UNITED STATES TARIFF COMMISSION

SOFTWOOD LUMBER

Report to the President on Investigation No. 7-116 (TEA-I-4)
Under Section 301(b) of the Trade Expansion Act of 1962

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UNITED STATES TARIFF COMMISSION

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C O N T E N T S

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REPORT TO THE PRESIDENT

U.S. Tariff Commission,
February 14, 1963.

To the President:

In accordance with section 301(f)(1) of the Trade Expansion Act of 1962 (76 Stat. 885), the U.S. Tariff Commission herein reports the results of an investigation made under section 301(b) of that act (76 Stat. 884) relating to softwood lumber. 1/

Introduction

The purpose of the investigation to which this report relates was to determine whether, as a result in major part of concessions granted under trade agreements, softwood lumber is being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like lumber.

This investigation was originally instituted on July 26, 1962, under the authority of section 7 of the Trade Agreements Extension Act of 1951, as amended, on the basis of an application by the Lumbermen's Economic Survival Committee, Seattle, Wash. As originally instituted the investigation was limited to sawed lumber and timber of fir, spruce,

1/ As used in this report, the term "softwood lumber" means sawed lumber and timber produced from trees of the coniferous species (order Coniferae) not further manufactured than planed, and tongued and grooved (not including dowels), provided for in pars. 401 or 1803(1) of the Tariff Act of 1930, as amended, or in sec. 4551 of the Internal Revenue Code of 1954, as amended. Hardwood lumber, which is produced from broad-leaved trees (such as oak, maple, or poplar) is not covered by this investigation.

pine, hemlock, and larch. Public notice of the institution of the investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the office of the Commission in Washington, D.C., and at its office in New York City, and by publishing the notice in the Federal Register (27 F.R. 7583) and in the August 2, 1962, issue of Treasury Decisions.

On August 29, 1962, the investigation was broadened to include additional species of softwood lumber, as a result of an amendment of the application filed by the applicant, and notice of the broadened scope of the investigation was published in the Federal Register (27 F.R. 8844) and in the September 6, 1962, issue of Treasury Decisions. The scope of the hearing scheduled for October 2, 1962, was similarly broadened.

The public hearing opened on October 2, 1962, and was concluded on October 12, 1962. All interested parties were afforded opportunity to be present, to produce evidence, and to be heard. A transcript of the hearing and formal briefs submitted by interested parties in connection with the investigation are attached. 1/

In his opening statement at the hearing, Chairman Dorfman pointed out that the Trade Expansion Act of 1962 might become law during the course of the hearing and that under the provisions of section 257(e)(3)

1/ Transcript and briefs attached to the original report sent to the President.

thereof the investigation to which the hearing related would be continued and completed under the provisions of section 301(b) of the new act. The Chairman then recited various differences between the language of section 301(b) of the new act and section 7 of the Trade Agreements Extension Act of 1951, and suggested that interested parties giving testimony at the hearing might, to the extent possible, present their testimony in the light of the provisions of both section 7 of the 1951 act and section 301(b) of the new act. He further stated that should the new legislation be enacted, notice of opportunity to request an additional hearing would be given and that in any circumstance persons giving testimony at the hearing would be permitted to supplement their presentation in writing. 1/

On October 11, 1962, the day before the conclusion of the hearing, the Trade Expansion Act of 1962 was signed into law. On October 12 the Commission issued a notice that the investigation relating to softwood lumber was being continued under section 301(b) of that act, and the notice was published in the Federal Register (27 F.R. 10139) and in the October 18, 1962, issue of Treasury Decisions. No additional hearing was scheduled, but the Commission's notice advised interested parties that they might request an additional hearing within 20 days after the date of publication of the notice in the Federal Register. Interested parties were advised also that they might submit written

1/ See transcript, pp. 3-7.

information to supplement the information presented at the hearing. No requests for an additional hearing were received and no such hearing was held.

In addition to the information obtained at the hearing in this investigation, the Commission obtained information from its files; from other agencies of the U.S. Government; from various publications of State governments, the Canadian Government, and industry associations; through fieldwork by members of the Commission's staff; and from responses to questionnaires sent to domestic producers.

Finding of the Commission

On the basis of its investigation the Commission unanimously finds that softwood lumber is not, as a result in major part of concessions granted under trade agreements, being imported in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing the like article.

Considerations Bearing on the Foregoing Finding 1/

Before the Commission may make a finding of serious injury, or the threat thereof, to a domestic industry pursuant to the provisions of the Trade Expansion Act of 1962, it must determine that the imports that are alleged to be causing or threatening the serious injury are entering in increased quantities; that the increased imports are due "in major part" to trade-agreement concessions; and that such increased imports are "the major factor" in causing or threatening the serious injury. Unless the Commission finds that the concessions are in fact the major cause of the increase in imports, it is foreclosed from ultimately making an affirmative finding, irrespective of the contribution which the increase in imports makes toward causing or threatening serious injury to the industry.

The Commission also observes that the Trade Expansion Act of 1962 makes no provision for tariff adjustment to compensate a domestic industry for any past injury occasioned by a past increase in imports. Under the new trade act, an industry can qualify for tariff adjustment only on the basis of serious injury,

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1/ Commissioner Schreiber, while joining in the finding that the increased imports of softwood lumber are not the result, in major part, of trade-agreement concessions, does not subscribe to some of the economic postulations stated in this section of the report.

or the threat thereof, resulting from an article being imported in increased quantities, which increase is due "in major part" to trade-agreement concessions. 1/

The Commission recognizes that softwood lumber "is being imported in . . . increased quantities" within the meaning of the statute. In this investigation, the Commission interprets "being imported" as referring to the rate of importation during the most recent years. Whatever number of recent years is selected for this purpose, it is clear that the trend of imports of softwood lumber is upward.

Many forces are contributing to the rise in imports. It would be exceedingly difficult to identify all of them, and would probably be impossible to evaluate each with precision, since they are so inextricably interrelated. However, the Commission is here called upon to determine merely whether the trade-agreement concessions are "in major part" the cause of the increased imports. In the Commission's view, the only

1/ Likewise, under the new statute, individual firms and groups of workers may qualify for adjustment assistance only on the basis of increased imports due "in major part" to trade-agreement concessions, with the increased imports being "the major factor" in causing, or threatening to cause, serious injury to the firms or unemployment or underemployment of the workers.

trade-agreement concessions that could contribute materially to softwood lumber being imported in increased quantities consist of the cumulative reductions in tariff duty (including import tax) 1/ that have been made thereon.

The intent, and generally the effect, of reducing a tariff duty is to narrow the spread between the price in the domestic market and that in the foreign supplying country of the article to which the reduced duty applies. This change in price spread tends to be equivalent to the duty reduction itself, but a greater or lesser change may occur because of alterations in other factors affecting the cost of laying down imported articles in the domestic market.

The narrowing of a price spread engendered by a reduction in duty operates (1) to reduce the price in the domestic market not only of the imported article in question but also of the like or directly competitive domestic articles, and (2) to raise the price of the article in the foreign supplying country. Obviously, the duty reduction cannot operate both to cause the price in the domestic market to decline by the full amount of the reduction in duty and to cause the price abroad to rise by the full amount of that reduction. The extent to which the price falls in the

1/ Hereinafter, unless otherwise indicated, the reference to tariff duty should be understood to include import tax as well.

home market and rises in the supplying country, in consequence of the reduction in duty, varies with the commodity and with circumstances. In the instant case, the reductions in duty have probably operated much more to cause prices in Canada to be above the levels that would presumably have prevailed in the absence of the duty reductions, than to cause prices in the United States to be below such levels.

U.S. reductions in the rates of duty on softwood lumber were provided for in trade agreements that came into effect in 1936, 1/ 1939, and 1948. The reductions varied with the species of lumber. For northern white pine, Norway pine, western white spruce, and Engelmann spruce the aggregate reductions totaled $0.75 per thousand board feet; 2/ for fir, hemlock, larch, other spruce, and other pine,

1/ Some of the reduced rates that became effective in 1936 were applicable to only a limited quantity of certain species of imported lumber (a tariff quota). The same reduced rates were continued in the trade agreement that became effective on Jan. 1, 1939, without regard to the quantity of imports; the 1939 concession, therefore, in effect consisted of a reduction in duty on shipments in excess of the quota previously applicable.

2/ The total of the original duty ($1 per thousand board feet) and the original import tax ($3 per thousand board feet) was reduced by $3.75. However, because of the repeal by act of Congress of the import tax on the first three named species, effective July 1, 1938, and on Engelmann spruce, effective Oct. 7, 1950, $3 of the total reduction is attributable to domestic legislation rather than to trade-agreement concessions.

they amounted to $3.00 per thousand board feet; for cedar, they were $2.25; and for all other softwood lumber, $1.50.

On the basis of the composition of imports in 1962 (first 11 months), 32 percent of the imports were in the category on which the trade-agreement reductions totaled $0.75 per thousand board feet, 60 percent were in the category on which the reductions totaled $3.00, 8 percent on which the reductions totaled $2.25, and a negligible percentage on which the reduction totaled $1.50. The average of the trade-agreement reductions, based on the total imports during the aforementioned period, was $2.23 per thousand board feet.

At no time have these reductions been large in relation to the prices of the lumber. The reductions aggregating $0.75 per thousand board feet were equivalent in 1962 (first 11 months) to an average of only about 1.3 percent of the average foreign value of the varieties of imported lumber to which the reductions apply. The corresponding ratio for the varieties on which the aggregate duty reductions totaled $3.00 averages 4.8 percent, for those that totaled $2.25, 3 percent, and for those that totaled $1.50 averages 1.7 percent. The average ratio, based on total imports, was 3.6 percent.

The Commission observes further that maximum stimulation of imports attributable to a reduction in duty generally occurs directly or shortly after the reduced rates come into effect. The interval during which the reduction in duty operates to cause imports to continue rising varies with the commodity and attendant circumstances. In the instant case, some of the trade-agreement reductions in duty were made as far back as 1936, and none were made more recently than 1948. The duty reductions made on softwood lumber so long ago can no longer be more than a negligible cause of lumber being imported in increased quantities--particularly in such increased quantities as to be the major cause of serious injury, or the threat thereof, to the domestic industry.

Before discussing the more important factors contributing to increased imports of lumber, the Commission wishes to take note of certain of the petitioners' contentions. Counsel for the petitioners contend that at least three factors in addition to duty reductions should be taken into account in evaluating the effect on imports of the trade-agreement concessions, viz, 1/ (1) the "binding" of the concession rates against increase, (2) the commitment that imports would be free of

1/ Brief of Lumbermen's Economic Survival Committee and National Lumber Manufacturers' Association, dated Nov. 15, 1962.

quantitative restrictions, and (3) nullification of the "Buy American Act," insofar as lumber is concerned, in consequence of suspension of the marking requirement.

In the context of the trade legislation, the association of the term "binding" or "bound" with a change in duty is a misuse of those terms. Section 201 of the 1962 Trade Expansion Act authorizes the President (as did previous trade-agreement legislation) to proclaim "modifications" as well as "continuances" of any existing duty. The term "binding" or "bound" should properly be limited to trade-agreement commitments for the continuance of existing rates, as distinguished from commitments involving reductions in duty.

A trade-agreement concession involving a reduction in duty is, under the literal terms of a trade agreement, an undertaking not to impose a rate higher than the reduced rate specified in the trade-agreement schedule, and thus in a sense is a "binding" of the reduced rate against increase. However, the Commission regards such a binding of a changed rate of duty to be so intimately related to the change in the rate itself that the two cannot be appraised separately. Without some assurance that a reduced rate would remain in effect for an extended period, a concession

would be meaningless. A binding in such an instance merely gives a measure of assurance of continuance of a changed rate of duty. 1/

Counsel for the petitioners regard the binding of a reduced rate of duty against increase--as distinguished from the reduction in the rate itself--as the major substance of a tariff concession. They state: "As a practical matter, the fact that the tariff on lumber has been bound by trade agreements since 1936 has prevented Congress from legislating increases in the tariff." 2/ They also observe that under article XI of the General Agreement on Tariffs and Trade, lumber manufacturers in Canada "had assurance of quota-free entry into our market and could expand their production accordingly." 3/

The aforementioned commitments by the United States did not in fact constitute irrevocable guarantees. GATT itself makes provision for the termination of trade agreements, and the existence of an escape clause in GATT and other trade agreements and of implementing domestic legislation puts all foreign suppliers on notice that trade-agreement concessions granted by the United States may be withdrawn under specified circumstances.

1/ The binding against increase of an unchanged rate of duty is in a different category. Such a concession consists solely of the binding and hence can be evaluated by itself.

2/ Brief of Lumbermen's Economic Survival Committee and National Lumber Manufacturers' Association, dated Nov. 15, 1962, p. 14.

3/ Ibid., p. 20.

In effect, counsel for the petitioners are arguing that except for the aforementioned trade-agreement commitments by the United States, imports of lumber would have been subject to higher duties, quotas, or both; and that since no such trade restrictions were instituted the domestic industry has been seriously injured or threatened with serious injury in consequence of trade-agreement concessions.

The Commission recognizes the possibility that in the absence of U.S. trade-agreement commitments to the contrary, imports of softwood lumber might have been subject to higher duties or quotas or both. However, the Commission has no basis for presuming that such action would have been requested or, if requested, would have been taken. A contrary presumption might be more warranted, considering that during the many years that the escape-clause procedure was available the domestic softwood lumber industry did not petition the Tariff Commission to institute an escape-clause investigation before 1962. The Commission observes further that while international commitments may deter Congress from legislating in conflict therewith, those commitments do not "prevent" Congress from so legislating. Congress may, if it so elects, legislate in conflict with any international commitments.

The extent to which Canadian producers might have been induced to expand their output of lumber and their exports to the United States, in consequence of the aforementioned commitments by the United States to "abstain" from applying higher duties or quotas thereon, is not determinable but probably was not significant.

The trade agreement with Canada that came into effect in 1939 provided inter alia for the suspension of the requirement that imported lumber be marked to show country of origin. For a very short interval prior to that agreement, 1/ the marking requirement may have afforded some measure of protection for the domestic industry because of the expense to which foreign suppliers were put in marking each piece of lumber. Since that time, however, the use of modern equipment has greatly reduced the cost of marking individual pieces of lumber. Currently, country-of-origin marking would involve little expense in addition to that already incurred in complying with the grade-marking requirements instituted in 1960 by the Federal Housing Administration.

1/ Lumber was exempt from the marking requirement for many years prior to Sept. 1, 1938. The trade agreement with Canada brought about a suspension of a marking requirement that had been in operation for somewhat less than 3 months (Sept. 1 to Nov. 26, 1938).

The withdrawal of the country-of-origin marking requirement cannot be regarded as a trade-agreement concession within the meaning of section 301(b) of the Trade Expansion Act. The marking statute was never designed to afford protection to domestic producers. But even if the marking requirement were regarded--for the purposes of this investigation--as a trade-agreement concession, it is clear that its restoration in recent years would not likely have contributed to a reduction in the level of imports of softwood lumber. On the basis of evidence obtained by the Commission, its restoration might well have had a contrary effect.

The Commission rejects completely the view advanced by counsel for the petitioners that the absence of country-of-origin markings on imported lumber nullifies the "Buy American Act" insofar as lumber is concerned and thus contributes materially to the expansion of the imports. 1/ Total purchases of imported lumber by civilian or military Government agencies under the "Buy American Act" and similar provisions of the defense appropriations acts are very small in relation to total domestic sales of lumber. Any substantial procurement by Government agencies is virtually always directly from mills or from reputable

1/ Brief of Lumbermen's Economic Survival Committee and National Lumber Manufacturers' Association, pp. 18-19.

dealers whose source of supply is known or, if need be, is readily determinable by the Government agencies concerned.

Much more significant than trade-agreement concessions in causing softwood lumber to be imported in increased quantities are certain other factors. The more consequential of them are discussed below.

The most important cause of the increased imports is reflected in the much more pronounced "cost-price squeeze" in the United States than in Canada between the rising price of lumber and the even more rapidly rising price of timber and purchased logs. Underlying this development is the limited commercial availability of softwood timber in the United States, particularly of sawtimber size, and the resulting intense competition among the buyers of such timber. Over a period of many years the annual cut of mature sawtimber generally exceeded the annual growth of such timber. Further, the timber management policies of Government agencies and other owners of large timber resources have operated, and continue to operate, to limit the commercial availability of mature sawtimber. These policies, which are designed to achieve a long-term balance between cut and growth, are necessarily in conflict with commercial efforts to increase the current supply.

The inelastic supply of timber in the United States is in contrast to increasing commercial availability of newly opened virgin timberland in Canada (mostly in eastern British Columbia) and the accompanying lesser intensity of competition among the Canadian mills to obtain timber. The competition for the supply of timber, especially in the United States, has occurred not only among producers of lumber, but among producers of a variety of other forest products, such as plywood and pulp and paper (and, sporadically, among exporters of logs). The rising aggregate demand for such forest products in the United States, in conjunction with rather rigid limitations on the commercial supply of timber, has resulted in an upward trend in the domestic price of timber. This, in turn, has exerted an upward pressure on U.S. prices of lumber. The persistence of this pressure has encouraged the opening of new areas of production of timber and the expansion of sawmill capacity in Canada, particularly during the past few years. The increase in Canadian production of lumber in recent years has been largely for export to the United States, the closest and most attractive market for it.

The depreciation of the Canadian dollar has been, and continues to be, an important stimulus to U.S. imports of lumber from Canada. In its efforts to redress a persistent adverse balance of payments, the Canadian Government has in recent

years employed a variety of devices, including devaluation of its currency. 1/ In May 1962, pursuant to an arrangement with the International Monetary Fund, Canada pegged its dollar at US$0.92½ (± 1 percent). The pegging of the rate at that level was designed to accomplish several purposes. Among the more important of them were the general curtailment of imports and the general expansion of exports. Inasmuch as lumber is a leading Canadian export and the United States is the major foreign market for it, the currency depreciation effectively promoted the expansion of lumber exports to the United States.

In terms of U.S. currency, the Canadian dollar declined from an average value of $1.04 in 1959 to $1.03 in 1960, to 99 cents in 1961, to 95 cents in January-April 1962, and to the pegged rate of 92½ cents in May 1962. In terms of U.S. dollars, the depreciation of the Canadian dollar since 1959 is equivalent to approximately $7 per thousand board feet of softwood lumber, based on the average unit value of imports of such lumber from Canada in 1962. This amount compares with aggregate trade-agreement reductions in duty ranging between $0.75 and $3.00 per thousand board feet.

1/ The mechanics of carrying out Canada's monetary policy are actually formulated and conducted by Canada's central bank, the Bank of Canada. The Bank, however, is obliged to operate within the framework of policy for which the Government alone is wholly responsible.

With the passage of time, the aforementioned depreciation of the Canadian dollar will no doubt be a factor of diminishing importance in promoting expansion of U.S. imports of lumber from Canada. Currently, however, it is a much more important factor than the aggregate of all of the past trade-agreement reductions in duty on lumber.

Cost of transportation accounts for a large part of the delivered price of most shipments of softwood lumber. An important factor affecting the volume of imports of softwood lumber is the charter rate for waterborne shipments from British Columbia to eastern United States (including Puerto Rico) in relation to the intercoastal conference rate on shipments from the west coast of the United States to the same destinations. 1/

For approximately 3 years before October 1957 the Canadian charter rate to Atlantic ports was higher than the U.S. conference rate by $3 to more than $7 per thousand board feet of lumber. During that period waterborne shipments from British Columbia to eastern United States declined sharply. Commencing in October 1957,

1/ Under the Jones Act, intercoastal shipments of cargo from U.S. ports must move in U.S.-flag vessels. Legislation enacted in 1962, however, suspended for 1 year from Oct. 24, 1962, the restrictions on the shipment of domestic lumber to Puerto Rico in foreign-flag vessels upon determination by the Secretary of Commerce that no U.S.-flag vessels are "reasonably available." The first applications for permission to ship in foreign-flag vessels have been conditionally approved.

however, charter rates applicable to shipments from Canadian ports were reduced sharply. Largely as a result thereof, British Columbia mills increased their waterborne shipments to eastern United States by more than 500 million board feet from 1957 to 1961. The differential favoring shipments from Canadian ports reached the highest point on record--$12 per thousand board feet--in April 1962, thereby contributing further to increased imports of Canadian lumber.

Although imports of softwood lumber by water currently account for only about one-fourth of the total imports of such lumber, the very large and rising disparity in cargo rates favorable to imports by water has obviously contributed much more to the recent increase in imports of softwood lumber than has the aggregate of the trade-agreement concessions applicable thereto.

In addition to the factors discussed above, others have contributed in greater or lesser degree to the increase in imports of lumber. These include free hold privileges granted by Canadian railroads which, over a 2-year period that ended in mid-1962, gave shippers in Canada more time than that enjoyed by shippers in the United States to find buyers for lumber after it had been accepted by the carrier. Another contributing factor has been the measures taken by Canadian mills to promote their

product and to meet special requirements of U.S. buyers, particularly with respect to packing, shipping, grading, and marking. Other factors include the increasing awareness by U.S. distributors and consumers of the general high quality of Canadian lumber, and the wider acceptance in recent years by the U.S. construction industry of certain species of lumber of which Canada has abundant supplies, e.g., western white spruce.

In view of the foregoing, it is clear not only that trade-agreement concessions fall far short of being the preponderant cause of softwood lumber "being imported in . . . increased quantities" but also that they do not contribute as much to the increase as certain other causes. The Commission is therefore obliged to conclude that the increase in imports of softwood lumber is not attributable "in major part" to trade-agreement concessions.

In the circumstances the Commission is not called upon by provisions of the 1962 Trade Expansion Act to consider whether increased imports have been "the major factor" in causing or threatening any serious injury to the domestic softwood lumber industry. The Commission nevertheless makes the observation that evidence obtained in the course of the investigation suggests that the factors giving rise to the increase in imports, rather than the increase itself, are mainly responsible for the major problems confronting the domestic softwood lumber industry,

particularly the Pacific northwest segment of it. Some of the factors, such as the increasing competition from substitutes for lumber and the recent calamitous "blowdown," obviously do not stem in any measure from the increase in imports.

Respectfully submitted. 1/

Ben Dorfman

Ben Dorfman, Chairman

Joseph E. Talbot

Joseph E. Talbot, Commissioner

Walter R Schreiber

Walter R. Schreiber, Commissioner

Glenn W. Sutton

Glenn W. Sutton, Commissioner

William E. Dowling

William E. Dowling, Commissioner

1/ Commissioner James W. Culliton, who became a member of the Commission on Dec. 5, 1962, did not participate in this investigation.

Information Obtained in the Investigation

U.S. tariff treatment

Certain species of softwood lumber (fir, spruce, pine, hemlock, and larch) are subject to duty under paragraph 401 of the Tariff Act of 1930 and (with the exception of northern white pine, Norway pine, western white spruce, and Engelmann spruce) to an additional import tax under section 4551 of the Internal Revenue Code of 1954. Other species of softwood lumber are provided for in the free list of the Tariff Act of 1930 (par. 1803(1)) but are subject to import tax under the provisions of the aforementioned Internal Revenue Code. With certain exceptions not pertinent in this investigation, the import tax imposed under the Internal Revenue Code is treated by law as a duty imposed by the Tariff Act of 1930.

The current rates of duty plus tax on softwood lumber range from $0.25 to $4.00 per thousand board feet, depending upon the species and country of origin. 1/ The present reduced rates are in effect pursuant to concessions granted in the General Agreement on Tariffs and Trade. These reduced rates, which range from $0.25 to $1.50 per thousand board feet, are the rates currently in effect on imports from Canada and all of the other countries regularly shipping softwood lumber to the United States.

1/ Rates in excess of $1.50 are applicable only to products of Communist-dominated countries or areas designated by the President pursuant to sec. 231 of the Trade Expansion Act of 1962.

Table 1, on the following page, shows the U.S. tariff treatment of softwood lumber since June 18, 1930 (the effective date of the Tariff Act of 1930).

The average ad valorem equivalents of the effective rates of duty (including import tax) decreased gradually from the level of 19.2 percent on most imports in 1933, the first full year in which an import tax was in effect, to 3.0 percent in 1947 (table 2, in the statistical appendix). Based on 1961 import values, the average ad valorem equivalent of the rates of duty then in effect ranged between 0.4 percent on lumber of certain pine and spruce species 1/ and 1.8 percent on the very small volume of lumber classified as "softwoods, n.e.s." 2/ The average ad valorem equivalent of the duty and import tax on fir, hemlock, larch, and that pine and spruce subject to both import tax and duty was 1.5 percent in 1961.

1/ Those species subject to an import duty but not the import tax.
2/ Not elsewhere specified.

Table 1.--Softwood lumber: U.S. tariff rates, 1930-62

(Per thousand board feet)

Item	Effective date					
	June 18, 1930	June 21, 1932 1/	Jan. 1, 1936 2/	July 1, 1938 3/	Jan. 1, 1948 4/	Oct. 7, 1950
Par. 401:						
Fir, spruce, pine, hemlock, and larch:						
Northern white pine, Norway pine, and western white spruce	5/6/$1.00	$4.00	$2.00	7/$0.50	$0.25	$0.25
Engelmann spruce	5/6/ 1.00	4.00	2.00	2.00	1.00	8/ .25
Other	5/ 1.00	6/ 4.00	2.00	2.00	1.00	1.00
Par. 1803(1): 9/						
Cedar (not including Spanish cedar)	10/	6/ 3.00	1.50	1.50	.75	.75
Other	10/	6/ 3.00	1.50	1.50	1.50	1.50

1/ The rates shown in this and the following rate columns represent the duty, if any, imposed under the tariff paragraph indicated, plus import tax, if any, originally imposed under the Revenue Act of 1932 and currently imposed under sec. 4551 of the Internal Revenue Code of 1954. The import tax, which the law provides shall be treated as a duty imposed under the Tariff Act of 1930, was originally $3 per thousand board feet.

2/ Trade agreement with Canada. During the calendar years 1936 through 1938, Douglas-fir and western hemlock were subject to a tariff quota (i.e., imports of these species in any such year in excess of an aggregate quantity of 250 million board feet were subject to the full rate, $4 per thousand board feet). The tariff quota was discontinued under the second trade agreement with Canada, effective Jan. 1, 1939.

3/ Because of the housing emergency, these rates were suspended from October 1946 to August 1947 under Presidential Proclamation No. 2708.

4/ General Agreement on Tariffs and Trade (GATT).

5/ Duty suspended during period June 18, 1930, to June 20, 1932, inclusive, by operation of a proviso in par. 401 of the Tariff Act of 1930.

6/ Rate currently applicable to products of designated Communist-dominated or Communist-controlled countries or areas, which are denied the benefits of trade-agreement concessions pursuant to sec. 231 of the Trade Expansion Act of 1962 or sec. 401(a) of the Tariff Classification Act of 1962.

7/ Reduction in rate from $2.00 to $0.50 resulted from the removal of the import tax by the Revenue Act of 1938.

8/ Reduction in the rate from $1.00 to $0.25 resulted from the removal of the import tax by Public Law 852, 81st Cong.

9/ No duty is imposed under par. 1803(1). Items subject only to import tax.

10/ None.

Description and uses

Description.--The term "softwood lumber" relates to a wide variety of products--such as boards, planks, timbers, framing materials, moldings, flooring, and siding. 1/ It is produced from numerous species of trees, the most important of which are Douglas-fir, pine (chiefly southern and ponderosa), fir, spruce, hemlock, cedar, larch, cypress, and redwood. Lumber is classified not only by the species of tree from which it is produced, but also by its use, size, grade or quality, stage of manufacture, and moisture content.

In terms of use, lumber is classified into three general categories: (1) Yard lumber--intended primarily for ordinary construction purposes; (2) structural lumber--used where minimum strength characteristics are specified; and (3) factory or shop lumber--produced or selected primarily for further manufacture.

The principal size classifications are (1) boards, usually 1 inch thick 2/ and 4 to 12 inches in width; (2) dimension, usually 2 inches thick when intended for ordinary construction, but up to 4 inches for special structural needs; and (3) timbers, 5 inches or more in least dimension, for use where strength in supporting loads is required.

1/ Not of concern in this investigation are some sawed products (such as lath and shingles) which are not classified under pars. 401 or 1803(1) of the Tariff Act of 1930, as amended, or subject to import taxes under sec. 4551 of the Internal Revenue Code of 1954.

2/ Nominal 1-inch boards are approximately 1 inch thick in the rough green condition but somewhat less in dimension after surfacing (e.g., 25/32 inch). Actual dimensions must meet standards which are part of the several grading rules.

Lumber is further classified by grade or quality. The grading is based on characteristics which affect strength, durability, utility or appearance of the wood--such as knots, splits, shake, and pitch pockets. Standard rules for the grading of lumber, which are formulated and published by regional lumber manufacturing or marketing organizations, vary by area and species. Lumber of the best grades, generally known as selects or uppers, is largely free of defects and blemishes. Lumber of medium grades, known as shop or factory lumber, has long clear sections between defects; the poorer grades are known as commons or lowers. Within given grades, there are differences in the density of wood, closeness and regularity of grain, and so forth, which make one piece of lumber more desirable than another. Such differences may determine from which of the competing sources of supply a wholesaler or retailer will make his purchases.

Lumber is classified according to the stages of manufacture as follows: (1) Rough lumber--that which has been sawed, edged, and trimmed to obtain square ends and standard widths and lengths, but has not been surfaced; (2) surfaced lumber--rough lumber which has been surfaced by a planing machine to attain a smooth surface and uniform size; and (3) worked lumber--rough or surfaced lumber which has been matched (machined with tongue and groove to provide a close-fitting joint), shiplapped, or patterned.

According to its moisture content, or condition, lumber is classed as green (wet) or dry. It may be either air-dried by exposure to sun and wind or kiln-dried under controlled conditions of heat and humidity.

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. About three-fourths of the total consumed domestically is used by the construction industry; the remainder is taken in about equal proportions by the shipping and manufacturing industries.

In construction, softwood lumber is used chiefly in homebuilding, particularly of single-family residences. It is also used in construction of multifamily units (apartments) and in schools, churches, office buildings, and industrial structures. In building construction, the select grades (i.e., those with fewest knots) are generally used in exposed places, such as in paneling; the common grades are used where they are to be covered over 1/ (such as in house framing) or for such purposes as concrete forms.

In shipping, softwood lumber is used for boxes and crates, pallets 2/ and skids, and bracing and blocking (dunnage). The common grades of lumber are ordinarily used for these purposes since low cost is a major concern of the user.

In manufacturing, softwood lumber is used to produce a variety of articles, e.g., door and window frames, caskets, furniture, ladders, agricultural implements, boats, musical instruments, and toys. Usually shop and select grades are used for these purposes.

1/ An exception is knotty paneling--a common grade of lumber which is used because of its decorative effect.

2/ Pallets are small platforms used in stacking merchandise for expeditious handling by mechanical means.

In a given end use, softwood lumber of different species or from different regions is generally interchangeable. In some uses, however, a particular species is frequently preferred. Douglas-fir and southern pine are preferred for house framing; cedar, cypress, or redwood, for siding; and ponderosa or white pine, for doors, windows, and moldings.

Although most softwood lumber is used dry, it is customary in certain areas, particularly coastal districts, to use green (or only partially and incidentally dried) lumber for some construction.

Competitive products.--Wood or wood-based products--such as plywood, hardwood lumber, hardboard, particle board, insulation board, and certain paperboards--as well as nonwood products--such as metal, plastics, and brick--compete with softwood lumber in many of its important uses.

Plywood and the various building boards are used in lieu of lumber as sheathing and subflooring or underlayment, as concrete forms in construction, and in the manufacture of furniture and other articles. Plywood and hardboard also replace lumber in some types of containers.

Hardwood lumber competes with softwood lumber in the manufacture of pallets, furniture, and various other articles. In areas where both hardwood and softwood are produced, there is localized competition in some types of rural construction and in shipping (both for containers and dunnage).

Paper and paperboard products have replaced part of the shipping-container market previously supplied by lumber. Even in construction,

paper has replaced lumber to some extent. For example, paper honeycomb is used as a substitute for wood cores in plywood flush doors.

Nonwood materials have long competed with and often been substituted for lumber in many uses. Brick and cinder block are important substitutes in the construction industry. Aluminum, which has to a great extent replaced softwood lumber in window frames and sash, particularly in low-cost mass housing projects, now also competes with wood as a house-siding material. Plastics and lightweight metals, such as aluminum and magnesium, have replaced lumber in many manufactured items.

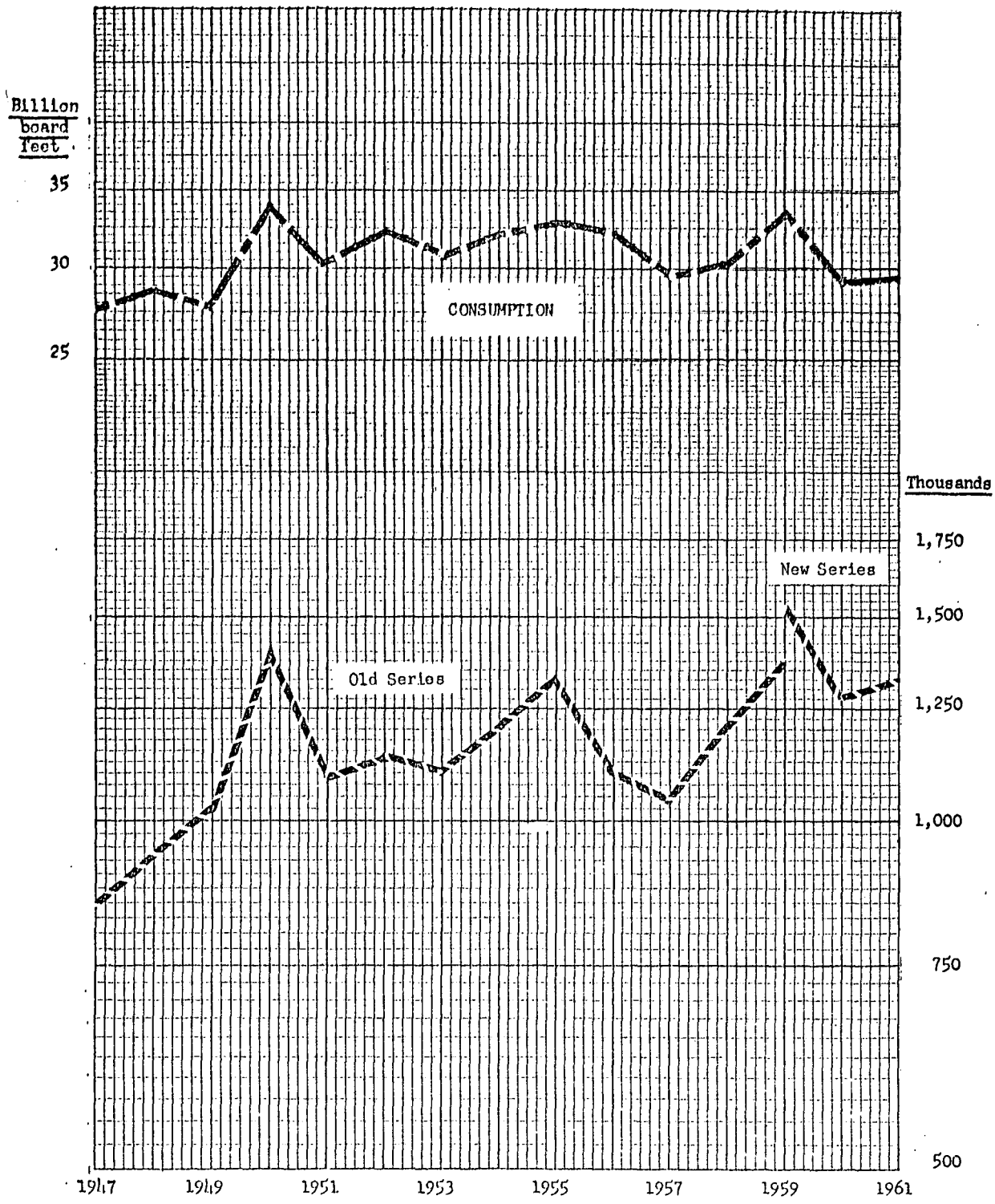
U.S. consumption

Although the consumption of softwood lumber in the United States increased from the late 1940's to the early 1950's as a result of the unusually high level of postwar construction activity, increased displacement of lumber in its most important markets by competing materials--as well as the changing character of some of these markets--caused consumption in the mid-1950's to stabilize, and after 1955, to trend downward (table 3). Apparent consumption of softwood lumber in 1961 amounted to 29.4 billion board feet, 1/ which was about 1.6 billion less than the 1956-60 average of 30.9 billion feet and about 2.3 billion less than the 1951-55 average of 31.6 billion feet.

Residential construction.--The principal market for softwood lumber is the construction industry, which in the postwar period took about three-fourths of the total quantity consumed. Residential construction alone took about 40 percent of the total. To a significant extent, therefore, year-to-year fluctuations in consumption reflect the changes in the level of new residential building (see figure 1). From 1947 to 1950, for example, the annual number of new dwelling units started in nonfarm areas increased from 849,000 to 1,396,000 (table 4); in the same period the consumption of softwood lumber increased from about 28 billion board feet to about 34 billion. In the next year (1951), the number of new dwelling units started fell to 1,091,000 and the consumption of softwood lumber declined to

1/ Softwood lumber accounted for 82 percent of the total domestic consumption of all lumber in 1961.

Figure 1.--U.S. consumption of softwood lumber and nonfarm housing starts, 1947-61



Source: Tables 3 and 4.

30 billion board feet. Thereafter, the number of new dwelling units increased almost steadily to 1,329,000 in 1955; concurrently, consumption rose almost without interruption to about 33 billion board feet. In the period 1956-58, housing construction was maintained at a lower but fairly stable level, and averaged 1,123,000 units a year; during this period the annual consumption of softwood lumber ranged between 30 and 32 billion board feet. In 1959, homebuilding expanded sharply to 1,378,000 units, largely in response to increased availability of mortgage credit, and the consumption of lumber increased to nearly 34 billion board feet. Comparable data on residential construction after 1959 are not available; data compiled by the U.S. Bureau of the Census, however, show that residential construction slowed down after 1959. Accordingly, the consumption of softwood lumber declined from about 34 billion board feet in 1959 to about 29 billion in 1961.

After World War II, and particularly in 1950, housing demand (and therefore lumber demand) was above the level that would have been expected from the growth in population alone. The pent-up demand from the prewar and wartime periods, together with improved standards of living, resulted in an exceptionally high level of residential building activity. The quantity of softwood lumber that was consumed at a given level of construction activity, however, declined because of the increasing use of substitute materials for lumber

in residential construction, and because an increasing share of total new dwelling units consisted of multifamily units (which require less lumber per dwelling unit).

The average quantity of lumber used per dwelling unit of constant size has been estimated to have declined from nearly 14,000 board feet in 1940 to slightly less than 10,000 board feet in 1960. An indication of declining use of lumber in single-family dwellings is given in the following tabulation, 1/ which shows for selected years the percentage of each type of material used:

Item	1950	1954	1955	1956
Exterior wall construction:				
Masonry	11	13	20	16
Frame:				
Brick facing	12	20	18	26
Brick and wood facing	-	5	8	7
Wood facing	43	31	29	24
Other facing	34	26	22	26
All other	-	5	3	1
Total	100	100	100	100
Sheathing (frame houses only):				
Lumber	50	-	-	37
Plywood	5	-	-	8
Insulation board, gypsum board, and other	45	-	-	55
Total	100	-	-	100
Window frame material:				
Wood	69	63	57	57
Metal and unknown	31	37	43	43
Total	100	100	100	100

1/ Compiled from U.S. Department of Labor, Bureau of Labor Statistics publication, New Housing and Its Materials, 1940-56.

In each of the categories listed (i.e., exterior walls, sheathing, and window frame material), the use of wood declined, whereas that of other materials increased. The decline in the use of wood materials was most significant in exterior wall construction, where wood facing accounted for 43 percent of all materials used in 1950 but only 24 percent in 1956. 1/ Lumber sheathing declined from 50 percent of the sheathing used in 1950 to 37 percent in 1956. Wood material for window frames, mostly pine lumber, declined from 69 percent of the total in 1950 to 57 percent in 1956, as aluminum window framing became more widely used.

The trend in the consumption of softwood lumber relative to the trend for the principal competitive sheet materials is indicated in the tabulation below, 2/ which presents the indexes (1947-49=100) of consumption in all uses of softwood lumber, softwood plywood, insulation board, and hardboard for selected years 1947 to 1961:

Year	Softwood lumber	Softwood plywood	Insulation board	Hardboard
1947	99	91	100	100
1949	98	105	81	70
1951	108	160	80	119
1953	110	205	117	175
1955	116	282	142	213
1957	105	301	154	231
1959	120	409	208	311
1961 1/	105	449	205	306

1/ Preliminary.

1/ The data on wood facing (siding) do not reveal what portion was lumber siding and what portion was plywood or other wood siding. A sample survey of FHA-inspected, single-family detached houses by the U.S. Forest Service for 1959 indicated that about 40 percent of the wood siding used per unit consisted of lumber (principally softwood lumber); plywood, fiberboard, and shake and shingle accounted for 8 percent, 20 percent, and 32 percent, respectively.

2/ Compiled from official statistics of the U.S. Department of Commerce.

From the base period 1947-49 to 1961 there was very little net increase in the use of lumber, whereas the consumption of insulation board doubled, that of hardboard tripled, and that of softwood plywood more than quadrupled.

The substantially increased use of sheet materials (plywood, insulation board, and hardboard) in housing construction has resulted in large part from the higher installation cost of lumber relative to the installation cost of competing materials, as is indicated by the following statement by the U.S. Forest Service: 1/

> . . . there has been extensive substitution of plywood and hardboard for lumber. These sheet materials have no special advantage so far as price is concerned, but they can be laid with much less labor . . . .
>
> Sheet materials of various kinds are being used extensively for exterior wall sheathing. Saving of labor at construction site is the chief advantage.

In recent years, an increasing proportion of the new housing starts have consisted of multifamily units. Whereas in 1950 such units accounted for 15 percent of new nonfarm dwelling units, in 1962 they accounted for 28 percent. The U.S. Forest Service estimates that roughly 5,000 board feet of lumber is used per multifamily dwelling unit, compared with twice that amount in each single-family unit.

Other construction.--In general industrial construction, which accounted for about 35 percent of the softwood lumber consumed annually in the postwar period, the demand for softwood lumber has not changed

1/ Timber Resources for America's Future, Forest Resource Report No. 14, 1958, p. 381.

materially in recent years. Although the available data indicate that the consumption of bridge plank, timbers, and crossarms has not decreased, the expanding use of concrete and steel bridges, corrugated steel culverts, and underground cable has limited the use of lumber. In other uses such as in scaffolding, shoring, and bracing, the consumption of softwood lumber probably did not diminish significantly, but in concrete forms there has been displacement by plywood, paperboard, and steel.

In the past an important market for softwood lumber, especially Douglas-fir, has been the replacement of railroad crossties and, to a lesser extent, the interior construction of railroad freight cars. The National Lumber Manufacturers Association estimates 1/ that the annual consumption of lumber (softwood and hardwood combined) in the railroad industry declined fairly steadily from nearly 2 billion board feet in the period immediately after the war to a billion feet in the late 1950's. This decline resulted from reduced construction expenditures by railroad companies and increased use of steel instead of lumber in car construction.

Other markets.--About 25 percent of consumption in the postwar years was accounted for by the manufacturing and shipping industries in about equal shares. The annual consumption of softwood lumber in manufacturing (including the production of shipping containers and pallets)

1/ Lumber Industry Facts, 1960-61, table 69, p. 43.

declined from 7.3 billion board feet in 1948 to 5.9 billion board feet in 1960. Significantly, the consumption of hardwood lumber in the same period increased from 4.9 billion board feet in 1948 to 5.6 billion in 1960. 1/ Although separate data on the consumption of softwood lumber by industry groups are not available, the U.S. Forest Service estimates that the greatest decline in the consumption of softwood lumber has occurred in millwork and shipping containers. In the manufacture of millwork, consumption decreased from 2.1 billion board feet (mostly softwood) in 1948 to 1.5 billion board feet in 1960. 1/ Consumption of all lumber (both softwood and hardwood) in the production of shipping containers decreased from 4 billion board feet in 1948 to less than 2 billion feet in 1960. 2/ To some extent the decline in consumption of softwood lumber in making shipping containers has been offset by its increased use in shipping pallets.

1/ Preliminary unpublished statistics of the U.S. Department of Agriculture, Forest Service.

2/ U.S. Department of Agriculture, The Demand and Price Situation for Forest Products, 1962, p. 12.

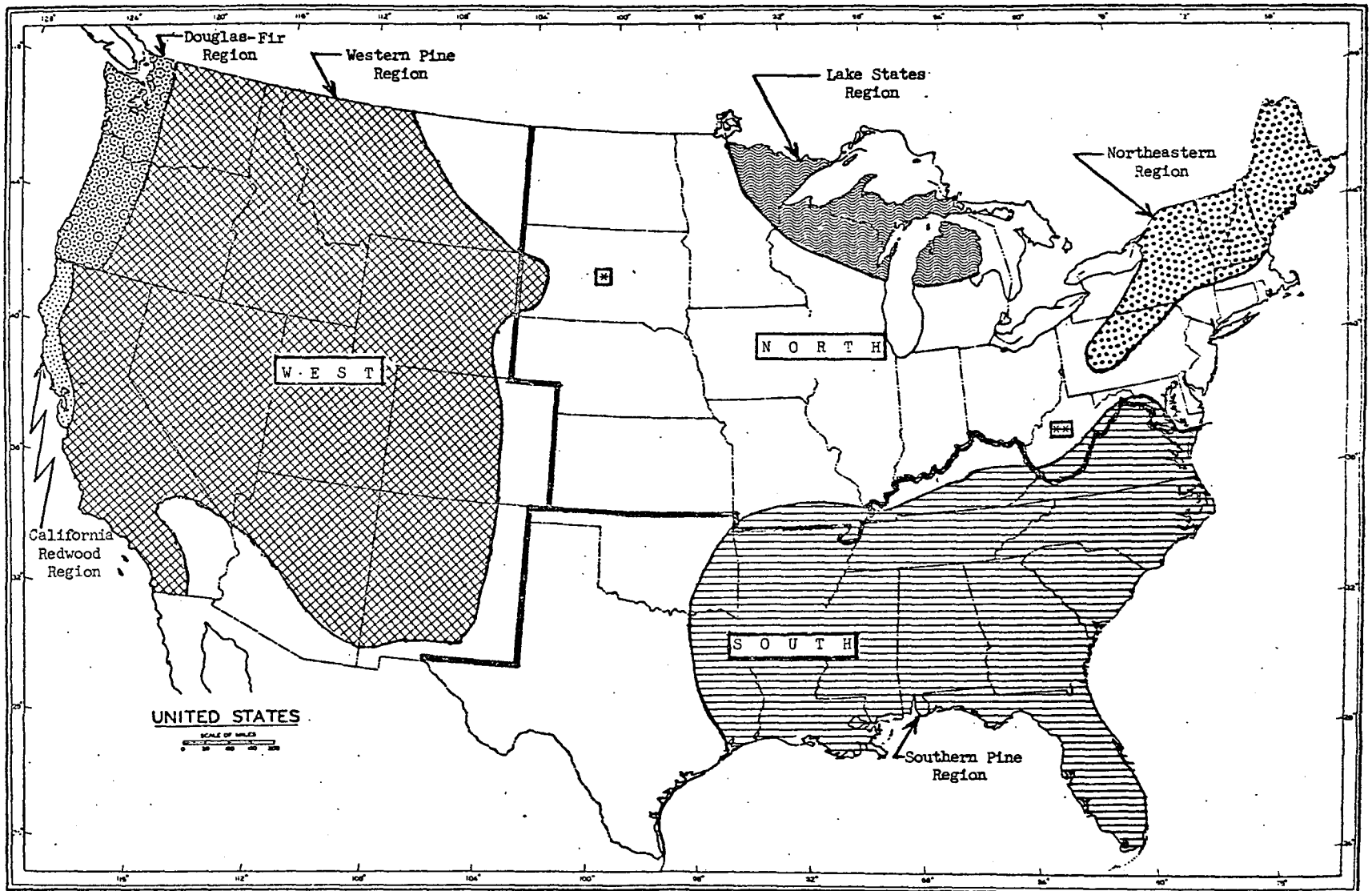
U.S. producers

Softwood lumber has been produced in the United States since the time of earliest settlement. The first major center of the industry was in the Northeastern States. With the decline in the resource base in that area and the rapid growth in the development of the midcontinent in the latter part of the 19th century, the Lake States became the predominant source of supply. Again, as the timber resources of the Lake States declined at the end of the 19th century, the principal center of production shifted to the South. Meanwhile production in the West was increasing rapidly, reflecting both the economic development of this region and the availability of large reserves of high-quality virgin (old growth) timber. Since the late 1920's, production in the West has exceeded that in any other domestic producing area. 1/

The emergence of the lumber industry in the Western States constituted the development of the last important source of old-growth timber in the United States. Thus, interregional migration based on the exploitation of virgin timber can no longer be expected. Nevertheless, mill migration of some significance continues to occur, but largely within regions, as timber in the more accessible areas is depleted and the resources in others are tapped.

1/ The major lumber producing areas in the United States are shown in figure 2. As used in the industry the West refers to the Western Pine, Douglas-Fir, and California Redwood Regions. The East includes the Southern Pine, the Lake States, and the Northeastern Regions.

Figure 2.—Softwood lumber-producing regions and the three major geographic divisions of the United States



Note.—Lumber regions are hatched or shaded.

[*] South Dakota is included with the West in the lumber-production statistics of the U.S. Bureau of the Census; otherwise it is considered part of the North.

[**] Delaware, Maryland, District of Columbia, and West Virginia are included with the South in the lumber-production statistics of the U.S. Bureau of the Census; otherwise they are considered part of the North.

Number, location, and size of sawmills.--In 1961, some 33,000 mills were engaged in the production of lumber (both softwood and hardwood). About 31,000 of them (94 percent of the total) were located in the East and about 2,100 (6 percent of the total) in the West.

Although data on the number of mills producing softwood lumber are not separately available, it is estimated that approximately 23,000 sawmills in the East are engaged partially or exclusively in the production of softwood lumber; almost all the 2,100 mills in the West produce softwood lumber only. Thus, about 25,000 domestic mills are currently engaged in producing the products covered by this investigation.

The following tabulation, based on data compiled by the U.S. Bureau of the Census, shows for selected years 1929 to 1961 the total number of active sawmills, by regions:

Year	Number of active sawmills 1/		
	East	West	Total
1929	18,075	1,962	20,037
1939	14,505	2,122	16,627
1947	48,148	4,961	53,109
1954	42,706	3,223	45,929
1958	29,294	2,351	31,645
1959	31,228	2,885	34,113
1960	31,139	2,204	33,343
1961 2/	31,067	2,124	33,191

1/ Includes both softwood and hardwood mills. For the years 1929-54 the data are for individual sawmills; from 1958 through 1961 they are for establishments. An establishment may include more than 1 mill; in 1958, for example, 31,645 establishments operated an estimated 32,339 sawmills.

2/ Revised data reported Dec. 20, 1962, by the U.S. Bureau of the Census.

The tabulation indicates that the total number of sawmills amounted to almost 17,000 in 1939 and rose sharply to 53,000 in 1947, by which time a large number of small mills had entered into production in response to the higher prices resulting from the postwar demand for lumber for house construction and the removal of wartime price controls by the Office of Price Administration. As the demand for new housing and construction leveled off, however, the number of active mills declined rapidly. By 1958, there were about 32,000 active mills, which was about 40 percent fewer than in 1947. In 1959, a year of high building activity, the number rose to 34,000. In both 1960 and 1961 about 33,000 mills were in production.

The marked fluctuation in the number of active mills has long been characteristic of the industry. Inasmuch as little capital and equipment are required to establish a small mill, owners of small timber tracts and others can readily enter into production in periods of high prices for lumber. Conversely, during periods of low market prices such operators may go out of production quickly because of inadequate capital, inefficient equipment, and their general inability to cover costs. Frequently, such mills are unable to sustain operations after their original timber supplies have been exhausted.

Distribution of mills by production size class.--The domestic production of lumber is heavily concentrated in larger mills. In 1961, for example, 1,138 mills (about 3 percent of the total number) accounted for 67 percent of the total U.S. output; the remaining 32,053 mills accounted for but 33 percent of the total output (table 5).

The aforementioned decline in the total number of mills from 1947 to 1961 occurred almost entirely in the number of small mills--those producing less than 3 million board feet annually; the total number of such mills decreased from 51,300 in 1947 to 31,500 in 1961. In contrast, mills in the four largest size classes (i.e., those producing 10 million board feet or more annually) increased from 496 in 1947 to 618 in 1961; the share of U.S. output accounted for by these mills rose from 37 percent to 55 percent between these years.

The bulk of the output in the West is produced by large mills, whereas production in the East is accounted for principally by small mills. In 1961, about 70 percent of the production in the West was accounted for by 352 mills, each producing 15.0 million board feet or more. In the East, 67 percent of the output was accounted for by 30,700 mills, each producing less than 5 million board feet annually.

Character of operations.--Most sawmills are operated by concerns for which the sawmill and its attendant operations (logging, planing, and retail selling), if any, are the sole business. In some cases, facilities for the further manufacture of lumber (e.g., a millwork plant) are integrated with the sawmill and planing mill. 1/ Some mills are operated by companies engaged in the production of more than one major forest product (e.g., plywood, pulp and paper, hardboard). In multiproduct concerns, products other than lumber are generally produced in separate plants which may either be adjacent to the sawmill

1/ In the South, small mills, particularly of the portable type, frequently sell their lumber to "concentration yards," which grade, dry, and surface the lumber before marketing it. In recent years the number of such yards has declined concurrently with an increase in the relative importance of large mills in that region.

or located at other sites. Where the plants are adjacent, such facilities as the log pond, debarker, and power plant are often shared.

Most of the large mills are operated by corporations, whereas the smaller mills are predominantly partnerships and individual proprietorships. A few sawmills are operated by concerns or institutions not primarily engaged in the production of lumber--for example, railroads, landholding and mining companies, schools, and churches.

Byproducts.--In recent years, many companies, particularly those operating large mills, have installed facilities for converting residues (principally slabs, edgings, and trim ends) into wood chips for sale to producers of pulp and other forest products. The income from these operations has been of increasing importance. Other residues, such as sawdust and shavings, have only a limited value and are commonly consumed as fuel or burned as waste. Lath and fuelwood, which are byproducts of long standing, have declined in importance as a source of income.

U.S. production, shipments, inventories, and exports

Production.--The domestic production of softwood lumber rose from 25.9 billion board feet in 1946 to a postwar peak of 30.6 billion in 1950, and fluctuated within a narrow range, averaging about 30 billion feet during 1951-56 (table 3). Since then, except in 1959, production has been at a significantly lower level. It was slightly more than 27 billion feet in both 1957 and 1958, increased to 30.5 billion feet in 1959 (when housing starts were at a high level), and then declined to 26.7 billion feet in 1960 and to 25.9 billion feet in 1961. It increased to an estimated 26.5 billion feet 1/ in 1962.

During the postwar period, the output of softwood lumber increased overall in the Western States, whereas it declined in the South and the North (table 6). As a result, the share of total domestic production supplied annually by producers in the West increased substantially. Production in the Western States rose from 16 billion board feet in 1947, when it comprised 58 percent of total U.S. output, to 22 billion in 1959, or 72 percent of the total. In the years 1960-61, annual output in the West averaged 19.2 billion feet, which equaled 73 percent of the average annual U.S. production. The output in the South declined from 9.8 billion board feet in 1947, or 35 percent of the total production in that year, to 5.9 billion in 1961, when it constituted 23 percent of total production. The share of total production accounted for by the North declined from 7 percent in 1947 to 4 percent in 1961.

1/ Figure supplied by the National Lumber Manufacturers Association.

Production by species.--Douglas-fir, southern pine, and ponderosa pine, in that order, are the leading species of softwood lumber produced in the United States (table 7). In 1961 the share of total output accounted for by these species was 32 percent, 22 percent, and 12 percent, respectively. White fir and hemlock each comprised about 8 percent of the total, and white pine and redwood, about 6 percent and 4 percent, respectively. The remainder was accounted for principally by various western species.

Virtually all of the postwar decline in output in the South reflected the decrease in the production of southern pine lumber, which fell from 9.5 billion board feet in 1947 to 5.6 billion in 1961. This decline resulted largely from the increased competition from producers in the Western United States and Canada, particularly in species such as hemlock and spruce, which are generally adequate in quality but lower priced than southern pine. Moreover, the production of softwood pulpwood in the South increased sharply from 8 million cords in 1947 to about 19 million cords in 1961 (table 22), representing an increase equivalent to almost 6 billion board feet of softwood lumber.

The increased output of lumber in the Western States reflects chiefly the rise in the production of white fir and hemlock (table 7); output of these species increased from a combined total of 1.9 billion board feet in 1947 (7 percent of total U.S. production of softwood lumber) to 4.2 billion in 1961 (16 percent of the total). In addition,

the aggregate annual production of redwood, western spruce, western cedar, and western larch lumber increased between these years from 1.4 billion board feet to 2.5 billion, or from 5 percent to 10 percent of total production. Except for hemlock and redwood, the increased cuts of these species have occurred mostly in the Western Pine Region. The annual production of Douglas-fir and ponderosa pine lumber combined decreased from 1947 to 1961 by about 1.4 billion feet; in both years, the combined production of these two species was equivalent to about 45 percent of the U.S. total.

Shipments and inventories.--No official data are available on the total shipments of domestically produced softwood lumber. Estimates prepared by the National Lumber Manufacturers Association from data supplied by regional trade associations indicate that in recent years annual U.S. production (as reported by the U.S. Bureau of the Census) has exceeded estimated annual shipments by a small but varying margin (tables 3 and 8). About 35 percent of the estimated shipments in 1961 originated in the Western Pine Region, compared with 30 percent shipped from the Douglas-Fir Region, and 22 percent from the Southern Pine Region. Shipments from the California Redwood Region were 8 percent of the total, and those from all other regions, about 5 percent.

Producers' inventories, as measured by gross mill stocks, tend to be highly seasonal. In the fall and early winter months, when the demand for lumber in construction usually slackens, production continues

in anticipation of winter weather adverse for logging and is largely entered into inventory pending shipment in the spring, when construction activity quickens. Thus, the level of yearend inventories is influenced by (1) the relationship between production and sales in the current year, (2) weather conditions in the late fall, and (3) producers' anticipation of the demand for lumber in the coming spring. The tabulation below, which is based on data compiled by the National Lumber Manufacturers Association, shows total yearend mill stocks of softwood lumber for 1955-61:

Year	Gross mill stocks on Dec. 31	
	Quantity (million board feet)	Ratio to total shipments (percent)
1955----------	4,679	15
1956----------	5,364	18
1957----------	5,088	19
1958----------	4,707	17
1959----------	4,724	16
1960----------	5,285	20
1961 1/----------	5,192	20

1/ Preliminary.

Producers' yearend inventories varied from 4.7 billion board feet to 5.4 billion feet in 1955-61; the ratio of yearend inventories to total shipments increased irregularly from about 15 percent in 1955 to about 20 percent in 1961.

Exports.--Before World War II the United States was consistently on a net export basis with regard to softwood lumber; it became a net

importer in 1941 and has remained on a substantial import basis since that time. The long-term trend of U.S. exports of such lumber has been downward, both in terms of volume and in relation to domestic production (table 3). In 1926-30, exports averaged about 2.4 billion board feet annually and were equivalent to nearly 9 percent of the average annual U.S. production; in the period 1931-40 they averaged about 0.9 billion board feet annually, or somewhat less than 6 percent of the average annual output. Since World War II, exports have averaged only about 0.6 billion board feet per year, about 2 percent of the average annual production.

In recent years Canada has been the principal export market for U.S. softwood lumber, accounting for about 25 percent of total U.S. shipments to all countries. The remainder has gone to a large number of countries, principally in eastern Asia, western Europe, and Latin America (table 9).

In 1958-61 about 50 percent of the annual exports consisted of Douglas-fir; other important species were southern pine, western hemlock, and ponderosa pine (table 10).

U.S. imports

U.S. imports of softwood lumber have increased irregularly since World War II; they averaged about 1.7 billion board feet annually in 1946-50, 2.6 billion in 1951-55, and 3.3 billion in 1956-60 (table 3). Imports amounted to 4.0 billion feet in 1961 and rose to 4.3 billion in the first 11 months of 1962.

Annual imports have generally increased in years when the level of U.S. construction rose, and fallen when construction activity slackened. Thus, imports increased greatly during the years 1950, 1955, and 1959. Significantly, the percentage decline in annual imports in periods of decreased construction has been smaller in each succeeding period. From 1950 to 1951, for example, imports fell 28 percent, compared with 18 percent from 1955 to 1957, and only 3 percent from 1959 to 1960.

The ratio of imports to domestic consumption averaged 5.8 percent in 1946-50, 8.4 percent in 1951-55, and 10.6 percent in 1956-60 (table 3). In 1961, imports were 13.6 percent of consumption and in the first 9 months of 1962, 14.9 percent. The ratio of imports to domestic production has been only slightly higher than the ratio of imports to consumption.

Sources.--Canada is the dominant supplier of U.S. imports of softwood lumber; since 1953 that country has consistently accounted for more than 95 percent of total U.S. imports from all sources (tables 11 and 12). The remaining imports, consisting almost entirely of pine, have entered largely from Mexico, Brazil, Honduras, and Nicaragua. In recent years Canada has supplied about 70 percent of U.S. imports of pine lumber and

has been the only significant foreign supplier of softwood lumber of other species.

Composition.--The species composition of imported softwood lumber has changed little in recent years, although imports of hemlock lumber increased from 5 percent of total imports in 1954 to more than 10 percent in 1961. Spruce and Douglas-fir, the most important species imported, accounted for 33 percent and 28 percent of the total, respectively, in 1961. Imports of mixed softwoods (partly hemlock) in 1961 were 14 percent of the total, while those of cedar and pine were 7 percent and 6 percent, respectively (table 13).

Dimension lumber (particularly 2-inch material) and boards make up the bulk of imports from Canada. Waterborne shipments from coastal British Columbia consist mostly of lumber shipped green; rail shipments from interior British Columbia usually consist of air-dried lumber. The bulk of imported lumber is in the common grades used primarily for construction. 1/

Comparability of Canadian and U.S. softwood lumber.--Although user acceptance may vary by area, tradition, and end use, there does not appear to be a consistent general pattern of preference for either domestic or Canadian lumber. Imported Canadian lumber, taken as a whole, differs from domestic lumber in the proportion of various species, grades, and sizes chiefly as a result of differences in the characteristics of the timber.

1/ The imports of softwood lumber moldings are a specific exception; such imports in 1961 amounted to almost 25 million board feet, or less than 1 percent of total imports of softwood lumber. Most of the imports of moldings were of pine; Mexico, Canada, and Brazil were the principal suppliers. Total domestic output of softwood moldings in 1958 was estimated at 467 million board feet.

For example, western spruces accounted for 29 percent of U.S. imports from Canada but for less than 2 percent of U.S. production in 1961. Inasmuch as lumber of various softwood species is interchangeable in most end uses, however, there is no consuming market in which Canadian lumber is generally more suitable than domestic lumber. Particular items (e.g., timbers of a certain size) or grades of a single species, nevertheless, may be more readily available from Canadian than from domestic sources, or vice versa. For lumber of a given species, type, and grade, differences between imported and domestic lumber are usually slight and often result more from the quality of the manufacture by individual mills, which varies widely in both countries, than from inherent characteristics of the wood.

Production in Canada.--The three principal softwood lumber producing regions of Canada are coastal British Columbia, interior British Columbia, and the eastern Provinces. The two regions within British Columbia, which together account for the bulk of Canadian production and exports, are in effect northern extensions of producing regions lying partly in the United States. The timber species in coastal British Columbia are similar to those in the Douglas-Fir Region of the U.S. Pacific Northwest (though in different proportions); both regions have many medium- to large-size mills, and each has access to both water and rail transportation. Interior British Columbia and the area comprising northern Idaho, western Montana, and eastern Washington, are alike in most timber species (though again in different proportions), in the predominance of small- to medium-size mills,

and in their dependence upon railroads for shipping lumber to market. For the most part, producers in British Columbia are as favorably located with respect to U.S. markets as producers in the U.S. Northwest.

The Canadian industry is based upon extensive timberland, much of which has been developed only in recent years. Although the production of softwood lumber in Canada is only about a fourth of that in the United States, and consumption only about a tenth, the softwood sawtimber resources of the two nations are almost equal.

Canada's annual production of softwood lumber amounted to 7.5 billion board feet in 1955, subsequently dropped to 6.7 billion in 1957, and then rose to 7.6 billion in 1960, as shown in the tabulation below 1/ (in billions of board feet):

Year	British Columbia		Other Canada	All Canada
	Coast	Interior		
1950	2.5	1.0	2.6	6.1
1954	2.7	1.7	2.4	6.8
1955	2.8	2.2	2.5	7.5
1956	2.5	2.3	2.5	7.3
1957	2.3	2.1	2.3	6.7
1958	2.6	2.3	1.9	6.8
1959	2.3	2.6	2.3	7.2
1960	2.8	2.5	2.3	7.6
1961 1/	2/ 2.9	2/ 2.4	2.1	7.4

1/ Preliminary.
2/ Includes less than 1 percent of hardwoods.

Preliminary figures indicate that Canada's output was somewhat smaller in 1961 than in 1960. British Columbia, with less than a quarter of the

1/ Compiled from statistics of the Dominion Bureau of Statistics.

sawmills in Canada in 1960, accounted for about 70 percent of the Canadian production--or about 5.3 billion board feet a year--in both 1960 and 1961. Most of the increase in output in British Columbia between 1950 and 1961 was in the interior. Because of its location, this region has depended almost entirely on markets in Canada and the United States rather than those overseas.

More than half of Canada's mill shipments of softwood lumber are exported. About three-fourths of the output in coastal British Columbia and more than a third of that in interior British Columbia were exported in 1960 and 1961. Before World War II the United Kingdom was Canada's principal export market. Since the war, however, the United Kingdom has obtained an increasing share of its softwood lumber from northern Europe. Canada's annual shipments to the United Kingdom, therefore, have declined, whereas its shipments to the United States have increased substantially. In recent years the United States has been the destination of 77 to 85 percent of the total, as shown in the following tabulation, which gives the percentage distribution of Canada's exports in selected years 1939 to 1961: 1/

Year	United States	United Kingdom	All other countries
	Percent	Percent	Percent
1939 1/	29	55	16
1946 1/	46	34	20
1951	64	25	11
1955	72	18	10
1958	80	11	9
1959	85	8	7
1960	77	14	9
1961 2/	79	13	8

1/ Includes exports of hardwood lumber which were about 5 percent of the total. 2/ Preliminary.

1/ Source: Canada, Department of Mines and Resources (1939, 1946); Dominion Bureau of Statistics (1951-61).

Not only have Canada's shipments to the U.S. exceeded those to all other export markets in the past several years, but since 1959 they have been greater than its shipments to the home market. Several factors contribute to this situation, including (1) the relationship of the supply of timber to the consumption of lumber in the two countries, (2) the proximity of the U.S. market to the Canadian industry, and (3) the fact that a significant part of Canadian lumber production is financed by U.S. capital. 1/ Much of this investment is made by U.S. producers that have relocated or expanded operations into areas having more extensive timber supplies and by U.S. distributors seeking an assured supply of timber.

Channels of distribution.--Canadian softwood lumber is distributed throughout the United States by many of the same concerns (wholesalers, large retailers, large builders) that purchase, distribute, or use domestic lumber. These concerns are primarily lumber dealers or users (rather than general importers); a few specialize in Canadian lumber. Frequently the importer is the U.S. parent corporation or the sales subsidiary of the Canadian producer. Some Canadian lumber is purchased by U.S. producers to supplement their own production.

The exportation of Canadian lumber to the United States and to overseas markets is actively encouraged by Canadian lumber producers' associations and the Dominion Government. The promotional efforts by that Government were intensified in the 1950's, when the Canadian dollar

1/ It is estimated that a third or more of Canadian production is financed by U.S. capital. (Transcript of the hearing, p. 37.)

was at a premium over the U.S. dollar (table 14) and Canadian exporters were in consequence disadvantaged. Canadian trade missions, sponsored both by the Government and by producers' associations, have been active in the United States and elsewhere in promoting Canadian exports.

The marketing of lumber is conducted by Canadian producers in two general patterns, determined primarily by the means of transportation employed. Cargo shipments from mills in coastal British Columbia are marketed largely by two companies, one of which is the sales organization of the largest British Columbia producer. These companies act as sales agents for various producers, arrange vessel charters, and handle the exportation of lumber from British Columbia.

Canadian mills shipping to the United States by rail (or truck) market their lumber in much the same manner as U.S. producers do. They sell in large part (1) through wholesalers in Canada, (2) direct to wholesalers in the United States, (3) through lumber brokers, or (4) direct to large U.S. consumers. 1/

1/ A survey made in 1961 in the New York area by Canada's Trade Commissioner showed that orders for Canadian lumber were placed directly with the following, in order of importance: Canadian mills; Canadian wholesalers; and, to a lesser extent, U.S. wholesalers, commission lumber salesmen, and U.S. brokers. A 1958 study showed that midwestern purchasers relied somewhat less on direct purchases from Canadian mills and somewhat more on purchases from wholesalers (both U.S. and Canadian) and U.S. brokers. (Source: Canada, Department of Trade and Commerce, Foreign Trade, Ottawa, Dec. 20, 1958, pp. 2-4, and Aug. 26, 1961, pp. 14-16.)

Rail shipments.--The bulk of Canadian softwood lumber shipments to the United States have been made by rail. In 1961, 77 percent of U.S. imports of softwood lumber from Canada consisted of rail shipments which entered chiefly through customs districts in the North Central States. Approximately a third of the shipments by rail ultimately went to destinations in the Northeastern States, and another third, to those in the North Central States. Most of the remaining rail shipments went to the South, although a minor share went to Western States, chiefly those along the Pacific coast.

The cost of shipping (by rail or ship) represents a large part of the total delivered price of softwood lumber. Hence, the competitive relationships between imported and domestic lumber are materially affected by the practices of the transportation industry and by Government transportation policies.

In the past an undetermined but important part of the rail movement of Canadian and U.S. lumber was originated, prior to sale in the United States, by "in-transit" dealers. Such shipments consisted chiefly of lumber purchased from small sawmills which generally had limited storage facilities. In shipments of this type the dealer seeks a buyer while the lumber is en route east. Both Canadian and domestic railroads vied for this business by offering the dealer additional time to locate a buyer, without added cost, through the so-called free hold and, additionally in the United States, through the use of

"circuitous routings." Under the free-hold privilege, a car could be sidetracked at predetermined points for a period up to 15 or 25 days at no additional charge. Circuitous routing involved the use of north-south rail lines in combination with west-east lines to extend the time a car was en route eastward. Used in combination, the two privileges might extend shipping time by as much as a month or more at no additional shipping charge.

In August 1960 the free-hold privileges then in effect for domestic rail shipments of lumber were terminated. 1/ However, the 15-day free-hold privilege granted by Canadian railroads was not withdrawn until July 1962. Hence, even though freight rates for lumber shipments from comparable producing areas in British Columbia and the Western States to the same destinations in the Eastern United States have generally been identical, during the period August 1960-July 1962 Canadian in-transit dealers shipping softwood lumber by rail to the United States received an advantage from Canadian railroads not enjoyed by domestic dealers shipping to the same points in the United States.

1/ Pursuant to a decision of the Interstate Commerce Commission in Investigation and Suspension Docket No. 7050, Lumber, Free Time Allowance at Hold Points, 310 I.C.C. 521, decided June 6, 1960. Circuitous routing privileges were progressively eliminated by the railroads themselves.

Waterborne shipments.--Under the provisions of the Merchant Marine Act, 1920 (46 U.S.C. 883), known as the Jones Act, U.S. intercoastal shipments of lumber (and other goods) must move in U.S.-flag vessels. 1/ Freight rates for most shipments of lumber from the U.S. Pacific Northwest to U.S. Atlantic ports are established by conference among the U.S. carriers and are filed with the Interstate Commerce Commission. 2/ A succession of modifications increased the U.S. conference rate for such shipments from $19.00 per thousand board feet in July 1946 to $36.00 in September 1957 (table 15). This rate has remained unchanged to the present. Canadian lumber, on the other hand, may be shipped to the United States in foreign-flag vessels, many of which have been chartered for this purpose. Charter rates have fluctuated widely in the postwar years. From mid-1950 to early 1952 and from January 1955 to September 1957, charter rates were usually some $3.00 to $7.50 higher than the U.S. conference rate. From mid-1952 through 1954, however, charter rates were $2.00 to $8.00 lower, and since September 1957 they have been generally some $5.50 to $12.00 lower, than the U.S. conference rate. In practice, the U.S.

1/ This act was amended by Public Law 87-877, 87th Cong. (76 Stat. 1200). Sec. 4(a) suspends for 1 year from Oct. 24, 1962, the restrictions on shipment of domestic lumber to Puerto Rico in foreign-flag vessels upon determination by the Secretary of Commerce that no U.S.-flag vessels are "reasonably available." The first applications for permission to ship in foreign-flag vessels have been conditionally approved.

2/ Lumber shipments, if any, by U.S. carriers that do not participate in the conference are small.

purchaser of Canadian cargo 1/ lumber is generally charged the U.S. conference rate; the difference between this and the charter rate is for the account of the producing mill. 2/ In addition to the differential in the cargo rates, loading charges for lumber at U.S. Pacific Northwest ports in 1962 were about $3.00 per thousand board feet higher than at ports in British Columbia. 3/

These differentials 4/ have influenced materially the respective shares of softwood lumber supplied at U.S. Atlantic coast ports by Canadian and U.S. producers (table 16). In the 1952-54 period, when charter rates were lower than the U.S. conference rate, mills in British Columbia supplied 29 percent of the average annual volume.

1/ The term "cargo" as used in this report refers to waterborne shipments.

2/ See transcript of the hearing, pp. 1060-1061.

3/ Department of Commerce, Maritime Administration, Docket No. M-84, Georgia-Pacific Corporation Application for Suspension of Coastwise Laws, served Dec. 3, 1962, p. 3.

4/ In addition to rate differentials, a difference in availability of shipping favors the British Columbia producers. Although ships of any registry may carry British Columbia lumber to U.S. ports, U.S. producers are limited to ships of the few remaining U.S. carriers maintaining intercoastal service in the lumber trade. Whereas there were eight U.S. carriers active in this trade in 1951, there were only six in 1960; in 1961 at least two of these carriers discontinued this service. A recent hearing before the Maritime Administration, on the application of a large U.S. producer for permission to ship lumber to Puerto Rico in foreign-flag vessels, revealed that U.S. shipping companies interested in handling full cargoes of lumber were not interested in carrying the smaller deck loads which the applicant thought it could sell (Maritime Administration, Op. cit., p. 7).

In the period 1955-57, when the U.S. conference rate was lower than the charter rates, British Columbia's share dropped to 23 percent. Since September 1957 charter rates have been substantially lower than the U.S. conference rate, and British Columbia's share has increased in each succeeding year, reaching 62 percent of the total in the first 11 months of 1962. These cargo shipments from British Columbia accounted for 23 percent of total U.S. imports of softwood lumber from Canada in 1961.

Shipments of lumber from California, Oregon, and Washington to Puerto Rico have been affected in the same manner. In 1952 these States shipped 19 million board feet to Puerto Rico, while British Columbia shipped 8 million feet. In 1961 and the first 11 months of 1962, these three States made no shipments to Puerto Rico; British Columbia shipped 73 million feet in 1961 and 72 million feet in the first 11 months of 1962.

In some years, however, a significant part of the increased cargo shipments from British Columbia to U.S. Atlantic coast ports resulted from a diversion of shipments from rail to water. The tabulation below shows the total volume of cargo and rail shipments to the United

States by British Columbia coastal mills during 1951-61 (in millions of board feet): 1/

Year	Cargo	Rail	Total
1951	82	608	690
1952	254	493	747
1953	541	478	1,019
1954	500	522	1,022
1955	353	641	994
1956	292	661	953
1957	296	567	863
1958	606	469	1,075
1959	608	438	1,046
1960	704	475	1,179
1961 1/	796	494	1,290

1/ Preliminary.

From 1951 to 1952, and again from 1957 to 1958, a substantial part of the increased cargo shipments resulted from the diversion of rail shipments and to this extent was not reflected in the total level of U.S. imports from Canada (table 11).

1/ From exhibit No. 4 submitted at the softwood lumber hearing.

U.S. timber supply

Although the United States has a large supply of softwood sawtimber, 1/ a substantial share of it is not immediately available for conversion into lumber. The quantity available for use in the manufacture of softwood lumber is limited by the characteristics of the timber (i.e., tree size, quality, location, and species composition), the management policies of the owners (which restrict the volume of timber that may be cut), and the use of timber for the production of forest products other than lumber. 2/

Inventory.--According to U.S. Forest Service estimates published in 1958, the total inventory of live softwood sawtimber in the continental United States and coastal Alaska in 1953 (the latest year for which data are available) amounted to 1,648 billion board feet (table 17). 3/ About 44 percent of the total (731 billion board feet) was located in the Pacific Northwest, and 36 percent (586 billion board feet) was located in other Western States, chiefly

1/ Live sawtimber is defined as trees of a commercial species large enough and otherwise suitable for use in the production of lumber, as defined by regional practice. In the West, softwood sawtimber includes trees having a minimum diameter of 11 inches; in the East the corresponding minimum diameter is 9 inches.

2/ Log exports have been a minor factor in the overall timber supply. These exports, which in 1961-62 were more than double the 1958-59 volume but less than 2 percent of the total U.S. lumber production (in terms of the log equivalent), originate largely in the Pacific Northwest.

3/ Recent resurveys by the U.S. Forest Service indicate that the total volume of live softwood sawtimber is somewhat greater than estimated in 1953.

California, Idaho, and Montana. About 11 percent of the total (183 billion board feet) was in the South and the remainder in the North and in coastal Alaska. Approximately 32 percent of the total inventory was comprised of Douglas-fir; most of the remainder consisted of other western species and southern pine (table 18).

Tree size, quality, and accessibility.--A substantial part of the timber inventory is comprised of trees too small to be utilized economically for lumber. In the East, trees in the minimum size class for inventory purposes (9 to 11 inches in diameter) are frequently cut for saw logs. In the West, however, the minimum diameter of trees that are cut is usually about 20 inches, or 9 inches more than the minimum for inventory purposes. Smaller trees are considered an important part of the growing stock upon which future cutting depends; their utilization for saw logs or veneer logs is generally regarded as uneconomic. In 1953 almost a fourth of the live softwood sawtimber inventory in the West was in trees below the minimum size usually cut.

A large but undetermined part of the total inventory is also unavailable because of such factors as unfavorable species composition, the presence of an excessive proportion of low-quality or defective trees, and the sparseness of the timber. Moreover, a substantial share of the total U.S. inventory is located in remote areas which at present cannot be logged economically, largely because of the lack of access roads, or the remoteness of the timber from milling

facilities. The U.S. Forest Service has estimated that in 1953 the annual cut of virgin timber from a substantial part of the national forest timberlands in the West was less than half the allowable harvest under good management practices. In 1958 it estimated that about 30,000 miles of new access roads and approximately 25,000 miles of improved or reconstructed roads would be required to permit full utilization of national forest timber. 1/

Forest management policies.--Much of the publicly owned or managed timberland 2/ is operated on a sustained yield basis in which the allowable harvest tends to be limited to an annual rate that can be maintained in the future. Similarly, much of the timberland owned by large forest-products companies is managed on a continuous production basis. According to U.S. Forest Service studies, about 64 percent of the total inventory in the West in 1953 was publicly owned and managed; forest-products companies held the largest share of the remainder (table 19). In the East, about 12 percent of the total inventory was in public forests, about 34 percent was on farms, and about 54 percent was in other private ownerships, chiefly forest-products companies. Thus, a substantial part of the total inventory of live sawtimber is not readily available for conversion to lumber because of the management policies of the owners.

1/ In 1958-61 the U.S. Forest Service constructed about 450 miles of new roads annually and reconstructed almost an equal amount each year.

2/ Includes timber on Federal, State, and county or other local Government lands.

Production of forest products other than lumber.--Still another factor limiting the availability of timber for the manufacture of lumber has been the increasing production in the past 15 years of other forest products, notably softwood plywood 1/ in the West and pulpwood in the South. 2/

The annual domestic output of softwood plywood increased without interruption from 1.7 billion square feet in 1947 to an estimated 9.2 billion in 1962, or by about 440 percent in the 16-year period (table 20). In 1961 about two-thirds of the softwood plywood production was in Oregon; the remainder was in Washington, California, Montana, and Idaho (table 21). The volume of logs consumed in the manufacture of softwood plywood and veneer in specified years 1951 to 1961 is shown, by selected species, in the following tabulation (in millions of board feet): 3/

Year	Total	Douglas-fir 1/	Ponderosa pine and other
1951	1,232	1,166	66
1953	1,861	1,743	118
1955	2,431	2,302	129
1957	2,455	2,345	110
1959	3,488	3,266	222
1961 2/	3,872	3,472	400

1/ Includes an insignificant quantity of other species in some years.
2/ Preliminary.

1/ Although the veneer used in the production of plywood was formerly made almost entirely from "peeler grade" or high-quality logs, improvements in manufacturing techniques and the increasing demand for softwood plywood have resulted in the progressive utilization of lower grade logs. Producers of softwood plywood now generally compete with sawmill operators for almost the full range of logs suitable for lumber.

2/ In the South, small trees may be cut into either saw logs or pulpwood bolts. In the West, a substantial share of the pulp and paper is produced from sawmill and veneer plant residues, or from logs not suitable for sawing into lumber; nonetheless, some lower grade saw logs are also used.

3/ From U.S. Department of Commerce, Current Industrial Reports, Softwood Plywood and Veneer, annual.

The annual consumption of logs by the softwood plywood and veneer industry increased by 2,640 million board feet from 1951 to 1961, which was more than the increase in annual imports of softwood lumber (in terms of the log equivalent) in the same period. Nearly all of the increase in log consumption has consisted of Douglas-fir.

The annual domestic production of softwood pulpwood (including chipped residues) more than doubled from 1947 to 1962 (table 22). The bulk of the increase occurred in the South, where the annual output rose from 8.1 million cords in 1947 to about 20.8 million in 1962. Production in the West also increased markedly; from 1951 to 1962, for example, the annual pulpwood production there rose from 4.7 million cords to about 9.2 million.

Although producers of pulpwood do not always compete directly for logs with lumber manufacturers, the continuing acquisition of timber tracts by pulpwood producers has had the effect of reducing the total quantity of forest land managed primarily for saw log production. 1/ Moreover, since pulp and paper manufacturers accept smaller logs than are used in making lumber, and cut younger trees, they have utilized an increasing volume of timber that might otherwise have been permitted to develop into saw log size trees.

1/ From 1945 to 1953, for example, holdings of timberland by pulp companies increased by 8.5 million acres (almost 60 percent). Holdings by lumber companies declined in the same period by nearly 2 million acres (about 5 percent), largely through transfer to pulp companies.

U.S. and Canadian timber prices

The ability of the individual sawmills to continue production and to operate profitably is dependent both on the availability of usable sawtimber and on the price that must be paid for such timber. Largely as a result of the increasing demand for sawtimber in relation to the available supply, the prices paid for sawtimber have risen sharply during most of the past three decades; the net increase in the price of this basic raw material has been substantially greater than the increase either in the general price level or in the price received by the mills for softwood lumber.

The term "stumpage price" refers to the selling price of standing timber. The most comprehensive data on domestic stumpage prices are those for timber sold at auction from the national forests; the trends indicated by these data are generally considered representative of trends in the prices paid for all domestic timber. In the Western States, sales from public timberlands account for a large share of the timber sold; 1/ in the East, timber from national forests accounts for only a small portion of the total timber cut annually. However, national forest stumpage prices appear to be representative of the prices of other timber in this region as well.

1/ The U.S. Forest Service estimates that about 35 percent of the annual cut in the West is taken from publicly owned timberlands, chiefly from U.S. national forests.

In determining the value of timber, U.S. Forest Service appraisers compile the current selling prices of the end products produced from timber 1/ and deduct therefrom the cost of logging, transportation, and processing, and an allowance for profit and risk, to arrive at a "residual," or appraised stumpage value, at which the timber is offered for sale. The actual price paid for timber, however, is determined by public bidding; the price is thus influenced largely by the supply and demand for timber at the time and place of sale. In addition, factors such as the quality and species composition of the timber, its accessibility, the estimated logging cost, and the anticipated income from end products have an important bearing on the price paid for timber.

Domestic price trends.--In the period 1935-39 the average annual price of ponderosa pine stumpage ranged between $2.20 and $2.50 per thousand board feet (table 23); that for southern pine stumpage ranged between $4.50 and $7.30 per thousand; and that for Douglas-fir, between $1.60 and $2.50 per thousand. After World War II, softwood stumpage prices increased rapidly; by the early 1950's they were many times higher than before the war. The average annual price of ponderosa pine reached a peak of about $34 per

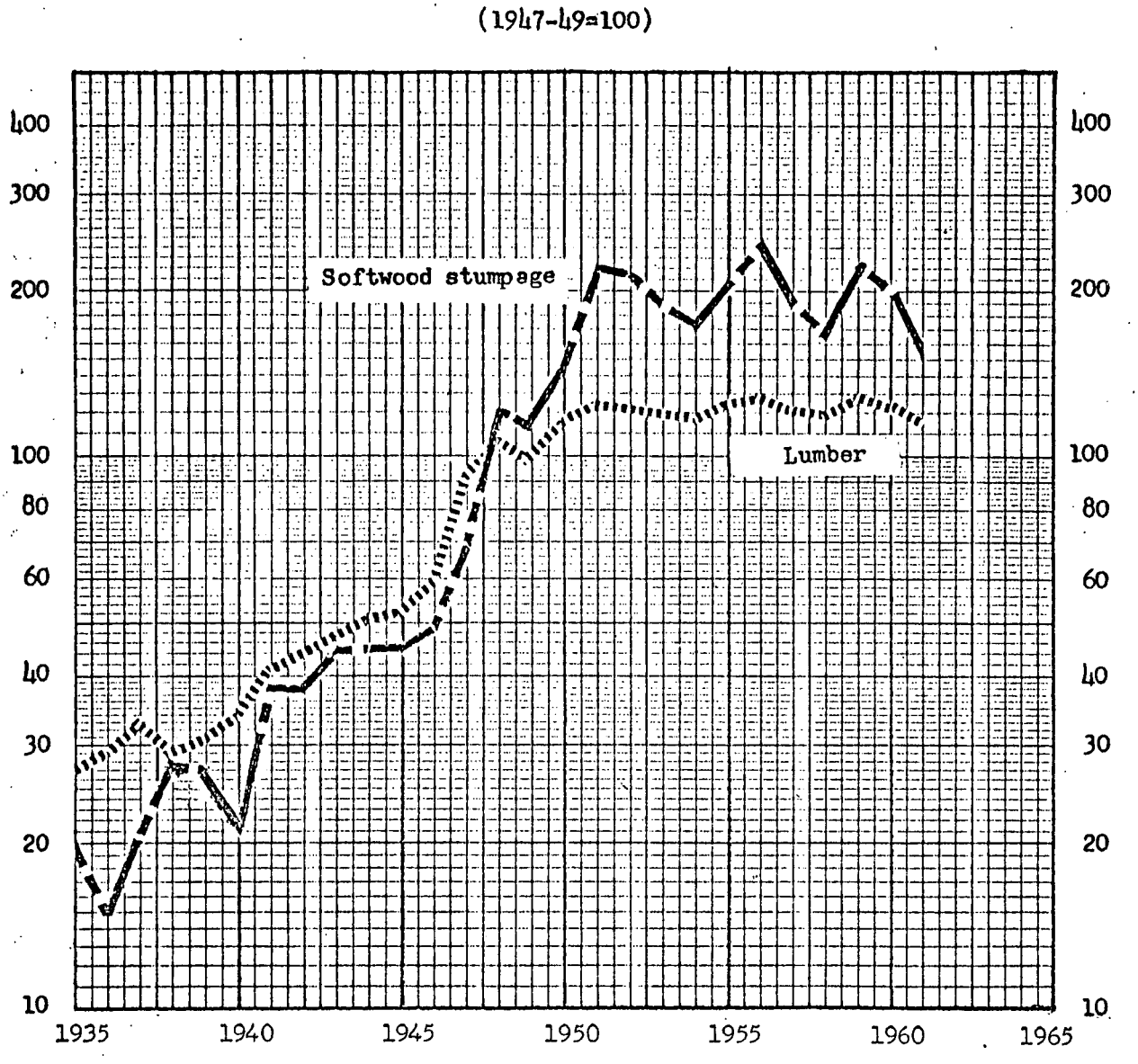
1/ In the West, depending upon the area and the estimated proportion of peeler (plywood) grade logs in the timber, appraisers may use various combinations of the sales value of lumber, softwood plywood, and wood chips in arriving at the appraised value. In the South, various combinations of the market value of lumber, pulpwood, and wood chips may be used. The data on the operating costs and selling values of the end products are collected periodically from industry and thus reflect the current average experience of producers in the areas in which the sales of timber occur.

thousand board feet in 1951, ranged between $24 and $27 per thousand in 1952-57, and was about $20 per thousand in 1958-60. In 1961 the average price amounted to $12 per thousand board feet. The average annual price of southern pine stumpage reached a peak of about $38 per thousand board feet in 1952, ranged from $29 to $37 per thousand in 1953-60, and amounted to about $27 per thousand in 1961. The annual price of Douglas-fir stumpage followed a similar pattern. It reached a peak of about $38 per thousand board feet in 1956, averaged $24 per thousand in 1957-58, rose to about $37 per thousand in 1959, and then declined to about $28 per thousand in 1961.

Table 24 shows the price indexes (1947-49=100) for all lumber, softwood stumpage, and all commodities, for the years 1935-61. 1/ From the mid-1930's to the mid-1950's the index of prices received by lumber producers increased more rapidly than the price index for all commodities. After 1956, the price index for lumber declined in relation to the general price index. The price index of softwood stumpage increased much more rapidly than that of lumber from the mid-1930's through most of the 1950's. Notwithstanding a slowing in the upward trend in recent years, the price index of softwood stumpage has remained high in relation to that of lumber. The trends in the price indexes of softwood stumpage and of lumber are shown graphically in figure 3.

1/ The index for all lumber is the Bureau of Labor Statistics (BLS) composite wholesale price index for softwood and hardwood, which reflects the average annual price received by producers, f.o.b. mill. No separate price index for softwood lumber is available for the years 1935-46. The index for all lumber, however, is heavily weighted to the prices of softwood lumber, and the inclusion of the price for hardwoods does not materially affect the long-term trend of the index. The composite index for softwood stumpage is computed as a simple average of the price relatives for ponderosa pine, southern pine, and Douglas-fir. The index for all commodities is the BLS wholesale price index.

Figure 3.--Indexes of the average annual U.S. prices of lumber and softwood stumpage, 1935-61



Source: Table 24.

Table 25 compares the indexes (1947-49=100) of the average annual price of stumpage and that of lumber for the major species produced in the South (southern pine) and in the West (Douglas-fir) for the post-World War II period. The indexes show that the price of southern pine stumpage increased by about 250 percent from 1947 to 1952, when it reached its postwar peak. In the same period, the price index of southern pine lumber increased 21 percent. In 1953-59 the price of southern pine stumpage fluctuated markedly but remained at a high level; tha price of southern pine lumber was fairly stable in this period. From 1959 to 1961 the price index of southern pine stumpage declined about 24 percent, while that of southern pine lumber declined 6 percent.

The price index of Douglas-fir stumpage increased by nearly 280 percent from 1947 to 1956, when it reached a postwar peak; the index for Douglas-fir lumber increased 35 percent in the same period. Prices of both Douglas-fir stumpage and lumber declined in 1957 and 1958, increased sharply in 1959, and declined thereafter. The index shows that from 1959 to 1961 the average annual price of Douglas-fir stumpage decreased 25 percent, whereas the price of Douglas-fir lumber declined 13 percent.

"Overbidding".--In recent years the prices paid for timber purchased from national forests have been significantly higher than the appraised values at which the timber was advertised for sale. In the coastal district of Northwestern Washington, for example, the average bid prices for Douglas-fir was about 50 percent higher than the appraised

value in 1958 and from 25 to 43 percent higher in 1959-61 (table 26). The average bid price for coastal hemlock was nearly double the appraised value in 1958 and from 23 to 39 percent higher in 1959-61. The bid price for spruce in this district exceeded the appraised value by 16 percent in 1960 and by about 18 percent in 1961. A similar pattern prevails in the interior Northwest. 1/

The relationship between the appraised values and the average bid prices for southern pine has been compiled by the Southern Pine Association from U.S. Forest Service records. "Overbidding" by about 14 percent in 1958 and 1959, about 9 percent in 1960, and 11 percent in 1961, is indicated by the data for 1958-61, shown below:

Year	Appraised value	Bid price	Ratio of bid price to appraised value
1958----------	$28.11	$31.91	1.14
1959----------	31.54	36.05	1.14
1960----------	32.71	35.71	1.09
1961----------	24.70	27.45	1.11

British Columbia prices.--In recent years bid prices for stumpage in British Columbia have been lower than those in comparable producing regions of the U.S. Northwest, largely owing to the more abundant supply of timber, higher logging costs, lower log yield, and more restricted competition in British Columbia than in the Northwest.

1/ The lower appraised values and bid prices in the interior districts than in the coastal districts reflect differences in the size and quality of the trees, as well as higher logging costs.

Table 27 compares the bid prices of stumpage in British Columbia crown forests and in the most nearly comparable U.S. national forests in the Northwest, by selected species and districts, for the years 1958-61. 1/ The average bid price of Douglas-fir stumpage in the coastal district of Northwestern Washington rose from about $23 per thousand board feet in 1958 to about $38 per thousand in 1959, then declined to about $23 per thousand in 1961. In the same years the bid prices for Douglas-fir in the coastal district of British Columbia were less than half those indicated above for Northwestern Washington. The bid prices for hemlock in the coastal district of Washington averaged about $7.50 per thousand board feet in 1958 and about $10.50 per thousand in 1959-61. In Vancouver, British Columbia, on the other hand, the bid prices for hemlock averaged about $5 per thousand board feet in 1958-61. Similarly, in the interior districts of the U.S. Northwest, the average price paid for spruce was generally much higher than the comparable price in British Columbia.

The differences in the levels of prices, which reflect considerably more "overbidding" in U.S. markets than in British Columbia, 2/ result in part from the greater abundance of available timber in that Province,

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1/ To facilitate the comparison, the prices for Canadian stumpage have been converted to U.S. dollars.

2/ Information published by the U.S. Forest Service indicates that "overbidding" is moderate in British Columbia and is limited chiefly to coastal districts.

in relation to demand, than in the Northwest. In many areas of British Columbia, particularly in the interior, the harvest is still well below the allowable cut, whereas in the Pacific Northwest there is virtually no unused allowable cut on accessible national forest timberland. 1/ Indeed, there have been strong efforts by domestic lumber interests to persuade U.S. Government authorities to increase the amount of timber offered for sale. In addition, competition for timber between producers of lumber and producers of forest products other than lumber, particularly softwood plywood, is less marked in British Columbia than in the Northwest. In 1961, for example, the approximate lumber equivalent of the output of softwood plywood in British Columbia equaled only 11 percent of the total lumber output in that Province; in the western United States the approximate lumber equivalent of the softwood plywood output equaled 22 percent of that area's total lumber production.

In part, the lower bid prices for stumpage in British Columbia reflect lower average log grade and lumber yield from crown forest timber than from timber in comparable U.S. national forests (table 28). Lower bid prices in British Columbia also result from restricted bidding. In the United States, national forest timber is offered

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1/ U.S. Forest Service estimates indicate that in 1960, for example, about 3.8 billion board feet of sawtimber was sold from Forest Service Region 6, compared with a total allowable cut of 3.9 billion board feet. About 3.6 billion board feet was actually cut in that year. Forest Service Region 6 embraces the national forests in Washington (except for the eastern timber area) and Oregon. (U.S. Department of Agriculture, Forest Service, Stumpage Prices and Pricing Policies in British Columbia, Apr. 24, 1962.)

for sale to all bidders. In British Columbia, cutting privileges are controlled by a complex system of licensing priorities, quotas, and quota rights, the provisions of which vary according to several categories of public timberland. Often these provisions tend to reserve cutting privileges to established operators in local areas and to limit competitive bidding.

Statistical Appendix

Table 2.--Softwood lumber: U.S. dutiable imports for consumption, rates of duty and import tax, and average ad valorem equivalents, by tariff paragraphs and by species groups, 1931-61

Tariff paragraph and period	Fir, hemlock, larch, pine, or spruce		
	Imports	Rate of duty and import tax	Average ad valorem equivalent
	Million board feet	Per thousand board feet	Percent
Par. 401			
1931	387	$1.00	5.4
1932:			
Jan. 1-June 20	128	1.00	5.7
June 21-Dec. 31	97	4.00	24.2
1933	306	4.00	19.2
1934	238	4.00	16.8
1935	362	4.00	17.7
1936	548	2.00	9.2
1937	535	2.00	8.0
1938 (Jan. 1-June 30)	180	2.00	9.2

Tariff paragraph and period	Northern white pine and Norway pine, western white spruce, and Engelmann spruce			Fir, hemlock, larch, other pine, and other spruce		
	Imports	Rate of duty and import tax	Average ad valorem equivalent	Imports	Rate of duty and import tax	Average ad valorem equivalent
	Million board feet	Per thousand board feet	Percent	Million board feet	Per thousand board feet	Percent
1938 (July 1-Dec. 31)	78	$0.50	2.0	166	$2.00	10.2
1939	229	.50	2.0	333	2.00	9.5
1940	258	.50	1.9	288	2.00	7.8
1941	386	.50	1.6	718	2.00	7.0
1942	412	.50	1.4	916	2.00	6.1
1943	148	.50	1.2	475	2.00	5.1
1944	146	.50	1.0	555	2.00	4.4
1945	195	.50	1.0	564	2.00	4.1
1946	167	.50	1.0	541	2.00	3.6
1947	118	.50	.7	354	2.00	3.0
1948	444	.25	.3	1,093	1.00	1.4
1949	305	.25	.4	1,014	1.00	1.7
1950	649	.25	.3	2,314	1.00	1.5
1951	650	.25	.3	1,432	1.00	1.2
1952	775	.25	.3	1,309	1.00	1.2
1953	665	.25	.3	1,648	1.00	1.3
1954	790	.25	.3	1,797	1.00	1.4
1955	933	.25	.3	2,097	1.00	1.2
1956	832	.25	.3	2,036	1.00	1.3
1957	751	.25	.3	1,736	1.00	1.4
1958	803	.25	.3	2,091	1.00	1.5
1959	1,099	.25	.3	2,400	1.00	1.4
1960 1/	1,035	.25	.3	2,322	1.00	1.5
1961 1/	1,156	.25	.4	2,548	1.00	1.5

See footnotes at end of table.

Table 2.--Softwood lumber: U.S. dutiable imports for consumption, rates of duty and import tax, and average ad valorem equivalents, by tariff paragraphs and by species groups, 1931-61--Continued

Tariff paragraph and period	Cedar (except Spanish cedar) and other softwoods, not elsewhere specified		
	Imports	Rate of import tax	Average ad valorem equivalent
	Million board feet	Per thousand board feet	Percent
Par. 1803			
1931	-	-	-
1932:			
Jan. 1-June 20	-	-	-
June 21-Dec. 31	4	$3.00	8.1
1933	5	3.00	7.8
1934	5	3.00	9.0
1935	18	3.00	7.0
1936	22	1.50	2.7
1937	38	1.50	3.1
1938:			
Jan. 1-June 30	17	1.50	3.0
July 1-Dec. 31	19	1.50	3.0
1939	43	1.50	2.8
1940	61	1.50	2.6
1941	80	1.50	2.8
1942	67	1.50	2.9
1943	51	1.50	2.5
1944	78	1.50	2.7
1945	107	1.50	2.7
1946	95	1.50	2.4
1947	35	1.50	1.3

	Cedar (except Spanish cedar)			Other softwoods, not elsewhere specified		
	Imports	Rate of import tax	Average ad valorem equivalent	Imports	Rate of import tax	Average ad valorem equivalent
	Million board feet	Per thousand board feet	Percent	Million board feet	Per thousand board feet	Percent
1948	115	$0.75	0.5	2/	$1.50	-
1949	105	.75	.5	2/	1.50	-
1950	182	.75	.5	1	1.50	2.3
1951	165	.75	.5	2	1.50	1.7
1952	180	.75	.6	3	1.50	1.4
1953	212	.75	.6	4	1.50	1.4
1954	263	.75	.6	5	1.50	1.4
1955	285	.75	.6	11	1.50	2.7
1956	258	.75	.6	5	1.50	1.2
1957	221	.75	.7	4	1.50	1.2
1958	258	.75	.7	2	1.50	.9
1959	242	.75	.7	2	1.50	.9
1960 1/	272	.75	.8	2	1.50	1.5
1961 1/	296	.75	1.0	3	1.50	1.8

1/ Preliminary.
2/ Less than 500,000 board feet.

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

Table 3.--Softwood lumber: U.S. production, exports of domestic merchandise, imports for consumption, and apparent consumption, 1926-61, January-September 1961, and January-September 1962

Period	Production	Exports	Imports	Apparent consumption 1/	Ratio of--		
					Exports to production	Imports to production	Imports to consumption
	Million board feet	Million board feet	Million board feet	Million board feet	Percent	Percent	Percent
1926	30,469	2,338	1,777	29,908	7.7	5.8	5.9
1927	28,443	2,540	1,634	27,537	8.9	5.7	5.9
1928	28,345	2,652	1,372	27,065	9.4	4.8	5.1
1929	29,813	2,625	1,418	28,606	8.8	4.8	5.0
1930	21,323	1,856	1,148	20,033	8.7	5.4	5.7
Average	27,679	2,402	1,470	26,630	8.7	5.3	5.5
1931	13,852	1,330	702	14,476	9.6	5.1	4.8
1932	8,746	898	354	10,117	10.3	4.0	3.5
1933	11,899	982	311	12,312	8.3	2.6	2.5
1934	12,735	1,055	244	11,752	8.3	1.9	2.1
1935	16,248	995	380	15,720	6.1	2.3	2.4
Average	12,696	1,052	398	12,875	8.3	3.1	3.1
1936	20,242	939	570	19,640	4.6	2.8	2.9
1937	21,589	1,033	573	20,388	4.8	2.7	2.8
1938	18,293	686	459	18,467	3.8	2.5	2.5
1939	21,408	801	606	21,612	3.7	2.8	2.8
1940	24,903	701	607	25,569	2.8	2.4	2.4
Average	21,287	832	563	21,135	3.9	2.6	2.7
1941	28,032	472	1,183	28,806	1.7	4.2	4.1
1942	29,510	266	1,397	32,471	.9	4.7	4.3
1943	26,917	196	704	28,216	.7	2.6	2.5
1944	25,160	233	819	25,908	.9	3.3	3.2
1945	21,140	286	882	21,940	1.4	4.2	4.0
Average	26,152	291	997	27,468	1.1	3.8	3.6
1946	25,857	516	1,020	25,956	2.0	3.9	3.9
1947	27,937	968	1,092	27,697	3.5	3.9	3.9
1948	2/ 29,010	462	1,652	28,838	1.6	5.7	5.7
1949	26,472	504	1,425	27,625	1.9	5.4	5.2
1950	30,633	386	3,146	33,925	1.3	10.3	9.3
Average	27,982	567	1,667	28,808	2.0	6.0	5.8
1951	29,493	818	2,250	30,323	2.8	7.6	7.4
1952	30,234	540	2,267	32,184	1.8	7.5	7.0
1953	29,562	472	2,528	30,927	1.6	8.6	8.2
1954	29,282	555	2,855	32,155	1.9	9.8	8.9
1955	29,815	621	3,327	32,546	2.1	11.2	10.2
Average	29,677	601	2,645	31,627	2.0	8.9	8.4
1956	30,231	545	3,131	32,132	1.8	10.4	9.7
1957	27,140	614	2,712	29,514	2.3	10.0	9.2
1958	27,379	540	3,155	30,375	2.0	11.5	10.4
1959	30,509	3/ 577	3,743	33,658	1.9	12.3	11.1
1960	26,672	4/ 688	4/ 3,631	4/ 29,054	2.6	13.6	12.5
Average	28,386	593	3,274	30,947	2.1	11.5	10.6
1961 4/	25,883	613	4,004	29,367	2.4	15.5	13.6
Jan.-Sept.--							
1961 4/	2/ 19,654	456	3,050	22,426	2.3	15.5	13.6
1962 4/	2/ 19,978	465	3,520	23,560	2.3	17.6	14.9

1/ Derived from production, minus exports, plus imports. Except for the years 1926-29, the data are adjusted for producers' yearend stocks, as supplied by the National Lumber Manufacturers Association.

2/ Data supplied by the National Lumber Manufacturers Association.

3/ Partly estimated.

4/ Preliminary.

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

Table 4.--Housing starts: New dwelling units started in nonfarm areas of the United States, 1947-61

Series and year	Number of units
Old series	Thousands
1947	849
1948	932
1949	1,025
1950	1,396
1951	1,091
1952	1,127
1953	1,104
1954	1,220
1955	1,329
1956	1,118
1957	1,042
1958	1,209
1959	1,378
New series 1/	
1959	1,531
1960	1,257
1961	1,326

1/ These data are not comparable with those in the old series.

Source: Compiled from official statistics of the U.S. Department of Labor, Bureau of Labor Statistics (old series), and the U.S. Department of Commerce, Bureau of the Census (new series).

Table 5.--Lumber: 1/ U.S. production and number of establishments, by production size classes and by regions, 1947 and 1961

Region and size class of establishments (by millions of board feet produced)	1947				1961 2/			
	Production		Establishments 3/		Production		Establishments 3/	
	Quantity	Percent of total	Number	Percent of total	Quantity	Percent of total	Number	Percent of total
	Million board ft.				Million board ft.			
West: 4/								
50.0 and over	3,904	23.9	43	0.9	5,311	27.9	61	2.9
25.0 to 49.9			106	2.1	5,179	27.2	149	7.0
15.0 to 24.9	5/ 6,894	42.2	100	2.0	2,934	15.4	142	6.7
10.0 to 14.9			105	2.1	1,897	10.0	152	7.2
5.0 to 9.9	2,062	12.6	299	6.0	1,760	9.2	227	10.7
3.0 to 4.9	1,130	6.9	296	6.0	715	3.8	164	7.7
1.0 to 2.9	1,371	8.4	754	15.2	771	4.0	324	15.2
Less than 1.0	975	6.0	3,258	65.7	477	2.5	905	42.6
Total	16,336	100.0	4,961	100.0	19,044	100.0	2,124	100.0
East: 6/								
50.0 and over	-	-	-	-	268	2.1	4	7/
25.0 to 49.9			16	7/	609	4.8	19	.1
15.0 to 24.9	5/ 2,360	12.4	50	.1	679	5.3	38	.1
10.0 to 14.9			76	.2	772	6.0	53	.2
5.0 to 9.9	2,107	11.0	309	.6	1,913	14.9	293	.9
3.0 to 4.9	1,700	8.9	454	.9	1,353	10.6	349	1.1
1.0 to 2.9	4,780	25.1	2,963	6.2	3,427	26.8	2,098	6.8
Less than 1.0	8,121	42.6	44,280	92.0	3,778	29.5	28,213	90.8
Total	19,068	100.0	48,148	100.0	12,799	100.0	31,067	100.0
U.S. total:								
50.0 and over	3,904	11.0	43	.1	5,579	17.5	65	.2
25.0 to 49.9	4,254	12.0	122	.2	5,788	18.2	168	.5
15.0 to 24.9	2,823	8.0	150	.3	3,613	11.3	180	.5
10.0 to 14.9	2,177	6.1	181	.3	2,669	8.4	205	.6
5.0 to 9.9	4,169	11.8	608	1.2	3,673	11.5	520	1.6
3.0 to 4.9	2,830	8.0	750	1.4	2,068	6.5	513	1.6
1.0 to 2.9	6,151	17.4	3,717	7.0	4,198	13.2	2,422	7.3
Less than 1.0	9,096	25.7	47,538	89.5	4,255	13.4	29,118	87.7
Total	35,404	100.0	53,109	100.0	31,843	100.0	33,191	100.0

1/ Includes data for both softwood and hardwood lumber.
2/ Revised data reported Dec. 20, 1962, by U.S. Bureau of the Census.
3/ Sawmills in 1947, establishments in 1961; the two designations are approximately comparable.
4/ Includes Montana, South Dakota, Wyoming, Colorado, New Mexico, and all States west thereof except Alaska and Hawaii.
5/ Combined to avoid disclosure of individual company data.
6/ Includes all States east of those listed in footnote 4.
7/ Less than 1/10 of 1 percent.

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

Table 6.--Softwood lumber: U.S. production, by geographic regions, specified years 1939 to 1961

Year	North 1/		South 2/		West 3/		U.S. total quantity
	Quantity	Percent of total	Quantity	Percent of total	Quantity	Percent of total	
	Million bd. ft.		Million bd. ft.		Million bd. ft.		Million bd. ft.
1939	4/ 1,100	5	8,276	39	12,032	56	4/ 21,408
1947	1,839	7	9,799	35	16,299	58	27,937
1954 5/	1,373	5	7,976	27	19,933	68	29,282
1956 5/	1,352	5	8,488	28	20,391	67	30,231
1958	1,130	4	6,633	24	19,616	72	27,379
1959 5/	1,189	4	7,365	24	21,955	72	30,509
1960 5/	1,107	4	6,041	23	19,524	73	26,672
1961 6/	1,052	4	5,912	23	18,919	73	25,883

1/ Includes Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.

2/ Includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

3/ Includes Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming.

4/ Includes 165 million board feet sawed by New England mills from timber salvaged from the 1938 hurricane and sold to the New England Timber Salvage Administration.

5/ Revised data.

6/ Preliminary.

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

Table 7.--Softwood lumber: U.S. production, by species, specified years 1939 to 1961

(In millions of board feet)

Rank	Species	1939	1947	1954 1/	1956 1/	1958	1959 1/	1960 1/	1961 2/
1	Douglas-fir	6,494	9,043	10,328	10,195	9,329	10,265	8,832	8,362
2	Southern pine	7,749	9,473	7,332	7,740	6,420	6,716	5,660	5,609
3	Ponderosa pine	3,360	3,839	3,757	3,568	3,233	3,374	3,169	3,108
4	White fir 3/	98	673	1,804	1,954	2,475	2,838	2,224	2,206
5	Hemlock	665	1,244	1,337	1,322	1,386	1,658	2,032	2,022
6	White pine 4/	1,467	1,714	1,666	1,559	1,137	1,584	1,608	1,499
7	Redwood	345	530	958	1,125	917	1,221	1,000	1,011
8	Western cedars 5/	236	315	383	6/ 561	507	517	583	560
9	Western spruces 7/	247	265	585	6/ 853	563	537	471	479
10	Western larch	108	287	321	393	541	672	418	435
11	Other softwoods 8/	639	554	811	961	871	1,127	675	592
	Total	21,408	27,937	29,282	30,231	27,379	30,509	26,672	25,883

1/ Revised data.
2/ Preliminary.
3/ Includes all western true firs.
4/ Includes eastern and western white, sugar, red, and jack pines.
5/ Includes incense, Port Orford (except in 1959-61), and western red cedars.
6/ Partly estimated.
7/ Includes Engelmann and Sitka spruces.
8/ Includes eastern cedars, cypress, balsam fir, lodgepole pine, eastern spruce, tamarack, Port Orford cedar (in 1959-61), mixed woods, and woods not specified.

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

Table 8.--Softwood lumber: U.S. producers' total shipments, by lumber-producing regions, exports of domestic merchandise, and domestic shipments, 1946-61, January-September 1961, and January-September 1962

(In millions of board feet)

Period	Southern pine	Douglas-fir	Western pine	California redwood	Other	Total shipments	Exports 1/	Domestic shipments 2/
1946	9,291	7,520	6,019	483	2,143	25,456	516	24,940
1947	9,369	8,690	6,433	983	1,987	27,462	968	26,494
1948	8,724	8,917	6,758	1,300	1,918	27,617	462	27,155
1949	8,339	9,004	6,702	1,436	1,760	27,241	504	26,737
1950	10,045	10,065	7,911	1,750	2,190	31,961	386	31,575
1951	8,436	9,566	7,103	1,938	2,086	29,129	818	28,311
1952	8,586	10,149	7,449	2,164	1,985	30,333	540	29,793
1953	7,167	9,492	7,672	2,394	2,045	28,770	472	28,298
1954	7,562	9,403	8,094	2,708	2,056	29,823	555	29,268
1955	7,375	9,541	8,776	2,704	1,802	30,198	621	29,577
1956	7,500	8,733	8,732	2,947	2,052	29,964	545	29,419
1957	6,641	8,004	8,144	2,532	1,984	27,305	614	26,691
1958	6,545	8,436	8,548	2,753	1,356	27,638	540	27,098
1959	6,734	8,995	9,897	2,939	1,831	30,396	577	29,819
1960	5,303	8,031	8,981	2,294	1,453	26,062	688	25,374
1961 3/	5,670	7,678	9,112	2,211	1,363	26,034	613	25,421
Jan.-Sept.--								
1961 3/	4,316	5,893	6,959	1,697	1,042	19,907	456	19,451
1962 3/	4,583	6,089	7,013	1,665	1,070	20,420	465	19,955

1/ Official statistics of the U.S. Department of Commerce.
2/ Total shipments minus exports.
3/ Preliminary.

Source: Compiled from statistics of the National Lumber Manufacturers Association, except as noted.

Table 9.--Softwood lumber: U.S. exports, by countries, specified years 1954 to 1961

(In millions of board feet)

Country	1954	1956	1958	1959	1960 1/	1961 1/
Canada	85	159	153	2/ 169	144	149
Japan	16	33	34	53	56	147
Australia	75	74	59	80	117	50
Republic of Korea	25	14	60	39	55	37
West Germany	10	12	13	19	29	31
Italy	5	7	10	13	24	28
Peru	21	30	19	19	23	25
Mexico	35	29	22	19	17	16
United Kingdom	50	25	20	22	40	16
Union of South Africa	101	30	36	28	36	5
Cuba	32	34	30	22	14	-
All other	100	98	84	94	133	109
Total	555	545	540	2/ 577	688	613

1/ Preliminary.
2/ Partly estimated.

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

Table 10.--Softwood lumber: U.S. exports, by major species, specified years 1954 to 1961

(In millions of board feet)

Species	1954	1956	1958	1959	1960 1/	1961 1/
Douglas-fir	326	324	238	299	381	273
Southern pine	81	85	78	78	94	70
Western hemlock	40	22	41	25	39	68
Spruce	8	9	15	13	17	35
Ponderosa pine	44	40	54	2/ 37	29	31
Redwood	5	6	10	23	33	29
White pine	22	35	39	2/ 41	28	23
Cedar	5	8	11	13	17	19
All other	24	16	54	48	50	65
Total	555	545	540	2/ 577	688	613

1/ Preliminary.
2/ Partly estimated.

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

Table 11.--Softwood lumber: U.S. imports for consumption, total and from Canada, 1939, 1946-61, January-September 1961, and January-September 1962

Period	Total imports			Imports from Canada			Ratio of imports from Canada to total	
	Quantity	Value	Unit value	Quantity	Value	Unit value	Quantity	Value
	Million board feet	1,000 dollars	Per thousand board feet	Million board feet	1,000 dollars	Per thousand board feet	Percent	Percent
1939	606	15,049	$25	596	14,872	$25	98.3	98.8
1946	1,020	58,923	58	840	48,046	57	82.4	81.5
1947	1,092	77,502	71	948	68,509	72	86.8	88.4
1948	1,652	126,573	77	1,491	115,422	77	90.3	91.2
1949	1,425	95,752	67	1,299	88,259	68	91.2	92.2
1950	3,146	231,454	74	2,906	212,058	73	92.4	91.6
1951	2,250	193,174	86	2,080	176,277	85	92.4	91.3
1952	2,267	190,115	84	2,140	176,760	83	94.4	93.0
1953	2,528	200,735	79	2,410	188,293	78	95.3	93.8
1954	2,855	220,705	77	2,748	208,411	76	96.3	94.4
1955	3,327	280,646	84	3,226	266,246	83	97.0	94.9
1956	3,131	260,609	83	3,061	249,477	82	97.8	95.7
1957	2,712	205,483	76	2,645	195,993	74	97.5	95.4
1958	3,155	224,542	71	3,088	215,233	70	97.9	95.9
1959	3,743	284,751	76	3,664	273,627	75	97.9	96.1
1960 1/	3,631	259,489	71	3,574	250,774	70	98.4	96.6
1961 1/	4,004	271,459	68	3,941	262,233	67	98.4	96.6
Jan.-Sept.--								
1961 1/	3,050	207,283	68	3,003	200,198	67	98.5	96.6
1962 1/	3,520	218,386	62	3,469	211,061	61	98.6	96.6

1/ Preliminary.

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

Table 12.--Softwood lumber: U.S. imports for consumption, by principal sources, specified years 1954 to 1961

Country	1954	1956	1958	1959	1960 1/	1961 1/
	Quantity (million board feet)					
Canada	2,748	3,061	3,088	3,664	3,574	3,941
Mexico	74	48	45	50	32	37
Honduras	4	4	4	7	7	13
Brazil	19	11	12	13	12	11
Nicaragua	8	6	2	4	4	1
All other	2	1	4	5	2	1
Total	2,855	3,131	3,155	3,743	3,631	4,004
	Foreign value (1,000 dollars)					
Canada	208,411	249,477	215,233	273,627	250,774	262,233
Mexico	9,250	8,537	6,902	7,763	6,089	6,711
Honduras	341	435	379	779	783	1,267
Brazil	1,645	1,277	1,256	1,309	1,176	1,011
Nicaragua	849	799	342	565	476	152
All other	209	84	430	708	191	85
Total	220,705	260,609	224,542	284,751	259,489	271,459
	Unit value 2/ (per thousand board feet)					
Canada	$76	$82	$70	$75	$70	$67
Mexico	124	178	153	156	190	182
Honduras	92	114	109	114	105	101
Brazil	88	115	104	98	99	91
Nicaragua	108	121	141	128	122	137
All other	100	83	127	128	102	111
Average	77	83	71	76	71	68

1/ Preliminary.
2/ Calculated from unrounded data.

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

Table 13.--Softwood lumber: U.S. imports for consumption, by species, specified years 1954 to 1961

Species	1954	1956	1958	1959	1960 1/	1961 1/
	Quantity (million board feet)					
Spruce	1,028	1,046	957	1,295	1,205	1,323
Douglas-fir	735	970	978	1,121	1,022	1,111
Mixed softwood 2/	374	323	417	512	558	558
Hemlock	152	259	277	289	297	422
Pine	232	211	168	215	189	241
Cedar	263	258	258	242	271	296
Fir	54	52	83	53	73	45
Larch	12	7	14	14	14	5
Softwood, not elsewhere specified	5	5	3	2	2	3
Total	2,855	3,131	3,155	3,743	3,631	4,004
	Foreign value (1,000 dollars)					
Spruce	76,168	87,329	72,975	103,338	90,206	94,972
Douglas-fir	50,465	70,024	59,421	75,366	64,229	68,356
Mixed softwood 2/	21,176	20,971	22,253	31,359	32,403	30,954
Hemlock	12,460	21,156	19,209	22,103	22,346	26,863
Pine	24,582	25,177	18,416	22,712	19,657	23,515
Cedar	30,847	30,937	26,039	24,656	24,826	23,388
Fir	3,601	3,768	5,000	3,852	4,775	2,871
Larch	859	599	840	965	826	300
Softwood, not elsewhere specified	547	648	389	400	221	240
Total	220,705	260,609	224,542	284,751	259,489	271,459
	Unit value 3/ (per thousand board feet)					
Spruce	$74	$83	$76	$80	$75	$72
Douglas-fir	69	72	61	67	63	62
Mixed softwood 2/	57	65	53	61	58	56
Hemlock	82	82	69	77	75	64
Pine	106	119	110	106	104	98
Cedar	117	120	101	102	91	79
Fir	67	73	60	72	65	64
Larch	70	81	61	71	60	57
Softwood, not elsewhere specified	106	127	166	165	100	86
Average	77	83	71	76	71	68

1/ Preliminary.
2/ Includes mixed shipments of Douglas-fir, fir, hemlock, and larch.
3/ Calculated from unrounded data.

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

Table 14.--Rate of exchange: U.S. dollars per Canadian dollar, 1952-62

Year	Rate 1/
1952	$1.021
1953	1.016
1954	1.027
1955	1.014
1956	1.016
1957	1.043
1958	1.030
1959	1.043
1960	1.031
1961	.988
1962	2/ .936

1/ Annual average noon buying rate for cable transfers in New York.

2/ Effective May 2, 1962, the par value of the Canadian dollar was set at $0.925 U.S. dollar. In agreement with the International Monetary Fund, this rate was to be maintained within a margin of plus or minus 1 percent.

Source: Compiled from official statistics of the Board of Governors of the U.S. Federal Reserve System.

Table 15.--Softwood lumber: U.S. conference rates from Pacific coast ports and charter rates from British Columbia ports for waterborne shipments to U.S. North Atlantic ports, specified months and years 1946 to 1962

(All rates in U.S. currency, per thousand board feet)

Year and month	U.S. conference rate	Foreign-flag charter rates
1946:		
July	$19.00	1/
November	20.00	1/
1947:		
January	21.00	1/
October	23.50	1/
1948:		
January	25.00	1/
October	26.00	1/
1949: April	26.50	1/
1950:		
January	26.50	$23.00
December	26.50	31.50
1951:		
January	27.50	1/
September	29.00	1/
1952: May	30.00	29.50
1953: July	31.00	25.00
1955:		
February	31.00	35.50
March	33.00	1/
1957:		
January	34.65	42.00
September	36.00	39.00
1958:		
April	36.00	24.85
October	36.00	27.60
1959:		
April	36.00	27.25
October	36.00	27.50
1960:		
April	36.00	30.50
October	36.00	25.00
1961:		
April	36.00	28.00
October	36.00	25.00
1962: April	36.00	24.00

1/ Not available.

Source: Compiled from statistics submitted by the West Coast Lumbermen's Association and those obtained from other trade sources.

Table 16.--Softwood lumber: Waterborne shipments from U.S. Pacific ports and from British Columbia ports to U.S. Atlantic ports, 1950-61, January-September 1961, and January-September 1962

Period	Total	U.S. Pacific ports 1/	British Columbia ports	
			Quantity	Percent of total
	Million board feet	Million board feet	Million board feet	
1950	1,785	1,055	730	41
1951	877	816	61	7
1952	1,276	1,054	222	17
1953	1,594	1,059	535	34
1954	1,442	934	508	35
1955	1,376	1,031	345	25
1956	1,305	1,023	282	22
1957	1,248	973	275	22
1958	1,526	924	602	39
1959	1,497	903	594	40
1960	1,544	849	695	45
1961	1,389	595	794	57
Jan.-Sept.--				
1961	1,077	468	609	57
1962	1,099	392	707	64

1/ Data include shipments from Oregon and Washington for the entire period shown and from California beginning in 1952.

Source: Compiled from statistics of the Pacific Lumber Inspection Bureau, Inc.

Table 17.--Softwood sawtimber: 1/ U. S. inventory of live timber, by regions, 1953

Region or State	Quantity	Percent of total
	Billion board feet	
West:		
Pacific Northwest	731	44
California	354	22
Rocky Mountain	232	14
Coastal Alaska 2/	89	5
Total	1,406	85
East:		
South	183	11
North	59	4
Total	242	15
U.S. total	1,648	100

1/ Data for the West include trees having a minimum diameter of 11 inches; those for the East include trees having a minimum diameter of 9 inches.

2/ Because of the general inaccessibility of timber in the interior of Alaska and its uncertain economic potential, data on inventory in this area have not been included in the total.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service.

Table 18.--Softwood sawtimber: 1/ U.S. inventory of live timber, by species, 1953

Region and species	Quantity	Percent of total
	Billion board feet	
West: 2/		
Douglas-fir	532	32
Ponderosa and Jeffrey pines	224	14
Hemlock and Sitka spruce	208	13
True firs	184	11
Western white and sugar pines	57	3
Redwood	36	2
Other softwood	165	10
Total	1,406	85
East:		
Southern pine	174	11
Other softwood	68	4
Total	242	15
U.S. total	1,648	100

1/ Data for the West include trees having a minimum diameter of 11 inches; those for the East include trees having a minimum diameter of 9 inches.

2/ Includes coastal Alaska.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service.

Table 19.--Softwood sawtimber: Ownership in the United States, by types of owners and by regions, 1953

Type of owner	West 1/		East 2/		U.S. total	
	Quantity	Percent	Quantity	Percent	Quantity	Percent
	Billion board feet		Billion board feet		Billion board feet	
Private:						
Forest industries and other nonfarm	448	32	131	54	579	35
Farm	59	4	81	34	140	9
Total	507	36	212	88	719	44
Public:						
National forest	722	51	18	8	740	45
Other Federal	121	9	6	2	127	7
State, county, and local	56	4	6	2	62	4
Total	3/ 899	64	30	12	3/ 929	56
Total, private and public	3/ 1,406	100	242	100	3/ 1,648	100

1/ Includes Montana, South Dakota, Wyoming, Colorado, New Mexico, and all States west thereof except Hawaii and interior Alaska, for which data are not available; data include trees having a minimum diameter of 11 inches.

2/ Includes all States east of those named in footnote 1; data include trees having a minimum diameter of 9 inches.

3/ Includes 89 billion board feet in coastal Alaska, of which 83 billion is in the national forests and 6 billion in other Federal holdings.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service.

Table 20.--Softwood plywood: U.S. production and lumber equivalent, 1947-62

Year	Plywood production	Lumber equivalent 1/
	Million square feet, 3/8-inch basis	Million board feet
1947	1,700	850
1948	1,954	977
1949	1,977	988
1950	2,676	1,338
1951	2,995	1,498
1952	3,178	1,589
1953	3,848	1,924
1954	3,989	1,994
1955	5,284	2,642
1956	5,432	2,716
1957	5,653	2,826
1958	6,487	3,244
1959	7,736	3,868
1960	7,743	3,872
1961 2/	8,448	4,224
1962	3/ 9,217	4,608

1/ Converted on the basis of 2 square feet of 3/8-inch plywood equals 1 square foot of actual 3/4-inch lumber (nominal 1-inch lumber).

2/ Preliminary.

3/ Forest Industries, January 1963, p. 35.

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

Table 21.--Softwood plywood: U.S. production 1/ and number of producing plants, by States, specified years 1954 to 1961

Year	U.S. total	Oregon	Washington, Idaho, and Montana 2/	California
	Production (million square feet, 3/8-inch basis)			
1954	3,989	2,014	1,434	541
1956	5,432	3,180	1,527	725
1958	6,487	4,233	1,402	852
1960	7,743	5,083	1,580	1,080
1961 3/	8,448	5,498	1,738	1,212
	Number of plants			
1954	96	43	35	18
1956	122	64	37	21
1958	127	71	33	23
1960	143	78	39	26
1961 3/	145	79	40	26

1/ Does not include softwood plywood that is produced in hardwood plywood plants in the East; such production is estimated to account for less than 1 percent of the U.S. total.

2/ Combined to avoid disclosure of individual plant operations.

3/ Preliminary.

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

Table 22.--Softwood pulpwood: 1/ U.S. production, by regions, 1947-62

(In millions of cords)

Year	U.S. total 2/	South	West	North
1947	16.0	8.1	3.6	4.3
1948	17.5	10.1	3.3	4.2
1949	15.3	8.9	3.1	3.3
1950	17.8	11.2	3.3	3.3
1951	21.3	12.5	4.7	4.1
1952	21.4	12.8	4.5	4.1
1953	22.1	14.2	4.7	3.2
1954	22.2	14.2	5.1	2.9
1955	25.6	15.7	5.9	3.9
1956	29.1	17.4	7.3	4.4
1957	28.2	16.8	7.2	4.3
1958	27.3	17.1	6.6	3.6
1959	29.1	18.7	7.1	3.3
1960	31.5	19.1	8.2	4.2
1961 3/	31.5	19.4	8.5	3.6
1962 3/	33.9	20.8	9.2	3.9

1/ Includes chipped residues.
2/ Because of rounding, figures may not add to the totals shown.
3/ Preliminary.

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service.

Table 23.--Softwood sawtimber: Weighted average annual prices of stumpage in U.S. national forests, by selected species 1930-61

(Per thousand board feet)

Year	Douglas-fir 1/	Ponderosa pine 2/	Southern pine 1/
1930	$3.30	$3.60	$3.20
1931	2.90	4.20	3.40
1932	1.70	2.60	2.80
1933	1.20	3/	2.70
1934	1.50	2.50	2.90
1935	1.70	2.40	4.50
1936	2.10	2.20	3/
1937	1.60	2.20	5.30
1938	2.50	2.50	7.30
1939	3/	2.40	5.80
1940	2.30	2.20	4.50
1941	3.60	2.60	10.80
1942	3/	2.70	8.90
1943	3/	5.00	8.70
1944	5.20	4.00	10.90
1945	5.00	5.60	9.30
1946	6.60	5.80	8.90
1947	9.90	8.30	10.90
1948	19.90	14.60	16.40
1949	11.10	17.60	19.70
1950	16.40	18.30	26.70
1951	25.40	33.60	34.60
1952	25.80	27.40	38.50
1953	20.20	25.90	34.20
1954	16.20	27.20	29.70
1955	28.90	26.10	32.00
1956	37.70	27.20	37.40
1957	26.20	24.20	31.50
1958	21.80	19.10	31.10
1959	36.80	20.60	35.20
1960	32.00	19.10	34.50
1961	27.60	12.10	26.80

1/ In some years, includes minor amounts of other species either in national forests or private timberlands.
2/ California only.
3/ Not available.

Source: U.S. Department of Agriculture, The Demand and Price Situation for Forest Products, 1962.

Table 24.--Indexes of the average annual U.S. prices of lumber, softwood stumpage, and all commodities, 1935-61

(1947-49=100)

Year	Lumber 1/	Softwood stumpage 2/	All commodities 3/
1935	27	20	52
1936	29	4/ 15	52
1937	33	21	56
1938	29	28	51
1939	31	5/ 27	50
1940	34	21	51
1941	41	38	57
1942	44	5/ 38	64
1943	47	5/ 46	67
1944	51	46	68
1945	52	46	69
1946	59	49	79
1947	94	68	96
1948	107	120	104
1949	98	112	99
1950	114	142	103
1951	124	219	115
1952	120	213	112
1953	119	186	110
1954	117	170	110
1955	124	203	111
1956	127	239	114
1957	120	191	118
1958	118	167	119
1959	127	216	120
1960	121	199	120
1961	115	154	119

1/ BLS wholesale price index for all lumber.

2/ Except as noted, based on a simple average of the price relatives of three of the principal species of softwood sawtimber (Douglas-fir, southern pine, and ponderosa pine) sold from national forests.

3/ BLS wholesale price index for all commodities.

4/ Douglas-fir and ponderosa pine only.

5/ Southern pine and ponderosa pine only.

Source: Compiled from official statistics of the U.S. Department of Labor, Bureau of Labor Statistics, and the U.S. Department of Agriculture, Forest Service.

Table 25.--Softwood stumpage and lumber: Indexes of the average annual U.S. prices of southern pine and Douglas-fir, 1947-61

(1947-49=100)

Year	Southern pine		Douglas-fir	
	Stumpage	Lumber	Stumpage	Lumber
1947	70	97	73	96
1948	105	107	146	109
1949	126	96	81	95
1950	170	108	120	118
1951	221	116	186	129
1952	246	117	189	127
1953	218	116	148	117
1954	190	111	119	119
1955	204	115	212	130
1956	239	119	277	130
1957	201	115	192	117
1958	199	113	160	115
1959	225	117	270	131
1960	220	115	235	119
1961	171	110	202	114

Source: Compiled from official statistics of the U.S. Department of Agriculture, Forest Service, and the U.S. Department of Labor, Bureau of Labor Statistics.

Table 26.--Softwood sawtimber: Average annual appraised values and bid prices for stumpage in U.S. national forests in the Northwest, by selected species and by districts, 1958-61

Species and year	Northwestern Washington 1/			Eastern Washington 2/			Northern Idaho and western Montana 3/		
	Appraised value	Bid price	Ratio of bid price to appraised value	Appraised value	Bid price	Ratio of bid price to appraised value	Appraised value	Bid price	Ratio of bid price to appraised value
	Per thousand board feet	Per thousand board feet		Per thousand board feet	Per thousand board feet		Per thousand board feet	Per thousand board feet	
Douglas-fir									
1958	$14.99	$22.70	1.51	$3.50	$6.33	1.81	$2.77	$4.30	1.55
1959	30.69	38.44	1.25	10.53	15.72	1.49	5.75	9.05	1.57
1960	25.07	32.52	1.30	7.99	10.93	1.37	4.07	7.03	1.73
1961	16.15	23.08	1.43	3.87	7.88	2.04	2.13	7.31	3.43
Hemlock									
1958	3.82	7.56	1.98	1.03	1.70	1.65	1.37	1.47	1.07
1959	9.17	11.31	1.23	3.60	4.38	1.22	2.22	2.39	1.08
1960	7.35	9.95	1.35	1.25	5.69	4.55	1.34	2.06	1.54
1961	7.39	10.29	1.39	1.00	7.73	7.73	1.31	1.53	1.17
Spruce									
1958	4/	4/	4/	4.53	4.86	1.07	3.73	6.73	1.80
1959	4/	4/	4/	13.74	14.15	1.03	6.93	11.81	1.70
1960	6.63	7.69	1.16	10.84	11.69	1.08	4.63	6.69	1.44
1961	7.24	8.58	1.18	4.16	5.65	1.36	2.75	6.60	2.40

1/ Mount Baker, Olympic, and Snoqualmie National Forests.
2/ Colville and Okanogan National Forests.
3/ Coeur d'Alene, Flathead, Kaniksu, and Kootenai National Forests.
4/ Comparable data not available.

Source: U.S. Department of Agriculture, Forest Service, Stumpage Prices and Pricing Policies in British Columbia, Apr. 24, 1962.

Table 27.--Softwood sawtimber: Average annual prices bid for stumpage in British Columbia crown lands and U.S. national forests in the Northwest, by selected species and by districts, 1958-61

(Per thousand board feet, U.S. log-scale basis 1/)

Species and district	1958	1959	1960	1961
Douglas-fir				
Coastal districts:				
Vancouver, British Columbia	$10.10	$14.67	$15.30	$10.51
Northwestern Washington	22.70	38.44	32.52	23.08
Interior districts:				
Southern interior British Columbia	5.82	8.72	7.73	4.93
Eastern Washington	6.33	15.72	10.93	7.88
Hemlock (coastal districts)				
Vancouver, British Columbia	4.75	5.31	5.19	4.47
Northwestern Washington	7.56	11.31	9.95	10.29
Spruce (interior districts)				
Southeastern British Columbia	4.10	6.75	5.70	4.29
Northern Idaho and Western Montana	6.73	11.81	6.69	6.60

1/ Canadian values converted to U.S. dollars on the basis of the average annual spot rate of exchange, as reported by the International Monetary Fund; Canadian timber converted from cubic feet on the basis of 1 cubic foot equals 6 board feet for coastal districts, and 1 cubic foot equals 5.75 board feet for interior districts.

Source: U.S. Department of Agriculture, Forest Service, Stumpage Prices and Pricing Policies in British Columbia, Apr. 24, 1962.

Table 28.--Softwood sawtimber: Percentage distribution of average log grades of timber sold in specified areas of the United States and Canada, by selected species, 1961

Log grade		Cedar		Douglas-fir		Hemlock	
U.S. Pacific Northwest	British Columbia equivalent 1/	Mount Baker National Forest, Washington	Vancouver Forest District, British Columbia 2/	Mount Baker National Forest, Washington	Vancouver Forest District, British Columbia 2/	Mount Baker National Forest, Washington	Vancouver Forest District, British Columbia 2/
No. 1 and No. 2 peeler and No. 1 saw log.	No. 1	11	11	14	3	10	6
No. 3 peeler, special peeler, and No. 2 saw log.	No. 2	57	33	69	51	62	21
No. 3 saw log and poorer.	No. 3 and poorer.	32	56	17	46	28	73
All grades sold		100	100	100	100	100	100

1/ British Columbia statutory log grades.
2/ Sales during October-December 1961.

Source: U.S. Department of Agriculture, Forest Service, Stumpage Prices and Pricing Policies in British Columbia, Apr. 24, 1962.