvested.

Industry Comparisons

Historically, Canadian producers have produced about half as much softwood lumber as U.S. producers, however, since 1978, Canadian production has risen to nearly two-thirds as much as production in the United States. The United States had about five times as many sawmills and planing mills as Canada and over 2-1/2 times as many employees during 1982-84. U.S. employees worked about 300 hours more per year than their Canadian counterparts during this period, however, the Canadian employee produced about 100 board feet more softwood lumber per hour than U.S.employees. Since 1982, the Canadian employees have produced 28 percent more softwood lumber compared with 16 percent by the U.S. employees.

United States

U.S. Department of Commerce data indicate that 6,316 establishments produced softwood and hardwood lumber in the United States in 1982; of these, 1,557 (13 percent) had more than 20 employees. From 1977 to 1982, the number of mills steadily decreased owing to a variety of factors, but mainly because of improved technology, resulting in stiff competition and centralization, closing of inefficient mills, and, after 1979, because of decreased demand for wood products in the United States and in important foreign markets. The number of establishments increased to 6,540 in 1983 and 6,570 in 1984, reflecting a resurgence of demand for wood products by the housing industry. The number of establishments producing both hardwood and softwood lumber during 1977-84 is shown in the following tabulation (1977 and 1982 are Census-base years; data for the remaining years are estimates based on data obtained from industry sources):

Year	Establishments
1977	7,544
1978 1/	7,540
1979 1/	7,230
1980 1/	7,010
1981 1/	6,690
1982	6,316
1983 1/	6,540
1984 1/	6,570

1/ Estimated by the staff of the U.S. International Trade Commission.

These establishments are located throughout the United States, although the majority of production is concentrated in the Pacific Northwest (West) and the Gulf States (South). These concentrations in 1982, by regions and selected States are shown in the following tabulation: 1/

1/ Annual Lumber Review and Buyers Guide, Forest Industries, Miller Freeman Publications, San Francisco, June 1984.

Region and State	Establishments
North	2,116
Maine	134
South	3,050
North Carolina and South Carolina	614
Georgia, Alabama, and Mississippi	678
Texas and Arkansas	354
Virginia	411
West	1,150
Oregon and Washington	510
Montana and Idaho	175

U.S. production of softwood lumber is concentrated in the West, where the remaining old-growth, high-quality timber is located and in the South where plantations of southern yellow pine (SYP) have reached merchantable size. These regions account for approximately 58 percent and 38 percent, respectively, of U.S. softwood lumber shipments. The highest concentration of large mills are also in these regions; in 1984, 264 mills each produced 25 million board feet or more in the West, compared with 120 mills in the South and 16 mills in the North.

Although there are large corporations with high volumes of production, most of the softwood lumber producers are small firms. In 1984, the 5 largest producers accounted for approximately 27 percent of U.S. softwood production, and the 50 largest firms accounted for approximately 62 percent; both are down from the all-time highs of 29 and 83 percent, respectively, in 1982 (table 10). It is estimated that there are about 400 mills with annual production exceeding 25 million board feet, and 800 mills with annual production greater than 10 million board feet.

According to Department of Commerce statistics, 1/ employment in the hardwood and softwood sawmill and planing mill industry increased from 155,800 production workers in 1977 to 163,500 in 1979 before falling to a 10-year low of approximately 113,900 production workers in 1982. However, beginning with the increase in production in late 1982, employment began to increase, reaching 141,500 in 1984. 2/

Although neither the Department of Commerce nor the Bureau of Labor Statistics (BLS) provides separate data for the softwood lumber industry, a report 3/ submitted by the International Woodworkers of America (IWA) utilizing BLS statistics (ES 202 series), shows calculated employment for softwood sawmills and planing mills, and logging camps and logging contractors during 1977-84:

1/ U.S. Department of Commerce, 1982 Census of Manufactures, 1985.

2/ There are numerous mills, some of which are portable, that the U.S. Bureau of the Census does not include in its data. These have been estimated to number approximately 25,000, and account for less than 10 percent of production.

3/ J. Douglas Smyth, Employment and Employee Hours in the Softwood Lumber and Wood Products Industries of North America, 1977 to 1984, July 1985.

Year	Softwood sawmills and planing mills	Logging camps and logging contractors
1977-------	158,010	87,870
1978-------	161,079	89,587
1979-------	163,170	92,979
1980-------	147,429	87,540
1981-------	139,235	81,714
1982-------	121,648	75,166
1983-------	129,749	82,448
1984-------	137,061	86,139

As indicated, the IWA data show that the number of employees engaged in the manufacturing of softwood lumber fell from 163,000 employees in 1979, the peak year for the period, to 122,000 employees in 1982, or by 25 percent. However, in 1983 and 1984, such employment rose 7 and 13 percent, respectively, to 137,000 employees in 1984. A similar trend occurred in the logging industry during 1977-84.

Table 11 shows comparative employment data for hardwood and softwood sawmills and planing mills, softwood veneer and plywood, and all other wood products industries in U.S. Department of Commerce industry group SIC 24. As indicated, production workers in the sawmill and planing mill industries accounted for one-fourth of the total SIC 24 productive workforce during 1977-82. Prior to 1980, the sawmill and planing mill industries had better than average value added per production worker, but starting in 1980 and continuing through 1982, the average value added per production worker fell, primarily in response to the declining housing starts in the United States. The following tabulation shows the value added per production worker, for hardwood and softwood sawmills and planing mills, softwood veneer and plywood, and all wood products (SIC 24), 1977-84:

Year	Sawmills and planing mills	Softwood veneer and plywood	All wood products
1977------	US$28,580	US$37,797	US$27,274
1978------	34,458	42,878	30,669
1979------	35,318	34,256	31,815
1980------	30,615	31,464	30,995
1981------	29,475	28,263	31,852
1982------	28,424	26,736	32,007

According to statistics of the Bureau of the Census, the average hours worked per man, per year, in hardwood and softwood sawmills and planing mills, trended downward during 1977-82. The following tabulation shows U.S. average annual hours worked per man, per year, during 1977-84:

Year	Average hours worked per man, per year
1977	2,026
1978	1,988
1979	2,030
1980	1,955
1981	1,953
1982	1,864
1983 1/	1,927
1984 1/	1,941

1/ Estimated by the staff of the U.S. International Trade Commission.

During 1977-84, the average annual hours worked fluctuated from a high of 2,030 hours in 1979 to a low of 1,864 hours in 1982.

U.S. employees' productivity 1/ fluctuated during 1977-84. The following tabulation shows softwood lumber employees, as calculated by the IWA, total softwood lumber produced, and productivity per employee:

Year	Number of employees	Softwood lumber production (million bd. ft.)	Production per employee (board feet)
1977	158,010	32.9	208,405
1978	161,079	33.3	206,718
1979	163,170	32.5	199,399
1980	147,429	27.3	185,418
1981	139,235	25.8	185,061
1982	121,648	25.1	206,719
1983	129,749	31.6	243,640
1984	137,061	32.8	239,200

Overall softwood lumber employment fell by 41,522 employees between 1979 (the highest employment year) and 1982 (the lowest); however, 15,413 employees were added from 1982 to 1984.

Productivity increased during 1982-84 after a steady decline during 1977-81. This increased productivity was a result of the use of improved technology (machinery) that resulted in fewer employees producing more lumber. The majority of this increase was in the west. The following tabulation shows productivity, for each softwood lumber employee per year, by regions, during 1977-84 (in board feet):

1/ The term productivity is defined here as output per employee, or simply the number of board feet of lumber produced per employee, per year, on the basis of IWA employment statistics.

Year	North	South	West
1977	192,719	163,396	242,670
1978	193,072	164,757	239,670
1979	162,373	164,280	229,806
1980	166,797	156,691	210,679
1981	99,315	167,454	209,645
1982	144,182	191,320	227,428
1983	173,820	213,706	277,590
1984	172,176	207,337	274,682

As indicated, productivity in all regions trended downward during 1977-80 before leveling off in 1981 (except in the North, where fewer softwood lumber employees were layed off, thus resulting in abnormally low productivity in that year). During 1982-84, productivity rose for all regions, as the use of improved technology allowed fewer employees to produce more softwood lumber.

In the U.S. softwood lumber industry, the hours worked fell during 1977-81, as did the productivity, thus, dropping from 103 board feet per hour worked in 1977 to 94 board feet per hour worked in 1981. However, starting in late 1982, hours worked and productivity increased, which resulted in hourly productivity rising to 123 board feet in 1984. A result of this fall and rise is the increase and then decrease in unit wage rates that are discussed in the production methods and costs section of this report.

Canada

Statistics Canada reports that in 1982 there were 1,223 hardwood and softwood lumber sawmills and planing mills in Canada, concentrated principally in Quebec (396), British Columbia (319), and Ontario (221). 1/ However, over 90 percent of these mills and associated employment are engaged in softwood lumber production only. Of the 1,223 establishments in 1982, 427 had 20 or more employees (35 percent of the total). The number of Canadian establishments during 1977-84 is shown in the following tabulation:

Year	Establishments
1977	1,132
1978	1,226
1979	1,308
1980	1,317
1981	1,313
1982	1,223
1983 1/	1,272
1984 1/	1,278

1/ Estimated by the staff of the U.S. International Trade Commission.

Canadian production of softwood lumber is concentrated in British Columbia, where an abundance of high-quality timber is located. In 1984, each establishment in British Columbia had approximately 90 employees compared with

1/ Statistics Canada, Sawmills and Planing Mills and Shingle Mills, 1982, 1984.

31 employees per establishment in Quebec and 27 in Ontario. Clearly the majority of the large mills are in British Columbia--the coastal region of British Columbia averages 106 employees per establishment verses 82 in the interior. Concentration by size among the Canadian producers is similar to that for the U.S. producers, even though there are fewer Canadian mills overall.

In 1984, the 5 largest Canadian producers accounted for about 24 percent of all Canadian softwood lumber production, and the 50 largest producers accounted for 72 percent (table 10).

Total employment in the Canadian sawmill and planing mill industry increased from 58,934 people in 1977 to 66,551 in 1979 before falling to 51,917 in 1982. Comparative data for sawmills and planing mills in Canada are shown in table 12 and data for the principal producing Provinces for 1982 are given in the following tabulation (all dollars are converted to U.S. dollars):

Item	Production workers	Man-hours worked	Wages	Value added per production worker	Value added per production worker-hour
	Number	Millions	Million dollars		
Canada	44,711	86.3	$789.3	$25,624	$13.27
British Columbia:					
Coast	9,901	18.1	228.1	28,477	15.55
Interior	14,718	27.0	318.1	28,867	15.71
Quebec	9,744	21.1	136.0	29,178	13.47
Ontario	4,976	9.9	71.7	25,671	12.93

The value added per production worker-hour in the interior and coastal regions of British Columbia exceeds the average for all Canada and for Ontario and Quebec.

In Canada, the average hours worked per man, per year, in sawmills and planing mills rose during 1977-80 and then fell in 1981 and 1982. The following tabulation shows average man-hours worked per man, per year, and Canadian softwood lumber production during 1977-84:

Year	Hours worked 1/	Softwood lumber production (million board feet)
1977	1,658	17.2
1978	1,660	18.4
1979	1,804	18.5
1980	1,804	18.3
1981	1,598	16.5
1982	1,557	15.5
1983	1,619	20.1
1984	1,678	20.6

1/ Estimated by the staff of the U.S. International Trade Commission using Statistics Canada data and industry sources.

Table 10.--Softwood lumber: U.S. and Canadian production, by the 5 largest, and the 50 largest producers, 1977-84

Year	All producers	5 largest producers		50 largest producers	
	Million board feet	Million board feet	Percent of total production	Million board feet	Percent of total production
United States					
1977	32,930	7,117	21.6	18,477	56.1
1978	33,298	8,266	24.8	19,366	58.2
1979	32,536	8,078	24.8	18,864	58.0
1980	27,336	6,794	24.9	16,402	60.0
1981	25,767	6,931	26.9	17,349	67.3
1982	25,147	7,210	28.7	20,820	82.8
1983	31,612	8,721	27.6	25,739	81.4
1984	32,785	8,973	27.4	20,334	62.0
Canada:					
1977	17,225	3,983	23.1	11,633	67.5
1978	18,412	4,188	22.7	12,604	68.5
1979	18,494	4,143	22.4	11,956	64.6
1980	18,296	3,995	21.8	12,050	65.9
1981	16,492	3,489	21.2	10,343	62.7
1982	15,548	3,293	21.2	10,053	64.7
1983	20,149	4,365	21.7	13,312	66.1
1984	20,588	4,829	23.5	14,863	72.2

Source: Forest Industries, May of 1978-85.

Table 11.--Number of production workers, man hours worked, wages paid, value added per production worker, and value added per production worker hour in U.S. industries, (SIC 24) 1977-82

Year and industry	Production workers	Man-hours worked	Wages	Value added per production worker	Value added per production worker-hour
			Million U.S. dollars		
	Number	Millions			
1977:					
Sawmills and planing mills	155,800	315.6	$1,622.7	US$28,580	US$14.11
Softwood veneer and plywood	41,900	89.4	556.9	37,797	17.71
All wood products	594,800	1,147.6	5,795.0	27,274	14.14
1978:					
Sawmills and planing mills	153,300	304.8	1,766.1	34,458	17.33
Softwood veneer and plywood	42,700	91.2	641.2	42,878	20.08
All wood products	618,600	1,188.0	6,495.6	30,669	15.97
1979:					
Sawmills and planing mills	163,500	331.9	2,013.6	35,318	17.40
Softwood veneer and plywood	43,300	87.8	679.9	34,256	16.89
All wood products	632,200	1,221.0	6,989.9	31,815	16.47
1980:					
Sawmills and planing mills	151,800	296.8	1,888.9	30,615	15.66
Softwood veneer and plywood	37,500	73.3	608.4	31,464	16.10
All wood products	581,700	1.097.7	6,719.9	30,995	16.43
1981:					
Sawmills and planing mills	139,600	272.7	1,855.5	29,475	15.09
Softwood veneer and plywood	35,300	69.6	614.6	28,263	14.33
All wood products	543,800	1.035.4	6,752.9	31,852	16.73
1982:					
Sawmills and planing mills	131,900	219.5	1,651.7	28,424	14.75
Softwood veneer and plywood	31,100	63.7	568.6	26,736	13.05
All wood products	480,400	869.9	6,439.7	32,007	17.68

Source: U.S. Department of Commerce, Bureau of the Census, Census of Manufactures, 1977 and 1982, and Annual Survey of Manufactures, 1979 and 1981.

Table 12.--Comparative Canadian employment data for sawmills and planing mills, by selected Provinces, 1977-82

Item	Production workers	Man-hours paid	Wages	Value added per production worker	Value added per production worker hour
			Million U.S. dollars		
	Number	Millions			
1977: Canada	51,532	107.8	$728.5	US$31,359	US$14.98
British Columbia:					
Coast	13,004	26.6	224.7	34,069	16.65
Interior	16,966	33.8	276.3	38,979	19.56
Quebec	10,679	24.1	110.0	24,145	10.72
Ontario	5,156	11.1	57.6	24,892	11.59
1978: Canada	56,101	117.7	794.5	35,263	16.80
British Columbia:					
Coast	13,989	28.5	240.0	36,294	17.79
Interior	18,043	35.9	291.8	44,424	22.30
Quebec	12,194	27.7	131.9	27,136	11.96
Ontario	5,752	12.3	65.6	30,070	14.11
1979: Canada	57,441	122.0	889.6	38,780	18.26
British Columbia:					
Coast	14,083	28.7	263.5	39,652	19.46
Interior	18,360	37.7	330.9	45,405	22.11
Quebec	12,668	28.8	147.5	34,637	15.23
Ontario	5,956	12.9	73.4	34,696	16.05
1980: Canada	55,903	118.8	968.3	31,889	15.01
British Columbia:					
Coast	12,673	26.7	278.1	32,910	15.99
Interior	18,007	37.0	362.3	36,475	17.74
Quebec	12,541	28.5	162.6	30,330	29.58
Ontario	6,009	12.9	83.3	28,383	13.26
1981: Canada	52,916	105.4	899.9	28,810	14.46
British Columbia:					
Coast	11,975	22.1	252.1	27,255	14.77
Interior	16,720	31.9	336.1	32,683	17.12
Quebec	12,308	26.3	163.9	29,095	13.60
Ontario	5,647	12.0	83.5	29,174	13.78
1982: Canada	44,711	86.3	789.3	25,624	13.27
British Columbia:					
Coast	9,901	18.1	228.1	28,477	15.55
Interior	14,718	27.0	318.1	28,867	15.71
Quebec	9,744	21.1	136.0	29,178	13.47
Ontario	4,976	9.9	71.7	25,671	12.93

Source: Statistics Canada.

Although Canadian softwood lumber production reached record levels in 1983 and 1984, the average number of hours worked was slightly below the 1977-80 level, a result of increased productivity per man hour worked.

The productivity 1/ of employees producing Canadian softwood lumber rose during 1977-84. The following tabulation shows the number of employees, total lumber produced, and productivity per employee during 1977-84:

Year	Number of employees	Softwood lumber production (million bd. ft.)	Production per employee (board feet)
1977----------	58,934	17.2	292,276
1978----------	64,450	18.4	285,679
1979----------	66,551	18.5	277,892
1980----------	64,150	18.3	285,207
1981----------	61,261	16.5	269,209
1982----------	51,917	15.5	299,478
1983 1/-------	55,055	20.1	365,979
1984 1/-------	52,997	20.6	382,814

1/ International Woodworkers Association estimates.

As shown in the preceding tabulation, the overall number of employees working in the Canadian softwood lumber industry has declined by 13,554 between the peak in 1979 and 1984. Productivity increased by 105,000 board feet per employee during the same period.

The majority of the increase in productivity occurred in the interior region of British Columbia. The following tabulation shows productivity per employee, per year, by selected Provinces and regions, 1977-84 (in board feet):

	British Columbia				
Year	Interior	Coastal	Quebec	Ontario	All other
1977----	394,526	332,159	209,627	227,604	212,229
1978----	377,801	299,869	203,935	235,494	219,592
1979----	370,370	290,427	199,480	221,951	214,881
1980----	372,858	281,050	210,641	259,794	236,857
1981----	354,579	249,603	197,255	265,396	237,785
1982----	363,127	210,631	223,913	274,758	253,739
1983----	497,430	351,657	281,168	299,552	274,038
1984----	510,660	342,308	295,837	409,840	322,222

The annual employee output in the interior region of British Columbia increased by 116,000 board feet during 1977-84, and productivity in Ontario nearly doubled. The overall increase in productivity resulted from two main factors: (1) the use of improved technology--more efficient equipment and milling techniques; and (2) the narrowing of product lines--producing mostly dimension lumber.

1/ The term productivity is defined here as the number of board feet of lumber produced per employee, per year.

During 1977-84, the hours worked trended downward and productivity trended upward; hence, productivity per hour worked increased. Such productivity increased from 140 board feet of softwood lumber produced per hour worked in 1977 to 185 board feet in 1984, or by 32 percent. The ultimate effect on Canadian softwood lumber production is the lowering of unit wage rates, which is discussed in the production methods and costs section of this report.

U.S. ownership in the Canadian sawmill industry accounts for about 10 percent of all lumber production in Canada. In British Columbia, U.S. ownership is even more significant; 10 U.S.-owned firms produce nearly 20 percent of that Province's production, representing about 2.5 billion board feet in 1980. 1/ Total production of firms in British Columbia in which U.S. companies held some ownership was 5.7 billion board feet in 1980. 2/

Comparison of U.S. and Canadian industries

In general, the Canadian and U.S. industries are similar in structure. The Canadian industry is slightly more concentrated and has a greater percentage of large mills compared with the industry in the United States. Although the U.S. industry historically was more concentrated with respect to the top 5 and 50 producers, in 1984, the differences were not great. Overall the U.S.industry is less concentrated, more widely dispersed, and mills are generally of smaller size than the Canadian industry.

During 1977-81, the United States had a net loss of producing establishments (down by 854) and Canada had a net gain of producing establishments (up by 181). However, during 1982-84 both the United States and Canada had net gains of establishments; U.S. and Canadian establishments increased by 254 and 55 mills, respectively. The following tabulation compares the number of sawmill and planing mill establishments in both the United States and Canada during 1977-84:

Year	United States	Canada
1977	7,544	1,132
1978	7,540	1,226
1979	7,230	1,308
1980	7,010	1,317
1981	6,690	1,313
1982	6,316	1,223
1983 1/	6,540	1,272
1984 1/	6,570	1,278

1/ Estimated by the staff of the U.S. International Trade Commission.

As shown in the preceeding tabulation, the United States has normally had five times as many establishments as Canada. In 1984, the U.S. industry produced nearly 60 percent more softwood lumber, utilizing over 60 percent more employees than its' Canadian counterpart. The number of employees in the softwood lumber industry for both the United States and Canada during 1977-84, is shown in the following tabulation:

1/ Annual Lumber Review and Buyers Guide, Forest Industries, Miller Freeman Publisher, San Francisco, May 1981.

2/ "Consolidation of material presented to the International Trade Commission," Canadian Softwood Lumber Committee, February 1982, p. 3.

Year	United States	Canada
1977	158,010	58,934
1978	161,079	64,450
1979	163,170	66,551
1980	147,429	64,150
1981	139,235	61,261
1982	121,648	51,917
1983 1/	129,749	55,055
1984 1/	137,061	52,997

1/ Estimated by the staff of the U.S. International Trade Commission.

As discussed earlier, Canada has a larger proportion of establishments with 20 or more employees in the softwood lumber industry than the United States. In the following tabulation, the number of employees per establishment in the United States and Canada is shown for 1977-84:

Year	United States	Canada
1977	20.9	52.1
1978	21.4	52.6
1979	22.6	50.9
1980	21.0	48.7
1981	20.8	46.7
1982	19.3	42.5
1983 1/	19.8	43.3
1984 1/	20.9	41.7

1/ Estimated by the staff of the U.S. International Trade Commission.

Traditionally, Canadian softwood sawmills and planing mills have had more than twice the number of employees per establishment as their U.S. counterparts. However, in recent years, this differential has slipped as the number of "satellite mills" (independent sawmills that produce lumber from logs supplied by firms having a larger allowable cut than they can use) has increased. This predominates in Quebec and Ontario.

A comparison of the value added per production worker-hour for the U.S. and Canadian sawmill and planing mill industries indicates that in most years U.S. mills have a higher value added per production worker-hour than do Canadian mills. The several factors that may have a bearing on this condition include differences in technology, production costs, material costs, labor skills, and the quality of raw materials. These matters are discussed in other sections of this report. In the following tabulation, the value added per production worker-hour in U.S. and Canadian sawmills and planing mills is compared for 1977-82:

Year	United States	Canada
1977	US$14.11	US$14.98
1978	17.33	16.80
1979	15.66	18.26
1980	15.09	15.01
1981	14.75	14.46
1982	14.75	13.27

This indicator shows a close similarity between the industries of the two countries. The value added by U.S. and Canadian production workers trended upward during 1977-79, but, as the production of softwood lumber slumped, in conjunction with the decline in U.S. housing starts, the value added fell during 1980-82.

The number of hours worked per employee, per year in the U.S. and Canadian softwood sawmill and planing industries during 1977-84, is shown in the following tabulation:

Year	United States	Canada	Percentage difference in hours worked per employee in Canada versus that in the United States
1977----	2,026	1,658	18.2
1978----	1,988	1,660	16.5
1979----	2,030	1,804	11.1
1980----	1,955	1,804	7.7
1981----	1,953	1,598	18.2
1982----	1,864	1,557	16.5
1983----	1,927	1,619	16.0
1984----	1,941	1,678	15.6

As shown in the previous tabulation, the employees in the U.S. industry worked more hours per year than did their Canadian counterparts. In the following tabulation, the productivity for employee, per year in the softwood lumber industry for both the U.S. and Canadian industries is compared for 1977-84 (in board feet):

Year	United States	Canada	Percent difference of productivity in Canada versus the United States
1977-----	208,405	292,276	40.2
1978-----	206,718	285,679	38.2
1979-----	199,399	277,892	39.4
1980-----	185,418	285,207	53.8
1981-----	185,061	269,209	45.4
1982-----	206,719	299,478	44.9
1983-----	243,640	365,979	50.2
1984-----	239,200	382,814	60.0

As shown in the above tabulation, Canadian employees outproduce their U.S. counterparts. Although the hours worked has some bearing upon this difference, the majority of the difference is attributed to the United States having a larger proportion of small mills (with less than 20 employees) that are not as efficient as the larger mills. Also, a Canadian mill having equal output to that of a U.S. mill, generally has fewer employees than its U.S. counterpart.

During 1977-84, the Canadian softwood sawmill employee produced more softwood lumber per hour worked than his U.S. counterpart, even though U.S. employees worked more hours than Canadian employees. The following tabulation presents hourly productivity for U.S. and Canadian employees in softwood sawmills and planing mills, during 1977-84 (in board feet):

Year	United States	Canada
1977--------	103	176
1978--------	104	172
1979--------	98	154
1980 -------	95	158
1981 -------	95	168
1982--------	111	192
1983 -------	126	226
1984--------	123	228

As indicated in the previous tabulation, both U.S. and Canadian softwood sawmill and planing mill employees experienced a decline in hourly productivity during 1977-81. However, starting in mid-1982, such hourly productivity increased; Canadian hourly productivity rose 36 percent compared with 33 percent for the United States.

Generally, Canadian firms are more profitable than U.S. firms because of increased productivity of capital and the higher prices they receive for their lumber. The following tabulation shows the ratio of sales to noncurrent assets (NC) for U.S. and Canadian firms (in percent): 1/

Year	Ratio of U.S. sales to NC assets	Ratio of Canadian sales to NC assets
1977----------	1.6	2.3
1978----------	1.7	2.4
1979----------	1.7	2.4
1980----------	1.4	2.0
1981----------	1.3	1.6
1982----------	1.3	1.4

These figures support the notion that Canadian firms generate a higher value of sales for each dollar invested in physical capital. This circumstance may change since Canada is now investing in plant and equipment for the forestry sector at a faster rate than the United States. Between 1977 and 1982, the value of noncurrent assets rose by 101 percent in Canada and 46 percent in the United States. Because Canadian firms have derived a productivity advantage from this new capital, the differential in profitability between U.S. and Canadian firms should increase because of this capital. The data for the forestry sector during 1977-82 reflect a significant narrowing of the Canadian-U.S. profitability differential subsequent to 1979. During 1979-82, Canadian noncurrent assets rose by

1/ The figures in the tabulation were derived from Corporation Source Book, 1977-82, Internal Revenue Service, U.S. Department of Treasury, and Corporation Financial Statistics, 1977-82, Statistics Canada.

55.5 percent while U.S. noncurrents assets grew only 7.5 percent. U.S. capacity essentially declined in 1982 since noncurrent assets fell 10.3 percent. Overall, the effect of these capacity adjustments is to cause a convergence in rates of return for U.S. and Canadian lumber firms. A stabilization in the number of U.S. lumber firms and their capacity would indicate an end to the adjustment process.

Production Methods and Costs

In general, the U.S. and Canadian softwood lumber industries use the same production methods. Both industries have access to the same technology. Plant size, layout, and capital equipment differ no more between U.S. and Canadian mills than they do between mills in different regions within each country. Conditions found in processing and product mix do not vary significantly when mill size and the quality and volume of raw material available are similar. When mills in adjacent areas along the U.S.-Canadian border are compared, differences noted in production methods are minimal.

Differences in costs of production result mostly from the quality of material available, product mix, and Federal, State, and Provincial regulations. For two similar mills in proximity to each other but on different sides of the border, the quality of raw materials is essentially the same, and the output or product mix of these mills will be similar if they are operated at optimum efficiency. The United States has a slightly larger supply of softwood growing stock of higher quality, whereas Canada has a larger area of supply and a larger supply of old growth. This old growth is primarily wood that is unfavorable in location and quality. However, due to legislation, old growth must be harvested before second growth may be used. The growth rates for much of the U.S. softwood supply are significantly higher than those for Canada, due generally to a more favorable growth climate, which will likely continue to give the United States a competitive advantage in quality raw material supply, as faster growing second- and third-growth timber becomes available. A discussion of the quality and extent of resources available to the U.S. and Canadian industries is presented in this report in the "Forest Resources" and "Timber Procurement" sections.

At the present time, the product mix differs significantly from region to region within the United States and to a lesser extent in Canada. Significant volumes of old- and second-growth, large-diameter timber in the coastal areas of western Oregon, western Washington, and British Columbia make these regions important suppliers of large dimension, and clear (free from knots and defects) lumber. The amount of high-grade clear lumber that can be cut from this material is significantly greater than that for old- and second-growth timber of smaller diameter. In the interior of British Columbia, slower growing white spruce, and to some extent fir and pine, yield a product with certain higher strength characteristics than that of similar species found in the northern and central Rocky Mountain regions of the United States. This timber, on the average, is of a smaller diameter and yields a smaller proportion of large dimension lumber, but owing to its high structural qualities, it is very suitable for 2"x4" framing lumber and smaller dimension lumber (e.g.,1"x2", 1"x3"). As a result, this region produces a predominance of material that homebuilders and millwork producers prefer.

U.S. and Canadian Government regulations regarding the forest resource affect costs in two ways. First, any regulation requiring operations not normally undertaken by loggers or manufacturers adds to the cost of production. Second, the regulation and management of forest resources owned by Government agencies can have significant cost effects on timber from both Government and private lands; in the United States, Government ownership of the resource is most significant in the West. In the Western United States,

ownership is nearly equally shared between the Federal Government and all other ownerships, although the Government holds the highest volume of second growth and remaining old-growth material. In Canada, although there are important private holdings, the Provincial Governments are by far the leading forest resource owners (See "Forest Resources"). In the South, industrial owned timber lands and lands under contract predominate; the North has both large industrial timberlands and private timberlands.

In the Western United States, two segments of the industry are apparent; those dependent on the Government and others for timber, and those with sufficient or nearly sufficient supplies to meet their own needs. Many of the larger producers fall in the latter catagory. The largest 40 producers in the United States own about 60 percent of the industry-owned timberlands. Such a condition gives these firms much more flexibility in keeping costs to a minimum, especially the delivered cost of wood. These firms have the choice of cutting their own timber, purchasing timber, or a combination of both. The timber owned by these firms (fee timber) was often acquired at a low cost and as such represents a cost advantage to these firms when processed in their mills. Even so, the cost to these firms could be considered to be the income given up by not selling their timber or logs to other processors. These firms have the option of getting the highest return on their investment by processing logs into lumber, selling the logs outright, or by some combination of both.

Comparison of variable costs 1/ between the United States and Canada

The costs of producing softwood lumber are divided between variable and fixed costs. Because fixed costs are affected differently in the United States and Canada (U.S. firms can purchase land, whereas in Canada it is hard to find significant lands to purchase), this section will deal mostly with variable costs. The relationships between variable costs within States and Provinces, and between countries, are consistent with those determined by others, such as Data Resources, Inc. (DRI) of Lexington, Mass., in their model for the forest products industry, FORSIM, and with submissions made to the Commission by the International Woodworkers of America (IWA).

Tables 13 and 14 outline the selected costs of production for U.S. and Canadian sawmills, respectively, for 1977, 1979, and 1981-84. In 1984, materials and unit labor costs 2/ before residual income is deducted, accounted for 70 and 30 percent, respectively, of U.S. variable production costs, and 73 and 27 percent, respectively, of Canadian production costs. Delivered wood costs, as a share of total costs in the United States, dropped from 64 percent in 1977 to 58 percent in 1984. In Canada, wood costs rose from 51 percent in 1977 to 54 percent in 1984. In 1984, Oregon and Washington collectively had the highest average material and labor costs of all selected States and Provinces. These two States had an average cost of $306 per 1,000 board feet of production compared with lows of $226 for Maine, and $198 for interior British Columbia.

1/ The costs of materials and wages were determined from statistics of the U.S. and Canadian Governments, and industry sources (tables 13 and 14); all values are stated in U.S. dollars.

2/ Unit labor costs are defined herein as the total cost (compensation) of all softwood lumber employees (e.g., production workers, office staff, sales force) divided by the softwood lumber production.

Table 13.--Lumber: Average U.S. costs of materials and labor, by specified States, and areas, of the United States, 1977, 1979, and 1981-84

(Per thousand board feet, lumber tally)

Item	Maine			North			Georgia and Louisiana			South		
	1977	1979	1981	1977	1979	1981	1977	1979	1981	1977	1979	1981
Materials and other costs	US$118	US$138	US$150	US$113	US$125	US$148	US$102	US$122	US$121	US$118	US$137	US$134
Wood (delivered)	86	107	115	85	96	113	82	99	93	98	114	104
Fuel and energy	6	7	7	4	5	6	5	6	7	5	6	7
Other	20	24	28	24	24	29	15	17	21	15	17	23
Unit labor costs	36	53	76	38	54	75	56	58	63	61	64	65
Total costs	154	191	226	151	179	223	158	180	184	179	201	199
Residual unit values	31	39	57	57	54	59	32	39	57	30	36	54
Total	123	152	169	94	125	164	125	141	127	149	165	145

Item	Oregon and Washington			Idaho			West			Total, United States		
	1977	1979	1981	1977	1979	1981	1977	1979	1981	1977	1979	1981
Materials and other costs	US$177	US$231	US$276	US$141	US$195	US$199	US$169	US$229	US$267	US$137	US$240	US$215
Wood (delivered)	160	210	249	129	178	181	153	209	242	119	218	186
Fuel and energy	6	7	10	3	4	5	5	6	8	5	6	7
Other	11	14	17	9	13	13	11	14	17	13	16	20
Unit labor costs	68	76	87	73	81	87	71	78	87	67	73	79
Total costs	245	307	363	214	276	286	240	307	354	204	313	292
Residual unit values	25	28	53	12	12	49	21	34	51	24	35	52
Total	220	279	310	202	264	237	219	273	303	180	278	240

Item	Maine			North			Georgia and Louisiana			South		
	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984
Materials and other costs	US$139	US$143	US$148	US$148	US$147	US$148	US$122	US$155	US$160	US$127	US$158	US$163
Wood (delivered)	107	106	108	116	110	110	95	124	127	99	127	130
Fuel and energy	7	8	9	6	7	7	7	7	8	7	7	8
Other	25	29	31	26	30	31	20	24	25	21	24	25
Unit labor costs	80	77	78	81	80	81	72	70	69	70	70	71
Total costs	219	220	226	229	227	229	194	225	229	197	228	234
Residual unit values	56	57	56	58	52	52	64	66	72	62	63	68
Total	163	163	170	171	175	177	130	159	157	135	165	166

Item	Oregon and Washington			Idaho			West			Total, United States		
	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984
Materials and other costs	US$217	US$211	US$221	US$158	US$191	US$175	US$208	US$209	US$213	US$172	US$187	US$190
Wood (delivered)	184	177	184	137	166	147	180	178	179	144	156	156
Fuel and energy	10	10	11	5	5	6	8	9	10	7	8	9
Other	23	24	26	16	20	22	20	22	24	21	23	25
Unit labor costs	98	93	85	95	93	90	96	93	86	86	85	81
Total costs	315	304	306	253	284	265	304	302	299	258	272	271
Residual unit values	52	48	55	39	31	34	48	42	51	54	51	58
Total	263	256	251	214	253	231	256	260	248	204	221	213

Source: Compiled from the U.S. Department of Commerce, Census of Manufactures, 1982 and Annual Survey of Manufactures 1977-83, and data provided by individual companies and State Agencies.

Table 14.--Lumber: Average costs of materials and labor, by Provinces and areas of Canada, 1977, 1979, and 1981-84

(Per thousand board feet, lumber tally)

Item	British Columbia									Prairie Provinces		
	Coastal			Interior			Total					
	1977	1979	1981	1977	1979	1981	1977	1979	1981	1977	1979	1981
Materials and other costs	US$154	US$182	US$196	US$111	US$130	US$132	US$127	US$150	US$152	US$106	US$118	US$135
Wood	127	147	152	88	103	98	103	120	116	80	90	99
Fuel and energy	4	4	5	4	5	7	4	5	6	6	6	7
Other	23	31	35	19	22	27	20	25	30	20	22	29
Wages	65	79	97	45	51	58	52	61	71	62	74	87
Total costs	219	261	289	156	181	190	179	211	223	168	192	222
Residual unit values	24	25	52	14	12	28	18	17	36	16	16	31
Total	195	236	237	142	169	162	161	194	187	152	176	191

Item	Ontario			Quebec			All other			Total, Canada		
	1977	1979	1981	1977	1979	1981	1977	1979	1981	1977	1979	1981
Materials and other costs	US$160	US$170	US$184	US$141	US$162	US$183	US$156	US$166	US$181	US$131	US$153	US$156
Wood	116	123	130	112	126	134	119	128	138	104	120	118
Fuel and energy	8	9	12	6	8	12	7	7	9	5	6	7
Other	36	38	42	23	28	37	30	31	34	22	27	31
Wages	74	79	83	62	68	75	75	78	85	56	65	74
Total costs	234	249	267	203	230	258	231	244	266	187	218	230
Residual unit values	56	60	59	41	49	57	48	54	57	25	25	42
Total	178	189	208	162	181	201	183	190	209	162	193	188

Item	British Columbia									Prairie Provinces		
	Coastal			Interior			Total					
	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984
Materials and other costs	US$209	US$214	US$209	US$140	US$142	US$144	US$161	US$166	US$164	US$145	US$149	US$151
Wood	166	173	167	105	106	107	124	128	125	105	107	110
Fuel and energy	6	6	7	9	9	9	8	8	9	9	10	10
Other	37	35	35	26	27	28	29	30	30	31	32	31
Wages	98	95	88	66	59	54	76	70	64	90	82	79
Total costs	307	309	297	206	201	198	237	236	228	235	231	230
Residual unit values	49	42	32	28	21	20	35	28	24	31	22	24
Total	258	267	265	178	180	178	202	208	204	204	209	206

Item	Ontario			Quebec			All other			Total, Canada		
	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984
Materials and other costs	US$210	US$202	US$207	US$189	US$192	US$182	US$198	US$204	US$202	US$170	US$173	US$172
Wood	151	143	146	133	135	132	148	148	145	128	129	128
Fuel and energy	15	15	15	15	16	16	12	14	14	10	10	11
Other	44	44	46	41	41	34	38	42	43	32	34	33
Wages	85	72	65	77	68	63	82	76	70	78	71	65
Total costs	295	274	272	266	260	245	280	280	272	248	244	237
Residual unit values	67	62	51	66	57	56	65	60	56	42	37	32
Total	228	212	221	200	203	189	215	220	216	206	207	205

Source: Sawmills and Planing Mills, and Shingle Mills, 1977-1982, Statistics Canada, International Woodworkers Association, and Industry sources.

Delivered wood costs.--The previous "Timber Procurement" section dealt in detail with stumpage costs in national forests and in total forest lands in the United States and on Provincial lands in Canada, and, to the extent posssible, compared delivered log prices. This section deals specifically with the cost of logs and other wood (e.g., cants) delivered to the mill. As with other costs of production presented in this section, they are expressed in terms of the cost per 1,000 board feet of lumber produced, and therefore differ from the stumpage and delivered log prices reported in the previous section because they are based on an actual rather than an estimated yield basis. Adjustments are not made for species or quality differences.

Delivered wood costs were by far the most significant of all variable costs of producing softwood lumber, ranging from 47 to 62 percent of the cost of materials and wages in the selected States and from 48 to 56 percent of these costs in selected Provinces in 1984 (tables 13 and 14). The differences in delivered wood costs between the selected States and Provinces are more significant than the differences in any other of the variable costs. The differences in 1984 between total material and wage costs and delivered wood costs in the United States and Canada and in selected States and Provinces, are compared in the following tabulation (per thousand board feet):

Geographic areas and items compared	United States	Canada	Difference
United States-Canada:			
Delivered wood cost	US$156	US$128	US$28
Total material and wage cost	271	237	34
Maine-Quebec:			
Delivered wood cost	108	132	24
Total material and wage cost	226	245	19
U.S. South -British Columbia (interior):			
Delivered wood cost	130	107	23
Total material and wage cost	234	198	36
Oregon and Washington-British Columbia:			
Delivered wood cost	184	125	59
Total material and wage cost	306	228	78

In general, wood costs have risen faster in the United States than in Canada, largely reflecting the higher stumpage costs. In the United States, such wood costs rose from US$119 to US$156 per thousand board feet produced during 1977-84, representing an average annual increase of slightly more than 5 percent (table 13). In Canada, on the other hand, costs increased from US$104 to US$128 during the same period, representing an average annual increase of about 3 percent (table 14). The difference in wood costs between the United States and Canada widened during this period from US$15 to US$28 per 1,000 board feet produced as U.S. stumpage rates rose.

The difference in delivered wood costs for the U.S. South and interior British Columbia more than doubled from $10 in 1977 to $23 in 1984; whereas, the difference between the U.S. West and all of British Columbia increased 8 percent, from $50 to $54 during the same period. However, the difference in delivered wood costs between the U.S. North, and Quebec and Ontario remained almost stable, slipping from $28 in 1977 to $27 in 1984. Because the data compiled for table 13 are not separated for Eastern (interior) and Western (coastal) Oregon and Washington, a comparison of eastern and western areas of the U.S. Northwest and British Columbia is not possible.

Fuel and energy costs.--Fuel and energy costs constitute between 3 and 5 percent of total manufacturing costs in the United States and Canada, a percentage that has not changed significantly in the last 8 years. Actual costs increased from US$5 to US$9 per 1,000 board feet of production in the United States, and from US$5 to US$11 per 1,000 board feet of production in Canada during 1977-84.

Other costs.--These include such things as work contracted out to others, products bought and resold in the same condition, other materials used such as glues and packaging, and operating and maintenance expenses. These costs vary widely, mainly because of regional differences in doing business. In 1984, they were estimated at US$25 and US$33 per 1,000 board feet of production in the United States and Canada, respectively. These varied widely by States, from US$22 per 1,000 board feet in Idaho to US$31 per 1,000 board feet in Maine. For Canada, the variation was larger, from US$28 per 1,000 board feet in interior British Columbia, to $46 in Ontario.

Wages.--Wages accounted for 30 and 27 percent of the variable costs of producing softwood lumber in the United States and Canada, respectively, in 1984. In general, the close communication between trade unions in the United States and Canada tends to keep wage rates fairly comparable. The IWA, which represents workers in both countries, provided extensive material indicating that workers in Canada receive slightly higher wages than U.S. workers. In addition, the IWA rightly points out that labor constitutes a significant component of the delivered cost of wood to the mill in both countries. This component, however, is accounted for in the delivered wood costs and thus, for the purposes of this study, need not be separately considered.

Average hourly earnings for production workers in the softwood lumber sawmills and planing mills in the United States and Canada are shown in the following tabulation:

Year	United States	Canada
1977------	US$5.14	US$6.76
1978------	5.79	6.75
1979------	6.07	7.29
1980------	6.36	8.15
1981------	6.80	8.79
1982------	8.27	9.60
1983 1/---	8.77	9.98
1984 1/---	9.26	10.24

1/ Data were calculated from survey data collected by the U.S. Department of Commerce, Statistics Canada, and the IWA.

Comparisons for the Eastern United States and Canada in 1984 show the wage component of softwood lumber variable production--costs per 1,000 board feet--have been higher in Maine (US$78) than in neighboring Quebec (US$63) in 1984 (tables 13 and 14).

As discussed in the section on "industry comparisons," employment in the softwood lumber industry mirrored the U.S. housing industry in both the United States and Canada trending downward during 1977-82 with some recovery in 1983 and 1984; the recovery was less pronounced in Canada than in the United States. Average hours worked also trended downward during 1977-82 in both countries before rising in 1983 and 1984; the United States had more hours worked per employee than Canada in 1984. Also, both the U.S. and Canadian softwood lumber employees increased their productivity during 1977-84. However, the Canadian employees showed a much larger ratio of softwood lumber produced per employee than U.S. employees. The increased productivity has kept unit labor costs from escalating. The following tabulation shows unit labor costs for both the United States and Canada, 1977-84 (per thousand board feet):

Year	United States	Canada	Difference
1977----------	$67	$56	$11
1978----------	69	61	8
1979----------	73	65	8
1980----------	77	67	10
1981----------	79	74	5
1982----------	86	78	8
1983----------	85	71	14
1984----------	81	65	16

During 1977-84, the United States had higher unit wage costs than Canada. As shown in the following tabulation, the 1982-84 period saw both the United States and Canadian unit labor costs decline as mill efficiency increased; however, Canadian unit labor costs fell 17 percent as opposed to 6 percent in the United States largely reflecting the increased Canadian mill modernization.

Taking into account all factors making up unit labor costs, employees, productivity, wage rates, and hours worked, it is clear that technological changes in the softwood lumber industries have reduced unit labor costs, but have also kept employment levels down.

Finally, residual unit values, primary chip revenue, and to a small extent boiler fuel (waste and bark), have to some degree meant the difference between operating or closing a mill. In 1984 residual unit values totaled $58 per 1,000 board feet in the United States and $32 per 1,000 board feet in Canada. This "product" is dependent on the pulp market, hence, the fluctuations in prices. The following tabulation shows U.S. and Canadian residual unit values during 1977-84:

Year	United States	Canada	Difference
1977	$24	$25	$1
1978	28	25	3
1979	35	25	10
1980	46	34	12
1981	52	42	10
1982	54	42	12
1983	51	37	14
1984	58	32	26

Canadian residual unit values, as shown in the above tabulation, were considerably less than U.S. residual unit values. This results from the higher concentration of pulp mills in Eastern Canada, values are nearly equal to U.S. values, and where less than one-third of the Canadian softwood lumber is produced. British Columbia, especially the interior region, had the lowest residual unit values in either country during 1977-84.

The U.S. softwood lumber industry's total aggregate cost to produce softwood lumber--total costs less residual values--was $8 per 1,000 board foot higher in 1984 than Canadian costs. The following tabulation shows the U.S. and Canadian total aggregate cost to produce 1,000 board feet of softwood lumber in 1977, 1979, and 1981-84:

Year	United States	Canada	Difference
1977	$180	$162	$18
1979	278	193	85
1981	240	188	52
1982	204	206	2
1983	221	207	14
1984	213	205	8

With the exception of 1982, the United States had higher variable costs of producing softwood lumber than did Canada during 1977-84 reflecting the higher wood costs in the United States. The Western United States was the highest variable cost producing region in North America during 1977-84. In 1984 such cost was $248 per 1,000 board feet, or $35 more than the average for the United States.

Overall, excluding fixed costs, the United States has higher total aggregate costs and higher residual unit values.

Comparison of fixed costs for the United States and Canada

Statistics on the fixed costs of manufacture are unavailable. This is partly because of differences of opinion on costs to be considered as fixed. Even for items generally considered to be fixed costs, such as compensation of officers and office staff, differences exist. Costs for certain housekeeping and equipment upkeep also vary, though these generally are considered as fixed costs.

If fixed costs are considered to be those incurred whether or not production occurs, a rough measure of them can be made by subtracting the cost of sales from total expenses. Such a measure is shown in the following tabulation using data of the U.S. Treasury Department and Statistics Canada for 1982, the last year for which comparable data are available:

	United States 1/ (million dollars)	Percent of total	Canada 2/ (million dollars)	Percent of total
Total expenses---	19,389.6	100	4,726.8	100
Cost of sales----	13,449.7	69	2,798.9	59
Residual costs----	5,939.9	31	1,927.9	41

1/ U.S. Department of the Treasury, Corporation Source Book, Washington, DC, 1984.

2/ Data for Canada are from Corporation Financial Statistics, Statistics Canada, Ottawa, 1984.

As shown in the previous tabulation, the residual costs, an estimation of fixed costs, amounted to 31 and 41 percent of total expenses for the United States and Canada, respectively.

A significant fixed cost to many U.S. producers is the cost of land and timber. Because of Government ownership in Canada of approximatly 90 percent of the timberland, ownership costs associated with timberland fall on few Canadian producers. The most significant fixed cost to many Canadian producers is the cost of their modernization programs for their plants.

Production, Trade, and Consumption

United States

From 1978 to 1982, annual U.S. housing starts, the major consumer of softwood lumber in the United States (39 percent in 1984), fell by nearly one-half. Largely in response to this drop in housing starts, U.S. production, imports, and consumption of softwood lumber, each dropped about one-fourth. U.S. exports of softwood lumber increased over 40 percent from 1978 to 1981, as U.S. producers of softwood lumber found alternative markets offshore, during this period of low housing starts. In 1983 and 1984, however, a reversal occurred in the declining trend in U.S. housing starts, largely reflecting improved general economic conditions. During these two years, housing starts were nearly two-thirds higher than they were in 1982. U.S. production of softwood lumber rose by nearly one-third over that of 1982; consumption also went up more than one-third. Imports, mostly from Canada, increased by nearly one-half as the U.S. demand rose; their share of U.S. consumption, however, which had steadily increased from 24 percent in 1977 to 28 percent in 1982, continued upward, reaching 29 percent in 1984. U.S. exports of softwood lumber in 1984, were 16 percent below the level of 1981, largely reflecting the increased utilization of U.S. produced softwood lumber in the increased U.S. housing market.

Production. 1/--U.S. production of softwood lumber rose from 25.1 billion board feet, valued at $5.6 billion, in 1982 to 32.8 billion board feet, valued at $8.3 billion, in 1984, representing an increase of 30 percent in quantity and 47 percent in value (table 15).

The west region produced 18.9 billion board feet, or 58 percent of U.S. softwood lumber production in 1984. Washington and Oregon accounted for over half of the total production in the West (and one-third of U.S. production) during 1977-84 (table 16). In 1984, the South produced 12.6 billion board feet, or 38 percent of U.S. softwood lumber production. The North accounted for the smallest share of production in 1984, about 1.2 billion board feet, or about 4 percent of U.S. production, with Maine accounting for just over 60 percent of the production in this region.

In addition to the annual fluctuations in U.S. softwood lumber production, the share of production accounted for by each region also varied during 1977-84, as shown in the following tabulation:

Region	1977	1978	1979	1980	1981	1982	1983	1984 1/
West----percent--	65	63	62	59	58	55	57	58
South-------do---	32	32	33	35	38	41	39	38
North-------do---	4	4	4	6	3	4	4	4
Total---do---	100	100	100	100	100	100	100	100
Quantity: million board feet----------	32,930	33,298	32,536	27,336	25,767	25,147	31,612	32,785

1/ Estimated by the staff of the U.S. International Trade Commission.

1/ Data published show that U.S. shipments of softwood lumber have not varied more than 1 percent from U.S. production in any recent year; therefore, shipments are generally regarded as equal to production.

Table 15.--Softwood lumber: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, 1977-84

(Quantity in millions of board feet; value in millions of dollars; unit value per thousand board feet)

Year	Production	Exports	Imports	Apparent consumption	Ratio (percent) of-- Imports to consumption	Ratio (percent) of-- Exports to production
			Quantity			
1977	1/ 32,930	1,426	10,232	41,736	24.5	4.3
1978	1/ 33,298	1,346	11,634	43,586	26.7	4.0
1979	1/ 32,536	1,729	10,922	41,729	26.2	5.3
1980	1/ 27,336	1,967	9,383	34,752	27.0	7.2
1981	1/ 25,767	1,895	9,029	32,901	27.4	7.4
1982	1/ 25,147	1,615	8,969	32,501	27.6	6.4
1983	1/ 31,612	1,833	11,737	41,516	28.3	5.8
1984	2/ 32,785	1,586	12,995	2/ 44,194	29.4	4.8
			Value			
1977	2/ 7,184	444	1,761	2/ 8,501	20.7	6.2
1978	2/ 8,303	450	2,337	2/ 10,190	22.9	5.4
1979	2/ 9,592	777	2,457	2/ 11,272	21.8	8.1
1980	2/ 7,830	777	1,762	2/ 8,815	20.0	9.9
1981	2/ 7,502	653	1,695	2/ 8,544	19.8	8.7
1982	2/ 5,640	575	1,567	2/ 6,632	23.6	10.2
1983	2/ 6,852	601	2,461	2/ 8,712	28.2	8.8
1984	2/ 8,304	592	2,553	2/ 10,265	24.9	7.1
			Unit value			
1977	2/ $218.17	$311.20	$172.08	2/ $203.69	-	-
1978	2/ 249.35	334.74	200.89	2/ 233.79	-	-
1979	2/ 294.81	449.31	224.92	2/ 270.12	-	-
1980	2/ 286.42	394.97	187.84	2/ 253.65	-	-
1981	2/ 291.15	344.34	187.72	2/ 259.69	-	-
1982	2/ 224.28	355.84	174.66	2/ 204.06	-	-
1983	2/ 216.74	327.81	209.65	2/ 209.85	-	-
1984	2/ 253.30	333.76	196.42	2/ 232.27	-	-

1/ Reflects revised data issued by the U.S. Department of Commerce, Bureau of the Census, issued in January 1985, and variations from such data to reflect statistics of selected Southern States. All data shown were revised upward from the previously reported data.

2/ Estimated by the staff of the U.S. International Trade Commission from data supplied by the National Forest Products Association, selected States, and the U.S. Department of Commerce.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 16.--Softwood lumber: U.S. production, by geographic regions and by specified States, 1977-84 1/

Year	West					South			
	Washington 1/	Oregon	All other 2/	Total 2/	Share of total United States	Mississippi 3/	Louisiana 3/	Georgia 3/	Arkansas 3/
	Million board feet				Percent	Million board feet			
1977	4,031	7,509	9,765	21,305	64.7	882	1,229	1,583	1,495
1978	4,150	7,416	9,414	20,980	63.0	993	1,212	1,600	1,599
1979	3,841	7,312	9,072	20,225	62.2	1,030	1,180	1,651	1,521
1980	3,161	5,784	7,272	16,217	59.3	891	916	1,720	1,339
1981	3,243	5,115	6,711	15,069	58.5	1,250	887	1,829	1,404
1982	3,059	4,682	6,201	13,942	55.4	1,063	871	1,938	1,313
1983	3,821	6,579	7,753	18,153	57.4	1,272	1,497	2,056	1,456
1984	2/ 3,987	2/ 6,866	2/ 8,091	2/ 18,944	57.8	1,306	1,128	2,287	1,508

Year	South--continued			North				Total United
	All other	Total 4/	Share of total United States	Maine	All other	Total 4/	Share of total United States	
	Million board feet		Percent	Million board feet			Percent	Million board feet
1977	5,212	10,401	31.6	436	788	1,224	3.8	32,930
1978	5,409	10,813	32.5	501	1,004	1,505	4.5	33,298
1979	5,492	10,874	33.4	469	968	1,437	4.4	32,536
1980	4,760	9,626	35.2	578	915	1,493	5.5	27,336
1981	4,487	9,857	38.3	400	441	841	3.3	25,767
1982	5,025	10,210	40.6	561	434	995	4.0	25,147
1983	5,959	12,240	38.7	757	462	1,219	3.9	31,612
1984-4/	6,341	12,570	38.3	765	506	1,271	3.9	32,785

1/ As reported by the Western Wood Products Association (WWPA).

2/ Estimated by the staff of the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce, various State Agencies, and from data supplied from the WWPA.

3/ Data as reported by State agencies.

4/ Estimated by the staff of the U.S. International Trade Commission from data reported by State Agencies and local lumber associations.

Source: U.S. Department of Commerce Bureau of the Census, Current Industrial Reports, and data supplied by the National Forest Products Association, except as noted.

Note.--Because of rounding, figures may not add to the totals shown.

The increased share of production emanating from the South in recent years represents a shift away from the West, as the old-growth timber, particularly in the Pacific Northwest, is harvested, leaving the western mills more dependent upon second-growth timber, and as the South has become more productive and more competitive.

From the old-growth stands in the Pacific Northwest, the lumber companies were in the past able to produce larger quantities of higher grades of lumber than they can produce from many of the stands currently available for harvesting; higher grades of lumber generally sell at higher prices than the lower grades. The increased competitiveness in the South is the result of intensive reforestation efforts in the past, shorter maturation periods, and more gentle terrain than in the West, which permits increased mechanization. Also, southern producers are not competing for logs that are exported as are their western counterparts--approximately one-fourth of the western log production is exported annually, whereas only a negligible portion of southern log production is exported. Also, producers in all regions of the United States except the coastal Pacific Northwest are using an increased proportion of smaller diameter logs (down to a diameter of 3.5 inches at the top in some regions). The improved technology enables lumber mills to produce more lumber from the same sized trees and the ability to process smaller diameter logs that previously were not, thereby improving upon their lumber recovery factor.

The leading species, or species groups, of softwood lumber produced in the United States are, in order of quantity produced, southern pine, Douglas fir, and ponderosa pine (table 17). 1/ In 1984, the shares of domestic output accounted for by these species were 38 percent, 21 percent, and 9 percent, respectively. The remaining 32 percent was accounted for by hemlocks, true firs, redwood, cedars, other pines, spruces, and various other species (principally from the West).

Since 1977, there has been a marked change in the species composition of U.S. softwood lumber production. The share of production accounted for by southern pine grew from 31 percent in 1977 to 40 percent in 1982, whereas the share held by Douglas fir declined from 26 percent in 1977 and 1978 to 19 percent in 1982. During 1982-84, the share held by southern pine declined from 40 percent to 38 percent, and the share held by Douglas fir increased from 19 percent to 21 percent. This turnaround is largely the result of vastly improved market conditions in the West, particularly in California, a critical market region for Douglas fir lumber.

The change in the species composition of U.S. softwood lumber production is the result of many factors, including the increased use of mechanized equipment in the South, which has led to increased harvesting productivity in that region, and the improved technology, enabling the southern producers to use wood that in past years would have been considered too small to be merchantable. Also, extensive areas of timber in the South that were reforested in the 1930's are becoming available for harvesting.

1/ See fig. 5 on page 94 for a map showing the natural forest vegetation regions of the United States.

Table 17.--Softwood lumber: U.S. production, by species, 1977-84

(million board feet)

Species	1977	1978	1979	1980	1981	1982	1983	1/ 1984
Southern pine-2/	10,324	10,733	10,793	9,554	9,784	10,114	12,174	12,503
Douglas-fir	8,543	8,601	8,425	6,853	5,868	4,842	6,558	6,850
Ponderosa pine	4,166	4,175	3,966	3,269	2,894	2,350	2,899	3,080
Hemlock 3/	2,439	2,728	2,715	2,058	1,575	1,333	1,690	1,790
White fir 4/	2,184	2,099	2,140	1,643	1,253	974	1,276	1,350
Redwood	1,148	917	896	770	730	760	960	1,070
Western cedar 5/	968	929	837	722	757	470	721	760
Lodgepole pine	687	720	738	636	408	249	414	440
Eastern white pine	775	892	875	776	502	272	293	310
Western spruce 6/	554	492	466	383	257	266	283	300
Other softwoods 7/	1,142	1,012	1,685	672	1,739	3,517	4,344	4,332
Total	32,930	33,298	33,536	27,336	25,767	25,147	31,612	32,785

1/ Species composition estimated by the staff of the U.S. International Trade Commission from data supplied by the National Forest Products Association.

2/ Estimated by the staff of the U.S. International Trade Commission from official statistics of selected Southern States and from official statistics of the U.S. Department of Commerce.

3/ Includes both western and eastern hemlock.

4/ Includes all western true firs.

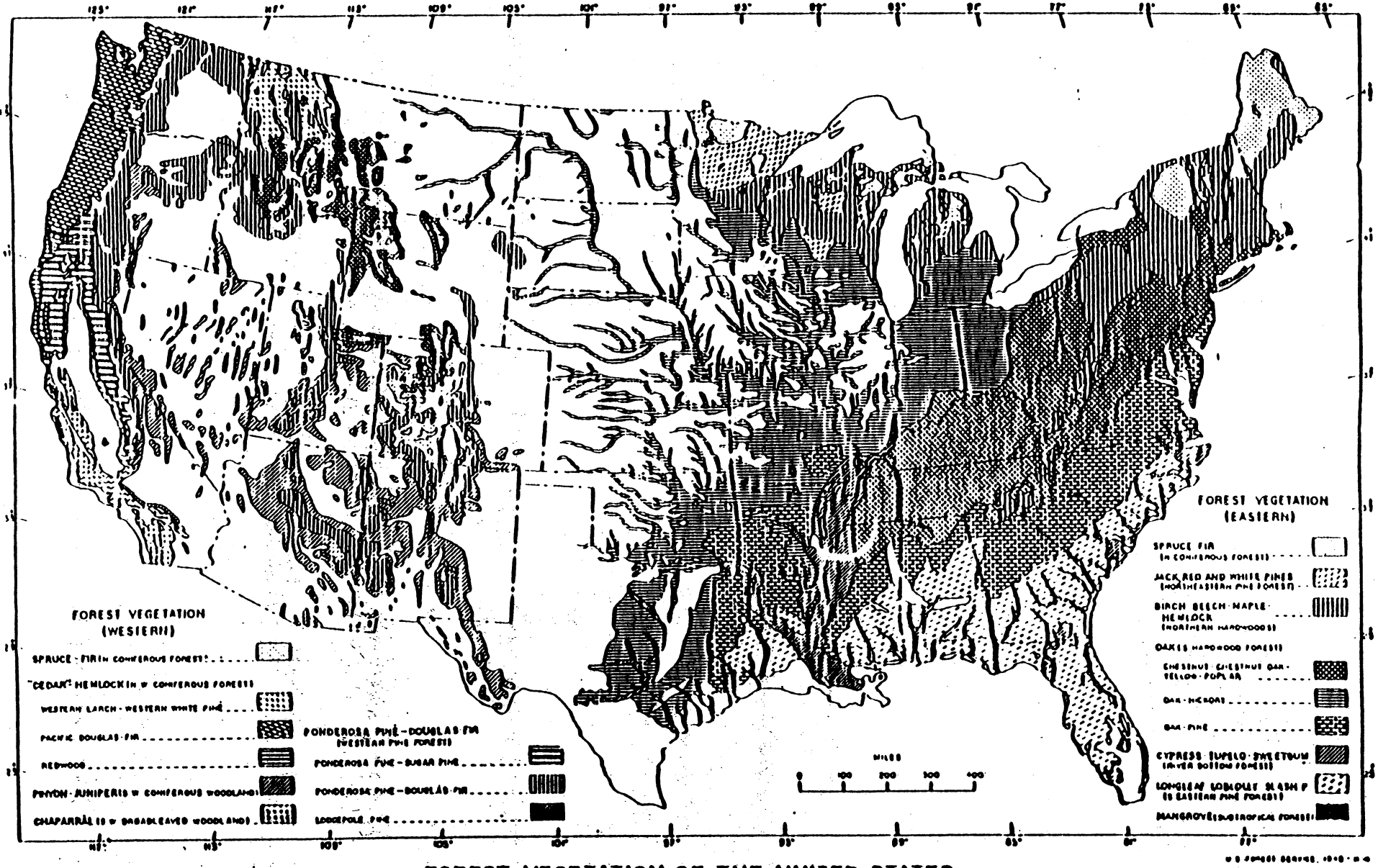
5/ Includes western red and incense cedar.

6/ Includes Englemann and Sitka spruce.

7/ Includes western white pine; sugar pine; larch; other eastern softwoods; other western softwoods; and other softwoods not specified by kind. Production of the species not specified by kind may be attributable to the species listed individually in the above table; however, the allocation to such species is unknown.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Figure 5.--Natural forest vegetation regions of the United States.



FOREST VEGETATION OF THE UNITED STATES.

Adapted from Shantz and Zon's "Natural Vegetation" map of the United States in the "Atlas of American Agriculture"

Inventories.--Producers' inventories, as measured by mill stocks, tend to be somewhat seasonal. The highest inventories are generally built up in the spring months in anticipation of the increase in spring and summer construction activity. The opposite occurs in the fall months, when inventories decline in expectation of slack demand in the winter months.

During 1982-84, producers' yearend inventories of softwood lumber rose from 2.5 billion board feet to 3.6 billion board feet. The ratio of yearend inventories to production historically has been higher during years of low production, as shown in the following tabulation:

Year	Production 1/ (million board feet)	Dec. 31 mill stocks 2/ (million board feet)	Ratio of mill stocks 2/ to total production (percent)
1977-----	32,930	3,622	11
1978-----	33,298	3,330	10
1979-----	33,536	3,689	12
1980-----	27,336	3,827	14
1981-----	25,767	3,092	12
1982-----	25,147	2,515	12
1983-----	31,612	3,477	11
1984-----	32,785	3/ 3,606	11

1/ See table 1.

2/ U.S. Department of Commerce, Bureau of the Census, Current Industrial Reports, except as noted.

3/ Estimated from data supplied by the NFPA.

The higher ratios of inventories (mill stocks) in 1983 and 1984 resulted from the anticipated increase in demand for softwood lumber, for U.S. housing; 1982 lumber inventories were the lowest since the 1950's. The 1982 level was a combination of two years of poor housing starts--low demand for softwood lumber--and cautious projectionof anticipated demand.

U.S. exports

U.S. exports of softwood lumber increased from 1.6 billion board feet, valued at $575 million, in 1982 to 1.8 billion board feet, valued at $601 million, in 1983, before dropping to just below 1.6 billion board feet, valued at $592 million, in 1984 (table 18).

The ratio of U.S. softwood lumber exports to U.S. production was relatively small during 1982-84, averaging about 6 percent, but showing a downward trend. The ratio of exports to production generally increases during periods of slack U.S. demand, as U.S. producers try to maintain or expand their lumber sales by selling abroad, and the ratio declines during periods of strong U.S. demand as producers tend to concentrate on the domestic market. Despite the high level of production in the United States during 1984, and the resulting lowering of prices resulting from oversupply, domestic producers reported difficulties in exporting lumber because of the high level of the U.S. dollar.

Table 18.--Softwood lumber: U.S. exports of domestic merchandise, by principal markets, 1977-84

Market	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Japan	437	407	640	634	506	610	594	545
Canada	367	373	383	364	495	254	425	331
Australia	107	101	94	90	123	102	141	184
Italy	113	105	161	186	88	83	120	89
Mexico	82	83	96	180	199	100	53	91
United Kingdom	30	24	37	53	32	36	52	33
West Germany	64	65	58	71	49	44	45	28
Spain	29	16	32	46	16	30	29	29
Trinidad and Tobago	8	4	12	20	24	28	26	19
China	0	0	0	1/	36	15	20	34
All other	189	168	216	323	327	313	328	203
Total	1,426	1,346	1,729	1,967	1,895	1,615	1,833	1,586
	Value (1,000 dollars)							
Japan	104,576	120,153	253,806	221,360	175,960	194,662	183,053	162,253
Canada	103,570	94,731	122,420	101,383	123,043	63,302	104,319	78,736
Australia	33,384	37,050	46,483	36,991	47,727	38,220	50,516	62,054
Italy	52,943	53,337	127,042	138,627	55,447	51,380	71,134	53,216
Mexico	17,090	19,650	22,497	33,546	43,841	25.097	12,943	21,746
United Kingdom	11,370	10,317	22,104	21,533	14,661	15,576	23,378	15,850
West Germany	32,254	35,674	42,938	42,417	27,966	24,390	22,989	14,978
Spain	13,916	8,007	25,362	30,767	8,962	17,058	15,893	14,772
Trinidad and Tobago	2,395	1,537	5,195	8,592	11,479	12,499	12,475	9,008
China	-	-	-	5	9,470	4,986	6,457	8,942
All other	72,290	70,022	109,032	141,626	134,011	127,668	97,702	150,851
Total	443,788	450,478	776,879	776,847	652,567	574,838	600,859	592,406
	Unit value (per thousand board feet)							
Japan	$239.27	$295.39	$396.51	$349.22	$347.45	$318.87	$307.92	$297.85
Canada	282.40	253.65	319.85	278.88	248.35	249.62	245.70	237.99
Australia	311.15	367.11	496.81	409.16	389.34	373.18	357.38	337.32
Italy	468.05	508.14	788.82	745.11	627.67	617.71	595.04	600.16
Mexico	207.97	236.68	235.15	186.59	220.65	250.43	243.81	239.12
United Kingdom	375.37	437.18	591.08	404.37	455.63	436.45	447.70	474.60
West Germany	500.37	549.06	736.08	599.78	569.65	548.59	514.28	532.79
Spain	484.62	492.38	804.51	633.03	480.61	442.37	484.97	479.13
Trinidad and Tobago	309.29	348.50	415.63	436.79	283.84	260.86	323.31	328.50	261.08
China	-	-	-	-	438.47	409.82	407.88	297.87	743.11
All other	382.49	416.80	504.78	394.97	344.34	355.84	327.81	333.76
Average	311.20	334.74	449.31					

1/ Less than 500,000 board feet.

Source: Compiled from official statistics of the U.S. Department of Commerce.

In 1984, the principal species exported was Douglas fir, which accounted for 34 percent of U.S. softwood lumber exports, or 532 million board feet, followed by SPF (28 percent), hemlock (21 percent), and southern pine (11 percent). In 1981, Douglas fir lumber accounted for 27 percent of total U.S. softwood lumber exports, however, the volume was nearly identical (500 million board feet). The increased share in 1984 is attributed to the decreased exports of SPF and southern pine lumber, that instead was used for domestic housing construction.

During 1982-84, most softwood lumber exported from the United States exited from the customs districts of Portland, OR, Seattle, WA, Mobile, AL, Anchorage, Ak., Detroit, MI, and San Diego, CA. Collectively, these six customs districts handled 84 percent of the quantity and 83 percent of the value of U.S. softwood lumber exports in 1984, up slightly from 1982 (80 and 79 percent). Table 19 shows U.S. exports of softwood lumber, by principal customs districts, for 1977-84.

In 1984, Japan received 27 percent, in terms of value, and 34 percent, in terms of quantity, of U.S. softwood lumber exports, down from 1982. U.S. and Canadian producers are both highly competitive in exporting lumber to Japan. The top five U.S. markets for lumber exports in 1984 (ranked by value) are shown in the following tabulation:

Market	Volume (million board feet)	Value (million dollars)	Percent of total value	Percent of total volume
Japan	545	162	27	34
Canada	331	79	13	21
Australia	184	62	10	12
Italy	89	53	9	6
Mexico	91	22	4	6
All other	346	214	37	22
Total	1,586	592	100	100

U.S. imports

During 1982-84, U.S. imports of softwood lumber rose from 9.0 billion board feet, valued at $1.6 billion, to 13.0 billion board feet, valued at $2.6 billion, or by 45 percent, in terms of quantity (table 20).

Imports, as a share of U.S. consumption of softwood lumber, accounted for an average of 28 percent during 1982-84 and for 27 percent during 1977-84 (table 15). Canada supplies virtually all U.S. softwood lumber imports. Although the species composition of imported softwood lumber is somewhat different than that of domestically produced softwood lumber, most imported softwood lumber is used interchangeably with domestic lumber. In some cases, particularly in the Northeast, imported lumber is sometimes produced from U.S. grown timber that has been exported to Canada.

U.S. imports of softwood lumber have generally moved in the same direction as the level of U.S. construction activity, particularly the number of new homes built in the United States. During 1977-84, imports of softwood

Table 19.--Softwood lumber: U.S. exports of domestic merchandise, by principal customs districts, 1977-84

Source	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Portland, OR	317	274	426	463	458	412	461	515
Seattle, WA	254	303	401	514	465	471	550	418
Mobile, AL	58	44	42	68	73	119	105	86
Anchorage, AK	263	238	278	255	196	172	137	120
Detroit, MI	174	146	127	95	126	56	113	111
San Diego, CA	71	72	80	91	106	68	32	77
Savannah, GA	9	6	26	47	38	38	34	24
San Francisco, CA	44	33	31	34	47	52	43	23
Great Falls, MT	1/	43	60	50	79	46	66	53
Charleston, SC	1/	2/	29	24	18	22	20	18
All other	1/	187	229	326	289	159	272	141
Total	1,426	1,346	1,729	1,967	1,895	1,615	1,833	1,586
	Value (1,000 dollars)							
Portland, OR	115,279	121,630	269,054	260,084	196,271	177,479	192,651	194,314
Seattle, WA	70,895	83,161	162,870	167,722	154,623	142,552	164,652	131,744
Mobile, AL	21,784	19,008	23,703	34,424	31,085	47,676	43,576	36,479
Anchorage, AK	87,812	68,764	103,431	88,587	59,911	58,558	45,104	33,488
Detroit, MI	58,487	46,893	48,628	33,129	30,471	13,275	27,866	26,208
San Diego, CA	13,149	14,481	16,976	20,895	24,961	14,995	7,814	18,086
Savannah, GA	3,277	2,629	12,119	19,607	19,780	17,716	16,489	11,429
San Francisco, CA	22,583	18,734	23,733	19,274	20,248	21,044	20,045	11,382
Great Falls, MT	1	12,601	17,900	12,457	18,275	10,586	15,461	9,977
Charleston, SC	1	3/	14,142	14,872	9,232	11,287	8,950	9,756
All other	1/	62,577	84,323	105,796	87,710	59,670	58,251	46,543
Total	443,788	450,478	776,879	776,847	652,567	574,838	600,859	529,406
	Unit value (per thousand board feet)							
Portland, OR	$363.33	$443.60	$631.43	$561.95	$428.68	$430.89	$417.50	$377.12
Seattle, WA	278.64	274.38	406.53	326.11	332.20	302.69	299.34	314.86
Mobile, AL	374.71	435.01	559.45	506.40	426.96	399.84	416.07	423.61
Anchorage, AK	257.73	289.21	372.08	346.89	305.70	340.52	330.05	278.23
Detroit, MI	335.17	321.53	382.65	347.15	242.05	235.46	247.48	236.35
San Diego, CA	184.20	200.51	212.39	229.11	234.46	218.91	244.00	236.04
Savannah, GA	377.35	405.92	458.98	414.74	518.13	463.11	491.06	478.35
San Francisco, CA	507.69	576.22	774.62	562.74	430.57	401.82	464.33	493.64
Great Falls, MT	1	295.24	296.73	248.49	231.53	232.27	234.55	189.82
Charleston, SC	1	-	489.47	610.24	520.38	511.15	451.03	543.16
All other	1/	334.64	368.22	324.53	303.50	375.28	214.16	330.09
Average	311.20	334.74	449.31	394.97	344.34	355.84	327.81	333.76

1/ Not available.
2/ Less than 500,000 board feet.
3/ Less than $500.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 20.--Softwood lumber: U.S. imports for consumption, by principal sources, 1977-84

Source	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Canada	10,198	11,572	10,873	9,359	9,008	8,943	11,708	12,947
Mexico	2	3	2	2	1	1	12	12
Chile	25	2	1	0	1/	0	2	11
Brazil	5	7	9	2	3	3	2	3
Honduras	15	42	24	11	10	8	8	5
Indonesia	0	0	0	0	0	0	1/	1
Ghana	0	0	0	0	0	8	1	3
United Kingdom	1	1/	1/	2	1/	1/	1/	2
Finland	0	0	0	0	0	1/	0	3
New Zealand	1/	2	2	2	1	3	3	2
All other	14	6	11	5	6	3	1	6
Total	10,232	11,634	10,922	9,383	9,029	8,969	11,737	12,995
	Value (1,000 dollars)							
Canada	1,752,094	2,326,303	2,439,498	1,753,493	1,685,927	1,559,129	2,451,903	2,539,534
Mexico	441	889	1,213	801	950	559	3,056	2,731
Chile	5,693	255	520	-	10	-	312	2,042
Brazil	2,362	3,466	5,709	1,607	2,088	2,187	1,349	1,734
Honduras	3,622	4,093	5,790	3,674	4,055	2,628	2,575	1,444
Indonesia	-	-	-	-	-	-	191	845
Ghana	-	-	-	-	-	501	234	842
United Kingdom	108	26	5	549	76	12	10	651
Finland	-	-	-	-	-	41	-	545
New Zealand	15	204	798	890	781	687	445	405
All other	3,505	1,878	2,989	1,463	1,015	833	813	1,753
Total	1,760,830	2,337,114	2,456,522	1,762,477	1,694,902	1,566,577	2,460,788	2,552,526
	Unit value (per thousand board feet)							
Canada	$171.80	$201.02	$224.36	$187.35	$178.17	$174.34	$209.43	$196.15
Mexico	269.77	299.33	504.69	451.74	707.26	488.12	256.44	232.72
Chile	288.58	168.20	640.78	-	377.24	-	141.94	181.61
Brazil	444.71	481.40	619.03	718.69	828.75	663.49	758.55	497.07
Honduras	235.40	98.19	244.81	346.60	406.06	314.48	331.34	315.31
Indonesia	-	-	-	-	-	-	608.94	610.26
Ghana	-	-	-	-	-	63.96	178.18	272.46
United Kingdom	152.82	158.44	181.41	221.73	185.22	247.82	224.07	272.23
Finland	-	-	-	-	-	501.51	-	179.99
New Zealand	179.75	112.22	408.47	474.02	579.91	199.20	176.99	263.94
All other	250.36	313.00	271.73	292.60	169.17	277.67	813.00	292.17
Average	172.08	200.89	224.92	187.84	187.72	174.66	209.65	196.42

1/ Less than 500,000 board feet.

Source: Compiled from official statistics of the U.S. Department of Commerce.

lumber had a positive 0.72 correlation coefficient 1/ with housing starts. The following tabulation shows U.S. imports and housing starts during 1977-84:

Year	Imports (billion board feet)	Housing starts (million units)
1977	10.2	2.0
1978	11.6	2.0
1979	10.9	1.8
1980	9.4	1.3
1981	9.0	1.1
1982	9.0	1.1
1983	11.7	1.7
1984	13.0	1.7

Unit values of softwood lumber imports largely reflect the demand for such lumber in the U.S. housing industry. Unit values of U.S. softwood lumber imports increased from 1982 to 1983, but fell in 1984 as U.S. and Canadian producer prices both declined, a result of such producers aggressively holding market share, as shown in the following tabulation:

Year	Average value (per 1,000 bd. ft.)
1977	$172.08
1978	200.89
1979	224.92
1980	187.84
1981	187.72
1982	174.66
1983	209.65
1984	196.42

Historically, Canada has supplied nearly all U.S. imports of softwood lumber. During 1982-84, Canada provided over 99 percent (both in terms of quantity and in terms of value) of U.S. softwood lumber imports. In 1984, U.S. softwood lumber imports amounted to 13.0 billion board feet and imports from Canada totaled 12.9 billion board feet (table 20). Central and South American countries account for most of the remainder.

In 1984, 73 percent of U.S. softwood lumber imports were classified as spruce, up from 71 percent in 1982 and 1983. However, it is believed that most such imports are actually a mix of spruce-pine-fir (SPF). SPF is manufactured in the interior of British Columbia and in eastern Canada in dimension sizes primarily for the U.S. market. Along a strip bordered on the north by the St. Lawrence river and on the south by the U.S./Canadian border, Quebec producers of SPF use logs purchased in the United States as part of their raw material base for SPF production. Such lumber production is traditionally sold in near equal proportions to Canadian markets, U.S. markets, European markets, and Middle Eastern markets. However, because of the strength of the Canadian dollar against most foreign currencies, and the Soviet Union's increased shipments of softwood lumber to the European

1/ The least squares linear regression method was used to arrive at the correlation coefficients presented in this report.

Community, the majority of Quebec production has been marketed in the United States. U.S. imports of softwood lumber from all sources during 1977-84, by species, are shown in the following tabulation:

Species	Share of total softwood lumber imports							
	1977	1978	1979	1980	1981	1982	1983	1984
	Percent							
Spruce-pine-fir:								
Spruce	53	64	62	66	67	71	71	73
Pine	17	13	11	11	10	9	8	7
Fir	3	3	5	5	6	5	6	6
Cedar	5	4	6	6	6	6	6	5
Hemlock	12	8	8	7	5	3	4	4
Douglas fir	10	7	8	6	5	6	5	5
All other	1/	1/	1/	1/	1/	1/	1/	1/
Total 2/	100	100	100	100	100	100	100	100

1/ Less than 0.5 percent.
2/ Because of rounding, figures may not add to the totals shown.

Imports of softwood lumber enter the United States primarily by rail (originating in the interior region of British Columbia) through Midwest customs districts. Table 21 shows imports by customs districts for 1977-84. In 1984, the Duluth, MN, customs district accounted for imports of 3.9 billion board feet, followed by Detroit, MI, with 1.8 billion board feet. The following tabulation shows the top 10 customs districts for all softwood lumber imports in 1984:

Customs district	Imports (billion board feet)	Percent
Duluth, MN	3.9	30
Detroit, MI	1.8	14
Seattle, WA	1.5	12
Pembina, ND	1.1	8
Buffalo, NY	1.0	8
St. Albans, VT	1.0	8
Ogdensburg, NY	.7	5
Great Falls, MT	.4	3
Portland, ME	.3	3
New York, NY	.3	2
All other	1.0	8
Total	13.0	100

Related-party imports. 1/--Related-party imports as a share of total U.S. imports decreased from 18 percent in 1977 to 10 percent in 1980 and then rose to 11 percent in 1981 (table 22). 2/ Some of the overall decline can likely

1/ Generally, any transaction not considered arm's length as defined in sec. 402(g)(2) of the Tariff Act of 1930 (reproduced in app. O).
2/ The U.S. Department of Commerce did not report related-party imports after 1981.

Table 21.--Softwood lumber: U.S. imports for consumption, by principal customs districts, 1977-84

Source	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
Duluth, MN	2,920	3,430	3,321	3,136	2,731	2,869	3,909	3,943
Detroit, MI	728	1,057	1,015	979	1,243	1,265	1,523	1,807
Seattle, WA	2,581	2,510	2,167	1,671	1,363	1,084	1,329	1,543
Buffalo, NY	401	540	624	643	631	662	771	990
Pembina, ND	1,278	1,320	1,186	854	678	679	1,013	1,051
St Albans, VT	259	302	312	319	496	715	925	987
Ogdensburg, NY	272	420	441	495	589	562	605	711
Great Falls, MT	105	127	142	164	167	213	313	393
Portland, ME	215	298	280	219	203	155	248	330
New York, NY	374	357	314	172	202	165	216	251
All other	1,099	1,273	1,120	726	600	600	885	989
Total	10,232	11,634	10,922	9,383	9,029	8,969	11,737	12,995
	Value (1,000 dollars)							
Duluth, MN	494,235	678,458	700,176	537,196	454,715	416,937	741,475	660,435
Detroit, MI	116,053	194,197	207,403	181,053	239,240	234,823	315,852	366,886
Seattle, WA	455,639	530,954	517,132	332,669	282,398	219,694	328,667	364,471
Buffalo, NY	69,954	107,971	132,734	122,734	121,078	126,777	171,608	221,976
Pembina, ND	232,856	293,984	291,172	170,555	136,901	120,034	212,707	205,342
St. Albans, VT	41,942	56,658	68,375	62,079	93,441	130,278	192,007	197,626
Ogdensburg, NY	45,406	77,616	88,764	93,587	112,758	107,948	125,859	150,358
Great Falls, MT	16,976	24,079	30,681	30,123	29,314	33,058	59,970	72,516
Portland, ME	36,654	52,871	54,409	41,440	38,646	27,500	49,964	64,633
New York, NY	75,951	75,065	85,312	32,918	36,876	26,528	42,182	48,166
All other	175,164	245,261	280,364	158,123	149,535	123,000	220,497	200,117
Total	1,760,830	2,337,114	2,456,522	1,762,477	1,694,902	1,566,577	2,460,788	2,552,526
	Unit value (per thousand board feet)							
Duluth, MN	$169.26	$199.29	$212.66	$171.28	$166.50	$145.34	$189.69	$167.51
Detroit, MI	159.43	183.72	204.25	184.87	192.52	185.58	207.36	203.08
Seattle, WA	176.53	211.54	238.61	199.08	207.13	202.62	247.32	236.25
Buffalo, NY	174.56	199.88	212.75	190.02	191.87	191.64	222.52	224.12
Pembina, ND	182.21	222.66	245.56	199.69	201.91	176.70	210.01	195.34
St Albans, VT	161.87	187.02	219.20	194.81	188.31	182.31	207.56	200.18
Ogdensburg, NY	166.64	184.98	201.16	189.15	191.39	192.00	207.93	211.40
Great Falls, MT	161.06	190.02	216.26	183.93	175.51	155.23	191.57	184.43
Portland, ME	170.26	177.58	194.52	189.50	189.92	177.73	201.55	195.66
New York, NY	203.23	210.40	271.28	191.16	182.47	160.90	194.92	191.67
All other	159.38	192.66	250.32	216.31	205.97	205.00	249.15	202.34
Average	172.08	200.89	224.92	187.84	187.72	174.66	209.65	196.42

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 22.--Softwood lumber: U.S. imports for consumption, by principal sources, and by related parties, 1977-81 1/

Year	Source	Total	Related party	Other	Percentage related party
		Million board feet			
1977	Canada	10,198	1,872	8,326	18
	Other	34	1	33	2
	Total	10,232	1,873	8,326	18
1978	Canada	11,572	1,597	9,975	14
	Other	62	1	61	1
	Total	11,634	1,598	10,036	14
1979	Canada	10,873	1,469	9,405	14
	Other	48	2/	48	3/
	Total	10,922	1,469	9,453	13
1980	Canada	9,359	946	8,414	10
	Other	24	1	23	3
	Total	9,383	946	8,437	10
1981	Canada	9,008	4/ 1,000	4/ 8,008	4/ 11
	Other	21	4/ 1	4/ 20	4/ 5
	Total	9,029	4/ 1,001	4/ 8,028	4/ 11

1/ Such data were not reported by the U.S. Department of Commerce after 1981.
2/ Less than 0.5 million board feet.
3/ Less than 0.5 percent.
4/ Estimated by the staff of the U.S. International Trade Commission from January-September 1981 data reported by the U.S. Department of Commerce.

Source: Compiled from official statisice of the U.S. Department of Commerce.

be attributed to efforts by U.S.-owned producers in Canada to market their Canadian-produced lumber in offshore markets when U.S. demand dropped, a result of low housing starts. Although data are not available, industry sources report that as a result of low profits in Canada compared with higher earnings in the United States, several U.S. based firms have discontinued, or reduced, their operations in Canada. Therefore, it is believed that related party imports as a share of total imports declined somewhat during 1981-84.

Consumption.--In 1984, U.S. consumption of softwood lumber was 44.2 billion board feet, 6 percent above the consumption of 41.5 billion board feet in 1983 and 36 percent above the consumption of 32.5 billion board feet in 1982 (table 15). During 1977-84, consumption averaged 39.1 billion board feet per year, with a high of 44.2 billion board feet in 1984 and a low of 32.5 billion board feet in 1982.

The recent increase in U.S. consumption of softwood lumber is largely the result of a dramatic rise in residential housing construction from the low levels of such construction in 1981 and 1982 (table 23). Industry experts contend that the low levels of housing construction in 1981 and 1982 occurred because of high interest rates, that made housing less affordable, particularly for the first-time buyer. The increased level of housing construction which started in late 1982 and continued through 1984 reflects a general decline in interest rates during those years. Consumption of softwood lumber is highly correlated with U.S. housing starts. For example, the correlation coefficient for softwood lumber consumption and housing starts equalled 0.93 during the 1977-84. The following tabulation shows U.S. housing starts and softwood lumber consumption for 1977-84:

Year	Softwood lumber consumption (billion board feet)	Housing starts (million units)
1977	41.7	2.0
1978	43.6	2.0
1979	41.7	1.8
1980	34.8	1.3
1981	32.9	1.1
1982	32.5	1.1
1983	41.5	1.7
1984	44.2	1.7

As indicated in table 23, U.S. housing starts have shown both regional and unit type variation since 1977. Throughout 1977-84, the South was the leading area for housing construction, with single family units being the predominant type of structure built. Actual housing starts in the South fell irregularly from 783,000 units in 1977 to 560,000 units in 1981, before rising to 935,000 units in 1983 and 866,000 units in 1984. During this period, the share of total U.S. housing starts occurring in the South rose from 39 percent in 1977 to 56 percent in 1982 before falling to 49 percent in 1984. The increased share in the South was at the expense of both the North and the West. Actual housing starts in the North and the West showed the same trend as that in the South, however the share of the total held by the North declined from 34 percent in 1977 to 23 percent in 1983, then increased to 26 percent in 1984; the share held by the West declined from 27 percent in 1977, 1978, and

Table 23.--Housing starts: Private U.S. housing starts, by type of structure, and by region, 1977-84 1/

Year	Region	Single Unit			Multi Unit					Total Housing Starts	Share of total housing starts
		Townhouse 2/	Detached	Total	2 to 4 units 3/	five or more units: townhouse apartment	five or more units: conventional apartment	five or more units: total	Total		
		thousands of units									percent
1977	North	23	470	493	38	14	121	135	173	666	33.5
	South	26	562	588	32	22	141	163	193	783	39.4
	West	25	345	370	51	11	105	117	168	538	27.1
	Total	74	1,377	1,451	122	48	367	414	536	1,987	100.0
1978	North	25	448	472	38	8	133	141	179	651	32.2
	South	33	570	604	35	14	171	185	220	824	40.8
	West	28	330	358	50	13	123	137	187	545	27.0
	Total	86	1,347	1,433	125	35	427	462	587	2,020	100.0
1979	North	28	338	366	35	11	115	126	161	527	30.2
	South	38	484	522	42	33	151	184	226	748	42.9
	West	31	274	306	45	16	103	119	164	470	26.9
	Total	98	1,096	1,194	122	60	369	429	551	1,745	100.0
1980	North	20	209	229	29	9	76	86	114	343	26.5
	South	40	388	428	50	27	138	165	215	643	49.8
	West	19	176	196	30	9	71	80	110	306	23.7
	Total	78	774	852	110	45	285	331	440	1,292	100.0
1981	North	24	170	194	23	6	60	65	88	282	26.0
	South	37	327	363	46	24	130	153	199	562	51.8
	West	17	131	148	23	9	60	69	92	240	22.1
	Total	77	628	705	91	39	249	288	379	1,084	100.0
1982	North	25	153	178	18	6	64	69	87	266	25.0
	South	41	316	357	44	16	174	189	233	591	55.6
	West	20	108	127	18	5	56	61	79	205	19.3
	Total	86	577	663	80	27	293	320	400	1,062	100.0
1983	North	43	233	276	26	7	76	83	109	386	22.7
	South	90	467	557	61	26	291	317	378	935	54.9
	West	38	196	234	27	12	110	121	148	382	22.4
	Total	171	896	1,068	113	44	478	522	635	1,703	100.0
1984	North	71	255	325	27	11	84	95	122	447	25.5
	South	103	426	528	63	17	257	274	337	866	49.5
	West	36	194	230	31	12	163	175	206	436	24.9
	Total	210	875	1,084	121	40	504	544	655	1,750	100.0

1/ Does not include publicly owned structures.
2/ Includes units in semidetached (semiattached) structures.
3/ Design information for structures with two to four units is not available.

Source: U.S. Department of Commerce.

Note: Because of rounding, figures may not add to the totals shown.

1979 to 19 percent in 1982, before rising to 25 percent in 1984. The effect of the housing shift toward the South has been to increase the South's share of U.S. lumber consumption.

Lumber consumption in housing is not only influenced by the number of units constructed, but also by the size and type of the units constructed. As shown in the following tabulation, throughout 1977-84, according to U.S. Department of Commerce data, single family units (single unit houses e.g., some townhouses and multiple houses) were roughly twice as large as the multi-family houses (multi-unit houses e.g., condominiums and apartments) (in square feet per unit:

Year	Single unit	Multi-unit 1/
1977	1,720	862
1978	1,750	893
1979	1,760	956
1980	1,700	972
1981	1,710	977
1982	1,680	939
1983	1,740	913
1984	1,790	2/ 925

1/ Includes data for units of 5 or more, but not for from 2 to 4 units.
2/ Estimated by the staff of the U.S. International Trade Commission.

The increased popularity of multi-unit housing in recent years has kept lumber consumption down, relative to earliers years of housing starts. During 1977-84, the share of total housing starts accounted for by single unit houses declined steadily, in favor of the smaller multi-unit houses as shown in the following tabulation (in percent):

Year	Single unit	Multi-unit
1977	73	27
1978	71	29
1979	68	32
1980	66	34
1981	65	35
1982	62	38
1983	63	37
1984	62	38

Largely as a result of the aforementioned regional variations in housing starts, U.S. lumber consumption also varies by region (table 24). The shift in housing starts to the South led to an increasing share of total U.S. softwood lumber consumption being consumed in the South, as shown in the following tabulation, derived from table 24 (in percent):

Year	Share of U.S. consumption in the-- North	South	West	Total
1977----------	36.8	30.7	32.5	100
1978----------	34.6	33.0	32.4	100
1979----------	31.8	33.2	35.0	100
1980----------	30.1	37.5	32.4	100
1981----------	26.8	40.6	32.6	100
1982----------	21.6	42.9	35.5	100
1983----------	20.6	42.5	36.9	100
1984----------	20.8	40.2	39.0	100

On a regional basis, there are wide variations in the ratio of imports to consumption (table 24). The North region of the United States has the highest share of consumption accounted for by imports and also obtains a large share of its softwood lumber from the other two U.S. regions. During 1980-84, the ratio of imports to consumption in the North rose from 35 percent in 1980 to 50 percent in 1983 and then fell to 44 percent in 1984. In 1984, imports entering the North totalled 4.1 billion board feet and imports into the Southern and Western United States totalled 4.0 billion board feet.

Imports as a share of softwood lumber consumption also increased in the South. During 1980-84, imports as a share of Southern consumption rose irregularly, ranging from 28 percent in 1981 to 34 percent in 1984. Throughout 1977-84, the South was the leading market for imports of softwood lumber; receiving 47 percent (6.0 billion board feet) of all imports in 1984. Additionally, the South received 11 percent (1.9 billion board feet) of its consumptive needs from the West region of the United States, down from 16 percent (2.1 billion board feet) in 1980.

The West region of the United States had the smallest share of softwood lumber consumption accounted for by imports. During 1980-84, the ratio of imports to consumption in the West ranged from 14 percent in 1983 to 19 percent in 1981, with imports reaching a peak of 2.9 billion board feet in 1984; however, the ratio showed no trend.

Canada

During 1978-82, Canadian production of softwood lumber trended downward, a direct result of lowered U.S. demand for such lumber, principally for housing construction. Because over two-thirds of Canadian softwood lumber production annually is exported--over 80 percent of which is shipped to the United States--the volume and value of such lumber exports fell during 1978-82 by 12 and 18 percent, respectively. However, in 1983 and 1984, as U.S. housing starts surged upward, Canadian production and exports rose to unprecedented levels. Such production increased by nearly 5 billion board feet, or nearly one-third more than in 1982, and exports rose by over 4 billion board feet.

Production.--Canadian production of softwood lumber is highly dependent upon U.S. construction activity, primarily new housing starts. Canadian softwood lumber production rose from 17.2 billion board feet in 1977 to 18.5 billion board feet in 1979 (table 25), as U.S. housing starts remained

Table 24.--Softwood lumber: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, by region, 1977-84

Year	Region	Production 1/	Exports to foreign markets	Exports to other U.S. regions 2/	Imports from foreign sources 3/	Imports from other U.S. regions	Apparent consumption	Ratio of foreign imports to consumption	Ratio of exports, to foreign markets, to production
		Million board feet						Percent	
1977	North	1,224	4/ 66	0	5,763	8,456	4/15,377	4/ 37.5	4/ 5.4
	South	10,401	4/ 1,016	2,704	2,907	3,196	4/12,784	4/ 22.7	4/ 9.8
	West	21,305	4/ 344	8,948	1,562	0	4/13,575	4/ 11.5	4/ 1.6
	Total	32,930	4 1,426	11,652	10,232	11,652	41,736	24.5	4.3
1978	North	1,505	4/ 62	0	5,256	8,375	4/15,074	4/ 34.9	4/ 4.1
	South	10,813	4/ 960	2,920	4,254	3,196	4/14,383	4/ 29.6	4/ 8.9
	West	20,980	324	8,651	2,124	0	14,129	15.0	1.5
	Total	33,298	1,346	11,571	11,634	11,571	43,586	26.7	4.0
1979	North	1,437	73	0	4,735	7,168	13,267	35.9	5.1
	South	10,874	1,079	2,718	4,168	2,629	13,876	30.0	9.9
	West	20,225	579	7,079	2,019	0	14,586	13.8	2.9
	Total	32,536	1,729	9,797	10,922	9,797	41,729	26.2	5.3
1980	North	1,493	185	0	3,695	5,457	10,460	35.3	12.4
	South	9,626	362	2,214	3,861	2,108	13,019	29.7	3.8
	West	16,217	1,420	5,351	1,827	0	11,273	16.2	8.8
	Total	27,336	1,967	7,565	9,383	7,565	34,752	27.0	7.2
1981	North	841	220	0	3,254	4,933	8,808	36.9	26.2
	South	9,857	301	2,070	3,773	2,110	13,369	28.2	3.1
	West	15,069	1,373	4,973	2,002	0	10,725	18.7	9.1
	Total	25,767	1,895	7,043	9,029	7,043	32,901	27.4	7.4
1982	North	995	94	0	2,953	3,157	7,011	42.1	9.4
	South	10,210	293	2,042	4,251	1,812	13,938	30.5	2.9
	West	13,942	1,229	2,927	1,765	0	11,551	15.3	8.8
	Total	25,147	1,615	4,969	8,969	4,969	32,501	27.6	6.4
1983	North	1,219	192	0	4,251	3,288	8,566	49.6	15.8
	South	12,240	245	1,836	5,306	2,178	17,643	30.1	2.0
	West	18,153	1,396	3,630	2,180	0	15,307	14.2	7.7
	Total	31,612	1,833	5,466	11,737	5,466	41,516	28.3	5.8
1984	North	1,271	178	0	4,060	4/ 4,030	4/ 9,183	44.2	14.0
	South	12,570	197	4/ 2,514	6,045	1,894	4/17,798	34.0	1.6
	West	18,944	1,211	3,410	2,890	0	17,213	16.8	6.4
	Total	32,785	1,586	5,924	12,995	5,924	44,194	29.4	4.8

1/ See table 15 of this report.

2/ Based on tables 33 and 34 of this report, and based upon the premise that northern U.S. production was not exported to other regions of the United States.

3/ Imports shown are by final market, based upon data supplied by COFI, and are not by customs district of importation, as shown in table 5.

4/ Estimated by the staff of the U.S. International Trade Commission.

Note: Because of rounding, figures may not add to the totals shown.

Table 25.--Softwood lumber: Canadian production, imports, exports, apparent consumption, ratio of exports to production, and ratio of imports to consumption, 1977-84

Year	Total Production	Imports	Exports to U.S.	Total exports	Apparent consumption	Ratio of-- exports to-- Production in Canada	Ratio of-- exports to-- the U.S. vs: production	Ratio of-- Imports to consumption
	Million board feet					Percent		
1977	17,225	324	10,335	12,212	5,337	70.9	60.0	6.1
1978	18,412	265	11,401	13,314	5,363	72.3	61.9	4.9
1979	18,494	333	10,782	13,258	5,569	71.7	58.3	6.0
1980	18,296	284	9,281	12,261	6,319	67.0	50.7	4.5
1981	16,492	342	9,033	11,555	5,279	70.1	54.8	6.5
1982	15,548	215	9,035	11,686	4,077	75.2	58.1	5.3
1983	20,149	327	11,906	14,379	6,097	71.4	59.1	5.4
1984	20,588	266	13,202	15,719	5,135	76.4	64.1	5.2

Source: Statistics Canada.

over 1.8 million units annually during the period. However, as the level of U.S. housing slumped, Canadian production fell to 15.5 billion board feet in 1982. In 1983 and 1984, such production rose to all-time record levels of 20.1 billion board feet in 1983 and 20.6 billion board feet in 1984, in response to an increase in the level of U.S. housing starts. The rise in Canadian production is directly attributable to increased U.S. housing starts and improved sawmilling technology which has enabled the utilization of smaller diameter logs in all regions of the country except coastal British Columbia.

British Columbia is the leading region of softwood lumber production in Canada, accounting for 64 percent of production in 1984, down from 70 percent in 1977. In the remaining regions, production rose between 36 percent and 67 percent, during 1977-84. Softwood lumber production in British Columbia rose from 10.1 billion board feet in 1982 to 13.1 billion board feet in 1984, (table 26), primarily as a result of a 32-percent increase in production in the interior of that Province. Quebec and Ontario accounted for 26 percent of production in 1984. Such production rose from 4.0 billion board feet in 1982 to 5.4 billion board feet in 1984. The remaining seven Provinces and the two Territories also had increased production. Production in these regions rose from 1.4 billion board feet in 1982 to 2.1 billion board feet (10 percent of Canadian production) in 1984.

In 1984, roughly three-fourths of Canadian softwood lumber production was SPF, with Hemlock, cedar, and Douglas fir composing nearly all of the remainder, as shown in the following tabulation (adapted from table 27 in percent):

Species group	Percentage distribution of production in--			
	British Columbia		Canada	
	1982	1984	1982	1984
SPF	62	61	73	75
Hemlock	18	19	13	12
Cedar	10	9	6	6
Douglas fir	9	9	6	6
Other	1	2	2	1
Total 1/	100	100	100	100

1/ Because of rounding, figures may not add to the totals shown.

In 1984, SPF accounted for 61 percent of softwood lumber produced in British Columbia, down from 62 percent in 1982, and for 75 percent of total Canadian production, up from 73 percent in 1982 (table 27). Hemlock, cedar, and Douglas fir accounted for most of the remainder. The largest part of the overall increase in Canadian production in the past 2 years has been accounted for by SPF lumber, as previously inaccessible timber lands (a large part of which are in interior British Columbia) have become available for harvesting, due to increased road construction in areas previously inaccessible. Also, manufacturing techniques now allow for the use of logs previously considered to be too small to manufacture.

Table 26.--Softwood lumber: Canadian production, by Province, 1977-84

Year	British Columbia			Quebec	Ontario	Maritime Provinces	Prairie Provinces	Territories	Total
	Coast	Interior	Total						
	Million board feet								
1977	4,499	7,539	12,037	2,600	1,217	430	935	6	17,225
1978	4,803	7,740	12,544	2,944	1,384	584	951	5	18,412
1979	4,657	7,860	12,517	3,066	1,363	563	974	11	18,494
1980	4,252	7,726	11,978	3,104	1,565	716	917	16	18,296
1981	3,458	6,965	10,423	2,903	1,560	596	997	13	16,492
1982	3,170	6,939	10,109	2,590	1,390	503	947	9	15,548
1983	4,139	8,902	13,041	3,534	1,673	619	1,272	10	20,149
1984	3,903	9,174	13,077	3,553	1,841	693	1,414	10	20,588
	Share (percent) of total production								
1977	26.1	43.8	69.9	15.1	7.1	2.5	5.4	1/	100
1978	26.1	42.1	68.1	16.0	7.5	3.2	5.2	1/	100
1979	25.2	42.5	67.7	16.6	7.4	3.1	5.3	1/	100
1980	23.3	42.2	65.5	17.0	8.6	3.9	5.0	1/	100
1981	21.0	42.2	63.2	17.6	9.5	3.6	6.1	1/	100
1982	20.4	44.6	65.0	16.7	9.0	3.2	6.1	1/	100
1983	20.6	44.2	64.7	17.5	8.3	3.1	6.3	1/	100
1984	19.0	44.6	63.5	17.3	9.0	3.4	6.9	1/	100

1/ Less than 0.5 percent.

Source: Statistics Canada

Table 27.--Softwood lumber: Canadian production, by species, 1977-84

(million board feet)

Species	1977	1978	1979	1980	1981	1982	1983	1984
Spruce-Pine-Fir	1/ 11,553	12,317	12,408	12,566	11,868	11,291	14,764	15,098
Hemlock	1/ 2,825	3,163	3,052	2,790	2,116	1,938	2,578	2,448
Red cedar	1/ 1,102	1,083	1,120	1,119	1,032	912	1,220	1,204
Douglas-fir	1/ 1,344	1,531	1,461	1,304	1,060	956	1,094	1,162
Other	1/ 401	266	455	400	329	357	370	675
Total	1/ 17,225	18,361	18,495	18,178	16,406	15,454	1/ 20,026	20,588

1/ Estimated by the staff of the U.S. International Trade Commission from statistics of Statistics Canada.

Source: Statistics Canada.

Note: Because of rounding, the figures may not add to the totals shown. Also, because of the lack of data for the Territories, the total productiuon figures shown are slightly less than the actual totals as shown in tables 10, 25, and 26.

Canadian exports. 1/--Canadian exports of softwood lumber amounted to 15.7 billion board feet in 1984, representing an increase of 35 percent compared with the 11.7 billion board feet in 1982 (table 28). During 1977-84, the average level of exports was 13.0 billion board feet. Exports as a share of Canadian production reached 76 percent in 1984, up from 75 percent in 1982 and 71 percent in 1983. During 1977-84, annual exports averaged 72 percent of Canadian production.

Historically, the United States has been the leading market for Canadian softwood lumber exports. Canadian exports to the United States, mostly SPF lumber, rose from 9.0 billion board feet in 1982 to 13.2 billion board feet in 1984, accounting for 84 percent of total Canadian exports in 1984 (table 28). Canadian softwood lumber exports, as reported by Statistics Canada, in 1984 are shown in the following tabulation:

Market	Exports (billion board feet)	Share (percent) of exports
United States	13.2	84
Japan	.9	6
European Community	.8	5
All other	.8	5
Total	15.7	100

During 1977-84, Canadian exports to the United States ranged from 9.0 billion board feet in 1981 and 1982 to 13.2 billion board feet in 1984, as shown in the following tabulation:

Year	Canadian exports-- to the United States (billion board feet)	As a share of U.S. consumption (percent)
1977	10.3	24.4
1978	11.4	26.6
1979	10.8	26.1
1980	9.3	26.9
1981	9.0	27.4
1982	9.0	27.5
1983	11.9	28.2
1984	13.2	29.3

Most of the increase during 1982-84, in Canadian softwood lumber exports to the United States, occurred in the SPF group. Canadian exports of such lumber to the United States rose from 7.6 billion board feet in 1982 to 11.1 billion board feet in 1984.

Canada's exports to the United States are mostly marketed in areas of increased housing activity, primarily in the South, but increasingly in California; such exports have largely replaced western U.S. lumber.

1/ Official Canadian export and import statistics may vary somewhat from comparable U.S. statistics because of differences in shipment recordings, timing, classification, etc.

Table 28.--Softwood lumber: Canadian exports of domestic merchandise, by principal markets, 1977-84

Market	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (million board feet)							
United States	10,335	11,401	10,782	9,281	9,033	9,035	11,907	13,202
Japan	706	786	1,009	1,083	867	1,048	896	921
EC	857	803	1,114	1,265	1,034	912	790	826
All other	315	325	354	632	621	691	786	771
Total	12,212	13,314	13,258	12,261	11,555	11,686	14,379	15,720
	Value (1,000 dollars)							
United States	1,757,188	2,292,252	2,385,348	1,708,132	1,634,873	1,533,451	2,423,625	2,525,772
Japan	169,158	202,477	391,216	428,764	304,531	312,289	277,469	271,120
EC	194,548	192,138	357,366	429,333	276,514	239,744	235,971	209,725
All other	78,113	81,821	127,850	223,198	213,967	221,113	227,694	220,076
Total	2,199,007	2,786,688	2,784,514	2,789,427	2,429,885	2,296,597	3,164,759	3,226,693
	Unit value (per thousand board feet)							
United States	$170.02	$201.06	$221.23	$184.05	$180.99	$169.72	$207.55	$191.32
Japan	239.60	257.60	387.73	395.90	351.25	297.99	309.68	294.38
EC	227.01	239.28	320.80	339.39	267.42	262.88	298.70	253.90
All other	247.98	251.76	361.16	353.16	343.31	319.99	295.32	285.44
Average	180.07	207.95	210.03	227.50	210.29	196.53	220.10	205.26

Source: Compiled from official statistics of Statistics Canada, with conversions using IMF average annual exchange rates.

Of Canada's total exports of softwood lumber to the United States 56 percent)were supplied by British Columbia, slightly down from 1982. These exports accounted for 58 percent of British Columbian production in 1984, compared to 1982. The following tabulation, developed from data of the British Columbia Ministry of Forests, shows British Columbia exports to the United States, the share of British Columbia production accounted for by these exports, and the share of U.S. consumption accounted for by these exports during 1977-84:

Year	Exports to the United States (billion board feet)	Share of British Columbia production (percent)	Share of U.S. consumption (percent)
1977----	8.0	66	19
1978----	8.4	67	19
1979----	7.7	62	19
1980----	6.3	53	18
1981----	5.3	50	16
1982----	5.2	51	16
1983----	7.2	55	17
1984----	7.6	58	17

Both the quantity of British Columbia exports and the share of British Columbia production of softwood lumber to the United States increased from 1982 to 1984. However, British Columbia exports approximately maintained their share of U.S. consumption during that period; whereas, Canadian exports to the United States, as a share of U.S. consumption, increased from 28 percent in 1982 to 29 percent in 1984.

British Columbia shipments to various Canadian markets and to world markets are shown in the following tabulation, based on British Columbia Ministry of Forests data for 1984:

Market	Percentage distribution of shipments
Canada:	
British Columbia----------	15
Other----------	14
United States----------	56
Japan----------	7
European Community----------	5
Other----------	3
Total----------	100

Canadian imports.--Since 1977, Canadian imports of softwood lumber have ranged from a low of 215 million board feet in 1982 to a high of 342 million board feet in 1981 (table 29). Canadian imports in 1984 totalled 266 million board feet and accounted for 5 percent of Canadian apparent consumption (table 11). The imported lumber is generally consumed in close proximity to the U.S./Canadian border, and often consist of higher grades of lumber, such as clear lengths, than is commonly produced in Canada. This is because the United States has a greater proportion of, and larger supply of, higher grade Douglas fir and ponderosa pine logs than does Canada. The most commonly imported softwood lumber species have been Douglas fir and ponderosa pine.

Consumption.--Apparent Canadian consumption of softwood lumber, virtually all from domestic producers, was 5.2 billion board feet in 1984, 31 percent above the 1982 consumption of just under 4.0 billion board feet, but 15 percent below 1983 consumption of 6.1 billion board feet (table 25).

Canadian softwood lumber consumption, unlike U.S. consumption, is less dependent on housing starts. The following tabulation shows Canadian apparent consumption and Canadian housing starts, 1977-84:

Year	Softwood lumber consumption (billion board feet)	Housing starts (1,000 units)
1977	5.3	246
1978	5.4	228
1979	5.6	197
1980	6.3	159
1981	5.3	178
1982	4.1	126
1983	6.1	163
1984	5.1	135

As can be seen, Canadian softwood lumber consumption does not closely track Canadian housing starts. In 1980, the peak consumption (6.3 billion board feet) year for the period, housing starts totaled only 159,000 units; whereas, in 1977, housing starts were at a peak (246,000 units) but consumption reached only 5.3 billion board feet.

The following tabulation shows the estimated share of softwood lumber consumed in Canada, by end use, in 1984 (in percent):

End use	Percentage distribution of Canadian consumption
Construction:	
New residential (new housing)	23
Repair and remodeling	25
New nonresidential construction	27
Materials handling	17
All other	8
Total	100

Although, Canadian new residential construction accounted for 23 percent of softwood lumber consumption in 1984, it has only been at this level in the last 10 to 15 years. In years of lower housing starts nonresidential construction, the largest consumer of Canadian softwood lumber, and materials handling (shipping, and so forth) would account for more than 50 percent of total consumption.

Table 29.--Softwood lumber: Canadian imports for consumption, by principal sources, 1977-84

Source	1977	1978	1979	1980	1981	1982	1983	1984
	Quantity (1,000 Million board feet)							
United States--	323	263	332	284	342	214	327	266
All other------	1/	2	1	1/	1/	1/	1	1/
Total------	324	265	333	284	342	215	327	266
	Value (1,000 dollars)							
United States--	90,762	81,887	108,556	92,319	107,928	58,119	99,404	83,742
All other------	101	276	144	25	225	87	78	12
Total------	90,862	82,162	108,700	92,344	108,153	58,206	99,482	83,753
	Unit value (per 1,000 board feet)							
United States--	$280.78	$311.42	$326.63	$324.71	$315.93	$271.46	$304.07	$314.94
All other------	323.51	149.35	286.82	357.14	885.83	184.71	142.08	521.74
Total------	280.82	310.28	326.57	324.72	316.36	271.27	303.80	314.96

1/ Less than 500,000 board feet.

Source: Compiled from official statistics of Statistics Canada, with conversions using IMF average annual exchange rates.

Note.--Because of rounding, figures may not add to the totals shown.

A comparison of the components of and trade patterns of softwood lumber in the United States and Canada

The following tabulation gives a brief comparison of U.S. and Canadian softwood lumber trade statistics for 1984 (in billions of board feet):

	United States	Canada
Production	32.8	20.6
Imports	13.0	.3
Exports	1.6	15.7
Apparent consumption	44.2	5.1

The relative changes for apparent consumption, and for each of its components, for both the United States and Canada, during 1982-84, are illustrated in figure 6.

The differences in the use of U.S. and Canadian softwood lumber in 1984 is shown in the following tabulation:

End use	Percentage distribution of-U.S. consumption	Canadian consumption
Construction:		
New residential (new housing)	39	23
Repair and remodeling	24	25
New nonresidential construction	16	27
Materials handling	11	17
All other	10	8
Total	100	100

As can be seen, U.S. softwood lumber consumption is more dependent on the level of U.S. housing starts, which fluctuate with interest rates and cyclical economic conditions, whereas, Canadian consumption is more dependent on the level of nonresidential construction and the shipping and handling industry (materials handling).

The most apparent differences in U.S. and Canadian softwood lumber trade patterns are that Canada exports about 75 percent of its production compared with 5 percent for the United States and that imports account for about 30 percent of apparent U.S. consumption compared with 6 percent of Canada's apparent consumption. This is consistent with the large natural resource base in Canada relative to that country's small domestic market.

The United States is by far Canada's principal export market with Japan and the European Community (EC) being important secondary markets. The United States' largest export market is Japan, followed by Canada and Australia.

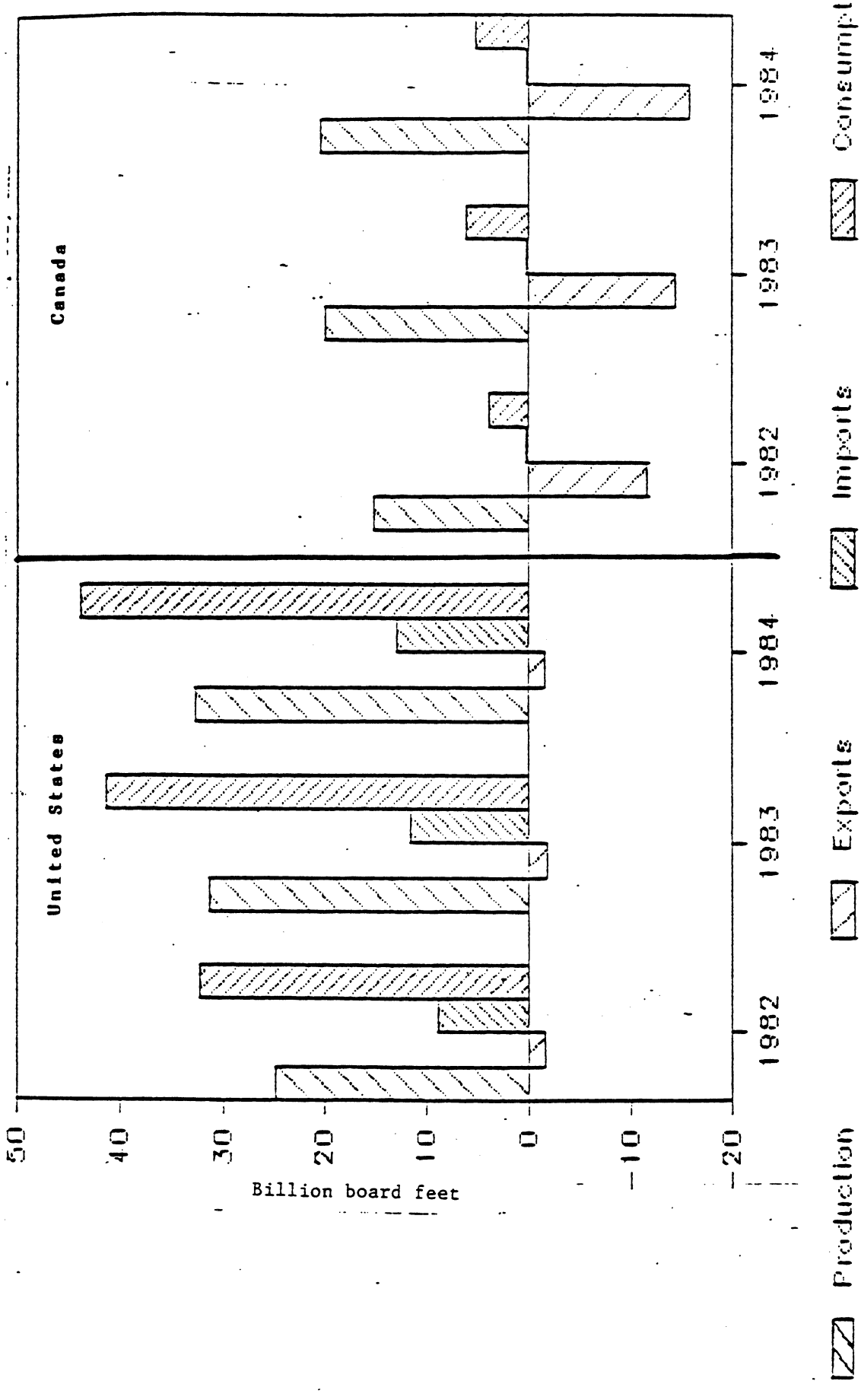


Figure 6.--Softwood lumber: Comparative U.S. and Canadian Production, Exports, Imports, and Apparent Cuncumption, 1982-84.

Pricing and Marketing

United States

The price received for lumber at the mill (generally f.o.b.) is determined by such factors as size, species, and grade of lumber and the transportation costs associated with marketing the lumber. Generally, lumber that is larger sized and the most free of defects commands the highest price. Wholesale lumber prices are quoted either f.o.b. mill or on a delivered price basis, but usually day-to-day market supply and demand determines the price of specific sizes, species, and grades of lumber.

Most lumber is bought and sold by wholesalers that arrange for delivery to the area of destination, although some companies act as their own wholesalers by marketing their own lumber and at times they purchase lumber from other companies to meet their customers' orders. Larger integrated forest products companies often have distribution and/or marketing centers (building centers) for marketing their lumber.

The f.o.b. mill prices for lumber are extremely variable and usually change on a daily basis. For example, the price of unseasoned standard and better Douglas fir random length 2X4's, f.o.b. west coast mill, 1/ ranged between $167 and $210 per 1,000 board feet in 1984 (table 30), as shown in the following tabulation:

Period	Price 1/
January	$190
February	208
March	210
April	192
May	180
June	177
July	172
August	178
September	173
October	167
November	172
December	171

1/ Prices net f.o.b. mill, 1,000 board feet, Portland rate. Random Lengths 1984 Yearbook, Random Lengths Publications, Inc., Eugene, OR, 1985.

It is not feasible to present prices for all of the different softwood lumber products produced or consumed in the United States; however, table 30 shows some prices for selected representative lumber products. It is important to note that there is a wide range in prices for the different types of lumber produced, and although most dimension lumber trade flows from Canada to the United States, some U.S.-produced lumber is marketed in Canada at competitive prices.

1/ An example is made of 2X4 lumber because it is a common size used in construction. The price of other types of lumber, such as export clears or clear boards suitable for moldings, may be much higher per 1,000 board feet.

Table 30.--Monthly prices for selected U.S. and Canadian lumber products, by months, 1977-84

(Per thousand board feet)

Year and type	January	February	March	April	May	June	July	August	September	October	November	December	Unweighted average
1977:													
Douglas-fir, 2X4 (B.C.) 1/	US$183	US$184	US$186	US$184	US$174	US$176	US$189	US$210	US$209	US$192	US$184	US$194	US$189
Douglas-fir, 2X4 (U.S.) 2/	205	206	205	192	181	190	224	252	247	229	203	218	213
Douglas-fir, 3X6 & wdr. (U.S.)3/	550	550	548	538	523	505	495	496	500	498	485	480	514
Spruce-pine-fir, 2X4 Western 4/	153	157	155	151	146	165	185	213	199	172	179	200	173
Spruce-pine fir, 2X4 Eastern 5/	194	195	196	193	188	204	228	246	234	203	206	223	209
Southern pine, 2X4 6/	175	174	183	182	180	199	234	270	264	229	217	219	210
1978:													
Douglas-fir, 2X4 (B.C.) 1/	197	198	197	191	205	208	214	229	225	232	238	226	213
Douglas-fir, 2X4 (U.S.) 2/	214	213	215	209	234	244	260	268	257	269	261	243	241
Douglas-fir, 3X6 & wdr. (U.S.) 3/	490	520	555	563	576	580	583	614	680	734	788	820	625
Spruce-pine-fir, 2X4 Western 4/	212	211	211	202	211	195	204	210	211	221	213	206	209
Spruce-pine-fir, 2X4 Eastern 5/	240	244	245	237	241	232	243	246	243	254	255	247	244
Southern pine, 2X4 6/	226	227	226	218	223	214	206	222	225	225	227	218	221
1979:													
Douglas-fir, 2X4 (B.C.) 1/	221	227	232	228	223	222	235	270	296	258	204	194	234
Douglas-fir, 2X4 (U.S.) 2/	251	257	263	251	252	257	283	326	310	273	218	219	263
Douglas-fir, 3X6 & wdr. (U.S.) 3/	850	938	1,015	1,040	1,037	1,038	1,055	1,075	1,102	1,143	1,143	1,145	1,048
Spruce-pine fir, 2X4 Western 4/	211	225	223	217	219	224	238	262	256	234	200	191	225
Spruce-pine-fir, 2X4 Eastern 5/	250	257	264	261	267	280	302	327	320	277	246	249	275
Southern pine, 2X4 6/	210	220	237	235	232	241	259	286	303	294	284	245	254
1980:													
Douglas fir, 2X4 (B.C.) 1/	210	205	180	144	166	183	186	184	180	174	179	178	181
Douglas fir, 2X4 (U.S.) 2/	214	218	184	162	216	238	224	210	193	203	219	208	207
Douglas-fir, 3X6 & wdr. (U.S.) 3/	1,108	1,105	1,120	1,043	1,005	965	900	895	845	810	832	845	956
Spruce-pine-fir, 2X4 Western 4/	204	199	162	128	152	174	194	175	152	157	168	156	168
Spruce-pine-fir, 2X4 Eastern 5/	262	264	228	187	212	238	251	237	214	218	232	220	222
Southern pine, 2X4 6/	238	235	210	165	183	216	225	227	197	199	226	223	212
1981:													
Douglas-fir, 2X4 (B.C.) 1/	187	180	170	175	167	163	174	177	156	140	144	158	166
Douglas-fir, 2X4 (U.S.) 2/	207	193	187	193	183	198	194	180	170	164	155	162	182
Douglas-fir, 3X6 & wdr. (U.S.) 3/	855	840	820	772	712	657	645	645	645	645	680	695	718
Spruce-pine-fir, 2X4 Western 4/	163	155	155	169	169	169	181	160	141	131	139	141	156
Spruce-pine-fir, 2X4 Eastern 5/	225	218	220	239	234	241	250	226	206	194	203	202	222
Southern pine, 2X4 6/	218	216	214	243	226	215	203	182	170	167	165	200	202
1982:													
Douglas-fir, 2X4 (B.C.) 1/	154	143	140	138	131	140	136	134	138	142	154	175	144
Douglas-fir, 2X4 (U.S.) 2/	155	144	162	158	153	152	145	145	145	144	156	174	153
Douglas-fir, 3X6 & wdr. (U.S.) 3/	735	780	788	775	730	662	625	623	642	645	645	675	694
Spruce-pine-fir, 2X4 Western 4/	136	131	134	129	132	149	141	135	134	139	156	169	140
Spruce-pine-fir, 2X4 Eastern 5/	190	190	201	198	203	220	213	203	201	205	221	233	206
Southern pine, 2X4 6/	194	190	203	209	204	233	229	203	191	187	213	228	207
1983:													
Douglas-fir, 2X4 (B.C.) 1/	195	193	187	186	201	216	199	180	170	180	172	175	188
Douglas-fir, 2X4 (U.S.) 2/	231	215	205	203	223	229	211	195	192	191	177	184	205
Douglas-fir, 3X6 & wdr. (U.S.)	723	730	725	720	700	698	705	702	680	675	680	690	702
Spruce-pine-fir, 2X4 Western 3/	187	174	181	187	225	235	203	169	156	167	164	172	185
Spruce-pine-fir, 2X4 Eastern 4/	256	245	250	254	297	305	282	243	225	239	225	244	255
Southern pine	266	270	280	272	281	277	262	232	222	239	244	269	260
1984:													
Douglas-fir, 2X4 (B.C.) 1/	181	188	192	184	159	149	139	143	144	140	139	150	159
Douglas-fir, 2X4 (U.S.) 2/	190	208	210	192	180	177	172	178	173	167	172	171	182
Douglas-fir, 3X6 & wdr. (U.S.) 3/	695	695	695	685	662	648	628	600	598	592	602	622	644
Spruce-pine-fir, 2X4 Western 4/	167	187	186	166	146	138	130	141	136	138	149	158	154
Spruce-pine-fir, 2X4 Eastern 5/	246	267	271	252	225	214	210	215	205	209	223	228	230
Southern pine, 2X4 6/	264	265	258	247	226	224	220	218	202	206	206	228	230

1/ Standard and Better, Random 8/20' unseasoned f.o.b. mill (British Columbia to United States).
2/ Standard and Better, Random 8/20' unseasoned f.o.b. mill (Portland rate).
3/ #2 Clear 15% #3, 10/20' or larger, net f.a.s. west coast Ports.
4/ Standard and Better, Random 8/20' kiln dried f.o.b. mill.
5/ Kiln-dried Standard and Better, Random 8/20' delivered to Northeast United States
6/ #2, Random 8/20' kiln dried f.o.b. Mill.

Source: Random Lengths 1984 Yearbook.

In 1984, Canada was the second leading U.S. export market, after Japan, for softwood lumber, receiving 331 million board feet, valued at $79 million.

Canada

Prices received for lumber by Canadian mills from U.S. customers generally are quoted in U.S. dollars. Basically, Canadian mills set prices in the same manner as do U.S. mills--through supply and demand interaction with wholesalers and large retailers. Typical prices for Canadian lumber also fluctuate with market conditions. Prices for unseasoned, standard and better Douglas fir random length 2X4's, f.o.b. B.C. mill, ranged between $139 and $192 in 1984 (table 30), as shown in the following tabulation (per thousand board feet):

Period	Price 1/
January	$181
February	188
March	192
April	184
May	159
June	149
July	139
August	143
September	144
October	140
November	139
December	150

1/ Prices net f.o.b. mill, 1,000 board feet, Portland rate. Random Lengths 1984 Yearbook, Random Lengths Publications, Inc., Eugene, Oregon, 1985.

Comparison of U.S. and Canadian prices in third countries

Although Canada's major export market for softwood lumber is the United States (13.2 billion board feet, or 84 percent of 1984 exports), both the United States and Canada supply large quantities of softwood lumber to Japan and the European Community (EC). In 1984, U.S. shipments of softwood lumber to Japan (0.5 billion board feet, valued at $162 million) were valued at the U.S. port of export at an average $297.85 per 1,000 board feet, down from $318.87 in 1982 and $307.92 in 1983; Canada's shipments to Japan (0.9 billion board feet, valued at $271 million) were valued at an average of $294.38 per 1,000 board feet in 1984, down from $297.99 in 1982 and $309.68 in 1983. It is believed that these values are extremely close because both the United States and Canada export large quantities of similar type lumber (squares and baby squares 1/ for further processing and for construction) to Japan. The unit price trends of softwood lumber shipped to Japan, as reported by U.S. and Canadian export statistics, are shown in the following tabulation (per thousand board feet):

1/ A square is a piece of lumber produced from a log that has been sawn on four sides such that a cross section reveals a square. A baby square is a piece of lumber approximately four inches square, generally produced for the Japanese market and usually manufactured from Western hemlock.

Year	United States	Canada
1977	US$239.27	US$239.60
1978	295.39	257.60
1979	396.51	387.73
1980	349.22	395.90
1981	347.45	351.25
1982	318.87	297.99
1983	307.92	309.68
1984	297.85	294.38

The prices of U.S. and Canadian shipments of softwood lumber to Europe are not as uniform as those to Japan. In 1984, U.S. shipments of softwood lumber to the EC were valued f.o.b. U.S. port of export at an average $554.91 per 1,000 board feet, more than double the average $253.90 per 1,000 board feet f.o.b. Canadian port, at which Canada's shipments to the EC were valued. This wide disparity is accounted for, in part, by the large share of high-valued, clear southern pine and clear Douglas-fir lumber that the United States ships to Europe compared with Canada's shipments of predominantly dimension lumber. The unit price trends of softwood lumber shipped to the EC during 1977-84, as reported by U.S. and Canadian export statistics, are shown in the following tabulation (per thousand board feet):

Year	United States	Canada
1977 1/	US$464.57	US$227.01
1978 1/	513.22	239.28
1979 1/	748.04	320.80
1980	631.14	339.39
1981	565.61	267.42
1982	549.91	262.88
1983	540.90	298.70
1984	554.91	253.90

1/ Exports to Italy, West Germany, and the United Kingdom are used to represent the EC for U.S. prices.

Tables 19 shows the quantity, value, and unit values of exports of softwood lumber from the United States to leading market countries. Table 28 shows similar information for exports of softwood lumber from Canada.

Currency exchange rates

The rate of exchange between the U.S. dollar and the Canadian dollar varies from day to day. In 1984, the average rate of exchange was 1.2951 Canadian dollars per 1.0000 U.S. dollars. Shown in the following tabulation are the average rates of exchange between the Canadian and U.S. dollars during 1977-84: 1/

1/ International Monetary Fund.

Year	Canadian dollars per U.S. dollar	U.S. dollars per Canadian dollar
1977	$1.0635	$0.9403
1978	1.1402	.8770
1979	1.1715	.8536
1980	1.1619	.8550
1981	1.1989	.8341
1982	1.2337	.8106
1983	1.2324	.8114
1984	1.2951	.7721

Table 31 presents nominal and real (deflated by the respective Nation's Wholesale Price Index--the Producer's Price Index is not available for countries shown) exchange-rate indexes of the U.S. dollar vis-a-vis the Canadian dollar (Canada is the major source of U.S. imports of softwood lumber), the Japanese yen, and the Australian dollar (major export markets).

In nominal terms, the value of the Canadian dollar and the Australian dollar declined substantially vis-a-vis the U.S. dollar. The Canadian dollar declined 17.9 percent during 1977-84; however, the Australian dollar rose 3.6 percent from 1977 to 1981, and then fell 23.5 percent from 1981 to 1984, falling 20.7 percent overall. In contrast, the Japanese yen rose 13.2 percent during the period, rising 27.7 percent from 1977 to 1978 and then showing an irregular downward trend through 1984.

Because of higher inflation rates in Canada and Australia than in the United States, the changes in the real exchange rates between the U.S. dollar and the currencies of Canada and Australia were less extreme than the fluctuations in the nominal rates. During 1977-84, in real terms, the Canadian dollar depreciated 8.3 percent and the Australian dollar depreciated 5.4 percent (rising almost 6 percent during 1977-81 and falling 11 percent from 1981 to 1983 and 1984). In contrast, the lower inflation rate in Japan than in the United States caused that country's real exchange rate to decline 12.1 percent during 1977-84, as opposed to the aforementioned increase in nominal terms.

Quarterly exchange rates between the U.S. dollar and the Canadian dollar from 1977 to 1984 followed the same trend as the full-year averages, as shown in table 32. The nominal value of the Canadian dollar, in terms of the U.S. dollar, declined gradually from January-March 1977 to October-December 1984 by a total of 21.9 percent. However, when these figures are adjusted for inflation, the real U.S. dollar/Canadian dollar exchange rate, fell by only 11.3 percent. This occurred because the Canadian inflation rate rose significantly faster than the U.S. inflation rate during the period. Figure 7 shows exchange rates on both a nominal and real basis, and figure 8 shows exchange rates on both a nominal and real basis indexed to a 1977 base year.

Table 31.--Real and nominal exchange-rate indexes vis-a-vis the U.S. dollar: Canadian dollar; Japanese yen; and Australian dollar, 1977-84

(1977=100)

Year	Canadian dollar	Japanese yen	Australian dollar
Nominal:			
1977	100.0	100.0	100.0
1978	93.2	127.7	103.2
1979	90.8	122.6	100.8
1980	90.9	118.5	102.8
1981	88.7	121.8	103.6
1982	86.2	108.1	91.7
1983	86.3	113.2	81.4
1984	82.1	113.2	79.3
Real:			
1977	100.0	100.0	100.0
1978	94.7	115.6	103.7
1979	93.6	105.6	103.2
1980	93.2	105.6	105.2
1981	91.9	100.8	105.6
1982	92.8	93.3	99.7
1983	94.9	90.3	94.4
1984	91.7	87.9	94.6

Source: Compiled from official statistics of the International Monetary Fund.

Table 32.--Quarterly exchange rates between U.S. and Canadian dollars, 1977-84

(1977 annual average=100)

Period	Nominal rate	Nominal rate indexed	Real rate	Real rate indexed
	U.S. dollars per Canadian dollar			
1977:				
January-March	0.9709	103.3	0.9630	102.4
April-June	.9503	101.1	.9437	100.4
July-September	.9348	99.4	.9413	100.1
October-December	.9077	96.5	.9157	97.4
Annual average	.9403	100.0	.9403	100.0
1978:				
January-March	.8982	95.5	.9077	96.5
April-June	.8871	94.3	.8937	95.0
July-September	.8743	93.0	.8864	94.3
October-December	.8485	90.2	.8691	92.4
Annual average	.8767	93.2	.8905	94.7
1979:				
January-March	.8429	89.6	.8729	92.8
April-June	.8635	91.8	.8903	94.7
July-September	.8574	91.2	.8811	93.7
October-December	.8513	90.5	.8767	93.2
Annual average	.8537	90.8	.8804	93.6
1980:				
January-March	.8589	91.3	.8866	94.3
April-June	.8545	90.9	.8733	92.9
July-September	.8631	91.8	.8785	93.4
October-December	.8447	89.8	.8683	92.3
Annual average	.8552	90.9	.8768	93.2
1981:				
January-March	.8378	89.1	.8582	91.3
April-June	.8343	88.7	.8547	90.9
July-September	.8253	87.8	.8578	91.2
October-December	.8391	89.2	.8843	94.0
Annual average	.8341	88.7	.8639	91.9
1982:				
January-March	.8272	88.0	.8762	93.2
April-June	.8035	85.5	.8662	92.1
July-September	.8001	85.1	.8649	92.0
October-December	.8120	86.4	.8803	93.6
Annual average	.8106	86.2	.8728	92.8
1983:				
January-March	.8148	86.7	.8891	94.6
April-June	.8123	86.4	.8972	95.4
July-September	.8112	86.3	.8941	95.1
October-December	.8074	85.9	.8890	94.5
Annual average	.8114	86.3	.8926	94.9
1984:				
January-March	.7966	84.7	.8822	93.8
April-June	.7737	82.3	.8611	91.6
July-September	.7611	80.9	.8540	90.8
October-December	.7585	80.7	.8546	90.9
Annual average	.7721	82.1	.8626	91.7

Source: Compiled from official statistics of the International Monetary Fund.

Note: Because of rounding, the annual averages may not equal the average of the respective quarters for that year.

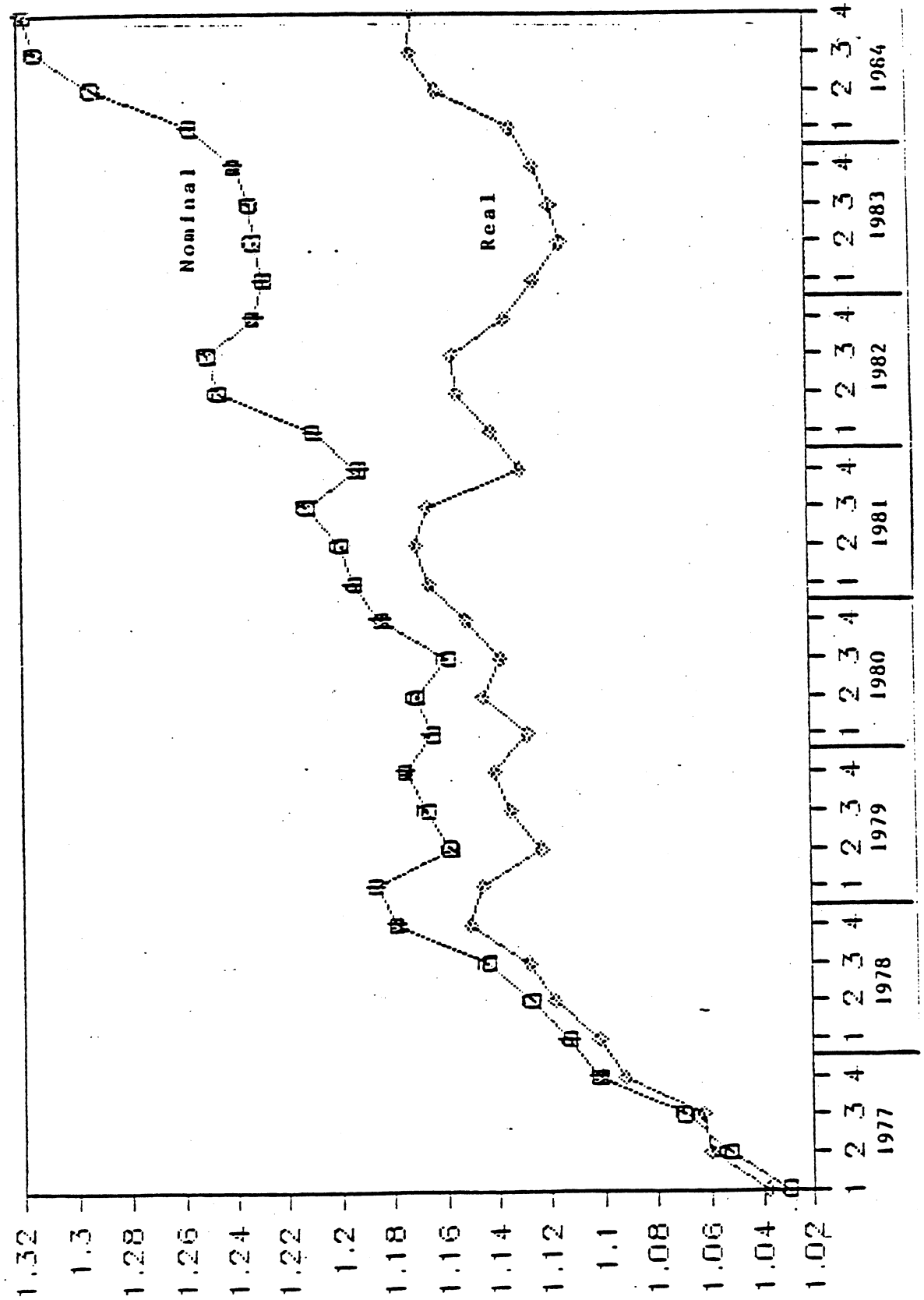


Figure 7.--Exchange rates, Canadian dollar per U.S. dollar by quarters, 1977-84.

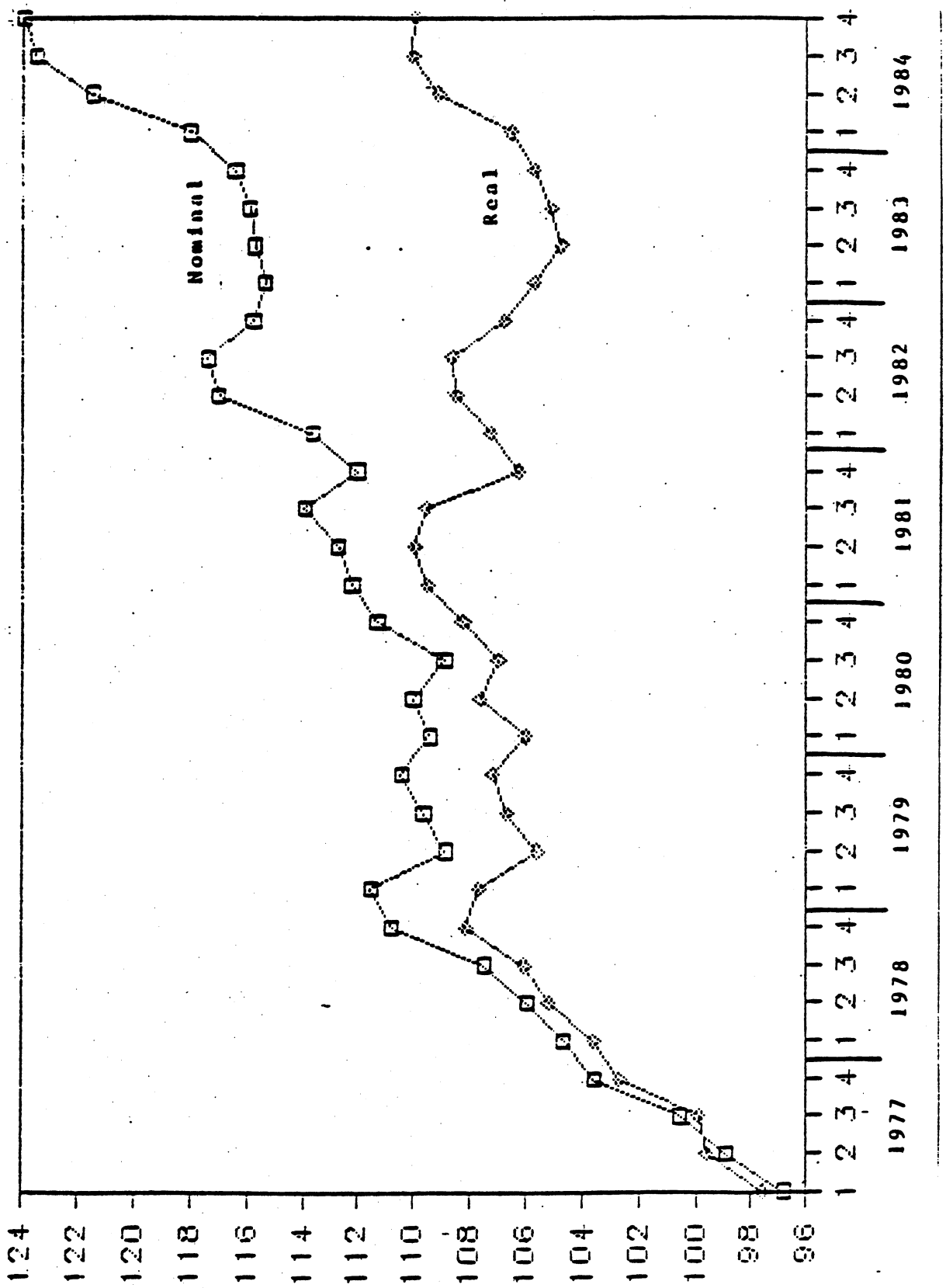


Figure 8.--Index of exchange rates, Canadian dollar per U.S. dollar, by quarters (1977 annual average =100), 1977-84.

During 1977-84, the increased value of the U.S. dollar improved the competitiveness of Canadian lumber in the U.S. market. Because the U.S. dollar was worth more Canadian dollars in 1984 than in 1977, Canadian producers were able to reduce their selling prices in the U.S. market and realize the same return in Canadian dollars. However, the Canadian producers may not have decreased their prices by the full extent of the increase in the value of the U.S. dollar. If they did not decrease their prices by the full extent possible, their per unit profit on sales to the United States might have risen. Additionally, some of the Canadian producers' costs should have risen with the U.S. dollar's value. For example, because the lumber producers import much of their equipment from the United States, their equipment costs should have increased with the value of the U.S. dollar. However, most of the Canadian producers' costs are in Canadian dollars; therefore, those costs are not directly affected by changes in the exchange rate.

Pricing and marketing comparisons

Some important points concerning U.S. and Canadian lumber pricing and marketing are shown as follows:

- o U.S. and Canadian softwood lumber generally is marketed in the same manner, serving similar, if not identical, markets.
- o Since 1982, when there was a US$9 per thousand board foot difference between U.S. and Canadian Douglas fir lumber, the difference has risen to US$23 per thousand board feet in 1984.
- o British Columbia mills generally appear to be the price leaders on such widely used lumber products as 2X4's, although transportation costs (distance to market and local rates), grade, and species of lumber may influence the pricing structure. 1/
- o Although most trade between the United States and Canada flows from Canada to the United States, some U.S.-produced softwood lumber is marketed in Canada.
- o The U.S. dollar premium over the Canadian dollar is an important advantage for Canadian producers when they market lumber in the United States.
- o There is a builders' preference for "white wood" (SPF is the primary species mix) over SYP and Douglas-fir that enables SPF products to be more competitive than might overwise occur without the preference.

1/ Canadian-produced spruce-pine-fir lumber (for which prices are given in table 30), because of strength characteristics, is, according to industry sources, only usable in about 85 percent of typical uses of such species as Douglas-fir and southern pine. This accounts for at least part of the price differences shown in table 30.

Transportation and Distribution

U.S. distribution

Transportation may account for a considerable portion of the delivered cost of lumber. For example, in December 1984, dry, random length, standard and better Douglas-fir 2X4 lumber had an average price, f.o.b. mill, of $171 per 1,000 board feet (table 30). Assuming an average weight of 1,800 pounds per 1,000 board feet, a 110,000-pound bulkhead railcar could carry 55,000 board feet. Freight charges from Portland, OR to Chicago, IL for such a load would have been $5,753 (table 33). The delivered price would have been $15,158, exclusive of discounts and surcharges, making transportation charges nearly 38 percent of the delivered charge. When such lumber brought a higher price, such as in March 1984, when it was selling for an average of $210 per 1,000 board feet, these transportation charges would have been about 33 percent of the delivered cost.

Most lumber shipments in the United States are transported from the mills to the wholesalers or retailers by truck or rail, with waterborne shipments of only minor importance. Shipment by truck is by far the most common method used in the North and South owing to short hauling distances to major markets. Over 80 percent of all lumber shipments originating in these regions are made by truck, with remaining shipments are made by rail.

The major difference in transportation costs between the United States and Canada results from the location of the mill--the distance to market of which the Canadians have the fartherest to ship.

Western lumber shipments.--During 1977-84, western lumber shipments to U.S. destinations have been predominantly by rail; however, in 1980 and 1981, truck shipments surpassed rail shipments. By far the leading destination for western truck shipments was to western locations; whereas, western rail shipments were more evenly distributed throughout the country (table 34). Waterborne shipments from western mills were almost exclusively to western destinations. For 1984, the Western Wood Products Association reported shipments from mills in the West by methods of transportation, as follows: 1/

Method	Quantity (million board feet)	Percent of total
Rail	2,816	55.6
Truck	1,898	37.5
Water	353	7.0
Total 1/	5,067	100.0

1/ Because of rounding, figures may not add to the totals shown.

Over four-fifths (82 percent) of the western lumber shipments were made to destinations within the region in 1984, with California being the leading market (41 percent of total shipments). Of the remaining shipments, 10 percent were made to destinations in the South and 8 percent to the North (table 34). In 1977, nearly 42 percent of the shipments from western mills went to Southern and Northern destinations. This reversal is generally

1/ These figures only include production of those mills reporting statistics to the Western Wood Products Association.

Table 33.--Softwood lumber: Tariff rates for rail shipments from selected U.S. and Canadian origins to selected U.S. destinations, 1980 and 1984

(Per carload for 110,000-pound bulkhead car)

Destination	Origin									
	United States				Canada					
	Portland		Spokane		Vancouver		Williams Lake		Kamloops	
	1980	1984	1980	1984	1980	1984	1980	1984	1980	1984
Augusta, ME	US$6,129	US$6,446	US$6,014	US$6,094	US$6,294	US$6,567	US$6,294	US$6,919	US$6,025	US$6,534
Augusta, GA	5,637	6,391	5,307	6,259	5,736	6,391	5,813	6,666	5,571	6,358
Baltimore, MD	6,129	6,446	6,014	6,094	6,294	6,567	6,294	6,919	6,025	6,534
Chicago, IL	5,010	5,753	4,834	5,610	5,010	5,753	5,263	5,962	4,966	5,610
Concord, NH	6,129	6,446	6,014	6,094	6,294	6,567	6,294	6,919	6,025	6,534
Detroit, MI	5,953	7,117	5,744	6,952	5,953	7,117	6,187	7,348	5,755	6,963
Green Bay, WI	5,010	5,753	4,812	5,467	5,010	5,753	5,263	5,962	4,834	5,610
Louisville, KY	5,953	7,117	5,744	6,952	6,187	7,117	6,187	7,348	5,755	6,963
Syracuse, NY	6,129	6,446	6,014	6,094	6,294	6,567	6,294	6,919	6,025	6,534
Topeka, KA	4,504	4,961	4,372	4,818	4,504	4,961	4,757	5,236	4,438	4,895

Source: Transcontinental Freight Bureau Tariffs, TCFB 4517, TCFB 4518, and TCFB 4520. Rates do not include any individual carrier surcharges that may be applicable. Charges are at the RCCR X084 level.

Table 34.--Softwood Lumber: Selected shipments from the Western United States to U.S. destinations, by areas and by methods of transportation, 1977-84

Year and destination	Method of transportation				Percent of U.S. total
	Rail	Truck	Water	Total	
	Million board feet				
1977:					
North--					
Northeast	513.6	3.2	-	516.9	5
North Central	1,667.2	487.8	-	2,154.9	22
South	1,230.0	191.2	-	1,421.2	15
West	1,964.8	3,664.8	-	5,629.6	58
Total	5,375.6	4,347.0	-	9,722.6	100
1978:					
North--					
Northeast	457.0	2.9	-	459.9	5
North Central	1,484.1	518.0	-	2,002.2	21
South	1,234.6	181.8	-	1,416.4	15
West	2,001.6	3,836.3	-	5,837.9	60
Total	5,177.1	4,539.0	-	9,716.3	100
1979:					
North--					
Northeast	480.5	5.3	-	485.8	4
North Central	1,386.9	570.3	-	1,957.2	18
South	1,231.1	169.6	9.1	1,409.7	13
West	2,233.5	4,521.8	232.3	6,987.6	64
Total	5,331.9	5,266.9	231.4	10,840.3	100
1980:					
North--					
Northeast	416.2	9.3	-	425.5	5
North Central	810.9	544.3	-	1,354.9	15
South	980.6	182.7	6.7	1,170.1	13
West	1,752.3	3,923.7	163.8	5,839.8	66
Total	3,960.0	4,660.0	170.5	8,790.2	100
1981:					
North--					
Northeast	356.9	20.9	3.5	381.2	5
North Central	560.1	618.4	-	1,178.5	14
South	947.1	249.3	-	1,205.4	14
West	1,561.4	3,888.7	250.6	5,700.8	67
Total	3,425.5	4,786.2	254.1	8,465.9	100
1982:					
North--					
Northeast	67.4	2.0	-	69.4	3
North Central	90.1	37.1	-	127.2	5
South	326.5	15.8	-	342.3	13
West	862.8	1,123.0	162.0	2,147.8	80
Total	1,346.8	1,177.9	162.0	2,686.7	100
1983:					
North--					
Northeast	110.6	3.9	19.5	134.0	3
North Central	179.3	50.3	-	229.6	5
South	522.1	27.7	-	549.8	12
West	1,787.7	1,673.0	271.0	3,731.6	80
Total	2,599.7	1,754.9	290.5	4,645.0	100
1984:					
North--					
Northeast	131.3	4.3	41.5	177.1	4
North Central	163.9	54.0	-	217.8	4
South	465.3	36.9	-	502.2	10
West	2,055.6	1,803.1	311.1	4,169.7	82
Total	2,816.1	1,898.3	352.6	5,066.8	100

Source: Western Wood Products Association, Destination of shipments, 1977-84.

Note.--Because of rounding, figures may not add to the totals shown.

attributed to increased shipments from interior British Columbia mills and the increased southern U.S. softwood lumber production. Some shift is also likely as a result of development in, and a population shift to, the "sun belt" particularly the Southwestern United States in which southern and western U.S mills have shipping cost advantages. The following tabulation, based on data from table 34, shows the regional distribution of Western softwood lumber shipments during 1977-84 (in percent): 1/

	Northeast	North Central	South	West	Total 1/
1977----------	5	22	15	58	100
1978----------	5	21	14	60	100
1979----------	4	18	13	64	100
1980----------	5	15	13	66	100
1981----------	5	14	14	76	100
1982----------	3	5	13	80	100
1983----------	3	5	12	80	100
1984----------	4	4	10	82	100

1/ Because of rounding, figures may not add to the totals shown.

As can be seen from the previous tabulation, the percentage of western shipments staying within the Western region increased throughout 1977-84, which included years of both strong and weak demand. The percentage gain in the West was almost entirely offset by the percentage decline in the North Central region. As more shipments from western regions went to destinations in the West during 1977-81, rail shipments declined from 55 percent in 1977 to 40 percent in 1981; however, the increased competitiveness of the rail shippers as a result of the Staggers Act of 1980 enabled rail shipments to increase from 40 percent in 1980 to 56 percent in 1983 and 1984.

Southern pine lumber shipments.--During 1978-83, shipments of southern pine to U.S. destinations have been predominantly by truck (table 35). For 1983, shipments of southern pine to all destinations, by method of transportation, were as follows: 2/

Method	Quantity (million board feet)	Percent of total
Truck----------	10,317.5	84.8
Rail----------	1,856.5	15.2
Water----------	.0	.0
Total----------	12,174.0	100.0

1/ Regions shown are as reported by the Western Wood Products Association.

2/ Derived from Southern Forest Products Association, Distribution of Southern Pine Shipments, based on U.S. Department of Commerce statistics.

Table 35.--Southern pine lumber: Shipments from the Southern United States to U.S. destinations, by areas and by methods of transportation, 1977-84

Year and destination	Method of transportation				Percent of U.S. total
	Rail	Truck	Water	Total	
	Million board feet				
1977:					
North--					
Northeast	188.9	291.1	-	480.0	5
North Central	1,176.9	1,000.4	-	2,177.3	21
South	1,187.3	6,479.3	-	7,666.6	74
West	0	0	-	0	0
Total	2,553,1	7,770.8	-	10,324.0	100
1978:					
North--					
Northeast	265.1	459.4	-	724.5	7
North Central	1,076.5	1,075.4	-	2,151.9	20
South	1,101.2	6,754.3	-	7,855.5	73
West	0	0	-	0	0
Total	2,442.8	8,289.1	-	10,733.0	100
1979:					
North--					
Northeast	258.0	372.4	-	630.4	6
North Central	997.3	1,084.7	-	2,082.0	19
South	1,190.5	6,890.3	-	8,080.8	75
West	0	0	-	0	0
Total	2,445.8	8,347.4	-	10,793.0	100
1980:					
North--					
Northeast	172.0	329.6	-	501.6	5
North Central	680.2	1,035.7	-	1,715.9	18
South	1,096.8	6,239.7	-	7,336.5	77
West	0	0	-	0	0
Total	1,949.0	7,605.0	-	9,554.0	100
1981:					
North--					
Northeast	153.7	344.4	-	498.0	5
North Central	559.6	1,028.3	-	1,587.9	16
South	1,247.5	6,450.6	-	7,698.1	79
West	0	0	-	0	0
Total	1,960.7	7,823.3	-	9,784.0	100
1982:					
North--					
Northeast	154.7	362.1	-	516.8	5
North Central	412.7	1,124.7	-	1,537.3	15
South	1,400.8	6,659.1	-	8,059.8	80
West	0	0	-	0	0
Total	1,968.2	8,145.8	-	10,114.0	100
1983:					
North--					
Northeast	193.6	463.8	-	657.4	5
North Central	367.7	838.8	-	1,206.4	10
South	1,295.3	9,014.8	-	10,310.2	85
West	-	-	-	-	0
Total	1,856.5	10,317.5	-	12,174.0	100
1984:					
North--					
Northeast	1/	1/	-	1/	1/
North Central	1/	1/	-	1/	1/
South	1/	1/	-	1/	1/
West	1/	1/	-	1/	1/
Total	1/	1/	-	12,503.0	100

1/ Not available.

Source: Derived from Southern Forest Products Association (SFPA), Distribution of Southern Pine Shipments, and official statistics of the U.S. Department of Commerce statistics, by the staff of the U.S. International Trade Commission. Destinations are as used by the Western Wood Products Association (table 23).

Note.--Because of rounding, figures may not add to the totals shown.

In 1983, within-State shipments of southern pine lumber were important for a number of producing States ,as shown in the following tabulation: 1/

Producing State	Percent of shipments to within-State destinations
Texas	95.7
South Carolina	68.1
Virginia	44.9
Alabama	43.5
Louisiana	38.3
North Carolina	31.8
Georgia	26.0
Arkansas	20.3
Mississippi	8.7

Shipments of southern pine lumber within the South region increased, as a share of total shipments of southern pine lumber, from 73 percent in 1978 to 85 percent in 1983. In that year, 87 percent of such shipments were by truck. The increased share of shipments to destinations within the region reflects an overall decline in shipments to the North Central region and a leveling-off of shipments to the Northeast region.

The following tabulation, based on data from table 35, shows the regional distribution of southern pine lumber shipments during 1977-84 (in percent): 2/

	Northeast	North Central	South	West	Total
1977	5	21	74	0	100
1978	7	20	73	0	100
1979	6	19	75	0	100
1980	5	18	77	0	100
1981	5	16	79	0	100
1982	5	15	80	0	100
1983	5	15	85	0	100
1984	NA	NA	NA	NA	-

Unlike western shipments of softwood lumber, the Staggers Act of 1980 appears to have had little affect on the method of distribution used for shipping southern pine lumber to all destinations. During 1978-83, the share of total shipments of southern pine lumber traveling by rail declined for all destinations.

Canadian distribution

In Canada, export shipments are primarily by rail, due to the dominance of British Columbia in lumber production and the long distances to all U.S. markets, except the Pacific Northwest. In 1984, about 4.8 billion board feet, approximately 64 percent of all export shipments from British Columbia (mostly

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1/ Based on Southern Forest Products Association, Distribution of Southern Pine Shipments, July 1984.

2/ Regions shown are as reported by the Western Wood Products Association.

from the interior regions) to the United States, were by rail with 19 percent by truck and 17 percent by water (table 36). In contrast, 82 percent of the shipments from Ontario and Quebec to the United States were by truck in 1984, with the remainder of the shipments by rail. Canadian export shipments to the United States in 1984, by method of transportation, are shown in the following tabulation: 1/

Method	Quantity (million board feet)	Percent of total
Rail	6,183.0	46.8
Truck	5,687.6	43.1
Water	1,331.9	10.1
Other	13,202.5	100.0

Shipments of softwood lumber to the United States from British Columbia accounted for virtually all Canadian waterborne shipments and 78 percent of all rail shipments, but only 25 percent of all truck shipments. The distribution of all softwood lumber shipments from British Columbia to the United States is shown in table 37 and in the following tabulation (in percent):

	Northeast	North Central	South	West	Total
1977	17	40	28	15	100
1978	15	29	38	18	100
1979	15	30	36	18	100
1980	13	27	41	19	100
1981	12	24	42	22	100
1982	12	21	47	20	100
1983	11	25	45	19	100
1984	12	19	46	22	100

Note.--Because of rounding, figures may not add to the totals shown.

This shows declining shipments from British Columbia to markets in the North, and increases in shipments to the South and West. The decline in shipments to the North has been filled by increases in shipments from eastern Canada. Shipments from eastern Canada are mostly made by truck to northern U.S. markets.

Comparison of U.S. and Canadian transportation costs

Truck and rail costs.--It is generally agreed that neither the U.S. nor Canadian industries has any cost advantages in shipping by truck, other than proximity to the market, in which case the advantage is usually with the U.S. producers. However, it has been contended that Canadian rail rates are lower than those avialable to U.S. shippers, and as a result, shipments from British Columbia, to the Southern and Eastern United States, have displaced shipments from the Western United States. Transcontinental Freight Bureau tariff rates for lumber shipments by rail from specified origins and destinations are given

1/ Data obtained from the Council of Forest Industries.

Table 36.--Canadian shipments of softwood lumber to the United States, by Province or Provincial area, and by methods of transportation, 1977-84

Year and method of transportation	Source					Total	Percent of total shipments to the United States
	Prairie Provinces	Maritime Provinces	Ontario 1/	Quebec 1/	British Columbia 1/		
	Million board feet						
1977:							
Water	-	-	0.2	1.4	1,389.3	1,390.9	13.5
Truck	73.2	133.0	740.0	518.1	474.6	1,938.9	18.8
Rail	389.6	10.8	244.0	230.6	6,134.1	7,009.1	67.8
Total	462.8	143.8	984.2	750.1	7,998.0	10,338.9	100.0
1978:							
Water	-	.1	-	-	1,406.4	1,406.5	12.3
Truck	88.2	192.1	988.9	668.0	632.7	2,569.9	22.6
Rail	375.3	12.2	330.0	294.4	6,412.7	7,424.6	65.1
Total	463.5	204.4	1,318.9	962.4	8,451.8	11,401.0	100.0
1979:							
Water	-	.2	-	-	1,218.6	1,218.8	11.3
Truck	104.1	174.3	1,043.1	720.3	659.7	2,701.5	25.1
Rail	424.9	9.7	306.1	272.6	5,847.7	6,861.0	63.6
Total	529.0	184.2	1,349.2	992.9	7,726.0	10,781.3	100.0
1980:							
Water	-	.5	-	-	800.3	800.8	8.6
Truck	124.7	119.7	1,162.6	801.9	578.6	2,787.5	30.0
Rail	379.4	3.8	189.1	173.7	4,947.0	5,693.0	61.3
Total	504.1	124.0	1,351.7	975.6	6,325.9	9,281.3	100.0
1981:							
Water	-	-	-	-	797.2	797.2	8.8
Truck	214.6	123.5	1,722.8	936.6	734.1	3,731.6	41.3
Rail	351.9	1.7	150.8	266.9	3,733.8	4,505.1	49.9
Total	566.5	125.2	1,873.6	1,203.5	5,265.1	9,033.9	100.0
1982:							
Water	-	-	-	-	752.1	752.1	8.2
Truck	243.3	76.1	1,836.1	965.4	817.0	3,937.9	43.1
Rail	290.5	3.0	71.1	379.5	3,601.8	4,345.9	47.6
Total	533.8	79.1	1,908.2	1,344.9	5,170.9	9,035.9	100.0
1983:							
Water	-	.1	-	-	1,125.6	1,125.7	9.5
Truck	242.9	143.9	2,067.9	1,019.0	1,122.1	4,595.8	38.6
Rail	498.7	7.8	150.2	572.7	4,956.3	6,185.7	52.0
Total	741.6	151.8	2,218.1	1,591.7	7,204.0	11,907.2	100.0
1984:							
Water	-	.3	-	-	1,331.6	1,331.9	10.1
Truck	349.0	188.5	2,432.5	1,274.6	1,443.0	5,687.6	43.1
Rail	528.7	13.1	263.8	539.1	4,838.3	6,183.0	46.8
Total	877.7	201.9	2,696.3	1,813.7	7,612.9	13,202.5	100.0

1/ Some Ontario and Quebec volume originated in British Columbia but was temporarily unloaded at reload centers in Ontario and Quebec, and upon subsequent crossing of the U.S./Canadian boarder was credited to Ontario and Quebec.

Source: Council of Forest Industries.

Table 37.--Softwood Lumber: Shipments from British Columbia to U.S. destinations, by areas and by methods of transportation, 1977-84

Year and destination	Method of transportation			
	Total	Rail	Truck	Other
	Million board feet			
1977:				
North--				
Northeast	1,350.1	575.9	2.5	771.7
North Central	3,163.5	3,148.0	15.5	0
South	2,259.4	1,829.3	6.3	393.8
West	1,219.2	546.2	449.1	223.9
Total	7,992.2	6,129.4	473.4	1,389.4
1978:				
North--				
Northeast	1,269.3	580.4	5.5	683.4
North Central	2,559.6	2,531.3	28.4	0
South	3,062.5	2,581.2	16.8	464.5
West	1,544.7	717.6	568.7	258.5
Total	8,436.2	6,410.5	619.3	1,406.4
1979:				
North--				
Northeast	1,136.5	539.2	8.5	588.8
North Central	2,228.6	2,178.4	50.2	0
South	2,928.9	2,503.6	23.2	402.1
West	1,432.3	624.9	581.9	225.5
Total	7,726.3	5,846.1	663.8	1,216.4
1980:				
North--				
Northeast	810.8	450.1	4.8	355.9
North Central	1,683.7	1,645.6	38.1	0
South	2,599.5	2,365.2	19.4	214.9
West	1,232.0	486.9	515.9	229.2
Total	6,326.0	4,947.8	578.2	800.0
1981:				
North--				
Northeast	1/ 635.5	215.5	1/ 21.7	398.2
North Central	1/1,266.2	1,203.5	1/ 62.8	0
South	2,194.9	1,929.6	23.2	242.2
West	1,166.6	384.3	592.3	190.0
Total	1/5,263.3	3,732.8	1/ 700.1	830.4
1982:				
North--				
Northeast	1/ 614.5	232.2	1/ 27.3	355.1
North Central	1/1,090.5	1,014.2	1/ 76.2	0
South	2,445.8	2,083.0	56.5	306.4
West	1,017.7	272.8	654.6	90.2
Total	1/5,168.5	3,601.8	1/ 814.6	752.1
1983:				
North--				
Northeast	1/ 820.0	316.9	1/ 26.2	476.9
North Central	1/1,792.1	1,703.4	1/ 88.7	0
South	3,249.2	2,620.7	95.4	533.1
West	1,341.6	313.7	911.1	116.9
Total	1/7,203.0	4,954.7	1/1,121.5	1,126.8
1984:				
North--				
Northeast	1/ 923.4	349.1	1/ 42.3	532.0
North Central	1/1,457.0	1,339.9	1/ 117.1	0
South	3,535.2	2,774.8	156.1	604.3
West	1,695.0	366.0	1,125.6	203.4
Total	1/7,610.7	4,829.8	1/1,441.1	1,339.8

1/ Excludes some shipments of British Columbia lumber from reload centers.

Source: British Columbia Forest Industry Statistical Tables, Council of Forest Industries of British Columbia, Vancouver, British Columbia, April 1985.

Note.--Because of rounding, figures may not add to the totals shown.

in table 33. These rates from Spokane, WA, and from Kamloops, British Columbia to selected U.S. destination are shown in the following tabulation (per 110,000-pound bulkhead car):

Destination	Origin	
	Spokane, Wash.	Kamloops British Columbia
North:		
Chicago, IL	US$5,610	US$5,610
Green Bay, WI	5,467	5,610
Detroit, MI	6,952	6,963
Baltimore, MD	6,094	6,534
Syracuse, NY	6,094	6,534
South:		
Louisville, KY	6,952	6,963
Augusta, GA	6,094	6,358

Rates shown from Portland, OR, and Vancouver, WA, are identical for all listed destinations. The rates in table 33 do not reflect special contract rates and discounts generally available to large-volume shippers. Neither do they reflect lower rates available for domestic shipments within Canada. Through the development in eastern Canada and in the Eastern United States of "reload centers," to which lumber is shipped by rail and then reloaded to trucks for further shipment (mostly to the United States), Canadian shippers have been able to attain lower rates than those available by shipping transcontinental via U.S. rail lines to markets in the Northeastern States.

The Canadian railways have established combination rates with several northeastern regional rail carriers. These rates, which apply to shipments between British Columbia and certain New England destinations, are often lower than the Transcontinental Freight Bureau Rates. 1/ These combination rates were established to compete with the rail-truck rates discussed earlier. 2/

Competition from waterborne transportation has led the Canadian railroads to lower their rates on lumber shipments. For example, CP Rail has established combination rates on green lumber shipped from British Columbia to the U.S. east coast. These rates, which are substantially below the Transcontinental Freight Bureau rates, were specifically set to meet competition from water carriers. 3/ Furthermore, when negotiating lower rail rates, western Canadian lumber producers have better access to waterborne transportation than the U.S. producers. They also have lower costs for certain rail shipments.

The Staggers Act of 1980 has changed the rate-setting provisions under which U.S. railroads operate. The act allows open competition between rail carriers for shipments over single rail lines. It may be possible for some lumber manufacturers to use a combination of single line rates that would be lower than the published through rates, and thus ship at rates more competitive

1/ Letter from D.C. Behnish of CP Rail, Mar. 17, 1982, pp. 2-3.

2/ "Transportation Issues Associated With the Sale of B.C. Lumber in U.S.A., CP Rail," March 1982, p. 46.

3/ D.A. Behnish Letter, op. cit., p. 3.

than those available to Canadian manufacturers. Western shippers may be able to use favorable single line rates to ship to the South or North Central States, and thereby, be more competitive with Canadian producers in that region. 1/ In early 1982, two major western rail carriers announced the availability of such rates. 2/ In the Northeastern United States, however, it is likely that the Canadian rail-truck combination through eastern "reload centers" will continue to give a delivery cost advantage to lumber producers in British Columbia over producers in the Western United States.

Waterborne costs.--Waterborne shipments to U.S. destinations are important only to producers in the Western United States and in British Columbia. Waterborne shipments in the West are for the most part between west coast ports or are exported. As reported by the Pacific Lumber Inspection Bureau, shipments from U.S. west coast ports have declined steadily from 849 million board feet in 1960 to 4 million board feet in 1979. This decline is attributed by most sources to the effects of the Merchant Marine Act of 1920, commonly known as the Jones Act, which requires the use of U.S. ships in intracoastal trade. This limits the supply of shipping available to U.S. lumber shippers, and generally results in higher costs than that of ships of other flags. The degree to which the higher costs attributed to the use of U.S.-flagships gives the Canadian lumber shipper a competitive advantage in U.S. markets depends on several factors, including rates paid by Canadian shippers. It appears that Canadian shippers have more flexiblility in rate competition. Canadians have taken several steps to minimize the effect of waterborne shipping rates. Even if U.S. and Canadian rates were competitive, it is likely that Canadian shippers would have certain advantages that are inherent in the distribution system they have developed. This includes cargo assembly centers, at least one of which is jointly owned by Canadian lumber producers. 3/ Lumber is delivered by truck or rail in standardized packages where it is kept in inventory to be assembled according to order at dockside for loading. These centers allow one-step loading, and standard packaging allows rapid loading and efficient space utilization. Time savings in loading and offloading ships considerably reduces the total charges for waterborne shipments. U.S. producers could most likely develop a similar system in time, but appear unlikely to do so as long as the higher costs and limited shipping associated with the provisions of the Jones Act continue. 4/

Costs of shipping by water from Canada to the United States for 1982 and 1983 are shown in table 38. These were calculated from official U.S. import statistics. In 1983, the average transportation cost was 25 percent of the total landed value of such imports, down from 29 percent in 1982. Waterborne transportation charges to Baltimore, Md., accounted for 25 percent of the landed value of softwood lumber imports (table 38), whereas rail charges from Portland, OR, to Baltimore, MD, for Douglas fir lumber would have been 39 percent of the delivered price.

1/ "Crows Weekly Letter," Friday, Jan. 29, 1982, p. 10.

2/ Ibid., Friday, Mar. 5, 1982, and American Logger and Lumberman, December-January 1981-82, p. 15.

3/ Information obtained from Mr. E.A. Cameron, Senior Vice President, Seaboard Lumber Sales Co. Ltd., during a visit to Seaboard in Vancouver, British Columbia, Jan. 22, 1982.

4/ Interview with Mr. Stanley Bishoprick, consultant to Dant & Russell, Inc., Portland, OR., Mar. 5, 1982.

Table 38.--Softwood lumber: Transportation cost for waterborne U.S. imports from Canada, 1982 and 1983

District of unloading	Waterborne share of value of imports by customs district		Transportation cost of waterborne imports		Transportation cost as a share of value	
	1982	1983	1982	1983	1982	1983
	Percent		$/cwt		Percent	
Boston, MA	99	100	2.18	2.87	19	19
Providence, RI	100	100	3.08	2.45	33	19
Bridgeport, CT	100	100	2.46	2.76	23	27
New York, NY	100	100	3.59	4.65	40	37
Philadelphia, PA	100	100	2.04	2.60	41	32
Baltimore, MD	100	100	1.48	1.67	23	25
Norfolk, VA	-	-	1/	1/	1/	1/
Savannah, GA	100	100	.53	2.16	7	17
Miami, FL	100	100	2.48	2.27	33	25
Tampa, FL	100	81	3.71	2.49	32	26
Mobile, AL	100	-	1.67	1/	25	1/
New Orleans, LA	-	-	1/	1/	1/	1/
Houston, TX	100	100	3.03	5.28	38	42
Port Arthur, TX	100	100	2.48	2.94	29	14
San Diego, CA	100	100	1.63	.91	17	6
Los Angeles, CA	98	100	1.26	1.53	18	19
San Francisco, CA	91	86	1.05	1.24	20	13
Seattle, WA	7	8	.48	.54	6	5
Anchorage, AK	76	65	4.23	3.55	40	30
San Juan, PR	100	100	2.72	7.60	32	43
Virgin Islands	100	100	.79	3.21	10	30
Total	9	11	1/	1/	1/	1/
Average	1/	1/	2.57	2.48	29	25

1/ Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce Bureau of the Census.

Appendix A

Request from the United States Trade Representative

THE UNITED STATES TRADE REPRESENTATIVE

WASHINGTON
20506

OFFICE OF THE CHAIRWOMAN
USITC
552

85 MAR 7 P3:30

March 6, 1985

The Honorable Paula A. Stern
Chairwoman
U.S. International Trade Commissic
701 E Street, N.W.
Washington, D.C. 20436

Dear Madam Chairwoman:

Representatives of the U.S. softwood lumber industry have expressed their continuing acute concern over the strong competition from imported softwood lumber which U.S. producers are experiencing, and the growing share of U.S. consumption of softwood lumber which is being supplied by imports. Industry representatives feel that the decline in the competitive position of U.S. producers is attributable principally to certain conditions associated with Canadian production and exports of softwood lumber.

In April of 1982, in response to a request from the Senate Committee on Finance, the Commission prepared a report on conditions relating to the importation of softwood lumber into the United States (USITC Publication 1241). This report was very useful both to the industry and the government in analyzing competitive conditions in the industry at the end of 1981. To assist us in assessing the nature and extent of the industry's continuing problems we need up-to-date information on the matters covered by the Commission's 1982 report.

To provide this information, I request, at the direction of the President and pursuant to section 332(g) of the Tariff Act of 1930, that the Commission conduct an investigation to update the Commission's April 1982 study entitled "Conditions Relating to the Importation of Softwood Lumber Into the United States," and report to me all significant factors affecting the competitive status of the U.S. and Canadian softwood lumber industries.

The Commission's investigation should examine conditions in the softwood lumber industry over the past three years and report any significant developments since its earlier investigation.

The Commission is requested to submit its report on this investigation not later than 4 months after the date of receipt of this letter.

Very truly yours,

WILLIAM E. BROCK

WEB:pcc

Appendix B

Federal Register, Notice of Investigation

Tariff Act of 1930 (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from East Germany of carbon steel wire rod, provided for in item 607.17 of the Tariff Schedules of the United States, which have been found by the Department of Commerce, in a preliminary determination, to be sold in the United States at less than fair value (LTFV). Unless the investigation is extended, Commerce will make its final LTFV determination on or before May 20, 1985, and the Commission will make its final injury determination by July 9, 1985 (see sections 735(a) and 735(b) of the act (19 U.S.C. 1673d(a) and 1673d(b))).

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207, subparts A and C (19 CFR Part 207), and Part 201, Subparts A through E (19 CFR Part 201, as amended by 49 FR 32569, Aug. 15, 1984).

EFFECTIVE DATE: March 12, 1985.

FOR FURTHER INFORMATION CONTACT: Ann Reed (202-523-0255), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436.

SUPPLEMENTARY INFORMATION:

Background.—This investigation is being instituted as a result of an affirmative preliminary dtermination by the Department of Commerce that imports of carbon steel wire rod from East Germany are being sold in the United States at less than fair value, within the meaning of section 731 of the act (19 U.S.C. 1673). The investigation was requested in a petition filed on September 26, 1984, by counsel on behalf of Atlantic Steel Co., Continental Steel Co., Georgetown Steel Corp., North Star Steel Texas, and Raritan River Steel Co. In response to that petition the Commission conducted a preliminary antidumping investigation and, on the basis of information developed during the course of that investigation, determined that there was a reasonable indication that an industry in the United States was materially injured by reason of imports of the subject merchandise (49 FR 45937, Nov. 21, 1984).

Participation in the investigation.—Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's Rules of Practice and Procedure (19 CFR 201.11), not later than twenty-one (21) days after the publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairwoman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service list.—Pursuant to § 201.11(d) of the Commission's rule (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with § 201.16(c) of the rules (19 CFR 201.16(c), as amended by 49 FR 32569, Aug. 15, 1984), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Staff report.—A public version of the prehearing staff report in this investigation will be placed in the public record on May 22, 1985, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

Hearing.—The Commission will hold a hearing in connection with this investigation beginning at 10:00 a.m. on June 5, 1985, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on May 23, 1985. All persons desiring to appear at the hearing and make oral presentations should file prehearing briefs and attend a prehearing conference to be held at 10:00 a.m. on May 30, 1985, in room 117 of the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is May 30, 1985.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any confidential materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2)), as amended by 49 FR 32569, Aug. 15, 1984)).

Written submissions.—All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs in accordance with § 207.22 of the Commission's rules (19 CFR 207.22). Posthearing briefs must conform with the provisions of section 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on June 12, 1985. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before June 12, 1985.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8, as amended by 49 FR 32569, Aug. 15, 1984). All written submissions except for confidential business data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6, as amended by 49 FR 32569, Aug. 15, 1984).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

By order of the Commission.

Issued: March 25, 1985.

Kenneth R. Mason,

Secretary.

[FR Doc. 85-7967 Filed 4-2-85; 8:45 am]

BILLING CODE 7020-02-M

[332-210]

Conditions Relating to the Importation of Softwood Lumber Into the United States

AGENCY: United States International Trade Commission.

ACTION: Institution of an investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) for the purpose of gathering and presenting information on the competitive and economic factors affecting the importation of softwood lumber into the United States.

EFFECTIVE DATE: March 26, 1985.

FOR FURTHER INFORMATION CONTACT: Mr. Fred Ruggles or Mr. Thomas Westcot, Agriculture, fisheries, and Forest Products Division, U.S. International Trade Commission, Washington, D.C. 20436, telephone 202-724-1766 or 202-724-0095, respectively.

Background

The U.S. Trade Representative (USTR) in a letter dated March 6, 1985, requested, at the direction of the President, that the Commission conduct an investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) for the purpose of updating the Commission's April 1982 study entitled *Conditions Relating to the Importation of Softwood Lumber into the United States* (investigation No. 332-134), and reporting on all significant factors affecting the competitive status of the U.S. Canadian softwood lumber industries. The USTR requested that the investigation examine conditions in the softwood lumber industry over the past 3 years and report any significant developments since the Commission completed its earlier investigation.

To the extent possible, the study will provide information on the structure of the U.S. market; stumpage prices and appraisal methods; fixed and variable costs of production; transportation costs; marketing practices; Government policies and regulations and their influence on the softwood lumber industry; and a comparative analysis of United States and Canadian stumpage appraisal systems, industry wage rates, nature of forest resources, forest policy, employment policy as it relates to the softwood lumber industry, methods of taxation, and profit and risk allowances.

Written Submissions

Interested persons are invited to submit written statements concerning the investigation. Commercial or financial information which a submitter desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of §201.6 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested persons. To be ensured of consideration by the Commission, written statements should be submitted at the earliest practicable date, but not later than May 3, 1985. All submissions should be addressed to the Secretary at the Commission's office in Washington, D.C.

By order of the Commission.

Issued: March 28, 1985.

Kenneth R. Mason,

Secretary.

[FR Doc. 85-7966 Filed 4-2-85; 8:45 am]

BILLING CODE 7020-02-M

INTERSTATE COMMERCE COMMISSION

[Finance Docket No. 30620]

Chicago, West Pullman & Southern Railroad Company; Modified Certificate of Public Convenience and Necessity

March 27, 1985.

By notice served February 14, 1985, the Chicago, West, Pullman & Southern Railroad Company (CWPS) was authorized, effective January 31, 1985, to operate for 120 days under a modified certificate over a 58.95-mile line acquired in portions by the State of Wisconsin Department of Transportation (WISDOT) and the South Central Wisconsin Rail Transit Commission (SCWR) and over a 79.6-mile line acquired by WISDOT. The two lines are controlled by SCWR and the Pecatonia Rail Transit Commission, public agencies of the State of Wisconsin. CWPS was to operate the lines pursuant to service agreements with the two transit commissions.

On March 1, 1985, the Wisconsin & Calument Railroad, Inc. (WCR), a new corporation affiliated with CWPS by common ownership, directors, and officers, filed a modified certificate notice seeking to be substituted for CWPS as a replacement operator of the two lines for the remainder of the 120-day period. This notice was docketed Finance Docket No. 30631. WISDOT opposed the substitution contending that WCR failed to comply with the information requirements of 49 C.F.R. 1150.23 and the 60-day notice requirement for cessation of service. WISDOT stated that further review of WCR's financial structure, operating capabilities, insurance, and implementation of service agreements would be necessary before the State of Wisconsin could approve the substitution.

By letter filed March 14, 1985, the Railway Labor Executives' Association (RLEA) protested and substitution, petitioned for oral argument, and alternatively requested imposition of the labor protective conditions in Finance Docket No. 29601, *Indian Hi Rail Corp.-Feeder Line Acq.*, 366 I.C.C. 42 (1981). The United Transportation Union (UTU), by protest filed March 20, 1985, expressed opposition to the substitution contending that WCR is an alter ego set up by CWPS to avoid its collective bargaining agreement with UTU, the exclusive representative of certain employees.

On March 22, 1985, CWPS and WCR (1) withdrew the notice of substitution pending in Finance Docket No. 30631 and stated that WCR would be dissolved as a separately incorporated entity and (2) gave notice that the modified certificate in Finance Docket No. 30620 should be amended to have the authority issued on behalf of "Chicago, West Pullman & Southern Railroad Company doing business as Wisconsin & Calument Railroad."

As of March 31, 1985, CWPS is authorized to operate under this modified certificate doing business as the Wisconsin & Calumet Railroad. Amending the modified certificate in this manner will eliminate the need for termination and will establish an identity for WCR without the separate corporate form that is objectionable to the State of Wisconsin. The amendment also is consistent with the service agreements between CWPS and the two transit commissions. As amended, the modified certificate should not have an adverse affect on any of the parties to Finance Docket No. 30631. WISDOT and RLEA do not oppose the amendment, and UTU has withdrawn its protest.

Finance Docket No. 30631 is dismissed.

This notice must be served upon the Association of American Railroads (Car Service Division) as agent of all railroads subscribing to the car-service and car-hire agreement, and upon the American Short Line Railroad Association.

By the Commission, Heber P. Hardy, Director, Office of Proceedings.

James H. Bayne,

Secretary.

[FR Doc. 85-7911 Filed 4-2-85; 8:45 am]

BILLING CODE 7035-01-M

DEPARTMENT OF JUSTICE

Immigration and Naturalization Service

Reimbursable Services—Excess Cost of Preclearance Operations

Notice is hereby given that pursuant to Immigration and Naturalization Service Regulations (8 CFR 235.5(c)), the biweekly reimbursable excess costs for

Appendix C

Federal Register, Extension of Investigation and Scheduling of the Public Hearing

decide whether to review the initial determination (ID) finding that there is no violation of section 337 of the Tariff Act of 1930 (19 U.S.C.1337) in the above-captioned investigation has been extended from June 5. 1985. to June 10. 1985.

FOR FURTHER INFORMATION CONTACT: Wayne W. Herrington. Esq.. Office of General Counsel. U.S. International Trade Commission. telephone 202-523-3395.

SUPPLEMENTARY INFORMATION: On April 18. 1985. the administrative law judge issued an initial determination (ID) in the above-captioned investigation finding that there is no violation of section 337. Pursuant to § 210.53(h) of the Commission's rules. the ID becomes the Commission's determination on June 5. 1985. unless the Commission decides to review the ID or extends the deadline for that decision.

Copies of the nonconfidential version of the ID and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary. U.S. International Trade Commission. 701 E Street NW.. Washington. D.C. 20436. telephone 202-523-0161.

Issued: June 5. 1985.

By order of the Commission.

Kenneth R. Mason.

Secretary.

[FR Doc. 85-14141 Filed 6-11-85: 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-206]

Certain Surgical Implants for Fixation of Bone Fragments; Commission Decision Not To Review Initial Determination Terminating Respondent of the Basis of a Consent Order; Issuance of Consent Order

AGENCY: International Trade Commission.

ACTION: Termination of respondent on the basis of a consent order.

SUMMARY: Notice is hereby given that the Commission has determined not to review the administrative law judge's (ALJ) initial determination (ID) terminating this investigation as to respondent DePuy. Inc.. on the basis of a consent order and granting a joint motion to change the name of DePuy. Inc.. to Boehringer Mannheim Corp. (DePuy Division).

FOR FURTHER INFORMATION CONTACT: Jack Simmons. Esq.. Office of the General Counsel. telephone 202-523-0493.

SUPPLEMENTARY INFORMATION: On Feburary 1. 1985. complainant Synthes. Ltd.. respondent DePuy. Inc.. and the Commission investigative attorney jointly moved to terminate the investigation as to DePuy on the basis of a consent order. On May 7. the ALJ issued an ID granting the motion. No petition for review has been filed and no comments from other government agencies or the public have been received. The Commission has determined not to review the ID. The Commission has also determined to grant a joint motion by the same three parties to change the name of DePuy to Boehringer Mannheim Corp. (DePuy Division).

Termination of the investigation as to this respondent on the basis of the consent order furthers the public interest by conserving Commission resources and those of the parties involved.

The authority for the Commission disposition of this matter is contained in section 337 of the Tariff Act of 1930. 19 U.S.C. 1337. and §§ 210.53-210.56 of the Commission's rules of Practice and Procedure (49 FR 46123 (Nov. 23. 1984). to be codified at 19 CFR 210.53-210.56).

Issued: June 4. 1985.

By order of the Commission.

Kenneth R. Mason.

Secretary.

[FR Doc. 85-14142 Filed 6-11-85: 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-206]

Certain Surgical Implants for Fixation of Bone Fragments; Commission Decision Not To Review Initial Determination Terminating Investigation

AGENCY: International Trade Commission.

ACTION: Termination of investigation.

SUMMARY: Notice is hereby given that the Commission has determined not to review the administrative law judge's (ALJ) initial determination (ID) terminating the above-captioned investigation.

FOR FURTHER INFORMATION CONTACT: Jack Simmons. Esq.. Office of the General Counsel. telephone 202-523-0493.

SUPPLEMENTARY INFORMATION: On May 7. 1985. the ALJ issued an ID terminating the investigation. The ID is based on the ALJ's findings that the respondents to the investigation have modified the design of the allegedly infringing implants. the respondent that has entered into a consent order is the exclusive importer of the subject implants. and there is no evidence of any other importation or sale of allegedly infringing implants. No petition for review of the ID was filed.

Copies of the Commission's action and order and all other non-confidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary. U.S. International Trade Commission. 701 E Street NW.. Washington. D.C. 20436. telephone 202-523-0161.

Issued: June 6. 1985.

By order of the Commission.

Kenneth R. Mason.

Secretary.

[FR Doc. 85-14143 Filed 6-11-85: 8:45 am]

BILLING CODE 7020-02-M

[332-210]

Conditions Relating to the Importation of Softwood Lumber Into the United States

AGENCY: International Trade Commission.

ACTION: Extension of investigation and scheduling of public hearing.

SUMMARY: The Commission has extended investigation No. 332-210. Conditions Relating to the Importation of Softwood Lumber Into the United States. by 3 months and scheduled a hearing to be held in connection therewith. The study extension and public hearing will provide interested parties additional time for the preparation of submissions to the Commission and the opportunity to present their views directly to the Commission in a public forum.

EFFECTIVE DATE: May 31. 1985.

FOR FURTHER INFORMATION CONTACT: Mr. Fred Ruggles or Mr. Thomas Westcot. Agriculture. Fisheries. and Forest Products Division. U.S. International Trade Commission. Washington. D.C. 20436. telephone 202-724-1766 or 202-724-0095. respectively.

Background

The U.S. Trade Representative (USTR) in a letter dated March 6. 1985. requested. at the direction of the President. that the Commission conduct an investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) for the purpose of updating the Commission's April 1982 study entitled *Conditions Relating to the Importation of Softwood Lumber Into the United*

States (investigation No. 332-134), and reporting on all significant factors affecting the competitive status of the U.S. and Canadian softwood lumber industries. The notice of investigation appeard in the Federal Register of April 3, 1985 (50 FR 13291).

Public Hearing

A public hearing in connection with the investigation will be held at the U.S. International Trade Commission Building, 701 E Street NW., Washington, D.C., beginning at 10:00 a.m., on July 23, 1985. All interested persons shall have the right to appear by counsel or in person, to present information and to be heard. Requests to appear at the public hearing should be filed with the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, not later than noon, July 16, 1985.

Written Submissions

Owing to the 3 month extension of the investigation, written statements should be submitted at the earliest practicable date, but not later than July 16, 1985. All submissions should be addressed to the Secretary at the Commission's office in Washington, D.C.

Issued: June 4, 1985.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 85-14144 Filed 6-11-85; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 701-TA-248 (Preliminary) and Investigations Nos. 731-TA-259 and 260 (Preliminary)]

Offshore Platform Jackets and Piles From the Republic of Korea and Japan

Determinations

On the basis of the record [1] developed in the subject investigations, the Commission determines,[2] pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a)), that there is a reasonable indication that an industry[3] in the United States is materially injured by reason of imports from the Republic of Korea (Korea) of offshore jackets and piles,[4] provided for in item 652.97 of the Tariff Schedules of the United States, which are alleged to be subsidized by the Government of Korea (investigation No. 701-TA-248 (Preliminary)). We further determine,[5] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)), that there is a reasonable indication that an industry[3] in the United States is materially injured by reason of such imports from Korea and Japan, which are alleged to be sold in the United States at less than fair value (LTFV) (investigations Nos. 731-TA-259 and 260 (Preliminary)).

Background

On April 18, 1985,[6] and April 19, 1985,[7] petitions were filed with the Commission and, on April 19, 1985, with the Department of Commerce by counsel on behalf of Kaiser Steel Corporation and the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of offshore platform jackets and piles from Korea and LTFV imports of offshore platform jackets and piles from Korea and Japan. Accordingly, effective April 18, 1985, the Commission instituted preliminary countervailing duty investigation No. 701-TA-248 (Preliminary) and preliminary antidumping investigations Nos. 731-TA-259 and 260 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of May 1, 1985 (50 FR 18582). The conference was held in Washington, DC, on May 13, 1985, and all persons who requested the opportunity were permit to appear in person or by counsel.

The Commission transmitted its determinations in these investigations to the Secretary of Commerce on June 3, 1985. The views of the Commission are contained in USITC Publication 1708 (June 1985), entitled "Offshore Platform Jackets and Piles from the Republic of Korea and Japan: Determinations of the Commission in Investigation No. 701-TA-248 (Preliminary) and Investigations Nos. 731-TA-259 and 260 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations.

Issued: June 3, 1985.

By order of the Commission:

Kenneth R. Mason,

Secretary.

[FR Doc. 85-14145 Filed 6-11-85; 8:45 am]

BILLING CODE 7020-02-M

[332-212]

Review of the Effectiveness of Trade Dispute Settlement Under the GATT and Tokyo Round Agreements

AGENCY: International Trade Commission.

ACTION: At the request of the Committee on Finance of the United States Senate, the Commission has instituted investigation No. 332-212 under section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332 (b)) concerning the effectiveness of dispute settlement under the General Agreement on Tariffs and Trade and the Tokyo Round agreements.

EFFECTIVE DATE: June 3, 1985.

FOR FURTHER INFORMATION CONTACT: Lee Tuthill (202-523-4556), Office of Economics, U.S. International Trade Commission, Washington, D.C. 20436.

Background

The Commission instituted the investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)) following receipt on May 2, 1985, of a request therefor from the Senate Committee on Finance. The Committee asked that the Commission examine the effectiveness of the dispute-settlement mechanisms provided in the General Agreement on Tariffs and Trade (GATT) and any agreements or "codes" negotiated under GATT auspices.

The Committee requested that the Commission's report (1) review the development of the GATT dispute-settlement mechanisms and their relationships to U.S. trade laws; (2) summarize disputes that have been addressed by the GATT and the code committees, including the process as perceived by major participants.

The Committee also stated that the Commission's assessment of the effectiveness of the dispute-settlement mechanisms should be based on, among other things, consideration of the types of products and trade barriers concerned, the pattern of individual countries' involvement, the conditions leading to success or failure of the process, and the record on implementation of the GATT and code

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[1] The record is defined in § 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(i)).

[2] Chairwoman Stern did not participate in the(se) investigation(s).

[3] Commissioner Eckes finds for the(se) preliminary investigation(s) that there are two like products and therefore two domestic industries.

[4] Offshore platform jackets, piles, appurtenances thereto, and subassemblies thereof that do not require removal from a transportation vessel and further U.S.-onshore assembly are included in these investigations.

[5] Countervailing duty and antidumping petitions with respect to imports of offshore platform jackets and piles from Korea.

[6] Antidumping petition with respect to imports of offshore platform jackets and piles from Japan.

Appendix D

List of Witnesses Appearing at the Public Hearing

TENTATIVE CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject : Conditions Relating to the Importation of Softwood Lumber Into the United States

Inv. No. : 332-210

Date and time: July 23, 1985 - 10:00 a.m.

Sessions were held in the Hearing Room of the United States International Trade Commission, 701 E Street, N.W., in Washington.

Congressional appearances:

Honorable Max Baucus, United States Senator, State of Montana

Honorable Don Bonker, United States Representative, State of Washington

Honorable James Weaver, United States Representative, State of Oregon

Honorable Larry Craig, United States Representative, State of Idaho

IMPORTERS:

National Lumber and Building Material Dealers Association (NLBMDA), Washington, D.C.

Harry R. Diz, President, Roper Brothers Lumber Company, Petersburg, Virginia

Barry McWilliams, Vice President - Marketing, Roper Brothers Lumber Company, Petersburg, Virginia

Harry Horrocks, Legislative Director, NLBMDA

International Woodworkers of America, Canada

J. D. Smyth, Research Associate

Arnold & Porter--Counsel
Washington, D.C.
on behalf of

Canadian Forest Industries Council (CFIC)

T. M. Apsey, International Trade Coordinator for CFIC

Arnold & Porter

Lawrence A. Schneider--OF COUNSEL

Herbert A. Fierst, Esq.

Michigan Ladder Company, Ypsilanti, Michigan

Robert F. Nissly, President

WITNESS AND ORGANIZATION

DOMESTIC:

Dewey, Ballantine, Busby, Palmer & Wood--Counsel
Washington, D.C.
on behalf of

The Coalition for Fair Lumber Imports

PANEL 1

DESCRIBE CURRENT CONDITIONS IN THE U.S. MARKET

Stanley Dennison, President, Coalition for Fair Lumber Imports & Executive Vice President, Georgia-Pacific

Charles Thomas, President, Shuqualac Lumber Company

John Hampton, President, Willamina Lumber Company

Bob Robinson, Manager, Curtis Lumber Company, and President, Northeastern Lumber Manufacturers Association

PANEL 2

DESCRIBE CANADIAN STUMPAGE PRACTICES AND RELATE THESE RRACTICES TO MARKET CONDITIONS

Perry R. Hagenstein, President, Resource Issues, Inc.

David R. Cox, Mason, Bruce & Girard, Inc.

F. Lynn Holec, Economist

Alan Woll, John Ragosta--OF COUNSEL

Appendix E

Excerpt From Subpart B, Part 1, Schedule 2, of the Tariff Schedules of the United States Annotated (1985)

GSP	Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty LDDC	Rates of Duty 2
	200.75		Wood fence pickets, palings, and rails, whether or not assembled into fence sections	.....	Free		Free
		20	Unassembled	X			
		40	Assembled	X			
	200.80		Wood railroad ties (except switch or bridge ties)	.....	Free		Free
		20	Treated	M.bd.ft.			
		40	Untreated	M.bd.ft.			
	200.85		Wood shingles and shakes	.....	Free		Free
		20	Red cedar	Square			
		40	Other	Square			
			Wood dowel rods and pins, plain, or sanded, grooved, or otherwise advanced in condition:				
			Plain:				
A*	200.91	00	Softwood	Lin.ft.	2.5% ad val.		5% ad val.
	200.93	00	Hardwood	Lin.ft.	Free		5% ad val.
	200.95		Advanced in condition	.....	9.9% ad val.	7.6% ad val.	33-1/3% ad val.
		20	Softwood	Lin.ft.			
		40	Hardwood	Lin.ft.			

Subpart B. - Lumber, Flooring, and Moldings

Subpart B headnotes:

1. This subpart covers lumber, wood siding, wood flooring, wood moldings, and certain wood carvings and ornaments, including such products when they have been drilled or treated.

2. For the purposes of this part, the following terms have the meanings hereby assigned to them:

(a) Lumber: A product of a sawmill or sawmill and planing mill derived from a log by lengthwise sawing which, in its original sawed condition, has at least 2 approximately parallel flat longitudinal sawed surfaces, and which may be rough, dressed, or worked, as set forth below:

(i) rough lumber is lumber just as it comes from the saw, whether in the original sawed size or edged, resawn, crosscut, or trimmed to smaller sizes;

(ii) dressed lumber is lumber which has been dressed or surfaced by planing on at least one edge or face; and

(iii) worked lumber is lumber which has been matched (provided with a tongued-and-grooved joint at the edges or ends), shiplapped (provided with a rabbeted or lapped joint at the edges), or patterned (shaped at the edges or on the faces to a patterned or molded form) on a matching machine, sticker, or molder.

Edge-glued or end-glued wood over 6 feet in length and not over 15 inches in width shall be classified as lumber if such wood as a solid piece without glue joints would be deemed to be lumber as defined above.

Note: For explanation of the symbol "A" or "A*" in the column entitled "GSP", see general headnote 3(c).

GSP	Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty LDDC	Rates of Duty 2
			(b) Softwood: Wood from trees of coniferous species (order Coniferae). (c) Hardwood: Wood from trees of non-coniferous species. (d) Drilled or treated: Drilled at intervals for nails, screws, or bolts, sanded or otherwise surface processed in lieu of, or in addition to, planing or working, or treated with creosote or other wood preservatives, or with fillers, sealers, waxes, oils, stains, varnishes, paints, or enamels, but not including anti-stain or other temporary applications mentioned in headnote 4 of this subpart. (e) Standard wood moldings: Wood moldings worked to a pattern and having the same profile in cross section throughout their length.				
			3. Lumber, including certain flooring provided for in this subpart, is dutiable on the basis of "board measure" for which the unit of measurement is the board foot. For the purposes of this subpart, a board foot is the quantity of lumber contained in, or derived (by drying, dressing, or working, or any combination of these processes) from, a piece of rough green lumber 1 inch in thickness, 12 inches in width, and 1 foot in length, or the equivalent of such piece in other dimensions.				
			4. The treatment of lumber or other products provided for in this subpart with anti-stain or other temporary applications which serve only for the purpose of maintaining the products in their rough, dressed, or worked condition until installation or further manufacture shall not affect their classification under any of the provisions of this subpart.				
			Lumber, rough, dressed, or worked (including softwood flooring classifiable as lumber, but not including siding, molding, and hardwood flooring):				
			Softwood:				
	202.03		Spruce (Picea spp.)	.....	Free		$4 per 1000 ft., board measure
		20	Rough	M.bd.ft.			
		40	Dressed or worked	M.bd.ft.			
			Pine (Pinus spp.):				
	202.06		Eastern white pine (Pinus strobus) and red pine (Pinus resinosa)	.....	Free		$1 per 1000 ft., board measure
		20	Rough	M.bd.ft.			
		40	Dressed or worked	M.bd.ft.			
	202.09		Other pine	.....	Free		$4 per 1000 ft., board measure
			Lodgepole pine (Pinus contorta):				
		25	Rough	M.bd.ft.			
		45	Dressed or worked	M.bd.ft.			
			Other:				
		65	Rough	M.bd.ft.			
		85	Dressed or worked	M.bd.ft.			

GSP	Item	Stat. Suffix	Articles	Units of Quantity	Rates of Duty 1	Rates of Duty LDDC	Rates of Duty 2
			Lumber, rough, dressed, or worked, etc. (con.):				
			Softwood (con.):				
	202.12		Parana pine (Araucaria angustifolia).....	.....	Free		$4 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
	202.15		Douglas-fir (Pseudotsuga menziesii).....	.....	Free		$4 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
	202.18		Fir (Abies spp.).....	.....	Free		$4 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
	202.21		Hemlock (Tsuga spp.).....	.....	Free		$4 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
	202.24		Larch (Larix spp.).....	.....	Free		$4 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
	202.27		Cedar (Thuia spp., Juniperus spp., Chamaecyparis spp., Cupressus spp. and Libocedrus spp.).....	.....	Free		$3 per 1000 ft., board measure
			Western red cedar (Thuja plicata):				
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
			Other:				
		60	Rough.....	M.bd.ft.			
		80	Dressed or worked.....	M.bd.ft.			
	202.30		Other.....	.....	Free		$3 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
			Hardwood:				
			Balsa (Ochroma lagopus) and teak (Tectona grandis):				
	202.32		Rough.....	.....	Free		$3 per 1000 ft., board measure
		05	Balsa (Ochroma lagopus).....	M.bd.ft.			
		15	Teak (Tectona grandis).....	M.bd.ft.			
	202.33		Dressed or worked.....	.....	Free		$3 per 1000 ft., board measure
		05	Balsa (Ochroma lagopus).....	M.bd.ft.			
		15	Teak (Tectona grandis).....	M.bd.ft.			
	202.34		Mahogany (Swietenia spp. or Khaya spp.).....	.....	Free		$3.10 per 1000 ft., board measure
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			
			Spanish cedar (Cedrela spp.), ebony (Diospyros spp.), lancewood (Oxandra spp.), and lignumvitae (Guaiacum spp.):				
	202.35	00	Rough.....	M.bd.ft.	Free		15% ad val.
	202.37	00	Dressed or worked.....	M.bd.ft.	Free		15% ad val.
A	202.38		Boxwood (Buxus spp.), Japanese maple (Acer spp.), and Japanese white oak (Quercus spp.).....	.....	0.3% ad val.	Free	15% ad val.
		20	Rough.....	M.bd.ft.			
		40	Dressed or worked.....	M.bd.ft.			

Note: For explanation of the symbol "A" or "A*" in the column entitled "GSP", see general headnote 3(c).

Appendix F

Excerpt From Subpart B, Part 1, Schedule 2, Schedule B

SCHEDULE 2. WOOD AND PAPER; PRINTED MATTER

(2-1-B) (2-1-B)

Schedule B number	Commodity description	Unit of quantity	Schedule B number	Commodity description	Unit of quantity
	Subpart B—Lumber, Siding, Flooring, and Moldings Subpart B headnotes: 1. This subpart covers lumber, wood siding, wood flooring, wood moldings, and certain wood carvings and ornaments, including such products when they have been drilled or treated. 2. For the purposes of this part, the following terms have the meanings hereby assigned to them: (a) Lumber: A product of a sawmill or sawmill and planing mill derived from a log by lengthwise sawing which, in its original sawed condition, has at least 2 approximately parallel flat longitudinal sawed surfaces, and which may be rough, dressed, or worked, as set forth below: (i) rough lumber is lumber just as it comes from the saw whether in the original sawed size or edged, resawn, crosscut, or trimmed to smaller sizes; (ii) dressed lumber is lumber which has been dressed or surfaced by planing on at least one edge or face; and (iii) worked lumber is lumber which has been matched (provided with a tongued-and-grooved joint at the edges or ends), shiplapped (provided with a rabbeted or lapped joint at the edges), or patterned (shaped at the edges or on the faces to a patterned or molded form) on a matching machine, sticker, or molder. Edge-glued or end-glued wood shall be classified as lumber if such wood as a solid piece without glue joints would be deemed to be lumber as defined above; (b) Softwood: Wood from trees of coniferous species (order Coniferae);			(c) Hardwood: Wood from trees of non-coniferous species; (d) Drilled or treated: Drilled at intervals for nails, screws, or bolts, sanded or otherwise surface processed in lieu of, or in addition to, planing or working, or treated with creosote or other wood preservatives, or with fillers, sealers, waxes, oils, stains, varnishes, paints, or enamels, but not including anti-stain or other temporary applications mentioned in headnote 4 of this subpart. 3. For the purposes of this subpart, a board foot is the quantity of lumber contained in, or derived (by drying, dressing, or working, or any combination of these processes) from, a piece of rough green lumber 1 inch in thickness, 12 inches in width, and 1 foot in length, or the equivalent of such piece in other dimensions. 4. The treatment of lumber or other products provided for in this subpart with anti-stain or other temporary applications which serve only for the purpose of maintaining the products in their rough, dressed, or worked condition until installation or further manufacture shall not affect their classification under any of the provisions of this subpart.	
				Lumber, rough, dressed or worked, not treated with creosote or other permanent wood preservative, whether or not drilled or otherwise treated (including softwood flooring classifiable as lumber, but not including siding, molding, and hardwood flooring): Softwood: Spruce (Picea spp.):	
			202.0420	Rough.....	M bd.ft.
			202.0440	Dressed or worked.....	M bd.ft.

Schedule B number	Commodity description	Unit of quantity
	Lumber, rough, dressed or worked, etc.--Continued	
	Softwood--Continued	
	Pine (Pinus spp.):	
	Eastern white pine (Pinus strobus) and red pine (Pinus resinosa):	
202.0720	Rough	M bd.ft.
202.0740	Dressed or worked	M bd.ft.
	Southern yellow pine ((loblolly pine) (Pinus taeda), longleaf pine (Pinus palustris) pitch pine (Pinus rigida), shortleaf pine (Pinus echinata), slash pine (Pinus elliottii), and Virginia pine (Pinus Virginiana)):	
202.0820	Rough	M bd.ft.
202.0840	Dressed or worked	M bd.ft.
	Ponderosa pine (Pinus ponderosa):	
202.1020	Rough	M bd.ft.
202.1040	Dressed or worked	M bd.ft.
	Other pine:	
202.1120	Rough	M bd.ft.
202.1140	Dressed or worked	M bd.ft.
	Douglas-fir (Pseudotsuga menziesii):	
	Rough:	
202.1620	In least dimension under 2 inches	M bd.ft.
202.1640	In least dimension 2 inches but under 5 inches	M bd.ft.
202.1660	In least dimension 5 inches and over	M bd.ft.
202.1680	Dressed or worked	M bd.ft.
	Lumber rough, dressed or worked, etc.--Continued	
	Softwood--Continued	
	Fir (Abies spp.):	
202.1920	Rough	M bd.ft.
202.1940	Dressed or worked	M bd.ft.
	Hemlock (Tsuga spp.):	
202.2220	Rough	M bd.ft.
202.2240	Dressed or worked	M bd.ft.
	Larch (Larix spp.):	
202.2520	Rough	M bd.ft.
202.2540	Dressed or worked	M bd.ft.
	Cedar (Thuia spp., Juniperus spp., Chamaecyparis spp., Cupressus spp. and Libocedrus spp.):	
	Western redcedar (Thuia plicata):	
202.2820	Rough	M bd.ft.
202.2840	Dressed or worked	M bd.ft.
	Other cedar:	
202.2860	Rough	M bd.ft.
202.2880	Dressed or worked	M bd.ft.
	Redwood (Sequoia sempervirens):	
202.2920	Rough	M bd.ft.
202.2940	Dressed or worked	M bd.ft.
	Other softwood:	
202.3120	Rough	M bd.ft.
202.3140	Dressed or worked	M bd.ft.

Appendix G

Excerpt From Canadian Tariff Schedules

Table G-1.--Softwood Lumber: Canadian rates of duty, present and negotiated

(Percent ad valorem)

Item No.	Description	Present rate of duty 1/	Negotiated rate of duty
50040-1	Lumber of any species not further manufactured than sawn.	Free	Free.
50045-1	Lumber of any species not further manufactured than by a planing or matching machine	Free	Free.
50050-1	Softwood lumber, drilled but not otherwise further manufactured than by a planning or matching machine.	Free	Free.
50055-1	Edge- or end-glued lumber not over 6 feet in length or over 15 inches in width, not drilled and not further manufactured than by a planing or matching machine.	Free	Free.

1/ Rates currently applicable to imports from the United States on Jan. 1, 1982.

Note.-- Duty-free rates applicable to the United States are also applicable to imports from the European Community and Japan.

Appendix H

Lumber Tariffs of Selected Countries

Table H-1.--Softwood lumber: Foreign rates of duty, present and negotiated

Market	Description	Present rate of duty 1/	Negotiated rate of duty 2/
European Community	Wood sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5mm:		
	Coniferous wood, length less than 125 cm; thickness less than 12.5 mm (44.05-2000)	4.2%	3.8%
	All other (44.05-(4011-7999)).	Free	Free
	Wood, planed, tongued, grooved, etc. but not further manufactured 44.13 (all).	4.3%	4.0%
Japan	Wood sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm:		
	Genera Pinus, Abies, Picea, and Larix, not more than 160 mm in thickness:	2.5%	2.5%
	Genus Pinus (44.05-310)	2.5%	2.5%
	Genus Abies and Picea (44.05-320).	2.5%	2.5%
	Genus Larix (44.05-330)	2.5%	2.5%
	All other (44.05 (510-599))	Free	Free
	Wood planed, tongued, grooved, rebated, chamfered, V-jointed, centre V-jointed, beaded, centrebeaded or the like, but not further manufactured:		
	Genera Pinus, Abies, Picea and Larix, not more than 160 mm in thickness (44.13-300).	2.5%	2.5%
	All other (44.13 (510 and 590)).	Free	Free

1/ Rates currently applicable to imports from the United States on Jan. 1, 1985.

2/ Final rates negotiated under the Multilateral Trade Negotiations effective on Jan. 1, 1987.

Note.--Foreign duty rates applicable to the United States are also applicable to imports between the trading markets of Japan, the EC, and Canada. It should be noted that rates on this page were drawn from unofficial sources and may not accurately reflect current rates of duty.

Appendix I

United States Statement of Policy by the U.S. Forest Service

• REVISED • STATEMENT • OF • POLICY •

Pursant to section 310 of Public Law 96-514, dated December 12, 1980:

The Statement of Policy transmitted by the President to the Speaker of the House of Representatives and the President of the Senate on June 19, 1980, as required under section 8 of the Forest and Rangeland Renewable Resources Planning Act of 1974, is revised and modified to read as follows:

Basic Principles

It is the policy of the United States--

(1) forests and rangeland, in all ownerships, should be managed to maximize their net social and economic contributions to the Nation's well being, in an environmentally sound manner.
(2) the Nation's forested land, except such public land that is determined by law or policy to be maintained in its existing or natural state, should be managed at levels that realize its capabilities to satisfy the Nation's need for food, fiber, energy, water, soil stability, wildlife and fish, recreation, and esthetic values.
(3) the productivity of suitable forested land, in all ownerships, should be maintained and enhanced to minimize the inflationary impacts of wood product prices on the domestic economy and permit a net export of forest products by the year 2030.
(4) in order to achieve this goal, it is recognized that in the major timber growing regions most of the commercial timber lands will have to be brought to and maintained, where possible, at 90 percent of their potential level of growth, consistent with the provisions of the National Forest Management Act of 1976 on Federal lands, so that all resources are utilized in the combination that will best meet the needs of the American people.
(5) forest and rangeland protection programs should be improved to more adequately protect forest and rangeland resources from fire, erosion, insects, disease, and the introduction or spread of noxious weeds, insects, and animals.
(6) the Federal agencies carrying out the policies contained in this Statement will cooperate and coordinate their efforts to accomplish the goals contained in this Statement and will consult, coordinate, and cooperate with the planning efforts of the States.
(7) in carrying out the Assessment and the Program under the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Appraisal and the Program under the Soil and Water Resources Conservation Act of 1977, the Secretary of Agriculture shall assure that resource and economic information and evaluation data will be continually improved so that the best possible information is always available for use by Federal agencies and the public.

Rangeland Data Base and its Improvement

The data on and understanding of the cover and condition of rangelands is less refined than the data on and understanding of commercial forest land. Rangelands have significant value in the production of water and protection of watersheds; the production of fish and wildlife food and habitat; recreation; and the production of livestock forage. An adequate data base on the cover and condition of rangelands should be developed by the year 1990. Currently, cattle production from these lands is annually estimated at 213 million animal unit months of livestock forage. These lands should be maintained and enhanced, including their water and other resource values, so that they can annually provide 310 million animal unit months of forage by the year 2030, along with other benefits.

General Acceptance of High Bound Program

Congress generally accepts the "high-bound" program described on pages 7 through 18 of the 1980 Report to Congress on the Nation's Renewable Resources prepared by the Secretary of Agriculture. However, Congress finds that the "high-bound" program may not be sufficient to accomplish the goals contained in this statement, particularly in the areas of range and watershed resources, State and private forest cooperation and timber management.

States and owners of private forest and rangelands will be encouraged, consistent with their individual objectives, to manage their land in support of this Statement of Policy. The State and private forestry and range programs of the Forest Service will be essential to the furtherance of this Statement of Policy.

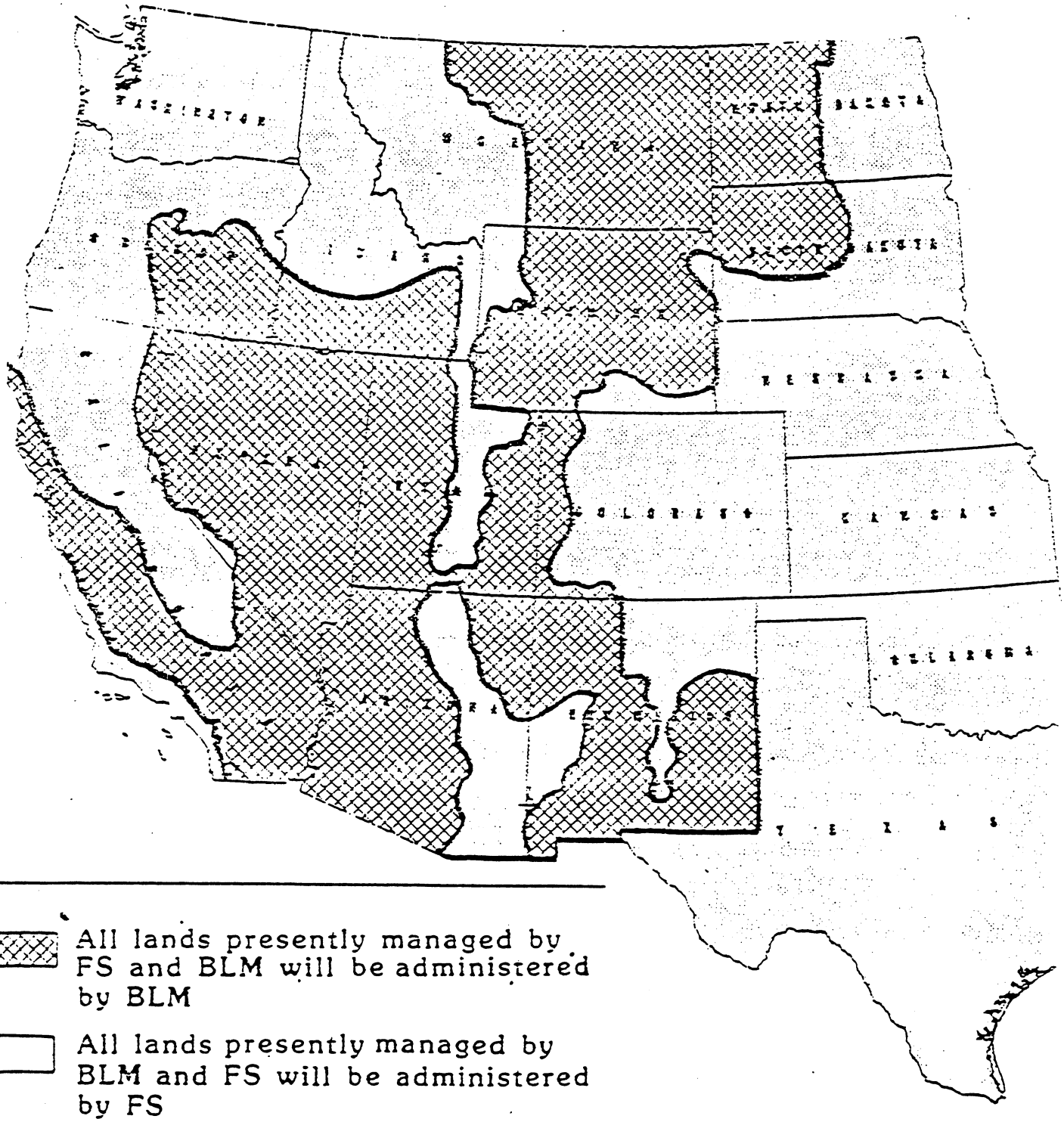
In order to accomplish the policy goals contained in this statement by the year 2030, the Federal Government should adequately fund programs of reasearch (including cooperative research) extension, cooperative forestry assistance and protection, and improved management of the forest and rangelands. The Secretary of Agriculture shall continue his efforts to evaluate the cost-effectiveness of the renewable resource programs.

Note: This is an excerpt from the U.S. Forest Service Report of the Forest Service Fiscal Year 1984.

Appendix J

Proposed U.S. Forest Service-U.S. Bureau of Land Management Land Management Exchange

BLM/FS Interchange Concept Map



All lands presently managed by FS and BLM will be administered by BLM

All lands presently managed by BLM and FS will be administered by FS

All lands to the east, (not shown) will be managed by the FS

1/28/85

Appendix K

Canadian Provincial Forestry Management Policies, by Province

Provincial Forestry Management Policies 1/

Alberta

The Alberta Forest Service, a division of the Department of Energy and Renewable Resources, is charged with managing Alberta's forest resources on a multiple-use basis. Broad forest management policy is to achieve full and efficient utilization of the resource, including salvage of diseased, damaged, or dead timber and to secure the value of the timber for the Crown through a fee schedule applied to the timber harvested. It is also the objective of the Forest Service to maintain and protect a vigorous forest and to ensure a perpetual flow of timber for the manufacture of forest products. It is considered important to maintain a strict, sustained-yield management policy to ensure that these goals are met.

Only 60 percent of Alberta's forests are now allocated for commercial harvest. They are administered through five types of dispositions, each of which fulfills a particular need. Emphasis is placed upon the long-term tenures, which account for 93 percent of the timber allocation. Short-term agreements cover the remaining 7 percent.

The Province has developed two forms of tenure for long-term cutting rights. One of these is the forest management agreement. This is an area-based agreement under which the operator undertakes complete responsibility for the forest managment of the area included in the tenure. The company must carry out, at its own cost, all planning, silviculture, road development, and regeneration.

Standard obligations for the company in the long-term agreements include submission of management plans for Government approval, timber inventory, road development, and regeneration. Other responsibilities may be negotiated once the agreement is awarded. The agreements are renewable, subject to renegotiation of the terms and conditions of the contract.

The other type of long-term tenure arrangement is a volume agreement, under which the holder is entitled to cut a share of the annual allowable cut for the management unit in which the agreement applies.

The major forms of tenure are as follows.--Forest mangaement agreement: This is area based, with a term of up to 20 years, renewable at the anniversary data if the agreement holder complies with government requirements. The agreement holder carries out inventory, planning, road development, reforestation, silviculture; and Quota certificate: This is volume based, with a term of up to 20 years, renewable at anniversary date if quota holder complies with government requirements. The quota holder responsibility includes annual operating plan, road development and reforestation.

1/ A White paper provided by the Government of Canada.

The miscellaneous dispositions are as follows.--Commercial timber permit: This is area based, with a term of up to 5 years, renewable for additional short term; Local timber permit: This is volume based, with a term of up to 1 year, renewable for 1 year. It is issued directly to individuals usually for personal use and for small, restricted volumes; Forest products tag: This is a minor tenure for firewood, Christmas trees, etc. It is for a very short term, and is nonrenewable.

Timber pricing system.--Forest management agreements are required to pay a negotiated royalty, annual ground rent, protection fee, to post a performance deposit, and pay an assignment fee.

Quota holders are required to pay an appraised royalty, annual ground rent including protection charges, reforestation in cash or kind, post performance deposit, pay license fees (cruising, mapping, etc.), and an assignment fee.

Commercial timber permits pay bid royalty prices in the instances where there is more than one bidder, ground rent and protection charge, reforestation levy, permit fees, license fees, and post deposits. Local timber permits and forest products tags pay statutory royalties and holding charges.

The following is a summation of Alberta's forest management policies:

a. Productive forest land--35 percent of the total land area.
b. Administrative agency--Department of Energy and Renewable Resources.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Forest management agreement and quota certificate.

British Columbia

The British Columbia Ministry of Forests is responsible for the forests of the Province. Its prime mandate is to encourage maximum productivity of the forest resources in the Province and to manage, protect, and conserve those resources for various uses, including use by the forest industries. The Ministry of Forests must also assert the financial interest of the Province in its forest resources and to ensure a perpetual supply of raw material. To achieve this, it is concerned with such objectives as minimizing losses from fire, insects, decay and degradation of soils, maximizing utilization of the resource through diversification of the industry, and controlling harvesting rates to a level aimed at achieving perpetually sustainable yields.

The main tenure forms in British Columbia are the tree farm license and the forest license. Under both licenses, the Province imposes forest management requirements, including roadbuilding, silviculture and regeneration and utilization standards. Cut control standards are also imposed regarding what areas of timber must be cut and what material must be removed from the forest. By imposing these conditions, the Province achieves its objectives of garnering revenue from the resource while limiting waste and maintaining a sustained yield from the forest.

The major forms of tenure are as follows.--Tree farm license: This is area based, with an initial term of 25 years, reviewed at 10-year intervals for possible replacement by a new 25 year licence at renegotiated terms; and Forest license: This is volume based, with an initial term of 15 years, reviewed at 5-year intervals for possible replacement by a new 15-year license at renegotiated terms.

The miscellaneous dispositions are as follows.--Timber license: This is an historic, semiprivate licenses, that reverts to the Crown when mature is timber harvested. It is not renewable, and none has been issued since the early 1900's; Timber sale license: This is volume based, with a term of 1 to 10 years, and they are mostly not renewable; Pulpwood agreement: This is volume based and is for emergency supply only, with an initial term of 25 years. It is reviewed at 10-year intervals for possible replacement by a new 25-year license at renegotiated terms; and Woodlot license: This is area based, with a term of up to 15 years. It is reviewed at 5-year intervals for possible replacement by a new license at renegotiated terms.

All major licenses require basic silviculture, working plans, inventory, reforestation, and road development. All holders of such licenses pay appraised stumpages, ground rentals, and, in the case of some timber sale licenses, where no in-kind costs are imposed, a bonus stumpage rate. Tree farm licences and forest licences make up 85 percent of the annual allowable cut in British Columbia.

Timber pricing system.--All tenures except timber licenses (less than 1 percent) are required to pay full appraised stumpage rates based on a modified Rothery stumpage appraisal method developed by U.S. forestry experts. Holders of timber licenses pay dues set from time to time by statute. All tenures pay ground rentals, and scaling charges. All stumpage charges are adjusted monthly to reflect current market value.

The following is a summation of British Columbia's forest management policies:

a. Productive forest land--54 percent of total land area.
b. Administrative agency--Ministry of Forests.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Tree farm license and forest license.

Manitoba

Manitoba's forests are administered and managed by the Forestry Branch of the Department of Natural Resources. It is the Manitoba government's policy to acquire maximum long-term value from the forest resource through revenue generation, greater utilization of the resource, and development of remote areas.

For all quotas (company-Provincial agreements), the province handles the forest management responsibilities, and the operators build all necessary roads. The quotas are renewable, depending on the operator's performance, the availability of timber, and the operator's agreement to any changes in the quota's terms.

Manitoba continues to be willing to negotiate individual agreements for significant timber-cutting operations in the Province. Currently, only two such large-scale agreements are in force, one with a newsprint mill, and one with an integrated pulp and paper, dimension lumber operation. Both licensees must provide 20-year management plans and operating plans, and must construct all necessary roads at their full cost.

The major forms of tenure are as follows.--Forest management license: There are presently two such licenses, representing approximately 50 percent of annual Provincial harvest. The licenses have terms up to 20 years, that are renewable. They provide for area-based tenure, with the holder responsible for preparation of operating and management plans, road construction, reforestation, and silviculture; Timber sale agreements: These apply to quota holders with historic rights, and are for a term of 10 years. These are nonrenewable, but may be extended. The annual quotas range from 3 cubic centimeters to 30,000 cubic centimeters and account for 40 percent of the Provincial harvest. Uncommitted volume may be offered for sale by competitive, sealed tender.

Timber pricing system.--The forest management licenses provide for dues base rates adjusted periodically by a price index. Timber sales and permits are subject to the regulated dues rates schedule. These are indexed annually to product price and are defined for different areas to reflect the degree of accessibility and value of the timber. Timber sales are also subject to an application fee, a security deposit, a guarantee deposit, and an operating permit.

The following is a summation of Manitoba's forest management policies:

a. Productive forest land--25 percent of total land area.
b. Administrative agency--Department of Natural Resources.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Forest management license and timber sale agreement

New Brunswick

The Department of Natural Resources is the Government agency charged with administering the forest resources of New Brunswick. A new forest policy adopted early in 1982 established basic objectives and standards in terms of utilization, silviculture, and forest productivity. Responsibility for management of public forest lands is delegated to licensees who are required to carry out long-term industrial and resource planning. This is to include provision for planning the harvest, allocating the harvest among its users, silviculture, and protection. The objective is to ensure not only an adequate supply to the forest industries but a sustainable supply of sawlogs and other materials to all users.

Recently, 10 licenses were issued for large tracts of land to the companies that had demonstrated the ability to undertake the new strict silvicultural and forest management obligations. All roads built by the licensee to gain access to the timber are paid for by the licensee. The licensee is required to plan and undertake a designated area of silviculture each year. Only the direct costs are reimbursed by the Province. The regeneration of all other logged areas is the responsibility of the licensee.

The Province issues sublicenses under these licenses to the other timber users and places the responsibility for managing these sublicenses on the licensees. Thus, in addition to the costs of managing and planning, the licensees incur significant administrative and monitoring costs related to the presence of sublicensees in their license areas. However, licensees can pass on a share of the costs of forest managment responsibilities to the sublicensee.

The major forms of tenure are as follows.--Crown timber license: These are area based, on a 25 year term with a possible extension, subject to review of performance, and utilization of harvest, at 5-year intervals. The licensee is responsible for all management and certain silviculture costs; Crown timber sublicense: This provides the right to an established volume of timber, specific to species and timber product, to a third party within a Crown timber License. It is for a term of 5 years and is renewable provided performance is adequate; and Crown timber permit: This is issued for specific stands of timber for a term of 1 year, normally for cutting firewood.

Timber pricing system.--Dues are payable on Crown timber based on fair market value. The averages of prices achieved from the sale of timber from private lands are factored to account for quality differences and in-kind expenses imposed on Crown land. The major license holder is responsible for payment of dues for timber harvested by the sublicense. In turn, a charge is levied by the licensee on the sublicensee to cover dues and other costs.

The following is a summation of New Brunswick's forest management policies:

Productive forest land--85 percent of total land area.
Administrative agency--Department of Natural Resources.
Forest management policy--Sustained yield.
Major tenure forms--Crown timber license, Crown timber sublicense, and Crown timber permit

Newfoundland

The Department of Forest Resources and Lands is the authority which administers the Province's forest resources. Major responsibilities include regulation of timber harvesting; protection from forest fires, insects, and disease; collection of forest revenues; and encouragement of sound forest management on Crown and private lands alike. The Department encourages sound forest management and applies this through the administration of a land tax system that assesses land according to the owner's or licensee's forest management practices. Well-managed forests are entitled to a lower managed land tax and owners of forest lands that do not meet the Department's standards or conditions are subject to an onerous unmanaged-land tax.

The major forms of tenure are as follows.--Leased and long-term licensed lands: --Leases in these lands are for a term of 99 years. They are issued to large pulp and paper companies, and are not renewable. Responsibility for road construction and harvesting rests with the companies. Inventory, reforestation, insect protection, and site rehabilitation are shared between the companies and the government.

The miscellaneous dispositions are as follows.--Timber cutting permits: These 1-year permits are used for allocation of timber on Crown lands not subject to timber leases or licenses; and miscellaneous licenses: These are renewable area based tenures, with a 20 year term. Responsibility sharing is similar to that for leased and long-term licence lands.

Timber Pricing System.--Leased and long-term licenses pay a fixed royalty on sawlogs. The short-term licenses require stumpage rates to be paid according to a schedule depending on timber quality and accessibility. The schedule is adjusted annually using an indexing formula.

Leases and long-term licenses are subject to ground rent and an annual protection tax. All landholders, including the lease and license holders, are subject to a managed-land tax.

They following is summation of Newfoundland's forest management policies:

a. Productive forest land--34 percent of total land area (Island only, excludes Labrador).
b. Administrative agency--Department of Forest Resources and Lands.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Leased and long-term licensed lands

Nova Scotia

The Nova Scotia Department of Lands and Forests administers the Lands and Forests Act, the Forest Improvement Act and various other statutes. From these, it derives authority to manage Crown lands, to provide a system of parks, and to protect the forests, wildlife, and beaches. Inherent in the legislation and incumbent upon the department are responsibilities pertaining to the productivity of the forests (generally), the implementation of forest management programmes, the supply of forest products, public education, and the enhancement of recreational and scenic values.

Timber rights are allocated through a variety of tenures, some of which delegate forest management functions to the licence holder, and others the delegate responsibility to Department. In all cases, protection and maintenance of the forest land base for perpetual yield of timber is a prime objective.

Nova Scotia has three methods of allocating timber. The longest-term allocation, which is generally between 40 and 50 years, originated prior to 1970 in connection with pulp and paper companies establishing facilities in Nova Scotia. The terms of these long-term licenses were fully negotiated with the interested companies. The latest long-term license agreement was negotiated over 10 years ago. There are presently two such agreements. Under these long-term license agreements, the holder is responsible for management, regeneration, silviculture, and road construction, however, some silviculture expense is allowed as a credit to the holder's stumpage dues.

Since 1974, the Province has followed a policy of negotiating shorter term license agreements with wood product companies. These agreements are for a period of 10 years with an option for renewal for another 10 years. Most of these agreements have been with sawmills, the one exception being an agreement with a hardboard mill.

The major forms of tenure are as follows.--Long term license agreement: These were negotiated with pulp and paper companies during the 1950's and 1960's. Two licenses are currently in effect, both with a 50-year initial term. The licensees are responsible for management and silvicultural tasks; and Section 79A license agreements: These were volume based, with terms up to 10 years. The licensees are responsible for harvesting and road construction.

The miscellaneous dispositions are as follows.--Miscellaneous sales: Under such sales, specific marked stands of timber may be sold by tender; and roadside sales: Under these sales, merchantable wood may be sold by tender at roadside after harvesting by the department. The purchaser is responsible for removal of the timber.

Timber pricing system.--The long-term agreements each have a negotiated dues schedule. Other license agreements are subject to base stumpage prices determined at 18-month intervals in relation to tenders reviewed and are adjusted regularly following trends in softwood lumber selling prices.

The following is a summation of Nova Scotia's forest mangement policies:

a. Productive forest land--75 percent of total land area.
b. Administrative agency--Department of Lands and Forest.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Long-term liscense agreement and Section 79A liscense agreement.

Ontario

Ontario's forests are administered through the Ministry of Natural Resources, which has a major responsibility to sustain the supply of renewable resources. The Ministry has an objective of supplying timber to the forest industries on a sustained-yield basis so that the Province can be assured of long-term continuity of the revenue generated by forest industries. The Province further adheres to the principle that the existing Crown ownership of the forest land should be continued so that the Government can maintain a measure of control over the development and direction of the forest products industries and manage the forest in perpetuity.

Under an order-in-council license for a large tract of timber, the licensee is responsible for preparing management plans for Government approval and completing a forest inventory. The cost of roads required to provide access to timber must be borne entirely by the licensee. The Province and the company generally also negotiate a forest regeneration agreement under which the company undertakes basic regeneration of the licensed area in accordance with the forestry standards of the day.

Recently, the Province developed a new form of tenure, the forest management agreement, under which the Province requires the companies to undertake significant forest management, silvicultural, and roadbuilding responsibilities. In return, the Province provides a 20-year, secure supply of wood under an agreement that is renewable on a 5-year rollover basis. At each 5-year review, the terms and conditions of the forest management

agreement can be altered. The Province also reimburses the companies for certain silvicultural and, to a lesser extent, main roadbuilding costs that are in excess of basic requirements and directed by the Government.

The Province of Ontario is now in the process of changing all of the outstanding long-term tenures to these negotiated forest management agreements. By 1989, the Province intends that most of the forest will be under forest management agreements. Some forests will by necessity, continue to be managed under other forms of license.

The major forms of tenure are as follows.--Order-in council license (OIC): These are volume based and tied to a specific area. Presently, they are used on 40 percent of the licensed forest area, but that is to be reduced to 25 percent by 1989 in favor of forest management agreements. These licenses have terms of 1 to 20 years, and they are renewable depending on negotiation. This type of tenure dates from the early 1900s and each has been individually negotiated. Responsibilities include preparation of management and operating plans, payment of all road and harvesting costs and compliance with the annual allowable cut; and forest management agreements (FMA): These are area based, with a term of 20 years, renewable at 5 year intervals subject to negotiation, performance, and acceptance of revised conditions. Presently, they are used on 60 percent of the licensed forest area, but that figure is intended to increase to 75 percent by 1989. Responsibilities include all costs of forest management planning, forest inventory, reforestation, silviculture, and roadconstruction. The licensee must maintain the annual allowable cut.

The miscellaneous dispositions are as follows.--Less than 1 percent of the timber harvest falls under special forms of license that permit the salvage of dead and infested timber for firewood and special individual uses (such as fence posts, rails, cabin logs, etc.). Occasionally sold by tendered sale whene the exceptional situation of more than one buyer exists.

Timber pricing system.--For both FMA's and OIC's, mill license fees and an area charge are payable annually. Both pay royalties according to regulated stumpage dues rates. A negotiated bonus price supplementary to the stumpage dues is payable for good quality timber or timber in an advantageous location.

The following is a summation of Ontario's forest managment policies:

a. Productive forest land--64 percent of total land area.
b. Administrative agency--Ministry of Natural Resources.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Order-in-council license and forest management agreements.

Quebec

The Ministry of Energy and Resources administers the forest resources of Quebec and is responsible for the coordination of several local, regional, and Provincial government agencies that have overlapping jurisdiction affecting forest lands. It is the objective of the Government to control the allocation

of the timber resources so as to ensure a perpetual supply of timber. To achieve this, it is the policy of the Ministry to maximize utilization of the existing forest; to protect the resource from loss by fire, insects, and disease; to provide for prompt regeneration of forests following harvesting; and to intensify the productivity of forest land through sound silvicultural management.

Negotiated agreements with large pulp and paper companies generally provide for what are known as timber limits on concession areas. Under a timber limit, holders are responsible for fire prevention and suppression, protection against insect and disease, and forest management. There is no term set for the expiration of the agreement, although the timber limit holder must obtain annual cutting permits in order to harvest any timber.

Increased demand for Quebec's timber resources caused the Province to reassess the tenure rights and obligations in force, and resulted in the development of a new tenure form, the timber supply agreement on domanial forests. This tenure still permits industrial stability but also allows the Province to have closer control over its timber resource and requires higher standards of forest management, timber utilization, and logging practices. It is made available to any companies interested in new allocations of Provincial land.

The major forms of tenure are as follows.--Timber limits (old pioneering tenures in the process of being phased out): These are long-term, area-based tenures whereby the licensee is responsible for management plans, annual operating plans, and harvesting, including development of logging roads. The licensee pays insect and fire protection costs, ground rent, and stumpage dues; and Domanial forest supply agreements: These are volume based, with terms up to 20 years, and are renegotiable on expriation. The licensee is responsible for annual operating plans and harvesting, including logging roads, and must pay insect and disease control, forest inventory and management, and fire protection costs plus stumpage dues.

The miscellaneous dispositions are as follows.--Such tenures are issued for specific and personal uses.

Timber pricing system.--All licensees are required to pay stumpage dues established for the tenures according to an appraisal based on species, product, and geographic accessibility zones. These rates are periodically adjusted to account for increased timber values. In addition, Domanial licensees pay fees for forest inventory and management, insect and disease control, and fire protection. Timber limit holders are required to pay ground rentals, and insect and fire protection charges.

The following is a summation of Quebec's forest management policies"

a. Productive forest land--35 percent of total land area.
b. Administrative agency--Ministry of Energy and Resources.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Timber limits and Domanial forest supply agreements.

Saskatchewan

The Province's forests are administered by the Forestry Division of the Department of Tourism and Renewable Resources. Its mandate is to control and administer all matters relating to forestry, including: rights to Crown timber, revenues arising from forestry, management and conservation of forest lands, utilization of timber, protection, reforestation, sales of timber, and the licensing of facilities for processing forest products.

To pursue this mandate, the present policy of the Forestry Division is to provide long-term secure tenure to major operators on a land and forest base sufficient to support existing requirements. Agreements under this tenure system are to provide for the orderly development, harvesting, and regeneration of timber stands to be undertaken by the agreement holder and for payment to the Crown for timber values removed. For areas that do not fall within the terms of these long-term agreements, the Forestry Division must provide for the achievement of forest renewal and other timber management functions and for the collection of revenue from the sale of timber.

The major form of tenure is as follows.--Forest management license agreements (FMLA): These may be either volume or area based, for a term of 20 to 30 years and are renewable by various means.
The responsibilities and conditions within each agreement are negotiated and vary among agreements. Generally, the licensee is responsible for submitting acceptable cutting and working plans, and for a number of costs, including inventory and reforestation costs.

The miscellaneous dispositions are as follows.--Timber permits: These are volume based; awarded to the highest bid tendered; for a term of 1 year; and renewable annually, conditional on the availability of timber. The permittee is responsible for the operating plans and road construction; and term cutting agreements: These agreements guarantee a timber permit each year for up to 10 years.

Timber pricing system.--All tenures pay stumpage dues. Holders of FMLA's and term cutting agreements pay individually negotiated rates. Timber Permits are subject to regulation dues rates. Ground rental is also subject to negotiation. A fire protection levy is exacted upon some agreements. Timber permits require a performance deposit, application fee, and several administrative charges.

The following is a summation of Saskatchwan's forest management policies:

a. Productive forest land--16 percent of total land area.
b. Administrative agency--Department of Parks and Renewable Resources.
c. Forest management policy--Sustained yield.
d. Major tenure forms--Forest management license agreement (FMLA).

Appendix L

Canadian Log Export Policies, By Province

Canadian Log Export Policies, By Province 1/

Canada

The Federal Act that controls the export of forest products is the Export and Import Permits Act that has been in effect since 1941. In terms of the controlled items under this Act, Canadian exporters must apply to External Affairs for a permit. External Affairs evaluates these permit requests and the exporter is issued an export permit. The Canadian exporter then produces this document along with any other necessary documents to a customs official at the port of exit. Under the terms of the Act, no distinction is made between softwood and hardwood logs or between logs and pulpwood.

Alberta.--Under Section 31, subsection (1) and (2), (1) No person shall transport logs, trees, or wood chips except dry pulpwood or Christmas trees to any destination outside Alberta from any forest lands and, (2) Notwithstanding subsection (1), the Minister may:

> (a) authorize any person to transport logs, trees, or wood chips to be used for research or experimental purposes to any destination outside Alberta from any forest lands; or
> (b) exempt any logs, trees, or wood chips from any specified forest land from the application of the subsection for a period not to exceed one year.

British Columbia.--Unless exempted under Forest Act, Part 12, RSBC 1979, section 135 timber that is harvested from Crown land granted by the Crown after March 12, 1906, or from land granted by the Crown on or before March 12, 1906, in a tree farm license area and wood residue produced from the timber shall be--

> a. used in the Province; or
> b. manufactured in the Province into
> (i) lumber
> (ii) sawn wood products, other than lumber manufactured to an extent required by the Minister;
> (iii) shingles or fully manufactured shakes;
> (iv) veneer, plywood or other wood-based panel products;
> (v) pulp, newsprint, or paper;
> (vi) peeled poles and piles having top diameters less than 28 cm and fence posts;
> (vii) Christmas trees; or
> (viii) stickes and timbers having diameters less than 15 cm, ties and mining timbers.

1/ A White paper provided by the Canadian Government.

Under section 136 Exemptions--

(1) The Lieutenant Governor in Council may exempt from section 135:

(a) a species of timber or kind of wood residue and may limit the volume of a species of timber or a kind of wood residue to which the exemption applies for a period of successive periods of time; and

(b) a volume of timber, whether or not harvested, or a volume of a wood residue, on receiving an application in a form required by the Minister.

(2) On receiving an application in the form required by him, the minister may exempt from section 135 a volume of timber that has been harvested, not exceeding 15,000 cubic meters for each application.

(3) An exemption shall not be given under this section unless the Lieutenant Governor in Council or the Minister, as the case may be, is satisfied that:

(a) the timber or wood residue will be surplus to requirements of timber processing facilities in the Province;

(b) the timber or wood residue cannot be processed economicallly in the vicinity of the land from which it is cut or produced, and cannot be transported economically to a processing facility located elsewhere in the Province; or

(c) the exemption would prevent the waste of or improve the
utilization of timber cut from Crown land.

Manitoba.-- There are no restrictions imposed by Manitoba

New Brunswick.--Section 68 of subsections (1) and (2) of the Crown Lands and Forest Act--

(1) It is a condition of every licence, sublicence, permit, and Crown timber sale issued under this Act that timber harvested from Crown lands shall not be manufactured into forest products outside New Brunswick or exported from New Brunswick for any other use.

(2) Notwithstanding subsection (1), the Minister, with the approval of the Lieutenant-Governor in Council, may for a specified lot of timber exempt any licence, sub-licence, permittee, or purchaser under a Crown timber sale from the condition imposed under subsection (1).

Newfoundland.--Under section 88 of the Crown Lands Act.--

(1) The Minister may grant to any person to export unmanufactured timber from any freehold land or from land under a licence to cut timber under this Act, or any former Act, or from any land under demise from the Crown or from any specific part of any such land in such quantity and for such period and upon such terms and conditions of any kind as the said Minister may seem expedient.

(2) Save as hereinbefore provided no person shall (save under and to the quantity provided by any special Act or Acts permitting him so to do) take or carry away for exportation from any freehold land or from land under a licence to cut timber under this Act or any former Act, or from any land under demise from the Crown or from any part of any such land any trees or parts thereof, logs or timbers unless and until the same have been manufactured into paper pulp, sawn lumber, or other saleable products of timber, under a penalty of not less than $20 for every tree or part thereof so taken and exported, the said penalty to be recovered by suit in the name of the Minister.

(3) Trees or timber cut into cordwood, pulpwood, pit props, or other lengths whether barked or not shall be held not to be saleable products of timber for the purpose of the preceding subsection.

Nova Scotia.--Under section 83, subsection (1) of the Lands and Forests Act the Governor in Council may, at such time as is deemed expedient, prohibit the export from the Province of pulpwood or timber or wood cut or removed from lands belonging to or held under lease or license from the Crown to be used in the manufacture of pulp or pulp products.

Ontario.--Provincially owned forests in Ontario are managed by the Ministry of Natural Resources under the authority of the Crown Timber Act, a Provincial statute and regulations that are issued by the government under the authority of the legislature. Sections 15 and 16 of the Act pertain to the export from Canada of logs from the Crown forests of Ontario.

Sections 15 and 16 of the Crown Timber Act--

(1) Every license is subject to the condition that all timber cut thereunder, except timber that is used in Canada in an unmanufactured state for fuel, building or other purposes, shall except as provided in subsection (3), be manufactured in Canada into ties, poles, pit props, lumber, veneer or such like products, or into pulp.

(2) For the purpose of subsection (1), chips produced as a by-product of the manufacture of lumber shall be deemed to be manufactured into lumber.

(3) The Lieutenant Governor in Council, after giving thirty days notice of his intention so to do by publication in the Ontario Gazette, may suspend the operation of subsection (1) as to any kind or class of timber that he designates and as to any area that he defines and for such period and upon such other terms and conditions as he considers proper.

Section 16 of the Crown Timber Act states that every person who applies to the Ministry for a customs clearance document relating to the export of timber shall make a statement by affidavit or by statutory declaration respecting the timber is such form as the Ministry prescribes.

Quebec.--Under the Forest Resources Utilization Act, utilization of forest resources for the benifit of the Province--

(2) Notwithstanding any legislation provision inconsistent herewith, all wood derived from the public domain of Quebec, whatever be the nature of the forest concession on which the right to cut is based, must be completely processed in Quebec.
Wood is completely processed within the meaning of this act when it has undergone all the treatments and processes of manufacture and has passed through all phases of transformation necessary to render it suitable for the use to which it is intended finally to be put, in such manner that the products thereof have acquired the definitive form in which the merchandise is to be delivered to the consumer. Nevertheless, the Lieutenant Governor in Council may, by way of exception authorize the shipment outside the Province of Quebec, of incompletely processed wood derived from the public domain of Quebec, whenever it deems it in the interest of the Province or of a region therof, by reason of particular industrial, economic, or social conditions. Such authorization shall be given by means of special permits, for such quanity (sic) and on such conditions as the Lieutenant Governor in Council may determine.

Saskatchewan.--Under the Forest Act--

Section 5. Timber may be disposed of by license, permit, agreement, or sale, and no person shall cut any timber without such authority and no green timber shall be exported without the authority of the Minister.

Section 48. Except with the permission of the Minister, no forest products cut by or for the Company on the forest management area shall be exported, sold or otherwise disposed of in their natural form.

Appendix M

Description of the U.S. Forest Service Regions

The Forest Service

United States Department of Agriculture

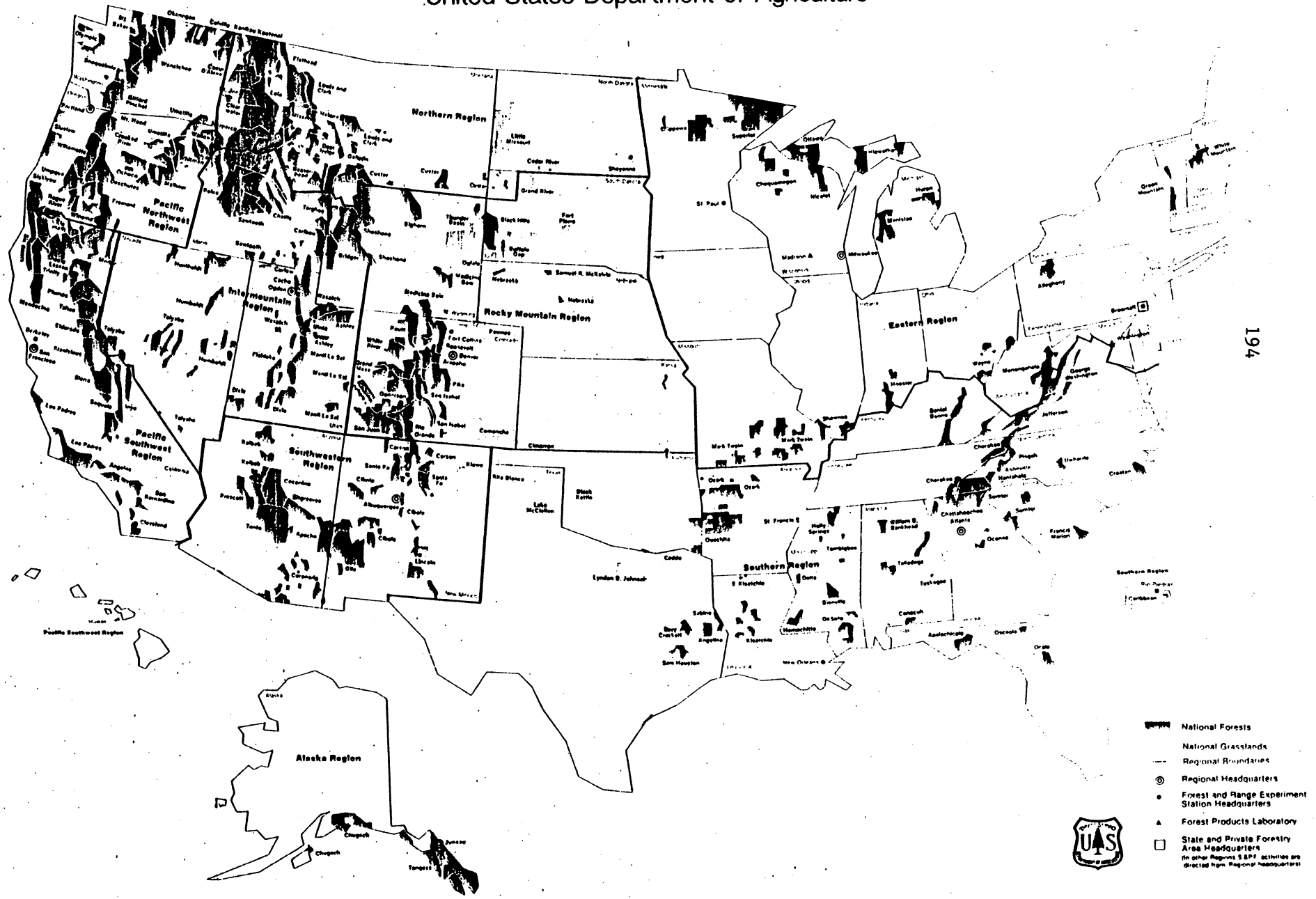


Table M-1.--U.S. Forest Service Regions: National Forest System Lands

Region	State and forest	National Forest System Lands	Gross area within the Forest
		Acres	
1	Idaho:		
	Coeur D.Alene 1/	722,571	806,523
	Clearwater	1,688,687	1,765,545
	Kaniksu 1/	1,616,201	1,846,488
	Nezperce	2,221,816	2,247,082
	St. Joe 1/	866,500	1,074,637
	Total	7,115,775	7,749,275
	Montana:		
	Beaverhead	2,128,798	2,198,806
	Bitterroot	1,578,330	1,653,827
	Custer	1,186,391	1,278,218
	Deerlodge	1,196,547	1,355,783
	Flathead	2,350,439	2,628,705
	Gallatin	1,738,056	2,149,552
	Helena	975,088	1,162,602
	Kootenai 2/	1,824,717	2,144,430
	Lewis and Clark	1,843,587	1,999,212
	Lolo	2,112,597	2,616,726
	Total	16,934,550	19,187,861
	Grand total	24,050,325	26,928,136
2	Colorado:		
	Arapaho	1,024,980	1,157,008
	Grand Mesa	346,219	351,707
	Gunnison	1,662,839	1,767,756
	Pike	1,107,946	1,283,790
	Rio Grande	1,851,296	1,960,466
	Roosevelt	788,268	1,082,567
	Routt	1,127,291	1,248,154
	Samuel R. McKelvie	115,707	116,822
	San Isabel	1,115,754	1,244,615
	San Juan	1,860,728	2,107,291
	Uncompahgre	943,894	1,043,934
	White River	1,961,539	2,090,246
	Total	13,906,461	15,454,356
	Nebraska and South Dakota:		
	Black Hills	1,000,683	1,238,609
	Nebraska	141,553	229,599
	Total	1,142,236	1,468,208
	Wyoming:		
	Bighorn	1,107,607	1,115,160
	Black Hills	234,728	290,538
	Medicine Bow	1,093,687	1,402,667
	Shoshone	2,433,029	2,466,587
	Total	4,869,094	5,274,952
	Grand total	19,917,791	22,197,516

1/ Small portions are included in both North Dakota and Washington.
2/ A small portion is included in Idaho.

Table M-1.--U.S. Forest Service Regions: National Forest Systems Lands--con.

Region	State and forest	National Forest System Lands	Gross area within the Forest
		Acres	
3	Arizona:		
	Apache 1/	1,801,887	1,876,905
	Coconino	1,835,767	2,010,762
	Coronado	1,779,297	1,853,779
	Kaibab	1,556,432	1,600,075
	Prescott	1,237,061	1,407,596
	Sitgreaves	817,338	884,481
	Tonto	2,873,759	2,969,514
	Total	11,901,541	12,603,112
	New Mexico:		
	Carson	1,391,355	1,490,594
	Cibola	1,635,510	2,120,739
	Gila	2,704,781	2,797,628
	Lincoln	1,103,490	1,271,066
	Santa Fe	1,567,389	1,734,800
	Total	8,402,525	9,414,827
	Grand total	20,304,066	22,017,939
4	California and Nevada:		
	Humbolt	2,527,938	2,680,449
	Toiyabe	3,195,400	3,376,434
	Total	5,723,338	6,056,883
	Idaho:		
	Boise	2,645,938	2,959,719
	Caribou	987,187	1,085,961
	Challis	2,463,633	2,487,549
	Payette	2,314,379	2,425,521
	Salmon	1,771,180	1,794,288
	Sawtooth 2/	1,802,715	1,898,058
	Targhee	1,544,190	1,587,558
	Total	13,529,222	14,238,654
	Utah:		
	Ashley	1,384,699	1,405,609
	Cache	679,333	1,218,734
	Dixie	1,883,736	1,967,187
	Fishlake	1,424,527	1,525,686
	Manti-La Sal	1,265,254	1,337,790
	Uinta	812,760	889,208
	Wasatch	629,323	761,138
	Total	8,079,682	9,105,352

1/ Small portions are included in New Mexico.
2/ Small portions are included in Utah.

Table M-1.--U.S. Forest Service Regions: National Forest Systems Lands--con.

Region	State and forest	National Forest System Lands	Gross area within the Forest
		Acres	
4--con.	Wyoming:		
	Bridger	1,733,555	1,744,631
	Targhee	98,565	101,334
	Teton	1,666,555	1,694,947
	Wasatch	256,998	310,887
	Total	3,755,673	3,851,799
	Grand total	31,087,915	33,252,688
5	Arizona:		
	Angeles	653,862	693,667
	Calaveras	380	380
	Cleveland	420,590	566,850
	Eldorado	672,784	884,688
	Inyo	1,861,540	1,905,939
	Klamath	1,707,104	1,913,264
	Lassen	1,060,001	1,374,945
	Los Padres	1,752,523	1,962,743
	Mendocino	884,231	1,079,483
	Modoc	1,654,527	1,979,407
	Plumas	1,154,610	1,400,895
	San Bernardino	657,975	818,999
	Sequoia	1,125,693	1,180,042
	Shasta	1,133,519	1,634,602
	Sierra	1,303,032	1,412,641
	Six Rivers	987,920	1,118,247
	Stanislaus	899,478	1,090,543
	Tahoe	816,886	1,208,856
	Trinity	1,045,441	1,179,098
	Total	19,792,096	23,405,289
	Grand total	19,792,096	23,405,289
6	Oregon (westside):		
	Mt. Hood	1,060,092	1,108,554
	Rouge River 1/	629,191	685,914
	Siskiyou 1/	1,093,488	1,163,921
	Siuslaw	628,175	835,261
	Umpqua	984,797	1,029,351
	Willamette	1,675,470	1,796,866
	Total (westside)	6,071,213	6,619,867

1/ Small portions are included in California.

Table M-1.--U.S. Forest Service Regions: National Forest Systems Lands--con.

Region	State and forest	National Forest System Lands	Gross area within the Forest
		Acres	
6--con.	Oregon (eastside):		
	Deschutes	1,604,705	1,852,282
	Fremont	1,197,012	1,710,570
	Malheur	1,459,422	1,540,754
	Ochoco	843,721	978,547
	Umatilla	1,262,250	1,358,197
	Wallowa	985,980	1,064,634
	Whitman	1,263,879	1,311,545
	Winema	1,034,915	1,086,116
	Total (eastside)	9,651,884	10,902,645
	Total (Oregon)	15,723,097	17,522,512
	Washington (westside):		
	Gifford Pinchot	1,253,585	1,379,298
	Mt. Baker	1,280,972	1,312,120
	Olympic	649,975	715,751
	Snoqualmie	1,225,748	1,557,682
	Total (westside)	4,410,280	4,964,512
	Washington (eastside):		
	Colville	945,120	1,021,071
	Okanogan	1,499,462	1,536,961
	Umatilla	140,250	150,911
	Wenatchee	1,620,031	1,904,259
	Total (eastside)	4,204,863	4,613,202
	Total (Washington)	8,615,143	9,578,053
	Total Region 6 (westside)	10,481,493	11,584,718
	Total Region 6 (eastside)	13,856,747	15,515,847
	Grand total	24,338,240	27,100,565
8	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennesse, Texas, Virginia, and West Virgina		
	Angelina, Apalachicola, Bienville, Caribbean, Chattahoochee, Cherokee, Choctawatchee, Conechuh, Crotan, Daniel Boone, Davy Crockett, De Soto, Delta, Francis Marion, George Washington, Holly Spring, Homochitto, Jefferson, Kisatchie, Nantahala, Ocala, Oconee, Osceola, Quachita, Ozark, Pisgah, Sabine, Sam Houston, St. Francis, Sumter Talladega, Uwharrie, William B. Bankhead		
	Grand total	12,508,746	23,706,068

Table M-1.--U.S. Forest Service Regions: National Forest Systems Lands--con.

Region	State and forest	National Forest System Lands	Gross area within the Forest
9	Illinois, Indiana, Maine, Michigan, Minnesota, Missouri, New Hampshire New York, Ohio, Pennsylvania, Vermont, West Virginia, Wisconsin		
	Allegheny, Chequamegon, Chippewa, Green Mountian, Hiawatha, Hoosier, Huron, Manistee, Mark Twain, Monongahela, Nicolet, Ottawa, Shawnee, Superior, Wayne, and White Mountain		
	Grand total	11,445,971	20,706,886
10	Alaska:		
	Chugach	6,122,949	6,577,301
	Tongass	16,815,703	17,441,114
	Total	22,938,652	24,018,415
	Grand total	24,938,652	24,018,415
	Total West	164,429,085	178,920,548
	Total East	23,954,717	44,412,954
	Total United States	188,383,802	223,333,502

Appendix N

U.S. Forest Service Rule Changes and U.S. Bureau of Land Management Rule Changes Which Apply to Timber Procurement

contracting officers. The final rule provides that the contracting officers will administer the timber sale contracts and furnish the Regional Foresters certain information that they need to make the determinations necessary to implement the act. Regional Foresters are responsible for administration of the act, such as action on the applications for contract buy out and accepting or rejecting the return of contracts.

A new section, § 223.172—Approval of application for contract buy out, describes a Regional Forester's responsibilities upon receipt of an application for contract buy out, and lists the standards that must be met before the application may be approved. Approval of the application is a necessary step toward return of a timber sale contract pursuant to § 223.178.

d. *Holder of a Contract.* It became apparent during the analysis of the comments received and preparation of the final rule that there was a need to be explicit as to the standards that had to be met for an entity to be considered the "holder of a contract to purchase timber from the Secretary of Agriculture." Therefore, the definition of "contract holder" has been added to § 223.170.

e. *Public Disclosure.* Several timber sale purchasers commented that the information submitted to establish the purchaser's net book worth should be kept confidential in order to minimize competitive harm. The Forest Service will provide confidentiality of material submitted, including a showing of net book worth, to the maximum extent allowed by law. All requests for information submitted pursuant to the Federal Timber Contract Payment Modification Act will be handled according to the Freedom of Information Act (5 U.S.C. 552), as amended, with full consideration of available exemptions from disclosure. The Freedom of Information Act is specific in describing the types of information exempt from public disclosure. Purchasers need to be aware that some of the financial information submitted by the purchasers may be available to the public upon request.

f. *Disputes.* Many respondents stated that the rule implementing the act should specify the methods to resolve disputes in administration of the buy out program. The final rule includes a new § 223.182, which provides that disputes that arise over the implementation of the buy out procedures, such as Regional Forester determinations on a contract buy out application, will be resolved under the Forest Service administrative review procedures (36 CFR 211.18). Disputes about the timber sale contracts and their provisions will be resolved pursuant to the Contract Disputes Act, or the contract disputes procedures that preceded that act.

Comments by Section of the Proposed Rules

Section 223.170 Definitions.

(i) *Affiliate.* The proposed rule defined "Affiliate" as "Concerns affiliated at any time during the period of June 1, 1984, to the date of the purchaser's buy out application." Many respondents stated that the definition was too broad and would unnecessarily impede some restructuring of the forest products industry. The final rule sets the affiliation test period between June 1, 1984, and September 30, 1984. This includes the period immediately before Congress passed the act, so it protects the public against manipulation of affiliation to unduly affect the amount of timber a purchaser could return and/or the net book worth of the purchaser. September 30, 1984, was selected as the end of the affiliation test period because it was the end of a fiscal year, or fiscal year quarter, commonly used in the forest products industry. Therefore, it marks the end of an accepted record keeping period. In response to a suggestion from a respondent, the definition further provides that if a purchaser forms an affiliate after September 30, 1984, and before the time the purchaser determined its net book worth, the purchaser must include the affiliate in determining its net book worth. This should provide additional protection from possible manipulation of net book worth to affect buy-out costs.

(ii) *Contract Overbid.* Some respondents were unsure as to the timber volume that was to be used in calculating the contract overbid rate for determining the buy-out cost. The final definition specifies that the contract overbid is based on the remaining net merchantable sawtimber volume under contract.

(iii) *Net Book Worth.* Some respondents suggested that the definition of "Net Book Worth" be referenced to the Securities and Exchange Commission's (SEC) regulations. This would simplify the work that publicly held corporations would have to do to document their net book worth. However, compliance with the SEC's regulations could be complex to purchasers who are not publicly held corporations. Therefore, the final definition does not refer to the SEC regulations. The definition in the final rule is broad enough that a purchaser's documentation of net book worth in conformance with the SEC regulations meets many of the implementing requirements for the buy out.

(iv) *Net Merchantable Sawtimber.* Some western timber sale purchasers suggested that the definition of "Net Merchantable Sawtimber" be clarified by listing some timber sale products, including hardwood, that do not qualify as net merchantable sawtimber. However, hardwood sawtimber is a valuable product on many national forests. Therefore, although the definition of net merchantable sawtimber is clarified by listing some examples of non-sawtimber products, the definition does not automatically exclude hardwood.

(v) *Qualifying Contracts.* Some respondents objected to the proposed rule's requirement that a qualifying contract be in effect on the date of the purchaser's application for contract buy out. The definition of "Qualifying Contract" in the final rule does not include this requirement. The definition now conforms with the general language of the act.

The terms "qualifying contracts" and "qualifying timber sale contracts" are apparently used interchangeably in the act and appear as mandatory criteria in three sections of the act which have different purposes. First, "qualifying contracts" are the base from which a purchaser's volume entitlement is calculated by looking to the January 1, 1982, volume in those contracts the purchaser held as of June 1, 1984. Second, the purchaser's loss must be calculated by the Forest Service for "any qualifying timber sale contracts" by looking to the current delivered log value and log cost for that particular contract. In calculating a purchaser's aggregate loss, only contracts the purchaser held as of June 1, 1984, will be used. The June 1, 1984, holder of a contract does not have to hold the contract on September 30, 1984, in order for the contract to be used in calculating the purchaser's aggregate loss. Finally, when a purchaser elects to actually buy out a particular contract, it is clear that the contract must have been held by that purchaser on June 1, 1984. Because the buy-out cost is applied to the currently held volume bought out, a purchaser must hold a contract on both June 1, 1984, and the date of that purchaser's application for contract buy out in order for the purchaser to buy out the sale.

Section 223.171 Application for contract buy out.

(i) *Contents.* The act provides that affiliation will be considered in determining a purchaser's volume

entitlement and net book worth. Several respondents suggested that purchasers who elect to pay the highest buy out cost, and who would not provide information on net book worth, be required to list only their affiliates who purchase Federal timber. Many of these purchasers have several affiliates that are not related to the timber industry. Since including non-timber related affiliates in these applications would create added work for the purchaser when preparing the application, and for the Government in review of the application, and since the information would not help the administration of the act, this suggestion is included in the final rule.

A purchaser is entitled to buy out up to 55 percent of its qualifying Federal timber, up to a maximum of 200 million board feet. Several respondents proposed that instead of listing all Forest Service and Bureau of Land Management qualifying contracts and qualified defaulted contracts in the application, a purchaser who elects not to provide information on net book worth be only required to list up to 400 million board feet of such timber. This should be enough to establish the maximum volume entitlement. This suggestion will increase purchaser and Forest Service efficiency and it was adopted.

Questions arose as to how a purchaser and its affiliates should designate sales for buy out in order to get full volume entitlement without duplication or confusion. The final rule specifies that although an application will show the purchaser's and affiliate's sales, only the sales currently held by the purchaser can be designated for buy out on that application. It also provides that the volume a purchaser and its affiliates elect to buy out cannot exceed the affiliates' combined volume entitlement.

Some respondents objected to showing their preference for contract buy out as prescribed in the proposed rule. Purchasers who plan to buy out sales at rates established in section 2(a)(3)(A)(iii) of the act pointed out a need to show which sales they wanted included at each buy out rate. Application of specific buy out rates to volume is not precluded by selection of contracts to be bought out. The proposed rule has been clarified to reflect these comments.

(ii) *Election to Certify Net Book Worth.* Almost half the respondents commented that the documentation called for in the proposed rule to establish net book worth exceeded the standards required by the act. In addition, several respondents requested simpler net book worth requirements for companies in bankruptcy. The final rule responds to these concerns. It does not require an audit by a certified public accountant to establish net book worth. Purchasers in bankruptcy are provided an alternate method, if necessary, to establish net book worth. However, the final rule does contain a new requirement that purchasers must provide clarification of information provided in the application if the Forest Service so requests.

(iii) *Determination of Eligibility.* Several respondents objected to the part of the proposed rule that provided a purchaser 10 days to submit a revised list of sales if a Regional Forester determined that a contract elected for buy out was not eligible. They pointed out that market limitations and the availability of equipment and personnel complicated revision of a buy out application. Therefore, the final rule allows a purchaser to submit an amended application up to 30 days after receipt of a Regional Forester's rejection of a contract if the purchaser wants to request other sales for buy out.

The period provided by the act for purchasers to submit buy out applications will extend into the operating seasons of some timber sales. Some respondents were concerned about delays if a Regional Forester rejected a sale after the start of the operating season. However, purchasers can contact the contracting officers of their sales, find out which sales may be rejected for buy out, learn the likely conditions for return of partially operated sales, and plan their 1985 operations before they file their application for contract buy out. Therefore, there should be relatively few situations where this type of delay would occur.

A purchaser may submit only one amended application for Forest Service contract buy out unless the Regional Forester determines, upon a finding of good cause, the further amendment of an application may be made.

Purchasers can minimize the need for amended applications for contract buy out by discussing the possible eligibility and conditions for return of their contracts with the contracting officer before submitting their applications. This action by the purchasers can be very important in efficient implementation of the act. In the final rule this paragraph has been recaptioned as Approval of Application for Contract Buy Out and recoded as § 223.172.

Questions arose about the opportunity for a purchaser to correct errors in an application for contract buy out. Section 2(a)(6)(B) of the act provides that the implementing rule shall require purchasers to submit buy out requests within 90 days after publication of the rules. Section 223.171(a) implements this part of the act and outlines what constitutes an adequate request for buy out. Except for clerical errors, an application for contract buy out must be accurate, complete, and timely filed or the buy out request will not be considered.

A Regional Forester will notify the purchaser if an application is found to be inaccurate or incomplete. Unless the Regional Forester determines that the delay in submitting a corrected application is caused by factors beyond control of the purchaser, the purchaser shall correct and return the application to the Regional Forester during the period provided in § 223.171(a).

The final rule (§ 223.171(a)) provides that within 90 days of final publication of these rules any purchaser wishing to apply for contract buy out shall fully and accurately provide all of the required information on a form provided by the Forest Service. Section 223.181 specifies that a purchaser's obligations for timely buy-out cost payment is not affected by filing a corrected application.

Section 223.172 Volume entitlement.

(a) *Basis for Entitlement.* The proposed rule specified that volume entitlement is based on the net merchantable sawtimber volume held by the purchaser and its affiliates as of January 1, 1982. Many respondents suggested that the intent of the act was that purchasers who held qualifying contracts and/or qualified defaulted contracts on June 1, 1984, or those purchasers who currently hold such contracts would receive the volume entitlement based on the net merchantable sawtimber volume under such contracts as of January 1, 1982. The rule proposed by the Bureau of Land Management for implementing the act establishes volume entitlement with the current holder of a contract.

The final rule thus provides that the holders of qualifing contracts, qualified defaulted contracts, and Bureau of Land Management qualifying contracts as of June 1, 1984, may use the net merchantable sawtimber volume in those contracts as of January 1, 1982, in the calculation of their volume entitlement. The practical effect of the change in date is to grant volume entitlement to those parties who acquired eligible contracts between January 1, 1982, and June 1, 1984. The proposed rule limited volume

entitlement to those entities holding eligible contracts as of January 1, 1982.

(ii) *Volume Exceptions.* Several respondents said that it would be inequitable to require a purchaser to pay current contract rates for the volume necessary to reduce the volume elected for buy out to 200 million board feet. They said that the Government would receive current market value upon the resale of such timber. Therefore, if a purchaser paid the difference between the current market value rate and the current contract rate the Government would ultimately receive the current contract rate. However, a purchaser clearly has the option with respect to partially operated sales to harvest enough timber to reduce the remaining volume to a level within that purchaser's authorized buy out entitlement such that no inequity need occur.

The Forest Service does not have the authority to waive the contractual obligations of a purchaser, except under the specific authorizations of this act. Therefore this aspect of the proposed rule was not changed. This section is recoded as section 223.173 in the final rule.

Section 223.173 Buy-out cost.

(i) *Purchaser's Loss.* Many respondents wanted the formulas and procedures used to calculate purchaser's loss described in more detail than provided in the proposed rule. Therefore, a new § 223.174—Purchaser's Loss, is included in the final rule. The final rule specifies that the Forest Service will calculate the purchaser's loss by using a qualifying contract's or qualified defaulted contract's remaining net merchantable sawtimber volume as of September 30, 1984. September 30, 1984, was the most recent timber sale billing date prior to the signing of the act.

(ii) *Rates for Buy Out Costs.* Some respondents were uncertain as to whether the minimum buy-out cost of $10 per one thousand board feet applied to each species group within a contract to be bought out, to each contract to be bought out, or to a purchaser's total buy out volume. Respondents also wanted clarification that sales could be "split" across buy out charge percentages. Except where a purchaser's aggregate loss is in excess of 100 percent of that purchaser's net book worth, section 2(a)(3)(A) of the act establishes that the buy out charge is calculated as a percentage of the contract overbid with respect to specified volumes, so long as it is at least $10 per thousand board feet. The final rule specifies that the $10 per one thousand board feet minimum buy out cost applies to each individual contract to be bought out. Also, the language of the rule has been modified to make it more evident that the buy out charge percentages are to be applied to the volume being returned, not to the contracts involved.

Section 223.174 Conditions for return of timber sale contracts.

(i) *Intent.* Many respondents requested that the buy out rule contain a statement of the Forest Service intent in determining the conditions for return of timber sale contracts. There were several suggestions that the final rule contain a statement that a contract would be rejected for return only if it has been documented that unworkmanlike practices and procedures contrary to the approved plan of operation could not be remedied without serious disadvantage to the Government.

The Forest Service fully supports the objectives of the Act. These are: ". . . to retain jobs, to preserve free competition, to utilize the potential productive capacity of plants, to preserve small communities dependent on a single economic sector to assure an open and competitive market for future sales of Government timber, and to lessen the impact of unemployment, . . ."

Return of timber sale contracts is one of the primary mechanisms provided by the act to achieve these objectives. The discretion provided in the act will be exercised in light of this philosophy and the general guidance in the Forest Service Manual. Rejection of a timber sale contract elected for buy out shall only occur if the Regional Forester determines that the remaining unharvested portion is substantially unrepresentative of the original sale as a whole and that accepting the return of the contract would seriously disadvantage the Government.

(ii) *Rejection of Contracts.* The final rule clarifies that the Regional Forester has the discretion to reject both qualifying contracts and qualified defaulted contracts.

(iii) *Logical Stopping Point.* Several respondents asked that more direction be provided for identification of logical stopping points, and gave several examples and suggestions. However, it appears that further identification of logical stopping points may unduly restrict reasonable return of some partially harvested contracts. Clarification of the Forest Service intent and addition of a dispute resolution provision meet much of the concern expressed about this topic.

The proposed rule provided for purchasers to pay current market rates for the volume of felled timber lost to deterioration. The Forest Service would establish the volume and value of deteriorated timber. Many respondents said that there should be an opportunity for a purchaser to provide an independent measurement of the deterioration loss in the felled logs. The final rule includes this provision. There were also requests that the rule contain a definition of current market rates. This term is now defined in section 223.170 of the final rule. Some timber sale contracts require removal of certain timber by specific priority removal dates. Failure to remove this timber by the specified date is a contract breach. Questions arose as to how a sale with deteriorating timber subject to a priority removal date could be returned. The final rule provides that a logical stopping point for a sale with such timber shall include removal of the felled timber or payment at current contract rates for any volume of felled timber lost by deterioration which was subject to a priority removal date.

Some respondents suggested that conditionally returned contracts could be closed irrespective of the unscaled volume in mill decks. They proposed that the Forest Service retain some of the purchaser's deposits on such sales and charge the purchaser at current market rates as the timber is scaled.

Neither the act nor existing timber sale contract provisions allow for release of the purchaser or contract closure before the purchaser pays for the timber removed from the sale area. The Forest Service does not have the authority to charge less than the current contract rates for timber removed from the sale area. The final rule clarifies this.

(iv) *Notification of Conditions.* Many commenters believe that a purchaser needs more than 10 days to submit a revised buy-out application after notification of the conditions which must be met for release of a conditionally returned contract. The final rule provides 30 days for the purchaser to submit a revised list of qualifying contracts and qualified defaulted contracts for which buy out is elected. As noted earlier, a purchaser may submit only one amended application for contract buy out unless the Regional Forester determines, upon a finding of good cause, that further modification of an application may be made.

(v) *Final Volume for Buy-Out Cost.* Some respondents recommended that when operations on units within a timber sale have been restricted or stopped by the Forest Service due to environmental, wildlife, or other

considerations, and it appears probable that these units will be permanently withdrawn, the volume contained therein should be deleted from the sale when application for buy out is received.

There are contractual limitations on the addition or deletion of timber in a timber sale contract. The timber sale contracts include provisions for modification of these contracts.

The Government would not be fulfilling its contractual responsibilities if it tried to enforce provisions not found in the contract. Therefore, the Forest Service will use the timber sale contract's designation of included timber, as modified prior to submission of the application for contract buy out, in the administration of the act.

Many respondents believe that there should be some provision for an independent cruise of the remaining timber in a contract. This is because the actual sawtimber volume on a sale may vary from the advertised estimated volume. A few respondents spoke against such a cruise. In response, a new section 223.175—Remaining Net Merchantable Sawtimber Volume, has been added to the final rule and provides for such a cruise for those contracts with half or more of the net merchantable sawtimber removed. Usually it is difficult to accurately estimate whether a sale includes more or less timber than originally advertised unless the estimate is based on at least the harvests of half of the sale volume.

(vi) Multi-Sale Extension Plans. Several respondents included comments about the interim policy for modification of the Forest Service timber sale extension program (50 FR 458). Many of these respondents stressed the importance of knowing the final extension policy as soon as possible so that they could make informed buy-out decisions. Respondents also mentioned the need to maintain a proportionate timber harvest under the extension program. In addition, some respondents expressed concern if they should have to modify their multi-sale extension plan before they had an opportunity to consider the Forest Service decisions about their application for contract buy out.

The final rule contains § 223.177(g) which specifies that if a purchaser requests to buy out of a contract included in the harvest schedule of an approved multi-sale extension plan, the purchaser has 45 days after receipt of the Forest Service approval of the buy out application in which to revise the harvest schedule. The purchaser shall delete the contracts approved for buy out and shall provide for proportionate harvest of the volume remaining in the harvest schedule. The revision of the harvest schedule shall be subject to Forest Service approval. The final rule § 223.171 also provides that if a purchaser requests to buy out a sale that is in a multi-sale extension plan harvest schedule, the purchaser's application for contract buy out shall include an agreement to make the needed harvest schedule revisions.

The Forest Service policy for other modifications of the timber sale extension program will soon be published in the Federal Register.

Section 223.175 Return of contracts.

(i) *Government Claims.* The proposed rule called for timely payment of any Government claim against the purchaser that arose under the contract prior to the buy out before a purchaser could be released from a contract. Some respondents wanted clarification of what constituted such a claim. The final rule clarifies the types of claims involved and specifies that a claim must have been asserted by the contracting officer before this paragraph is applicable.

(ii) *Interest Payments.* The proposed rule provided that contractual obligations on a contract under which harvest has not begun shall be held in abeyance as of the date the Regional Forester receives a completed buy out application. The abeyance period was not available for contracts with harvest. Some respondents felt that this penalized purchasers who had performed some contract obligations. They suggested that the abeyance period should also apply to contracts with harvest.

The abeyance provision has been extended to cover sales on which harvest has begun to include obligations to make payment for extension deposits, for removal schedule payments and for damages due to failure to cut, and interest on such amounts due.

Several respondents suggested that interest accruals under Forest Service contracts to be bought out should be held in abeyance as of January 15, 1985. This suggestion was based on section 2(a)(6)(A) of the act that provides for publication of final rules for buy out implementation within 90 days after enactment of the act (October 16, 1984).

This suggestion is not adopted. Neither the act nor the timber sale contract authorize such an action.

(iii) *Performance Bonds.* Some respondents proposed that the performance bond on a conditionally returned contract should be reduced to the amount of liability sufficient to complete the sale to a logical stopping point. This proposal was not adopted. A conditionally returned contract could be defaulted before it is completed to a logical stopping point, or the work required to reach a logical stopping point may not be completed in a satisfactory or timely manner such that the contract is not eligible for buy out. The present performance bond amount is needed to protect the Government in case of such default or in the event buy out of the contract does not occur.

Section 223.176 Alternate method of payment.

(i) *Reasonable Rates.* The act provides for an alternate method of paying buy-out costs where a purchaser is not able to obtain sufficient credit elsewhere at reasonable rates and terms. The proposed rule established reasonable rates as those within 4 percentage points above the current average market yield of outstanding Treasury obligations with remaining years to maturity of 5 years. The Bureau of Land Management set the reasonable rate threshold at 3 percentage points above the Treasury rate.

Several respondents thought that a 4 percentage point threshold was unreasonable. Suggestions ranged from a 3 percentage point threshold to providing the alternate payment method to almost all the purchasers who request to use it. In consideration of these comments the final rule establishes a reasonable rate threshold at 3 percentage points above the Treasury rate.

A respondent expressed concern if the rate for Government financing under the alternate method of payment should be below the rate prudent companies are able to get financial banking during normal activities. The final rule provides that a purchaser requesting the alternate method of payment shall state whether or not it has recently had a loan approved within 3 percentage points above the Treasury rate.

(ii) *Payment Security.* Section 2(a)(3)(E) of the act requires that if a purchaser chooses to pay the buy-out cost in quarterly payments, "Payment must be secured by bond, deposited securities or other forms of security acceptable to the appropriate Secretary in an amount sufficient to cover the entire buy out payment."

Some of those who commented stated that the Forest Service should not limit the availability of the alternate payment method by requiring a payment bond. They pointed out that a purchaser who cannot get credit at reasonable rates elsewhere probably cannot get a bond to secure the buy out payment on sales

bought out. These comments were not accepted because to do so would be contrary to law, as the act specifically requires a bond or other acceptable security. In addition, once a contract with no outstanding claims is closed, the existing bonds on that contract will be released.

Some respondents believe that the Forest Service should accept other types of security besides the surety bond, irrevocable letter of credit or securities of the United States specified in the proposed rule. Many commented that the act provides more latitude than shown in the proposed rule.

There are stringent requirements upon payment guarantees for debts to the Government. Payment guarantees have been used in Forest Service timber sale contracts for several years. During this period the Secretary of Agriculture has established standards for acceptable payment guarantees. These standards were incorporated in the proposed rule and the final rule retains these standards without change.

Some respondents suggested that a purchaser should be able to reduce the amount of a surety bond used to secure the alternate payment method. In their view, the bond need not be larger than the outstanding balance of the buy-out cost. The declining balance of the buy out payment will legally limit the purchaser's and surety's liability. Therefore, the act's requirement that the bond, or other acceptable payment guarantee provided to secure the promissory note be ". . . in an amount sufficient to cover the entire buy out payment" is retained in the rule.

Section 223.177 Credits against buy out charges.

(i) *Purchaser Credit.* A large number of respondents stated that the buy out program is national in scope and, therefore, purchasers should be able to transfer purchaser credit earned on road construction to other national forests. They noted that the purchaser credit moved to other national forests to offset buy out costs would not be used for timber payments. In addition, some respondents observed that some effective purchaser credit could become ineffective if there were not enough but out costs and timber payments on the same national forest to use all such credit.

The National Forest Roads and Trails Act, as amended, (16 U.S.C. 532–538) restricts the transfer of effective purchaser credit to sales the purchaser holds on the same proclaimed national forest. The Federal Timber Contract Payment Modification Act does not provide increased authority for transfer of effective purchaser credit beyond that presently available in the National Forest Roads and Trails Act. Therefore, the final rule does not accommodate movement of purchaser credit between national forests.

(iii) *Other Credits.* Timber sale purchasers incur many expenses in conjunction with operations on the timber sale or in related contract activities on and adjacent to the national forests. These expenses include items such as unamortized balances in cooperative road-cost-share agreements and stockpiling of crushed rock for road maintenance. There were some comments that these expenses be available to offset buy-out costs. There is no authority to use these expenses as offset to the buy-out costs, so the final rule does not permit such use.

Section 223.178 Buy-out payments.

Several respondents indicated a desire to buy out their contracts as soon as possible. However, many of these respondents stressed the importance of cash flow and the advantages of delaying the payment of buy-out costs. Many of the timber sale purchasers said that they would rather delay buy out payments than rapidly return their contracts. They described the Government advantages associated with purchasers submitting buy out applications early in the application period, as compared to the problems that would result if all purchasers waited until the last day to submit their applications. They suggested that this would be enough consideration for the Forest Service to delay billing for buy-out costs until after the application period ended. They proposed that the first Forest Service buy-out cost billing be 30 days after the end of the period for submitting applications for contract buy out.

There are Government advantages if the applications for contract buy out are received throughout the application period instead of at the last minute. In addition, payment of buy-out costs can be more equitable if there is a single payment date for all purchasers who buy out timber sales. Therefore, the final rule prescribes that the Regional Forester shall bill purchasers for buy-out costs no sooner than 30 calendar days after the final date for submitting applications for contract buy out. The billing will include the estimated buy-out costs of the Forest Service contracts conditionally returned and those returned in full as estimated by the Regional Forester. The purchaser shall make buy out payments to the Regional Forester on or before the 60th calendar day after the final date for submitting applications for contract buy out. Late payment charges as prescribed in the Debt Collection Act of 1982 will accrue as of this date if the Regional Forester has not received the buy-out cost payment by then. Filing an amended or corrected application or a dispute will not affect the purchaser's obligation under this billing. The Regional Forester shall issue refunds or supplemental billings as necessary if the final buy out cost differs from the amount charged in the initial billing. Under the alternate method of payment (§ 223.179) the promissory note and security shall be modified to correspond to the final buy-out cost if this cost is different from the Regional Forester's initial billing. As specified in the act and in § 223.178(b), a purchaser cannot be released from its obligations under a contract to cut, remove, and pay for timber until the buy out costs have been paid or have been arranged to be paid in accordance with § 223.179.

Except for specific changes made in response to comments as noted in the preceding discussion, the final text of the rule is otherwise the same as that of the proposed rule.

Implementing Direction

The preamble of the proposed rule included a summary of proposed direction that would be issued in Chapter 2430 of the Forest Service Manual. This direction was intended to guide Forest Service personnel in implementing the buy out provisions of the proposed rule if adopted. Respondents did not separate their comments on the proposed rule from those on the proposed directive. Accordingly, all comments received, whether on the proposed rule or on the directive have been discussed in the preceding section.

The final directive will be modified to reflect changes in the final rule. To assist purchasers and other interested parties, a summary of the final directive is printed as Appendix A to this document.

Regulatory Impact

This action has been submitted to the Office of Management and Budget for review pursuant to Executive Order 12291. The Assistant Secretary for Natural Resources and Environment has determined that this regulation is not a major rule. It implements those portions of the Federal Timber Contract Payment Modification Act that allow purchasers of Forest Service timber sale contracts to return certain of these contracts to the Secretary of Agriculture upon satisfaction of specified conditions and

payments. The Federal Timber Contract Payment Modification Act is intended to prevent a large number of insolvencies among purchasers of federal timber, to preserve the employment generated by the forest products industry, and to avoid financial disruption to communities economically dependent upon the industry.

The only discretion available to the Secretary is in establishing administrative procedures to implement the buy out provisions of the act. The implementing procedures in this rule are designed to minimize further cost to both the Government and purchasers by:

1. Limiting procedures to those set forth in the act as much as possible;

2. Following standard Forest Service contracting practices and procedures wherever possible;

3. Providing cost effective methods for administering the buy out provisions; and,

4. Minimizing delay and disruption to the ongoing timber management program and to purchasers of timber sales.

Separate from the provisions of the act, the procedures implemented by this rule will not have an annual effect on the economy of $100 million or more, will not result in major increases in costs for consumers, individual industries, Federal, State, or local Government agencies or geographic regions, and will not have significant adverse effects on the ability of United States-based industries to compete with foreign-based enterprises in domestic or export markets.

The Assistant Secretary of Agriculture for Natural Resources and Environment has also determined that this rule, in and of itself, will not have significant economic impact on a substantial number of small entities. The act applies equally to small and large entities and establishes the qualifications and the calculation of the amount to be paid or arrangements to be made in order to buy out a Federal timber contract.

Based on environmental analysis, this rule will not significantly affect the environment. Therefore, an environmental impact statement has not been prepared. In accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. 3507), the reporting and recordkeeping provisions that are included in this rule have been submitted to the Office of Management and Budget (OMB) pursuant to the procedures of 5 CFR 1320. The application for contract buy out is approved for use through February 29, 1988, and has been assigned OMB Control Number 0596–0092.

List of Subjects in 36 CFR Part 223

Exports, Government contracts, National forests, Reporting and recordkeeping requirements, Timber.

PART 223—[AMENDED]

For the reasons set forth in the preamble, Part 223 of Chapter II, Title 36, Code of Federal Regulations is amended to add a new Subpart E to read as follows:

Subpart E—Federal Timber Contract Payment Modification Program

Sec.

Authority: 16 U.S.C. 472a, 16 U.S.C. 618.

Subpart E—Federal Timber Contract Payment Modification Program

§ 223.170 Definitions.

The terms used in this subpart have the following meaning:

"Act"—The Federal Timber Contract Payment Modification Act.

"Affiliate"—Concerns are affiliates if directly or indirectly, (a) either one controls or has the power to control the other, or (b) one or more third parties controls or has the power to control both. In determining whether or not affiliation exists, the Forest Service shall consider all appropriate factors, including, but not limited to, common ownership, common management, and contractual relationships. Concerns affiliated at any time during the period of June 1, 1984, through September 30, 1984, shall be considered affiliated for purposes of determining purchaser's net book worth and volume entitlement. Provided further, a purchaser forming an affiliate after September 30, 1984, and prior to the time when the purchaser determined its net book worth, shall treat such organization as an affiliate for purposes only of determining its net book worth. The Forest Service will determine the effect of joint venture agreements upon affiliation on a case-by-case basis based upon the nature of the relationship established by the joint venture.

"Bureau of Land Management Qualifying Contract"—Any Bureau of Land Management contract that qualifies for a buy out pursuant to the regulations of the Secretary of the Interior issued to implement the act.

"Buy-Out Cost", "Buy-Out Charge"—The payment prescribed by section 223.176 of this subpart for each one thousand board feet, or equivalent, of net merchantable sawtimber to be bought out. It does not include any payments, deposits, claims, or costs required by or under the timber sale contracts involved or payments for deterioration of felled timber on the ground.

"Concern"—Any business entity whether organized for profit or not. "Concern" includes but is not limited to an individual, joint venture, partnership, corporation, association, or cooperatives.

"Conditionally Returned Contract"—An otherwise qualified timber sale contract under which harvest or road construction required by the contract has begun, but on which either harvest operations or road construction has not yet been completed to a logical stopping point and on which the purchaser must complete specified requirements before the contract can be bought out.

"Contract Closure"—

(a) Where the contracting officer has asserted no contract claim prior to Forest Service release of the contract from further obligations (§ 223.178(b)), or where the claim is for damages for failure to cut: Execution of an agreement by both the contracting officer and the holder of a contract approved for closure by the Regional Forester releasing both parties from further rights and obligations under that contract.

(b) Where claim(s) by the Government remain unresolved: Execution of an agreement by both the contracting officer and the holder of the contract releasing the holder only from the obligation to cut, remove, and pay for timber and retaining all other rights and obligations of the contract until the specified claim(s) are finally resolved.

"Contract Holder"—As of a given date, the concern having the right to harvest timber included in a Forest Service timber sale contract resulting from either contract award or transfer of the contract by execution of an approved third party agreement. The contract holder as of the date of default is the contract holder of a qualified defaulted contract.

"Contracts On Which Harvesting Has Begun"—Any qualifying contract or qualified defaulted contract on which the purchaser has initiated any

contractually controlled items requiring felling trees, road construction or other ground disturbing activities.

"Contract Overbid"—The difference between the weighted average advertised contract rate for the remaining net merchantable sawtimber volume under contract to be bought out and the weighted average rate the purchaser bid for such remaining net merchantable sawtimber volume.

"Contracting Officer"—The designated Forest Service officer with authority to administer and make determinations with respect to a particular timber sale contract.

"Current Contract Return"—The current contract rates as defined and specified in a Forest Service timber sale contract.

"Current Delivered Log Cost"—The Forest Service of Bureau of Land Management estimate (developed to determine the purchaser's loss on a timber sale) of the cost, including payment at current contact rates, to a purchaser of average efficiency to produce and deliver net merchantable sawtimber logs from that sale.

"Current Delivered Log Value"—The Forest Service or Bureau of Land Management estimate (developed in order to determine a purchaser's loss on a timber sale) of the value of delivered net merchantable sawtimber logs from that sale.

"Current Market Rate"—The average rate bid by species for National Forest timber in the applicable appraisal zone during the period October 1, 1984, through March 31, 1985.

"Defaulted Contract"—An uncompleted Forest Service timber sale contract that has expired, or has been abandoned or repudiated by the purchaser, or has been cancelled by the Forest Service pursuant to a breach of the contract by the purchaser. The date of default in such circumstances is the date of expiration, abandonment, repudiation or cancellation, as applicable.

"Effective Purchaser Credit"—Unused, earned purchaser credit that does not exceed "Current Contract Value" minus "Base Rate Value" as defined in Forest Service timber sale contracts.

"Independent Certified Public Accountant"—An individual, professional corporation, or partnership of individuals, licensed under State law to render an opinion as to whether financial statements have been presented fairly in conformity with generally accepted accounting principles, and not an employee of the applicant or of an affiliate of the applicant.

"Logical Stopping Point"—The point of accomplishment, as determined by the Regional Forester after contracting officer's consultation with the purchaser, to which a purchaser must timely complete contractually required work. Such point shall, as determined by the Forest Service, include removal of felled timber at current contract rates or payment for deterioration of felled timber at current market rates if the felled timber is not subject to a priority removal date, or payment for the felled timber lost to deterioration at current contract rates if the timber is subject to a priority removal date.

"Net Book Worth"—The excess of assets (using historical cost-basis accounting principles) over liabilities, as determined using generally accepted accounting principles consistently applied. For a corporation, net book worth represent the shareholders' equity. For a partnership, net book worth represents the sum of the partners' capital accounts. For a proprietorship, net book worth represents the owner's proprietorship account for that business concern. The worth so determined shall be adjusted if necessary so as to eliminate any anticipated losses or gains on any outstanding, uncut Federal timber sale contract. For a purchaser with affiliates, net book worth shall be aggregated for that purchaser and its affiliates.

"Net Merchantable Sawtimber"—That volume of timber included in Forest Service timber sales generally characterized as "logs" or "sawlogs" or following normal Regional practices and meeting the utilization standards stated in provisions A–2, AT–2, or 2 of Forest Service timber sale contracts. Cull logs, pulpwood, and the other materials listed in provisions A–2, AT–2, or 2, or otherwise designated for removal, that are not characterized as "logs" or "sawlogs" are not net merchantable sawtimber.

"Purchaser"—A contract holder of either (a) a qualifying contract; (b) a qualified defaulted contract; or (c) a Bureau of Land Management qualifying contract.

"Purchaser Credit"—The credit earned pursuant to a Forest Service timber sale contract for construction of specified roads or as otherwise provided in such contracts.

"Purchaser's Aggregate Loss"—The result of aggregating the purchaser's loss, whether negative or positive, on all the qualifying contracts, qualified defaulted contracts and Bureau of Land Management qualifying contracts held by the purchaser and affiliates on June 1, 1984.

"Purchaser's Loss"—The result of subtracting the current delivered log value from the current delivered log cost on the volume of net merchantable sawtimber, as of September 30, 1984, on a qualifying contract, qualified defaulted contract, or Bureau of Land Management qualifying contract held by the purchaser on June 1, 1984.

"Qualified Defaulted Contract"—An otherwise qualifying contract which was defaulted after January 1, 1981, and which, regardless of whether timber in the contract has been resold, meets the following conditions:

(a) Settlement for damages has not been reached between the purchaser and the United States.

(b) The purchaser's aggregate loss as determined under these rules exceeds 50 percent of the purchaser's net book worth.

"Qualifying Contract"—A Forest Service timber sale contract, containing net merchantable sawtimber volume, bid prior to January 1, 1982, for an original contract period of 10 years or less, and which was held by the requesting purchaser on June 1, 1984. Only for purposes of buying out a contract, the contract must also be currently held by the requesting purchaser.

"Remaining Net Merchantable Sawtimber Volume"—The volume of net merchantable sawtimber which has not been removed from the sale area under a timber sale contract as of a given date.

"Residual Value Appraisal"—A procedure used to determine fair market value of national forest system timber by subtracting the anticipated production costs of an operator of average efficiency from the selling values of products normally manufactured from the timber to be sold.

"Special Report"—A report prepared by an independent certified public accountant in a format prescribed by the Forest Service.

"Transaction Evidence Appraisal"—A procedure used to determine fair market value of national forest system timber by comparing a prospective timber sale with previously sold sales of similar timber and the values bid for these sales.

"Volume Entitlement"—The aggregate volume of Bureau of Land Management and Forest Service net merchantable sawtimber that may be bought out under the act.

§ 223.171 Application for contract buy out.

(a) *Application.* Within 90 days of final publication of these rules any purchaser wishing to apply for contract

buy out shall fully and accurately provide all of the following information on a form provided by the Forest Service to the Regional Forester of the Region in which the purchaser elects to buy out the greatest volume of national forest timber:

(1) Names and addresses of all affiliates, except that a purchaser electing not to provide net book worth does not need to list affiliates who do not purchase Federal timber.

(2) A list of all qualifying contracts, qualified defaulted contracts and Bureau of Land Management qualifying contracts held by the purchaser and its affiliates on June 1, 1984, except that the list of such contracts provided by a purchaser electing not to provide net book worth does not need to include more than 400 million board feet of net merchantable sawtimber. This list shall include the timber sale name, contract number, bid date, and the purchaser's estimate of remaining net merchantable sawtimber volume on January 1, 1982, September 30, 1984, and on the date of application for contract buy out. The purchaser shall designate those sales that the purchaser held on June 1, 1984, and on the date of application for contract buy out that are requested to be bought out. The sum of the net merchantable sawtimber volume requested to be bought out by the purchaser and the net merchantable sawtimber volume requested to be bought out by affiliates of the purchaser shall be within the affiliates' combined volume entitlement. Purchasers whose buy-out cost is believed to be at the rates specified in § 223.176(a)(3) shall indicate the buy-out cost rate or rates believed applicable to each contract or volume under the contract to be bought out, whichever is applicable.

(3) If purchaser is in bankruptcy, evidence of approval by the bankruptcy court presiding over purchaser's bankruptcy of the application, or any revisions to that application, and of the method of payment of the buy-out cost.

(4) If the purchaser requests buy out of a timber sale which is subject to an assignment in trust, evidence of the assignee's approval of the application, and/or any revision thereof.

(5) If the purchaser requests to reduce the total volume in contracts requested to be bought out to 200 million board feet pursuant to § 223.173(d)(2), information on the timber to be purchased under a specified contract.

(6) If a purchaser requests to buy out of a sale that is included in the harvest schedule of an approved multi-sale extension plan, an agreement that the purchaser will revise that harvest schedule to delete the contracts approved for return, and to provide for proportionate harvest of the volume remaining in the harvest schedule; and that the purchaser shall make this revision within 45 days of receipt of the Forest Service approval of its application for contract buy out. The revision shall be subject to Forest Service approval.

(b) *Election to provide net book worth.* A purchaser electing to qualify for a buy-out cost other than the amounts specified in § 223.176(a)(3), or to include a defaulted contract for calculation of volume entitlement, or to return a defaulted contract shall establish the combined net book worth of it and its affiliates. Net book worth for purchasers or their affiliates which are publicly held corporations shall be as of the date of their most recent annual report filed prior to publication of this rule on Form 10–K with the Securities and Exchange Commission. Net book worth for purchasers or their affiliates which are not publicly held corporations shall be as of the purchaser's or affiliate's most recent fiscal year end for which a financial statement has been prepared prior to publication of this rule and be of a date of no more than 15 months prior to the date of purchaser's application for contract buy out. A purchaser shall submit the following net book worth supporting data as part of its application for contract buy out:

(1) A statement of net book worth in a format prescribed by the Forest Service.

(2) A special report covering the determination of net book worth for the purchaser and its affiliates made by an independent certified public accountant reported in a format acceptable to the Forest Service.

(3) (i) For purchasers or their affiliates that are publicly held corporations, a copy of the most recent annual reports, prior to the publication of this rule, filed on Form 10–K with the Securities and Exchange Commission.

(ii) For purchasers or their affiliates which are not publicly held corporations, a copy of the most recent fiscal year end for which a financial statement has been prepared prior to the publication of this rule, balance sheets along with any accompanying footnotes, reviewed or audited by the independent certified public accountant referred to in preceding paragraph (b)(2) of this section. All balance sheets submitted under this paragraph shall have been prepared and dated no more than 15 months prior to the date of purchaser's application for contract buy out.

(4) The name, address, and telephone number of the independent certified public accountant(s) that determined the net book worth(s).

(5) An agreement that the purchaser (i) will retain for 3 years from the date of purchaser's application for contract buy out the accounting records used to develop its financial statements for the determination of net book worth, including the independent certified public accountant's audit or review reports that are associated with the balance sheets used in determining net book worth, and (ii) will make such information available, upon request, for verification by authorized respresentatives of the U.S. Government.

(6) A statement signed by the purchaser or, in the case of a corporate purchaser, by its chief executive officer, certifying under penalty of 18 U.S.C. 1001 that the information provided in support of the determination of net book worth is complete and accurate.

(7) Where a purchaser has filed for bankruptcy and can demonstrate to the satisfaction of the Regional Forester that it cannot provide financial statements as set forth above, the purchaser may submit a notarized copy of the documentation or financial statements required by and used in the bankruptcy proceedings to establsih the purchaser's net book worth.

(c) *Additional information.* At Forest Service request, the purchaser must provide clarification of information submitted in the application for contract buy out.

(Information collection requirements have been by the Office of Management and Budget under control number 0596–0092)

§ 223.172 Approval of application for contract buy out.

(a) *Regional Forester review.* The Regional Forester to whom the application for contract buy out is submitted shall determine (1) the qualifications of contracts listed, (2) volume entitlement, (3) purchaser's loss on each qualifying contract and on each qualified defaulted contract, (4) purchaser's aggregate loss, (5) remaining net merchantable sawtimber volume applicable to the buy-out program, (6) total buy-out cost, and (7) the conditions and limitations on the return of qualifying contracts and qualified defaulted contracts. The Regional Forester shall notify the purchaser of these determinations.

(b) *Amended application for contract buy out.* (1) A purchaser may submit an amended application for contract buy out within 30 days after receipt of notification of:

(i) The Regional Forester's determination that a contract elected for buy out is not a qualifying contract, is not a qualified defaulted contract, or, except for rejection of a conditionally returned contract for failure to timely complete contract obligations to a logical stopping point, is ineligible to be a conditionally returned contract;

(ii) The Bureau of land Management's determination of the conditions, if any, that must be met for a conditionally returned contract to be accepted for buy out.

(iii) The Regional Forester's determination of the conditions, if any, that must be met for a conditionally returned contract to be accepted for buy out.

(2) Rejection of a conditionally returned contract for failure to timely complete contract obligations to a logical stopping point is not a basis for an amended application for contract buy out. If a purchaser wishes to amend its Forest Service application for contract buy out in response to Bureau of Land Management notification, the purchaser must submit a copy of the Bureau of Land Management's notification with its amended application.

(3) A purchaser may submit only one amended application for contract buy out unless the Regional Forester determines that good cause exists and the reason(s) for further modification of the application was not reasonably foreseeable.

(c) *Application approval.* The Regional Forester will approve an application for contract buy out upon the determination that:

(1) The contracts used for calculation of volume entitlement, purchaser's loss and the request for buy out are qualifying contracts, qualified defaulted contracts, or Bureau of Land Management qualifying contracts, that meet the applicable requirements established by these regulations;

(2) The volume of net merchantable sawtimber requested for buy out does not exceed the purchaser's and affiliates' volume entitlement; and,

(3) The information contained in the application for contract buy out appears accurate and complete.

§ 223.173 Volume entitlement.

(a) *Basis for entitlement.* The Regional Forester shall calculate volume entitlement based on the remaining net merchantable sawtimber volume, as of January 1, 1982, in otherwise qualifying contracts, qualified defaulted contracts, and Bureau of Land Management qualifying contracts held by the purchaser and its affiliates on June 1, 1984. For purposes of determining volume entitlement, the concern holding the contract as of June 1, 1984, need not be the same party holding the contract as of January 1, 1982.

(b) *Holders of more than 27.3 million board feet.* A purchaser and its affiliate(s) holding qualifying contracts, qualified defaulted contracts, or Bureau of Land Management qualifying contracts on June 1, 1984, with a total volume, as of January 1, 1982, of more than 27.3 million board feet of net merchantable sawtimber are entitled to buy out up to 55 percent of the net merchantable sawtimber volume up to a maximum of 200 million board feet.

(c) *Holders of 27.3 million board feet or less.* A purchaser and its affiliate(s) holding qualifying contracts, qualified defaulted contracts, or Bureau of Land Management qualifying contracts on June 1, 1984, with a total volume, as of January 1, 1982, of 27.3 million board feet or less of net merchantable sawtimber are entitled to buy out up to 15 million board feet of the net merchantable sawtimber volume or one contract which includes such net merchantable sawtimber, whichever is greater in volume.

(d) *Volume exceptions.* (1) Provided the maximum volume of 200 million board feet is not exceeded, the percentage limitation of paragraph (b) of this section or the volume limitation of paragraph (c) of this section may be exceeded by a volume amount no greater than the volume of the smallest volume contract requested for buy out by the purchaser and its affiliates only where a purchaser and its affiliate(s) could not otherwise attain the percentage or volume entitlement.

(2) If a purchaser and its affiliate(s) cannot otherwise attain the full volume eligible for buy out, a purchaser may reduce the volume of a qualifying contract under which harvest has begun by removing and paying for at current contract rates, or by paying current contract rates under the contract, for so much of the volume in the contract as would cause the total volume being bought out by the purchaser and its affiliates to exceed 200 million board feet of net merchantable sawtimber. The purchaser must indicate on its application the sale on which this option will be exercised and whether the conditional return of this sale will be based on removal and payment, or just payment for the excess volume. If purchaser removes timber to reduce volume below 200 million board feet, such operations must be brought to a logical stopping point.

§ 223.174 Purchaser's loss.

(a) *Data to be used.* To calculate a purchaser's loss per unit of volume on a contract, the Regional Forester will use information from the most recent Forest Service appraisal of that qualifying contract or qualified defaulted contract, updated to the Forest Service appraisal data effective on October 16, 1984.

(b) *Calculation with residual value appraisals.* The Forest Service will calculate the current delivered log cost of the net merchantable sawtimber in a qualifying contract or qualified defaulted contract by adding the updated appraised logging costs to the current contract rates for such timber and then multiplying that sum by the remaining net merchantable sawtimber volume on that contract as of September 30, 1984. The current delivered log value of such a contract will be calculated by subtracting the updated appraised manufacturing costs, and their associated profit and risk allowances, from the updated appraised selling values and then multiplying that result by the remaining net merchantable sawtimber volume on that contract as of September 30, 1984.

(c) *Calculation with transaction evidence appraisals.* The current delivered log cost is the product of the current contract rates and the remaining net merchantable sawtimber volume on that contract as of September 30, 1984. The current delivered log value is the product of the updated appraised value and the remaining net merchantable sawtimber volume on that contract as of September 30, 1984.

(d) *Bureau of Land Management qualifying contracts.* The Regional Forester to whom the application for contract buy out is submitted will obtain the Bureau of Land Management authorized officer's determination of the purchaser's loss or gain on any Bureau of Land Management qualifying contracts included in the application for contract buy out. This loss or gain shall be added to the purchaser's total loss or gain on Forest Service sales to determine purchaser's aggregate loss.

§ 223.175 Remaining net merchantable sawtimber volume.

(a) *Responsibility.* The contracting officer will estimate the remaining net merchantable sawtimber volume on a qualifying contract or qualified defaulted contract on each applicable date specified in this subpart and provide this information to the Regional Forester to whom an application for buy out has been submitted. The Regional Forester will confirm these volume estimates for use in calculations

associated with determining volume entitlement, volume to be bought out, and purchaser's buy-out cost.

(b) *Contracts with less than one-half the net merchantable sawtimber volume removed.* If less than one-half of the advertised net merchantable sawtimber volume, as adjusted by any contract modification, on a qualifying contract or qualified defaulted contract has been removed, the remaining net merchantable sawtimber volume will be calculated by subtracting the net merchantable sawtimber volume removed as of the specified date from the advertised volume, as adjusted by any subsequent contract modification, of such timber.

(c) *Contracts with one-half or more of the net merchantable sawtimber removed.* If one-half or more of the advertised net merchantable sawtimber volume, as adjusted by any contract modification, on a qualifying contract or qualified defaulted contract has been removed as of the specified date, the contracting officer will estimate the remaining net merchantable sawtimber volume. The contracting officer will fully document the basis for any volume estimate different from that derived by the procedure described in paragraph (b) of this section. If the purchaser disagrees with the contracting officer's estimate of remaining net merchantable sawtimber volume, the purchaser, at its expense, may have the remaining volume estimated by an independent qualified party acceptable to the contracting officer, using methods acceptable to the contracting officer. Upon verification and agreement by the contracting officer, the independent party's estimate of remaining net merchantable sawtimber volume will then be submitted to the Regional Forester for use associated with determining volume entitlement and purchaser's buy-out cost. If the contracting officer does not agree with the independent party's estimate of remaning net merchantable sawtimber volume, the contracting officer will document the reasons. The contracting officer will send the independent part's estimate, the contracting officer's estimate of the remaining volume, and the reasons for not agreeing to the independent estimate to the Regional Forester for use in determining the remaining volume.

§ 223.176 Buy-out cost.

(a) *Calculation with net book worth.* The buy-out cost shall be calculated as follows:

(1) If a purchaser's aggregate loss exceeds 100 percent of its net book worth, the buy-out cost shall be $10 for each thousand board feet of currently held volume to be bought out;

(2) If a purchaser's aggregate loss is in excess of 50 percent up to 100 percent of net book worth, the buy-out cost for each thousand board feet of currently held volume to be bought out shall be either equal to 10 percent of the contract overbid for each contract bought out, or $10, whichever is more;

(3) If a purchaser's aggregate loss is 50 percent or less of net book worth, the buy-out cost shall be determined on the basis of percentages in 25 million board feet increments according to the following scale:

(i) For the first 125 million board feet, the buy-out cost for each thousand board feet of currently held volume to be bought out shall be either equal to 15 percent of the contract overbid for each contract bought out, or $10, whichever is more;

(ii) For any amount above 125 million board feet, up to 150 million board feet, the buy-out cost for each thousand board feet of currently held volume to be bought out shall be either equal to 20 percent of the contract overbid for each contract bought out, or $10, whichever is more;

(iii) For any amount above 150 million board feet, up to 175 million board feet, the buy-out cost for each thousand board feet of currently held volume to be bought out shall be either equal to 25 percent of the contract overbid for each contract bought out, or $10, whichever is more; and,

(iv) For any amount above 175 million board feet, up to 200 million board feet, the buy-out cost for each thousand board feet of currently held volume to be bought out shall be either equal to 30 percent of the contract overbid for each contract bought out, or $10, whichever is more;

(4) A Regional Forester may divide a contract into parts and apply a different buy-out cost to each part if this is necessary to comply with the 25 million board feet increments in paragraph (a)(3) of this section.

(b) *Calculation without net book worth.* If a purchaser and its affiliates elect not to supply the net book worth information required in section 223.171(b), the applicable buy out cost shall be calculated in the same increments and percentages as prescribed in paragraphs (a)(3)(i)-(iv) of this section.

§ 223.177 Conditions and limitations on return of timber sale contracts.

(a) *Contracts on which no harvesting has begun.* A contract on which no harvesting has begun and which is to be bought out pursuant to this subpart shall be returned in full.

(b) *Contracts on which harvesting has begun.* For contracts on which harvesting has begun and which are requested to be bought out pursuant to this subpart, the Regional Forester has the discretion (1) to conditionally accept return of the contract contingent upon the purchaser completing specified contractual operations, including work on roads, to logical stopping points prior to the contract being eligible for buy out, (2) to accept the contract for return after determining no additional work is necessary to complete specified contractual obligations, including work on roads, to logical stopping points, or (3) to reject return of the contract because the remaining unharvested volume is substantially unrepresentative of the original sale as a whole in terms of species, logging methods, or other appropriate criteria and accepting the return of such a contract would seriously disadvantage the Government. The Regional Forester shall document the determination as to whether or not the unharvested volume is substantially representative or unrepresentative of the original sale as a whole, and whether or not, if unrepresentative, return of the contract would seriously disadvantage the Government.

(c) *Logical stopping point.* The Forest Service will accept a conditionally returned contract for buy out only after the purchaser has completed contractual obligations for the units on which harvest has begun, including road construction, to logical stopping points. The purchase shall return in full cutting units on which harvest has not begun. A logical stopping point shall include payment at current contract rates and applicable charges, including interest due on charges and deferred payments, for all material included in the timber sale contract that is removed from the sale area by the purchaser. A logical stopping point shall also include removal of any felled timber on the ground or payment at current contract rates for the volume of any such timber lost by deterioration which was subject to a priority removal requirement. Payment for the volume of other felled timber lost by deterioration shall be at current market rates and payment shall be in addition to payment of the normal buy-out cost which includes payment for the entire volume to be bought out, including the volume lost by deterioration. The Forest Service will establish the volume of felled timber on the ground and the volume of the deteriorated timber. If the purchaser disagrees with the Forest Service's

determination of the volume of felled timber or the volume lost to deterioration, the purchaser, at its expense, may have the volumes estimated by a qualified independent party acceptable the contracting officer, using methods acceptable to the contracting officer. Upon verification and agreement by the contracting officer, the independent party's estimate of the volume of the felled timber and/or the deterioration volume loss shall be submitted to the Regional Forester for determination of the deterioration payment. If the contracting officer does not agree with the independent party's estimate of the volume of felled timber and/or the deterioration loss, the contracting officer will document the reasons for not agreeing with the independent estimate. The contracting officer will send the independent party's estimate and the contracting officer's estimate of the volume of felled timber and the deterioration loss, and the reasons for lack of agreement to the Regional Forester for the Regional Forester's use in determining the deterioration payment.

(d) *Remedy for breach.* Before the Forest Service will accept a conditionally returned contract for buy out, the purchaser shall remedy any contract breach or other aspect in which work performed to date is not in full compliance with the terms of the contract, except that a contract not in default but in breach only because of failure to pay extension deposits, and/or removal schedule payments, shall become eligible for buy out when payment of the full amount of interest due up to the date the purchaser's buy out application is received by the Regional Forester.

(e) *Time limits.* After consultation with the purchaser with respect to each conditionally returned contract, the contracting officer will recommend, and the Regional Forester will establish reasonable dates for the purchaser to complete such contracts to a logical stopping point. Such dates will be specified as part of the approval of the conditional return. Failure to complete requirements by the established dates shall result in rejection of a conditionally returned contract unless the Regional Forester determines the delay is caused by factors beyond control of the purchaser. A purchaser may, upon notification from the Regional Forester of the conditions, if any, that must be met in order for a conditionally returned contract to be accepted for buy out, submit an amended application for contract buy out in accordance with § 223.172(b).

(f) *Final volume for buy-out cost.* The remaining net merchantable sawtimber volume as of the date of purchaser's application for contract buy out shall be used to calculate the buy-out cost except that the remaining net merchantable sawtimber volume used to determine the buy-out cost for a conditionally returned contract shall not include volume removed and paid for as a condition for buy out of the contract.

(g) *Multi-sale extension plans.* A purchaser who requests buy out of a contract that is included in the harvest schedule of an approved multi-sale extension plan shall revise that harvest schedule within 45 days after receipt of the Forest Service approval of its application for contract buy out. The purchaser shall delete the contracts that are approved for return from the harvest schedule, and provide for proportionate harvest of the volume remaining in the harvest schedule. The revision shall be subject to Forest Service approval. Failure to request and agree to a multi-sale extension plan revision in accordance with this paragraph, and to agree to the timber sale contract modifications that implement the plan revision, shall make a purchaser ineligible for any further contract extensions under the multi-sale extension program of December 7, 1983.

§ 223.178 Return of contracts.

(a) *Contractual obligations.* (1) Contractual obligations on a contract under which harvest has not begun and which the purchaser requests to buy out shall be held in abeyance as of the date the Regional Forester receives a purchaser's completed application for contract buy out prepared pursuant to § 223.171. The period of abeyance shall continue until the contract is released pursuant to paragraph (b) of this section or until the contract is determined to be unqualified for buy out. If a contract is determined to be unqualified for buy out, the purchaser shall be responsible for payment obligations and interest accruals otherwise arising during the period of abeyance.

(2) Contractual obligations on conditionally returned contracts will remain in full force and effect until released pursuant to paragraph (b) of this section, except that obligations to make payment for extension deposits, and removal schedule payments and payments for damages for failure to cut, and interest thereon, will be held in abeyance as of the date the Regional Forester receives a purchaser's completed application for contract buy out. The period of abeyance shall continue until the contract is released pursuant to paragraph (b) of this section or until the purchaser fails to meet the established conditions for return of the contract within the prescribed dates, or until the contract is determined to be unqualified for buy out. If purchaser fails to meet the conditions established by the Regional Forester for return of a conditionally return contract or it is determined that the contract is unqualified for buy out, the purchaser shall be responsible for all payment obligations and interest accruals otherwise arising during the period of abeyance.

(b) *Release from further obligations.* The Forest Service shall, by contract closure, release a purchaser from further obligations to cut, remove, and pay for timber under a returned contract upon:

(1) Timely payment or arrangement for payment (§ 223.181) of the applicable buy-out cost; and,

(2)(i) Timely fulfillment of any Government claim that arose under the contract (other than damages due to a purchaser's failure to cut under contract provisions B9.4, BT9.4, or 16) which has been asserted by the contracting officer prior to the Forest Service release from further obligations; or

(ii) Agreement to retain payment and performance guarantees under the contract pending resolution of the Government's claim.

(3) Timely completion of the conditions prescribed by the Regional Forester if the contract is a conditionally returned contract (§ 223.177); and

(4) Release of the Government from all claims arising from the returned contract.

§ 223.179 Alternate method of payment.

(a) *Quarterly buy-out payments.* If a purchaser is unable to obtain sufficient credit at reasonable rates and terms to finance the buy-out cost, the purchaser, on or before the 60th calendar day after the final date for submitting application for contract buy out and upon establishing inability to obtain sufficient credit elsewhere, and upon payment of 5 percent of the estimated buy-out cost, may execute a promissory note on a form provided by the Forest Service, to pay the remainder of the estimated buy-out cost in equal quarterly payments over a period not to exceed 5 years with interest calculated on the outstanding remainder of the buy-out cost at an interest rate adjusted at each payment equal to the average market yield of outstanding Treasury obligations with remaining years to maturity of 5 years. Nothing shall prohibit purchaser's prepayment at the date for any quarterly payment of all or a portion of the outstanding remainder of the buy-out

cost. To guarantee payment, purchaser must provide an acceptable surety bond on a form provided by the Forest Service, or provide an irrevocable letter of credit, or securities of the United States, in an amount sufficient to cover the entire buy-out payment. A purchaser may amend the promissory note and payment guarantee furnished pursuant to this section if the final buy-out cost (§ 223.176) is different from the estimated buy-out cost calculated by the Regional Forester pursuant to § 223.181.

(b) *Alternate payment eligibility establishment.* To establish inability to obtain sufficient credit elsewhere, a purchaser must provide a written statement, on a from provided by the Forest Service, from at least two Federal or state chartered financial institutions engaged in providing financing to the timber industry, and one from the lending institution with which the purchaser usually transacts business. The statement from the lending institution shall state with such institution is the one with which the purchaser usually transacts business. Each statement must show that the purchaser has, upon application in form and detail acceptable to the lending institution, been denied a loan from the lending institution for all or part of the amount equal to the total buy-out cost at an interest rate within 3 percentage points above the then current average market yield of outstanding Treasury obligations with remaining years to maturity of 5 years. The statement must be signed by an authorized officer of the institution. The purchaser must state whether or not it has received a loan during the period beginning six months prior to the publication of this rule and ending on the date of the purchaser's application for contract buy out at an interest rate within 3 percentage points above the current average market yield of outstanding Treasury obligations with remaining years to maturity of 5 years. If the purchaser has received such a loan, the purchaser shall make details of the loan available upon Forest Service request.

§ 223.180 Credits against buy-out charges.

Upon purchaser's request, a contracting officer will credit against the buy out charge certain unobligated credits, as determined by the contracting officer, in the timber sale account of Forest Service contracts the Regional Forester has approved for buy out. Examples of such credits include earned, unused effective purchaser credit, where appropriate, and unencumbered cash deposits.

§ 223.181 Buy-out payments.

The Regional Forester shall bill a purchaser for the total estimate buy-out cost for Forest Service contracts requested for buy out. The Regional Forester shall calculate the billings on the estimated final volume for buy-out cost (§ 223.177(f)). The Regional Forester shall make such billing no sooner than 30 calendar days after the final date for submitting applications for contract buy out. The purchaser shall make buy-out cost payment, including any initial payment as provided for in § 223.179(a), to the Regional Forester on or before the 60th calendar day after the final date for submitting applications for contract buy out. Purchaser shall make any subsequent payments under § 223.179(a) within 30 calendar days of receipt of the billing. A purchaser's obligation under this section for timely payment of buy-out costs is not affected by the filling of an amended application for contract buy out pursuant to § 223.172(b), or by the filing of a corrected application for contract buy out, or by a request for administrative review pursuant to section 223.182, or by other dispute relating to either the contract or administration of the buy out program. If the Regional Forester has not received the buy-out cost payment, including the initial payment as provided for in § 223.179(a) by the 60th calendar day after the final date for submitting applications for contract buy out, the purchaser shall pay late payment charges on the outstanding billed amount as prescribed in the Debt Collection Act of 1982. The late payment charges will accrue from the 60th calendar day after the final date for submitting applications for contract buy out. The Regional Forester shall issue refunds or supplemental billings as necessary if the final buy-out cost differs from the amont charged in the initial estimated billing.

§ 223.182 Disputes.

Forest Service administrative decisions implementing the procedures of this subpart are subject to administrative review under 36 CFR 211.18.

Dated: June 20, 1985.

Douglas W. MacCleery,

Deputy Assistant Secretary for Natural Resources and Environment.

Note.—Appendix A will not be shown in the Code of Federal Regulations.

Appendix A to Subpart E—Administration of Buy Out Provisions

The Forest Service Manual, Chapter 2400, Timber Management, is being amended to provide the following guidelines for administration of the contract buy out porgram.

1. *Regional Forester Responsibility.* The Regional Forester who receives an application for contract buy out will review it to verify the data submitted and to determine the appropriate buy-out costs and volume entitlement. The Regional Forester must reject those applications to buy out contracts not meeting the buy out requirements. In reviewing an application, a Regional Forester shall coordinate data verification and the calculation of buy out charges and volume entitlement with the Bureau of Land Management and other applicable Forest Service Regions if the purchaser's request for buy out includes sales from both agencies and/or more than one Forest Service Region. The Regional Forester shall notify the purchaser of the acceptance or rejection of contracts as qualifying under the act and implementing regulations, and the action which must be taken to bring partially operated sales to a logical stopping point. The Regional Forester will approve the application for contract buy out upon determination that the information in the application appears to be complete, accurate, and in compliance with the standards established in 36 CFR Part 223, Subpart E.

The Regional Forester may delegate a Forest Supervisor authority to review and act on a purchaser's buy out request where a purchaser holds only national forest timber on a single national forest.

2. *Verification of Purchaser's Net Book Worth.* Regional Foresters shall implement a program to verify net book worth data submitted by purchasers on a sample basis.

3. *Responsibility of Contracting Officers.* Contracting officers shall review the timber sales included in applications for buy out. They shall estimate the remaining net merchantable sawtimber volume as of the specified dates and recommend Regional Forester acceptance or rejection of each such sale requested for buy out. They shall also recommend to the Regional Forester the measures necessary for a purchaser to complete work to logical stopping points on partially performed sales which they administer.

4. *Eligibility of Partially Performed Contracts.* Partially performed contracts are eligible for buy out. However, before they are bought out, operations which the purchaser has initiated under the contract must be brought to logical stopping points. The objective is to place partially performed sales in a condition that minimizes the risk that significant

resource damage will occur, pending resale of the included timber. Work performed on partially cut units must be completed before a partially performed contract can be bought out. Exception to this general rule may be made when the Regional Forester determines that the remaining timber can be economically operated as part of a subsequent sale. For example, a cutting unit planned for logging to two highlead settings could be accepted if logging to one setting has been completed but logging on the second setting has not been started. Generally, a purchaser must remove or yard and deck timber which has been felled to facilitate prompt resale and removal; however, this requirement can be waived if the timber is not subject to rapid deterioration and can be economically operated as part of a subsequent sale. Decking should be required only where ground conditions and space make this option practical.

a. *Rejection of Contracts.* A Regional Forester shall reject buy out of a partially performed contract where, in the Regional Forester's judgment, the purchaser's operations have left the unharvested portion of a sale in a condition which is substantially unrepresentative of the original sale as a whole in terms of species, logging methods or other conditions, and where accepting the return of such contract would seriously disadvantage the Government. This provision is designed to prevent a purchaser from buying out of a sale that has been high-graded. Thus, where removal of individual species, haphazard entry of cutting units, or similar actions have seriously impacted the economic viability of the remaining timber or significantly increased future operating costs, buy out of the sale should be rejected. The following illustrate situations in which return of partially operated sales should be rejected.

(1) A purchaser has removed very high value species, on which little or no bid premium has been placed, while leaving relatively low value species on which it has placed a high bid premium.

(2) A purchaser has logged the bulk of a sale but stopped logging with insufficent volume remaining to enable a new sale to economically cover the cost of moving needed logging equipment into the area.

(3) The remaining timber in a partially operated sale could not be resold as is or in conjunction with adjacent timber because the purchaser's operations made the remaining volume uneconomical.

Note that contract rejection requires a determination both that the remaining timber is substantially unrepresentative and that accepting return would be to the serious disadvantage to the Government. Since the act was passed in specific recognition of the decline in markets, the fact that the timber will sell for less on reoffering is not a basis for rejection.

The Regional Forester shall document the determination as to whether or not the unharvested volume is substantially representative or unresentative of the original sale as a whole, and whether or not, if unrepresentative, return of the contract would seriously disadvantage the Government.

b. *Logical Stopping Points.* If a purchaser's operations have created a need for additional work, such as contractually required erosion control or brush disposal, this work must be completed before the remainder of the contract can be bought out. Similarly, if work has begun on a timber sale road, the work must be completed at least to the point that soil exposed by the road construction and the roadbed are stabilized. Where excavation is under way, this may require completion of excavation on that section of the road in order to permit proper drainage. Likewise, such work as steam protection and measures to allow fish passage and wildlife movement must be completed before a contract may be bought out. Completion of work to a logical stopping point should leave the sale area in a condition where no significant resource damage should occur because of unfinished or incomplete mitigation measures.

c. *Completion of Cutting Units.* If the Regional Forester determines that completion of a partially harvested unit or part of such a unit is necessary before the remainder of the contract can be bought out, the purchaser, upon agreement by the contracting officer, may fulfill this obligation by falling, yarding, and decking the timber at approved landings, if the remaining timber is not subject to rapid deterioration and is suitable for resale. Such volume will be subject to the buy out charge. If these conditions are not feasible or are not timely met, the purchaser must remove the timber from the sale area at current contract rates in order to buy out the contract. In addition, the purchaser must meet other contract requirements such as erosion control and slash disposal for the unit.

5. *Deterioration Loss.* The Regional Forester may accept for buy out a partially performed sale containing felled timber which has deteriorated if the purchaser, in addition to the buy out charge, pays for the volume of felled timber lost through deterioration at current market rates, unless the volume of felled timber lost to deterioration was subject to a priority removal date. Payment shall be at current contract rates for the volume of felled timber lost by deterioration which was subject to a priority removal date. The Forest Service will establish the value and volume of deteriorated timber and include the volume estimated to have deteriorated in the contract volume upon which the buy out charge is calculated.

6. *Average Market Yield Rates.* In order to facilitate administration of the alternate payment method, the Chief will furnish Regional Foresters the current value of the "average market yield of outstanding Treasury obligations with remaining years to maturity of five years." This information is calculated monthly by the Treasury Department and is available upon request. The rate varied btween 11⅜ and 13½ percent during 1984. The April 1985 rate was 11½ percent.

7. *Availability of Information.* The Forest Service will provide confidentiality of material submitted, including a showing of net book worth, to the maximum extent allowed by law. All requests for information submitted pursuant to the Federal Timber Contract Payment Modification Act will be handled according to the Freedom of Information Act (5 U.S.C. 552, as amended), with full consideration of available exemptions from disclosure.

8. *Disputes.* Forest Service administrative decisions in implementing the act and implementing the rules are subject to administrative review under 36 CFR 21.18. Disputes that arise under the terms of qualifying contracts or qualified defaulted contracts will be resolved under the current provisions applicable to the specific contract.

[FR Doc. 85-15330 Filed 6-26-85; 8:45 am]

BILLING CODE 3410-11-M

DEPARTMENT OF AGRICULTURE

Forest Service

Environmental Assessment Notice; Federal Timber Contract Payment Modification Act; Contract Buy Out Provisions

An environmental assessment, decision notice, and finding of no significant impact that discusses the rules and policies developed to implement the contract buy out provisions of the Federal Timber Contract Payment Modification Act is available for public review during regular business hours in the Director's Office, Timber Management Staff, at the following addresses: South Agriculture Building, Room 3207, 12th and Independence Ave., SW., Washington, DC; Federal Building, Missoula, Montana; 11177 W. 8th Avenue, Lakewood, Colorado; Federal Building, 517 Gold Avenue, SW., Albuquerque, New Mexico; Federal Building, 324 25th Street, Ogden, Utah; 630 Sansome Street, San Francisco, California; 319 SW Pine Street, Portland, Oregon; 1720 Peachtree Road, NW., Atlanta, Georgia; 310 W. Wisconsin Avenue, Milwaukee, Wisconsin; and Federal Office Building, Juneau, Alaska.

Dated: June 3, 1985.

R. Max Peterson,

Chief, Forest Service.

[FR Doc. 85-15331 Filed 6-26-85; 8:45 am]

BILLING CODE 3410-11-M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

43 CFR Part 5470

[Circular No. 2584]

Forest Management; Modification of Federal Timber Contracts

AGENCY: Bureau of Land Management, Interior.

ACTION: Final rulemaking.

SUMMARY: This final rulemaking establishes conditions and procedures for modification of certain Federal timber contracts that were awarded by the Bureau of Land Management. The regulations implement sections of the Federal Timber Contract Payment Modification Act of 1984 (98 Stat. 2213) which provide that purchasers of certain Federal timber contracts may return a portion of the volume in the purchaser's Federal timber contracts upon payment of the buy-out charges specified in the Act.

EFFECTIVE DATE: June 27, 1985.

ADDRESS: Any suggestions or inquiries should be sent to: Director (100), Bureau of Land Management, 18th and C Streets, NW., Washington, D.C. 20240.

FOR FURTHER INFORMATION CONTACT: Charles Frost, (202) 653–8864.

SUPPLEMENTARY INFORMATION: This final rulemaking was developed to implement the Federal Timber Contract Payment Modification Act (98 Stat. 2213) which was enacted on October 16, 1984. The Act directs the Secretary of the Interior and the Secretary of Agriculture to permit a requesting purchaser to return to the Government a volume of the purchaser's timber upon payment of a buy-out charge as specified in the Act. The Act also establishes conditions which must be met by purchasers in order for a timber sale to qualify for buy-out. In addition, the Act ratifies the "grace periods" established by the Secretary of the Interior and the Presidential Memorandum dated July 28, 1983, extending the expiration of certain timber contracts. In 1981, the Bureau granted a six month grace period to certain timber contracts, that was later extended by the Secretary of the Interior. The Bureau had decided not to negotiate out of the contracts because it was preceived not to be in the best interest of the Government at that time. On August 4, 1983, the Bureau granted a five-year extension of the grace period in response to the President's program of July 28, 1983. It is the grace period process to which section 2(b)(1) of the Act applies.

A proposed rulemaking to establish procedures to modify certain Federal timber contracts that were awarded by the Bureau and to permit the buying-out by the purchaser of certain volumes of timber in these contracts upon payment of specified buy-out charges, was published in the **Federal Register** on December 5, 1984, (49 FR 47511). The proposed rulemaking was published with an initial public comment period of 30 days. A 30-day extension of the comment period was published in the **Federal Register** on December 31, 1984, (49 FR 50744).

The Federal Timber Contract Payment Modification Act applies to the Forest Service also. That agency is also preparing regulations to implement the Act.

The Department of the Interior received 44 comments from the public concerning the proposed regulations. Twenty-five were from timber purchasers, five from forest industry associations, six from law firms, three from accounting firms, one from the American Institute of Certified Public Accountants, two from consulting forestry firms, and two from a bonding company.

Generally, the comments supported the provisions of the proposed rulemaking. There were numerous suggestions for modification of the proposed rulemaking concerning specific sections or issues. These are addressed below.

Section 5475.0–5 Defintions. Several comments requested clarification of the definition of the term "purchaser" as used in this subpart, particularly as it relates to the Bureau's treatment of affiliates in determining volume entitlement and buy-out charges. After considering these comments, the Department of the Interior has modified the definition to state that it includes affiliates when used for purposes of determining volume entitlement and buy-out charges.

Numerous comments took issue with the definition of the term "reasonable rates and terms" which was defined in the proposed rulemaking as being within 3 percentage points above the average market yield of outstanding Treasury obligations with 5 years to maturity. The comments suggested lowering the rate in the definition to rates that range from a 5-year Treasury rate to 1 or 2 percentage points above that rate. The Department of the Interior has considered these comments in light of the objectives of the Act.

One of the objectives of the Act was to make the Federal government the lender of last resort. The Department of the Interior therefore has concluded that the proposed definition of the term "reasonable rates and terms" places the interest rate threshold at a level sufficiently high as to ensure that those seeking financing will undertake the effort to secure financing the private sector and shall rely on the Federal government only in those situations where capital is not available to them. The final regulations retain the definition used in the proposed rulemaking.

The definition of the term "authorized officer" has been removed because it is defined in § 5400.0–5(c).

Section 5475.1 Contract modification applications. The comments noted that the proposed rulemaking did not provide for a means to modify a Bureau of Land Management buy-out application in cases where a purchaser also applies for a buy-out on Forest Service sales but, on one or more Forest Service sales being rejected, subsequently wishes to apply to the Bureau for additional sales. A number of commenters requested that the Bureau provide some flexibility to deal with such cases. After considering these comments, the Department of the Interior has added a provision in final rulemaking which permits a purchaser to apply for additional Bureau sale buy-outs. However, after the 90-day application period sales already applied for with the Bureau may not be deleted.

Section 5475.2 Qualifications and volume entitlement. Some comments suggested that the proposed rulemaking should include a provision for a purchaser to "buy down" volume to meet the 200 million board feet ceiling on buy-outs when their best combination of sales for buy-out exceeds the 200 million board feet ceiling. The Department of the Interior has considered these comments and has added a new § 5475.2–3(b) to the final rulemaking allowing purchasers to buy down volume to meet the 200 million board feet limit at the original contract price rate.

Other comments suggested that the proposed rulemaking did not provide coverage for legitimate successors in interest. The Department of the Interior has determined that the language in the proposed rulemaking adequately treats legitimate successors in interest and therefore no change was made in the final rulemaking.

Section 5475.3 Determination of buy-out charge. Several comments suggested that the description of the method used to compute purchaser loss for the purpose of determining contract buy-out cost in the proposed rulemaking was unclear. The language in this section has been rewritten to clarify the calculation.

providing a more specific description of the values to be employed in making the computation in final rulemaking.

Comments received also expressed the view that the timber measurement method in the proposed rulemaking should be changed from the Bureau of Land Management's 16-foot log scale to the 32-foot log scale used by the Forest Service. Other comments supported the Bureau's 16-foot log scale, citing the fact that it was the method of measurement used on the original contracts. After considering these comments, the final rulemaking retained the 16-foot log scale system found in the proposed rulemaking.

Comments also suggested the use of third party cruises in determining volume in dispute for buy-out purposes. Because lump sum timber sale contracts are very closely estimated, the Department of the Interior does not anticipate any significant disputes concerning the volume of timber qualifying for buy-out. Consequently, the suggestion to use third party cruises to determine volume has not been adopted in the final rulemaking.

Some comments raised the point that the proposed rulemaking was silent on whether buy-out charges were to be determined on a contract-by-contract basis or on the total amount being bought out. Some comments urged adoption of the latter since under this approach the cost would be less to the purchaser. After considering these comments, the final rulemaking has been clarified to indicate that buy-out costs will be determined on a contract-by-contract basis. In making this determination, the Department of the Interior has concluded that a major objective of the Act is to minimize loss to the Federal government, and therefore a contract-by-contract approach best reflects the legislative objectives as well as consistency with existing policy.

Numerous comments objected to the requirements of § 5475.3(c) of the proposed rulemaking concerning the mandatory audit by an independent certified public accountant of a company's financial statement. The comments stated that this mandatory audit was too rigorous and expensive and therefore not appropriate in light of the objectives of the Act. The comments recommended use of a certified public accountant's report of financial statements as an alternative. The comments also stated that only the review of an annual financial statement was useful because quarterly statements are generally not examined by an independent certified public accountant. The comments also noted that such quarterly statements generally lacked conclusive information.

After consideration of these comments, the Department of the Interior has revised § 5475.3(c) of the final rulemaking. The final rulemaking has been amended to accept a report of a company's annual financial statement by a certified public accountant. The reference to quarterly reports has been deleted. This section of the final rulemaking has been revised and reorganized to clarify the requirements for submission of financial statements.

The provisions of § 5475.3(c) of the proposed rulemaking concerning the treatment of records and information submitted to the Bureau of Land Management for purposes of complying with the provisions of the Act have been further revised. The Department of the Interior has determined that much information, including a showing of net book worth, can be provided while still maintaining confidentiality of those materials that the law requires. Requests for information submitted pursuant to the Federal Timber Contract Payment Modification Act will be granted in accordance with the requirements of the Freedom of Information Act (5 U.S.C. 552, as amended) and recognition of exemptions from disclosure contained in that Act.

Several comments expressed the view that due to diligent logging of much of the relief-eligible timber sales, the unused road allowance could not be completely used, and that sale of these allowances to other qualified purchasers appeared doubtful. Therefore they suggested that the final rulemaking be amended to allow these road allowances to be applied to non-grace period and new timber sales. After considering these comments, the final rulemaking has been rewritten to permit application of road allowances to non-grace period timber sales and new timber sales. However, this is subject to the provision that the surplus road allowance not be applied to other sales until after September 30, 1985, and that no more than 33⅓ percent of it be applied in any subsequent fiscal year, except that in any year the amount of excess allowance that may be credited may equal one payment on one timber sale.

Section 5475.4 Conditions for return of timber sale contracts. Several comments suggested that the proposed rulemaking's treatment of "logical stopping point" was too rigid. The Department of the Interior has considered these comments and the final rulemaking has been revised to provide the option of payment for volume loss in deteriorated felled timber at current market rates in lieu of logging and removing such material.

In order to enable purchasers to plan their 1985 operations as soon as possible, to schedule their personnel and equipment to meet available markets and to know which contracts they will retain, it is important that the buy-out process begin as soon as possible. In addition, in accordance with section 2(a)(6)(B) of the Act, this final rulemaking requires purchasers to submit buy-out requests to the appropriate Secretary within 90 days after publication of such final regulations in the Federal Register. Making the regulations effective immediately gives purchasers the benefit of the full 90-day period. For these reasons it is not feasible to delay implementation of these regulations. Rather, it is in the public interest that they become effective immediately upon publication in the Federal Register.

The principal authors of this final rulemaking are Charles R. Frost, Division of Forestry, and David Estola, Oregon State Office, assisted by the staff of the Office of Legislation and Regulatory Management, Bureau of Land Management. The Department of the Interior has determined that this document is not a major rule under Executive Order 12291. It has also been determined that this rulemaking will not have a significant negative effect on a substantial number of small entities under the Regulatory Flexibility Act (U.S.C. 601 et seq.). Any economic effects of the regulations will be positive.

The information collection requirements contained in this proposed rulemaking were submitted to the Office of Management and Budget for clearance under 44 U.S.C. 3507 and have been approved and assigned clearance number 1004–0152.

List of Subjects in 43 CFR Part 5470

Administrative practice and procedure, Forests and forest products, Public lands, Reporting requirements.

Under the authority of the Federal Timber Contract Payment Modification Act of October 16, 1984 (Pub. L. 98–498), Group 5400, Subchapter B, Chapter II of Title 43 of the Code of Federal Regulations is amended as set forth below:

J. Steven Griles,

Deputy Assistant Secretary of the Interior.

April 22, 1985.

1. The "Note" that appears after the title to Group 5400 is amended by removing the phrase "and 1004–0113"

and replacing it with the phrase ", 1004–0113 and 1004–0152."

PART 5470—[AMENDED]

2. Part 5470 is amended by adding a new Subpart 5475 to read:

Subpart 5475—Federal Timber Contract Payment Modification

Authority: Federal Timber Contract Payment Modification Act of October 16, 1984 (98 Stat. 2213; 16 U.S.C. 618).

Subpart 5475—Federal Timber Contract Payment Modification

§ 5475.0–3 Authority.

The Federal Timber Contract Payment Modification Act of October 16, 1984, (98 Stat. 2213) authorizes and directs the Secretary of the Interior to permit a requesting purchaser to return to the Government a volume of the purchaser's qualifying timber contracts upon payment or arrangement for payment of a buy-out charge.

§ 5475.0–5 Definitions.

As used in this subpart, the term:

(a) "Act" means the Federal Timber Contract Payment Modification Act of October 16, 1984 (98 Stat. 2213).

(b) "Purchaser" means a holder of a contract to purchase timber from the Secretary of the Interior. When used for purposes of determining volume entitlement and buy-out charges in §§ 5475.2–2 and 5475.3 of this subpart, respectively, the term purchaser includes affiliated concerns as a single entity.

(c) "Purchaser's loss" means current delivered log cost minus current delivered log value, as of October 16, 1984, all as determined by the authorized officer.

(d) "Net book worth" means the excess of the assets of a purchaser over the liabilities. Net book worth for purchasers or their affiliates which are publicly held corporations shall be as of the date of their most recent annual report filed prior to publication of this rule on Form 10–K with the Securities and Exchange Commission. Net book worth for purchasers or their affiliates which are not publicly held corporations shall be as of the purchaser's or affiliate's financial statement for the most recent fiscal year prior to publication of this final rulemaking and be of a date of no more than 15 months prior to the date of purchaser's application for contract buy-out. Net book worth shall not include the value of any outstanding federal timber sale contracts.

(e) "Independent certified public accountant" means an individual authorized by a government agency (generally a state agency) to render an opinion on the propriety of financial statements. Such an individual may practice as a sole practitioner or as a member of a firm of certified public accountants.

(f) "Board feet of net merchantable volume" means the amount of merchantable timber remaining on a sale area based on Bureau 16-foot timber measurement standards.

(g) "Affiliates". Concerns are affiliates of each other when either directly or indirectly, one concern controls or has the power to control the other, or a third party or parties that controls or has the power to control both. In determining whether or not affiliation exists, consideration shall be given to all appropriate factors, including, but not limited to, common ownership, common management, and contractual relationships. Concerns affiliated at any time during the period June 1, 1984, to September 30, 1984, shall be considered affiliates for determining purchaser's net book worth and volume entitlement. A purchaser forming an affiliate after September 30, 1984, and prior to the time when the purchaser determines its net book worth, shall treat such organization as an affiliate for purposes only of determining its net book worth.

(h) "Qualifying contracts" means Bureau sales contracts bid prior to January 1, 1982, and held as of June 1, 1984.

(i) "Volume entitlement" means the aggregate amount of Bureau and Forest Service net merchantable volume of timber which may be returned to the United States subject to a buy-out charge.

(j) "Conditional contract" means an otherwise qualifying contract that is proposed for buy-out on which harvest and/or road construction activities have commenced.

(k) "Reasonable rates and terms" means interest rates that are within 3 percentage points above the average market yield of outstanding treasury obligations with remaining years to maturity of 5 years as reported by the U.S. Treasury; and having terms of 5 years.

§ 5475.1 Contract modification applications.

(a) The authorized officer shall prepare a modification application package for each Bureau timber sale purchaser, including affiliates holding contracts that qualify for termination under the Act. Application packages for purchasers holding qualifying contracts in more than one State shall be prepared by the authorized officer having the greatest volume under Bureau qualifying contracts for individual purchasers. The authorized officer shall provide timber sale statistics, purchaser loss, and contract overbid information to be included in the modification application. Purchasers who elect to pay less than the maximum buy-out charge as specified in section (3)(A) of the Act, shall submit a net worth determination as part of the completed application package (see § 5475.3(c)). Purchasers that also hold Forest Service contracts that qualify for termination under the Act shall include a complete copy of each Forest Service modification application when submitting a Bureau application to the authorized officer.

(b) In order to be accepted, applications shall be received by the authorized officer within 90 days of the publication date of either this regulation or the regulation of the Secretary of Agriculture issued pursuant to the Act, whichever is later. The application may be revised within the 90-day period. After the 90-day period sales cannot be deleted from the application. The addition of qualifying sales may be considered after the 90-day period only when sales are deleted from the purchaser's Forest Service application and the purchaser elects to use additional Bureau sales to obtain full entitlement. Any request to add sales shall be received by the authorized officer no later than 30 days after deletion from the Forest Service application.

(c) If the purchaser has filed for bankruptcy, the application shall be approved by the Bankruptcy Court. Applications containing sale in trust shall have the signature of the assignees.

§ 5475.2 Qualification and volume entitlement.

§ 5475.2–1 Qualification.

To qualify for buy-out under this subpart, a timber sale contract must have been bid prior to January 1, 1982, and be held by the requesting purchaser as of June 1, 1984. In cases where such a contract was defaulted after January 1, 1981, such a contract may qualify for buy-out under this subpart provided: (a) settlement for damages has not been

reached between the purchaser and the United States; and (b) the purchaser's loss on all of its qualifying timber sale contracts as determined under § 5475.3(a) of this subpart is in excess of 50 per centum of the net book worth of the purchaser.

§ 5475.2-2 Volume entitlement.

Except as provided in § 5475.2-3 of this subpart:

(a) A purchaser holding qualifying contracts with more than 27.3 million board feet of net merchantable timber shall be entitled to buy out up to 55 per centum of such timber volume up to a maximum of 200 million board feet. The total remaining volume on Bureau and Forest Service timber sale contracts as of January 1, 1982, as set forth in the appropriate agency's qualified timber sale contracts, shall be used to establish buy-out entitlement.

(b) A purchaser holding qualifying contracts with 27.3 million board feet or less of timber qualified under section 5475.2-1 of this subpart is entitled to buy-out up to 15 million board feet or one contract, whichever is greater in volume. The total remaining volume on Bureau and Forest Service timber sale contracts as of January 1, 1982, as set forth in the appropriate agency's qualified timber sale contracts shall be used to establish buy-out entitlement.

§ 5475.2-3 Volume exceptions.

(a) The percentage limitation of § 5475.2-2(a) or the volume limitation of § 5475.2-2(b) of this section may be exceeded by a volume amount not to exceed the volume of the smallest contract bought out by the purchaser, provided the volume limitation of 200 million board feet is not exceeded. This provision shall apply only in cases where the purchaser could not otherwise attain his/her percentage of volume entitlement.

(b) A purchaser may buy down volume of one contract necessary to take full advantage of the 200 million board feet limitation by paying the contract price per thousand board feet or, on a sale where harvest has begun, paying and removing that volume of timber in excess of the 200 million board feet limitation at the contract rate. Removal of additional timber must be consistent with § 5475.4 of this subpart.

§ 5475.3 Determination of buy-out charge.

To determine the buy-out charge for qualifying timber contracts the authorized officer shall first establish the purchaser loss, determine the contract overbid, and obtain from the purchaser a statement of net worth if required under section 3(a) of the Act.

(a) Purchaser loss shall be determined by the authorized officer by subtracting current delivered log value from current delivered log cost on a qualifying contract. Current delivered log value will then be determined by a method which adjusts the original appraised value of each species to October, 1984, values through factors representing value changes in Bureau or Forest Service index sales existing at the time of the original sale and for the month of October, 1984.

(b) Contract overbid shall be established by the authorized officer as follows:

(1) On qualifying contracts where timber has not been removed, the authorized officer will determine the contract overbid by subtracting the total advertised contract price of all species from the total bid price of all species.

(2) On contracts where timber has been removed, the contract overbid for the remaining timber will be determined by the authorized officer by establishing an overbid rate. The overbid rate shall be determined by dividing the contract overbid for the total sale by the total advertised volume.

The overbid rate will be multiplied by the current remaining volume to obtain the contract overbid on the remaining timber.

(c)(1) Purchasers requesting to use net book worth formulas to determine the buy-out charge shall submit: (i) A copy of their most recent consolidated financial statements disclosing the net book worth of the purchaser and affiliates; (ii) A schedule of net book worth that combines the consolidated net book worth of the purchaser and affiliates, as provided in paragraph (c)(1)(i) of this section, and excludes the value of any outstanding federal timber sales contracts included in the determination of net book worth and eliminates intercompany transactions and profits or losses. Except as noted in paragraph (c)(2) of this section, an auditor's report prepared by an independent certified public accountant shall accompany the purchaser's and affiliate's financial statements. The auditor's report may be in the form of an auditor's standard report based upon an examination of the financial statements in accordance with generally accepted auditing standards, citing the scope of the audit and expressing an opinion that the financial statements are fairly presented in conformity with general accepted accounting principles applied on a consistent basis. The purchaser may elect to submit an auditor's review report prepared by an independent certified public accountant in accordance with the standards for review established by the American Institute of Certified Public Accountants.

(iii) The purchaser may submit on his own initiative and the authorized officer may request additional explanatory matter to clarify, disclose, or highlight any circumstances that have or may have a material effect on the purchaser's net book worth or to aid in the interpretation of the purchaser's financial statements. The authorized officer's request for additional information shall be restricted to material essential for the verification of the purchaser's net book worth.

(2) Where the purchaser has filed for bankruptcy and can demonstrate to the authorized officer that he/she cannot provide a financial statement as set forth in this section, the purchaser may submit a notarized copy of the documentation of financial statements required by and used in the bankruptcy proceedings to establish the purchaser's net book worth.

(3) The purchaser is required to maintain all financial records used for determining net book for a period of 3 years following submission of the audit report.

(d) In order to calculate the buy-out charge, the authorized officer shall use the net book worth of each purchaser as provided under § 5475.3 of this subpart, and calculate the buy-out charge and the total amount to be paid by the purchaser to the government using the following formulas on a contract-by-contract basis:

(1) When the purchaser loss exceeds 100 per centum of the net book worth of the purchaser, the buy-out cost shall be $10 per one thousand board feet of currently held volume bought out;

(2) When the purchaser loss exceeds 50 per centum up to 100 per centum of the net book worth of the purchaser, the buy-out cost shall be 10 per centum of the contract overbid but at least $10 per one thousand board feet of currently held volume bought out;

(3) When the purchaser loss is 50 per centum or less of the net book worth of the purchaser the buy-out cost shall be:

(i) 15 per centum of the contract overbid for the first 125 million board feet; and

(ii) 20 per centum of the contract overbid for the next 25 million board feet; and

(iii) 25 per centum of the contract overbid for the next 25 million board feet; and

(iv) 30 per centum of the contract overbid for the next 25 million board feet not to exceed 200 million board feet of qualifying volume; and

(v) At least $10 per thousand board feet.

(4) Purchaser shall designate the order of contracts to buy out under (d)(3)(i) through (iv) of this section including

contracts that must be split between two categories.

(c) The purchaser shall be billed by the authorized officer and shall make full payments or make arrangement for payment under § 5475.5 of this subpart for buy-outs prior to the acceptance of returned contracts.

(f) Where a purchaser has completed any portion of road construction which may be logically broken out of the timber sale appraisal allowances and where the road construction is acceptable under conditional contracts of this subpart, the authorized officer shall notify the purchaser of the amount of the road allowance which may be credited. In cases where timber has been removed from the sale area, the authorized officer shall reduce the road allowance. The amount of the reduction shall equal the volume of timber removed in thousands of board feet multiplied by the allowance per thousand board feet (Mbf) for road construction in the timber sale appraisal. These road allowances shall be credited against the total buy-out charge. Road allowances in excess of the total buy-out charge shall be credited against timber sales that were extended under Instruction Memorandum No. 83–743 pursuant to the President's program of July 28, 1983. If there is excess road construction allowance remaining after applying the allowance to the purchaser's buy-out charge and to the purchaser's grace period contracts, then the excess allowance may be credited after September 30, 1985, against any timber sale; however, no more than 33⅓ percent of the remaining excess allowance as of September 30, 1985, may be credited during any subsequent fiscal year, except that in any year the amount of excess allowance that may be credited may equal one payment on one timber sale.

§ 5475.4 Conditions for return of timber sale contracts.

(a) Contracts returned pursuant to this subpart which have had no harvesting or road construction work shall be returned in full. The purchaser shall not retain any portion of the timber sale contract.

(b) Contracts returned pursuant to this subpart under which harvest or any type of road work has begun may be returned to the authorized officer subject to his or her authority to reject the contract or to accept it upon compliance with conditions to be established by the authorized officer. The authorized officer may reject a contract if he or she determines that the remaining unharvested portion is substantially unrepresentative of the original sales as a whole in terms of species, logging methods, or other appropriate criteria, and that accepting the return of such contract would not be in the public interest. Other reasons for rejection may include, but are not limited to, such considerations as: (1) amount of value loss due to deterioration in felled timber; (2) impractical remaining harvest unit resulting from purchaser failing to complete an entire logging unit; (3) road construction determined not to be at a logical stopping point.

(c) The authorized officer may accept payment for the amount of volume loss in felled timber in lieu of requiring removal of the felled timber; provided that the remaining felled timber constitutes a practical harvest unit. Payment for volume loss in felled timber shall be based on current market price applied to volume loss as determined by the Bureau. Such payment shall be in addition to payment of the buy-out cost for the volume of timber affected by deterioration.

(d) The authorized officer shall include conditions for acceptance of the returned contract and a schedule for its completion as part of the purchaser's modification application package. Conditionally returned contracts shall not be accepted by the authorized officer until the purchaser has fulfilled all the conditions established in the modification application. If the purchaser does not fulfill these conditions in accordance with the schedule for their completion, the sale shall no longer qualify for buy-out under the Act and shall terminate on the date scheduled for its completion or the date provided in the agreement under the grace period extension program, whichever is later.

§ 5475.5 Alternative method of payment.

If unable to obtain sufficient credit elsewhere, a purchaser may finance the buy-out charge by paying 5 per centum of the buy-out charge at a time specified by the buy-out agreement and paying the remainder in equal quarterly payments over a period not to exceed 5 years. These additional requirements shall apply:

(a) The purchaser shall provide documentation to the authorized officer of inability to obtain private financing at reasonable rates and terms as defined in this subpart, from at least two Federal or state chartered financial Institutions engaged in providing financing to the timber industry and one from the lending institution with which the purchaser usually transacts business.

(b) Upon request, the purchaser shall make available copies of loan papers for loans acquired within six months of the date of publication of the final rules and for loans acquired between the publication date and submittal of the purchaser's buy-out request, which have reasonable interest rates, as defined in § 5475.0–5(k) of this subpart.

(c) The interest rate shall be adjusted with each payment to equal the average market yield of outstanding Treasury obligations with 5 years remaining to maturity. Such information shall be obtained by the authorized officer from the United States Department of the Treasury.

(d) The purchaser shall sign a promissory note agreeing to the terms and conditions of payment.

(e) Payment shall be secured by bond deposited securities or other forms of security acceptable to the authorized officer in an amount sufficient to cover the entire buy-out payment owing on those Bureau contracts. If a bond of corporate surety is used, the payments bond shall provide that, if the purchaser fails to make payments as required by this supbart, the surety shall make payment of the entire balance including any required interest and late payment charges. As each payment is made, the bond may be adjusted downward to an amount equal to the unpaid balance of the buy-out, including any required interest.

(f) The method of payment shall be the same as called for in the original purchase contract unless the amount is over $10,000. For amounts over $10,000 the Bureau may require remittance by wire transfer. The place of payment for other than wire transfer shall be specified in the buy-out agreement.

§ 5475.6 Payment date.

The purchaser shall pay either the total buy-out charge or, on qualifying, the initial installment under § 5475.5 of this subpart by the 60th calendar day after the final date for submitting applications for contract buy-out. If payment is not received by the authorized officer by the 60th calendar day, the purchaser shall pay late charges on the outstanding billed amount, as prescribed in the Debt Collection Act of 1982 (96 Stat. 1749). Late payment charges shall accrue from the 60th calendar day after the final date for submitting applications for buy-out, or where the alternate payment method is used, shall accrue from the date the payment was due.

§ 5475.7 Protest and appeals.

(a) Any appeal filed prior to the execution of a buy-out agreement shall be in accordance with the provisions of 43 CFR Part 4.

(b) Any dispute relating to an executed buy-out agreement shall be subject to the provisions of the Contract Disputes Act of 1978 (92 Stat. 2383).

[FR Doc. 85–15434 Filed 6–26–85; 8:45 am]

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DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Part 223

Disposal of National Forest System Timber

AGENCY: Forest Service, USDA.

ACTION: Final rule.

SUMMARY: On October 16, 1984, the President signed into law the Federal Timber Contract Payment Modification Act. These rules implement those provisions of the act that allow the holders of certain Forest Service timber sale contracts to buy out of all or a portion of these contracts. These rules set forth procedures by which National Forest timber sale purchasers can receive entitlement to the benefits provided by the act and prescribe how the Forest Service will determine payments required of these purchasers.

EFFECTIVE DATE: June 27, 1985.

FOR FURTHER INFORMATION CONTACT: Questions about this final rule may be addressed to: David M. Spores, Timber Management Staff, Forest Service, USDA, P.O. Box 2417, Washington, DC 20013, (202) 447-4051.

SUPPLEMENTARY INFORMATION:

Background

The Federal Timber Contract Payment Modification Act of October 16, 1984, (98 Stat. 2213; 16 U.S.C. 618) authorizes and directs the Secretaries of Agriculture and the Interior to permit a purchaser to be released from specified contractual obligations by returning to the Government a volume of certain timber sale contracts.

These rules apply only to Forest Service contracts. However, the act provides that similar rules be issued by the Secretary of the Interior for Bureau of Land Management timber sale contracts.

The Forest Service and Bureau of Land Management have engaged in extensive consultation and coordination during the development of their respective rules in order to achieve as much consistency as possible. Because of different statutory authorities and operating procedures, complete consistency is not possible. However, considerable uniformity has been achieved, and the rules are consistent in all substantive areas.

On December 7, 1983, at 48 FR 54812, the Forest Service, at the direction of the President, established a program to extend certain timber sale contracts in order to provide timber sale purchasers an opportunity to schedule harvest of high priced timber during better market conditions. The Federal Timber Contract Payment Modification Act ratifies that extension program, allows purchasers to but out contracts extended under the 1983 program, but prohibits the Forest Service from assessing additional default damages on any sales extended under that program.

In implementing the 1983 extension program, the Forest Service required purchasers to submit multi-sale extension plans. Purchasers who now wish to buy out timber sales included in those multi-sale extension plans shall revise their plans to reflect the bought out sales. The Forest Service published its proposed guidelines for revising multi-sale extension plans to accommodate the effects of the Federal Timber Contract Payment Modification Act in the Federal Register January 4, 1985, at 50 FR 458. Some procedures relating to contract buy out are included in this rule, and other guidelines will soon be announced in the Federal Register so that they may be available to purchasers while preparing their buy out applications.

Many purchasers have to plan their 1985 operations as soon as possible in order to schedule their personnel and equipment to meet the available markets. Therefore they need to start the buy out process as soon as possible so that they can know which contracts they will retain. In addition, section 2(a)(6)(B) of the Federal Timber Contract Payment Modification Act specifies that the final rule implementing the act shall require purchasers to submit buy out requests to the appropriate Secretary within 90 days after publication of such rules. For these reasons it is impracticable to delay implementation of these rules. They are effective upon publication in the Federal Register.

Introduction

On October 16, 1984, the President signed into law the Federal Timber Contract Payment Modification Act. This act has four major provisions:

1. It provides that holders of certain federal timber contracts may buy out of all or a portion of these contracts upon payment of a buy out charge;
2. It ratifies the Forest Service Multi-Sale Extension Program initiated in August 1983;
3. It requires the Forest Service to establish provisions for timber sale down payments and periodic payments while implementing procedures to monitor bidding, and to take steps to restrain speculative bidding; and,
4. It requires the Forest Service to make emergency rate redeterminations for certain sales in Alaska in order to establish contract rates for these sales which will permit the holders of these contracts to be competitive with other purchasers of national forest timber.

This final rule is limited to implementing the buy out provisions of the act. The proposed rule was published in the Federal Register on January 4, 1985, at 50 FR 488. Public comment was requested by February 4, 1985.

The Forest Service received comments on the proposed rule from 124 individuals and entities. Comments came from the general public, timber sale purchasers, timber trade associations, a conservation organization, accountants, bonding companies, and employees of the Department of Agriculture, Office of Inspector General, and Forest Service. About two-thirds of the respondents were from the Pacific Northwest.

The final rule has substantial support in the agency records, viewed as a whole, and full attention has been given to public comments and to the comments of persons directly affected by the rule in preparing the final regulations.

The following summarizes the major comments and suggestions received and the agency response to these in the final rule.

General Comments

Four respondents were against implementation of the act. This is not a viable option. The act is not discretionary; it mandates the Secretary to implement its provisions.

Several comments addressed overall topics, rather than specific sections of the proposed rule.

a. *Applicability.* Questions were raised as to whether the act only applied to net merchantable sawtimber. The wording in the final rule has been changed to clarify and emphasize that the volume entitlement, volume to be bought out, and the buy-out cost apply only to net merchantable sawtimber.

b. *Coordination.* Some respondents stressed the importance of coordination between the Department of Agriculture and Department of the Interior in implementing the buy out provisions of the act. There have been several meetings between personnel of the two Departments in the development of the proposed and final rules. Training of Agency personnel for administering the buy out will stress on-the-ground procedures for the inter-agency cooperation.

c. *Responsibilities.* Some respondents suggested that the proposed rule was not specific enough in defining the roles of the Regional Foresters and the

Appendix O

Section 402(g)(2), of the Tariff Act of 1930

(g) Transactions Between Related Persons.--

(1) For the purposes of subsection (c)(1) or (d), as the case may be, a transaction directly or indirectly between persons specified in any one of the subdivisions in paragraph (2) of this subsection may be disregarded if, in the case of any element of value required to be considered, the amount representing that element does not fairly reflect the amount usually reflected in sales in the market under consideration of merchandise of the same general class or kind as the merchandise undergoing appraisement. If a transaction is disregarded under the preceding sentence and there are no other transactions available for consideration, then, for the purposes of subsection (d), the determination of the amount required to be considered shall be based on the best evidence available as to what the amount would have been if the transaction had occurred between persons not specified in any one of the subdivisions in paragraph (2).

(2) The persons referred to in paragraph (1) are:

(A) Members of a family, including brothers and sisters (whether by whole or half blood), spouse, ancestors, and lineal descendants;

(B) Any officer or director of an organization and such organization;

(C) Partners;

(D) Employer and employee;

(E) Any person directly or indirectly owning, controlling, or holding with power to vote, 5 per centum or more of the outstanding voting stock or shares of any organization and such organization; and

(F) Two or more persons directly or indirectly controlling, controlled by, or under common control with, any person.

19 U.S.C. 1402
70 Stat. 943, 946
See list following this section.

SEC. 402a. VALUE (ALTERNATIVE).

(a) Basis.-- For the purposes of this Act the value of imported articles designated by the Secretary of the Treasury as provided for in section 6(a) of the Customs Simplification Act of 1956 shall be--

(1) The foreign value or the export value, whichever is higher;

(2) If the appropriate customs officer determines that neither the foreign value nor the export value can be satisfactorily ascertained, then the United States value;

(3) If the appropriate customs officer determines that neither the foreign value, the export value, nor the United States value can be satisfactorily ascertained, then the cost of production;

(4) In the case of an article with respect to which there is in effect under section 336 a rate of duty based upon the American selling price of a domestic article, then the American selling price of such article.