NATIONAL LUMBER EXCHANGE IN PORTLAND

by

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Marketing of Lumber Before the Emergence of an Exchange</td>
<td>8</td>
</tr>
<tr>
<td>III. Development of the Exchange</td>
<td>21</td>
</tr>
<tr>
<td>IV. Use of Electronic Machines</td>
<td>57</td>
</tr>
<tr>
<td>V. Evaluations and Conclusions on Failure of the Exchange</td>
<td>62</td>
</tr>
<tr>
<td>VI. Recommendations for Improvements and Possibilities in the Future for an Exchange</td>
<td>84</td>
</tr>
<tr>
<td>Summary</td>
<td>109</td>
</tr>
<tr>
<td>Bibliography</td>
<td>112</td>
</tr>
</tbody>
</table>
Appendices

A. Flow Chart of List-to-Sell & List-to-Buy Orders--Carload Lots .......................... 114
B. Flow Plan of the Lumber Exchange ................................................................. 115
C. A List-to-Sell Order .................................................................................. 116
D. A List-to-Buy Order .................................................................................. 117
E. A Tabulating Card ....................................................................................... 118

F. A Transactor Reference Index Card & Confirmation Card (To-Buy) ............... 119
G. A Transactor Reference Index Card & Confirmation Card (To-Sell) ............. 120

H. Flow Chart of Procedure for Handling Odd Lots ........................................ 121
I. A List-to-Sell Order for Odd Lots ................................................................. 122
J. A List-to-Buy Order for Odd Lots ................................................................. 123
K. A Consummation Order ............................................................................... 124
L. Flow Chart of Consummations ..................................................................... 125
M. Prospective Flow Chart of Floor Trader Operation ........................................ 126
N. Prospective Lumber Exchange Institute Application Blank ......................... 127
O. How a Futures Market Could Operate in Lumber ......................................... 128
# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Listing of Total Consummations of the National Lumber Exchange</td>
<td>50</td>
</tr>
</tbody>
</table>
The National Lumber Exchange was the first attempt to change the method of marketing lumber by means of an exchange trading process. This attempt to change from old established traditional procedures to a procedure that was new to the lumber industry, but old to other industries such as the grain and the cotton industries, met with many problems. These problems proved to be the downfall of the Exchange.

The lumber exchange never claimed to be the final answer. It represented only the first positive, intelligent step forward to enable the collective existing marketing companies to reduce their joint communication costs and to increase their sources of supply, as well as enabling producers to realize more adequate and stable market prices for their products and to increase the scope of their markets.

The Problem

Statement of the Problem. It is the purpose of this study to make a careful and comprehensive analysis of the National Lumber Exchange in Portland, Oregon, to survey its brief operation, to determine the reasons for its failure, and to offer recommendations on how it might work in the future for the lumber industry. In other words, the problem is to study and to determine whether a lumber exchange would fulfill a need
for a new marketing program to move lumber and related products to the ultimate consumer more rapidly and economically. The basic question to be answered here is, "Can an Exchange justify its existence?" The answer to this as far as the National Lumber Exchange was concerned would have to be "no," based on the history of its brief operation. In answer to an exchange for lumber for the future, the answer would be "yes," and chapter six on recommendations and conclusions points this factor out.

**Importance of the Study.** The paramount need for changes in tradition, custom, and precedent in marketing lumber for so many years brought about this exchange and made this study possible. This need for change has emphasized problems of lumber firms, mills and wholesalers, long entrenched in traditional ways of selling and buying lumber.

It is an hypothesis of the investigator that this study can anticipate problems, as well as to suggest solutions to old problems, if an exchange were to be attempted again.

It is hoped that this study will bring out some of the desires and wishes of lumbermen who are looking for new methods of marketing lumber and who are willing to pioneer a new procedure in the lumber field.

It is also hoped that this study will give lumbermen an insight into the possibilities of marketing a standard product like lumber on an exchange, similar to the marketing of other standard products such as grain and cotton products on exchanges, and thus provide a guide
to the making of future plans for the lumber industry.

Methods Used. This is a case study in which the writer observed the preliminary and actual operations of the Exchange. Four months were required by the writer in daily observation to view and to gather the evidence that is in this study. This is a detailed investigation and an accumulation of qualitative and quantitative data from a number of lumber respondents both inside and outside of the Exchange.

This writer was able to conduct a personal survey by serving on the staff of the Exchange during its operation in an advisory and uncompensated capacity representing the field of Education. No prepared form of questionnaire was ever used at any time in this study as it was considered, in the opinion of the writer, to be less effective than a case study approach. Materials used in this research included information obtained from such sources as personal interviews, personal documents, documents and files of the Lumber Exchange, the writer's own observations, and current lumber periodicals and government publications, as well as some library sources.

An earnest attempt has been made in this study to maintain objectivity and to refrain from passing judgments not based upon evidence presented. It has been the writer's intent throughout the study to get objectivity by diagnosis, and to avoid as much of the element of subjectivity as is possible under the circumstances.

Limitations of the Study. Review and observation began on this Exchange by the writer after approximately three months of preliminary work by the Exchange but prior to an additional three months of
planning and the two months of actual operation.

Organization Of The Study

Chapter I is a brief introduction and shows the importance and purpose of this study. Chapter II discusses the marketing of lumber before the emergence of an exchange; also, this chapter discusses how lumber has been moved to the ultimate consumer in the past seventy-five years. In chapter III a background of the development of the National Lumber Exchange is given with the rules of trading that the Exchange followed in its operations. In addition, Chapter III compares the National Lumber Exchange with a grain exchange at Chicago. Chapter IV follows next with an exposition on the actual operations. Paper forms and paper form processing are described verbally, with flow charts and illustrations on these operation aids being placed in the Appendix. Also, the results of trading on the Exchange are given, and the chapter closes with a resume of future plans of operation of the Exchange by the board of directors—plans which never materialized—namely, the use of factoring, automation, and an elaborate educational and public relations program. Chapter V discusses the weaknesses of the Exchange. This chapter includes, also, what some of the lumbermen in various levels of lumber marketing had to say about the lumber exchange. Chapter VI, the final chapter, summarizes and concludes, and gives recommendations and possibilities that might be used in the future for a lumber exchange, including
futures trading with organized speculation, and the setting up and operation of a lumber exchange institute needed to educate lumbermen and the public in the operations of an exchange.

Definition Of Terms Used

The Exchange. In the thesis, reference is made, at times, to the "Exchange" in place of the full title, "National Lumber Exchange." It is to be understood by the reader, therefore, that when the name is capitalized--"Exchange"--reference is being made to the National Lumber Exchange.

Exchange. This is a marketplace where buyers and sellers may meet and trade by making bids and giving orders or offers on goods that are available for sale. An exchange is, thus, a marketing mechanism used by some commodities in the distribution of those commodities.

Seat on an Exchange. Admission to membership of an exchange requires usually the purchase of an already existing membership, called a seat, as the charter of incorporation limits the total membership.

Bids and Offers. A firm indication to buy is known as a bid; a firm indication to sell is known as an offer. Neither a bid nor an offer are regarded as merely inquiries.

Futures Trading. Trading confined to agreements, or contracts, to buy or to sell and not consummated purchases or sales is known as futures trading. All trading is done by contracts with little
thought of actual delivery and actual receiving of lumber in the mind
of the seller and the buyer, respectively.

It is a market mechanism set up for staple products that can
easily be standardized and is used to facilitate the cash trading
market of the products involved.

Sell Short. Any trader who takes a "short" position in the futures
market by selling a futures contract involving the delivery of lumber
that he does not actually own is selling short. The trader has taken
this short position because he feels that prices are going to drop.

Buy Long. Any trader who takes a "long" position in the futures
market by buying a futures contract involving the receiving of lumber
that he does not actually want is buying long. The trader has taken
this long position because he feels that prices are going to rise.

Hedging. Business acts involving, basically, the shifting of
the risk of price fluctuations from one party to another party are
known as hedging. Hedging consists of a simultaneous purchase and
sale of equal amounts of a commodity, with the expectation that the
losses on one act will be offset by a gain on the other when the hedge
is closed. It, thus, is a means of getting some degree of protection
against inevitable price changes and protecting the one who is hedging
against any losses from a normal profit.

Spot Trading. When cash dealing is carried out with immediate
delivery of the lumber, it is known as spot dealing. In practice,
however, many dealers and writers use the terms "cash" and "spot"
interchangeably.
Factoring. Factoring is a process of financing in the form of buying accounts receivable. The factor, a middleman in financing, acts as the credit department of the concern whose accounts he buys. He passes on the credit of the buyers and guarantees the payment of their accounts. The usual method is to have the account made payable to the factor, who pays the seller as soon as he receives the invoice and the bill of lading.
Chapter II

MARKETING OF LUMBER BEFORE THE EMERGENCE OF AN EXCHANGE

The distribution of lumber products from sawmills is an enormous one because of the fact that the centers of production generally are far removed from the consumer areas. There are many thousands of separate and distinct manufacturing units and construction users competing with each other in these markets.

The problems of moving lumber to the ultimate point of consumption, either directly or through the medium of a middleman, are intricate and complex. Among factors controlling the movement of lumber to its destination are: (1) the demands of the market for different species having both general and special uses, such as construction, home building, or packaging; (2) the prices, at the point of delivery of species with limited use and those which might serve as substitutes for other species when used for similar purposes; (3) the cost of delivery from the sawmills to destination; and, (4) the availability of lumber at periods of peak demands.

Importance of Lumber in the National Economy

Lumber is an important factor in the American economy. There are numerous species of trees growing in these United States. However, only a limited number have commercial importance. The American Lumber industry is developed to produce varieties of sizes, species, dimensions, surfaces, and select, common, and shop grades for
purposes and uses. According to the last published Census of Manufactures in 1954, 321,199 people were employed in various lumber activities: wholesale, retail, logging companies, and sawmills. These data are based on a survey of 19,778 lumber firms reporting to the government. The total payroll in the lumber industry for the same year was $906,847,000, (22, p. 42). The lumber production of softwoods and hardwoods by the lumber industry in 1954 was 36,356,000,000 board feet. Oregon, California, and Washington, in that order, were the three largest producers of lumber, accounting for approximately 47 per cent of the total lumber production of the United States in 1954, (22, p. 44). The total national carloadings of revenue freight in 1954 were 33,914,953 cars, of which 2,084,866 were lumber and lumber products. This represents approximately seven per cent of the total carloadings of the country, (1, p. 24). The value of these carloadings was estimated to be $3,247,000,000, (1, p. 24). With these figures available, it can easily be seen why Portland was selected as the site for the National Lumber Exchange. It was ideally centered in the state which is the largest producer of hardwood lumber.

From the viewpoint of the bankers, the railroads, the ocean shipping lines, and those undertaking the risks of transportation, delivery, and payment, lumber has these advantageous characteristics:

1. It does not deteriorate in relative value if properly handled and protected;

2. It is not readily affected by changing styles;

3. It has a prompt resale value;
4. It is not affected by heat, cold, or climatic changes;
5. It is not easily stolen because of its weight and bulk;
6. It can readily be insured at relatively low rates.

Channels of Distribution

A channel of distribution is the course which is taken in the transferring of title to a product. There are many kinds of middlemen with several channels of distribution in lumber. According to the West Coast Lumbermen's Association, middlemen in lumber distribution are divided nationally into four categories: (1) those specializing in buying and selling of lumber by taking title to the goods and carrying an inventory; (2) those buying and selling and taking title to lumber, but not handling the lumber and, hence, not carrying an inventory; (3) those physically handling the lumber, but not taking title to the lumber or maintaining an inventory; and, (4) those neither buying nor selling, neither taking title nor handling, but being definitely a part of any channel of distribution of lumber in the country by performing functions other middlemen are not able to do.

In observing the activities of the lumber industry and from speaking to lumber leaders, the writer concluded that the most typical and common channel of distribution of lumber today is: sawmill-to-wholesaler-retailer-to-user. Although, at times, it appears that there is no necessary economic function to be fulfilled by middlemen in the general scheme of distribution, the very exigencies of lumber
distribution seem to demand their services.

Generally, a considerable period elapses between the time of logging and sawmill operations and the time of ultimate use after seasoning, handling, and transportation. Considerable financing is required usually to carry the burden in the interim. Sawmills have their own problems, both those of marketing through their own salesmen and also those involving limitations of manufacture. The forests producing raw materials for these mills vary from district to district, (4, p. 64). Mills are generally far removed from the customers and, consequently, there are many middlemen in the marketing of lumber from production to consumption. In spite of the availability of middlemen, large sawmills often maintain a specialized sales force and sell directly to large industrial enterprises, or other consumers, thus eliminating the use of middlemen. For instance, sawmills often perform all the marketing functions by selling directly to large industrial corporations, to contractors having large construction operations, and to other prominent buyers, such as, railroads, oil companies, and mine owners.

The wholesalers, the first group of middlemen listed above, are lumbermen maintaining sales organizations, having offices, and assuming credit risks, as well as inventory obligations incidental to the transportation and distribution of lumber. The success of wholesalers depends upon their knowledge of the sources of supply and their ability to develop sales. Every carload of lumber sold by wholesalers competes with similar lumber sold by sawmills, as both groups, many
times, are competing constantly for the same market. Wholesalers must know the methods and problems of lumber manufacture, the grading and the inspection of the product, the customs and the usages of the trade, the traffic rules and the traffic regulations, the freight rates, and the requirements of and the financial limitations of their buyers. With rapid price fluctuations in the market, the wholesalers anticipate market trends as much as possible, and keep in constant touch with the producing and consuming areas of the United States.

Some wholesalers limit their operations to one kind of lumber. They may handle hardwoods or northern hardwoods alone or they may handle a group of similar species, such as, northern white pine, ponderosa pine, and western pine. Some wholesalers handle only Douglas fir, while often some will specialize in plywood or other related lumber products. Occasionally, wholesalers may handle all domestic species of lumber and various other forest products, such as cross ties, plywood, shingles, millwork, and piling. Their objective is to serve the needs of customers for the several species and to save time and traveling expense.

Wholesalers perform a valuable service to the small producer, as well as the large producer at times, of both hardwood and softwood lumber, because without him the small units would not be able to sell their output to advantage, if at all. The wholesaler concentrates the output of numerous small mills, re-manufactures it when necessary, and distributes it in the form of carload lots which best meet the needs of factories and other consumers.
In addition, the wholesaler often specializes in the needs of large lumber buyers, or in the requirements of a limited territory, and through his personal acquaintance with conditions is better able to complete the sales transactions than shipper can do who is located in the far-off distance. He knows the customers in person, relieves the shipper from an excessive investment in distributing facilities, carries at least a part of the credit risks, and performs other valuable services which the shipper often cannot do to advantage. Many of the larger lumber producing units find it impossible to move their entire product at a reasonable cost and a satisfactory price without the service of the middleman.

Sometimes, wholesalers operate as "selling agencies" or sales exchanges in the distribution of the products of a group of mills. This is often performed with interlocking ownership which pool their sales. Such an exchange, which is the closest form of the exchange in this study, not only enables mills to reduce their expenses by maintaining one sales department, but also to handle orders which individual mills could not fill. This is possible not only because of the greater volume of product available, but primarily because orders can be so distributed among member mills that stocks at individual plants can be kept more nearly "balanced." "Selling agencies" also may purchase lumber from manufacturers who are not members of the exchange, and offer it for sale together with the product of member mills. These agencies or exchanges are incorporated bodies, and their sales methods vary with the general purposes for which the exchange is
organized, some being operated for profit, and others being designed to market the lumber for the affiliated companies at cost. These sales agencies or sales exchanges are the forerunners of a lumber exchange, national in scope, and operating for both buyers and sellers, but not taking title to the goods, much as an exchange does not do.

Actually, there are two types of wholesalers in the marketing of lumber, (4, p. 82). First, there are those having large wholesale yards located at some point or points between the mills and the markets, where they assemble, grade, dress, season, kiln dry, and handle the lumber. In the East and in the South, wholesalers often buy mill-run lumber at a stated price, regrade it, and distribute it. Sometimes, they are financially interested in companies, controlling the output of several small mills. In addition, there are combinations of sawmill-wholesalers and wholesaler-retailers where vertical integration has taken place because of necessity, or because of the desire to expand and increase profits from operations.

Second, there are wholesalers buying, selling, and taking title to the lumber, but not physically handling it. They have neither stocks nor lumber yards, and seldom see the products they are buying and selling. These middlemen are known in the lumber trade as office wholesalers. They may have one or more buying offices in the producing regions in which they are interested. Office wholesalers often assist both mill operators and buyers financially by extending favorable terms. Generally, this type of wholesaler invests comparatively little capital in his business. They are especially valuable to users
of lumber in the services they are able to offer buyers, such as, information on car numbers, time of shipments, and data about grades and conditions, which mill operators at distant points are less readily able or willing to give buyers.

In purchasing, all types of wholesalers may buy up stocks in advance of sales and hold them for a rise in prices, or they may sell in advance of their purchases. This latter practice is not too prevalent today for wholesalers are constantly in touch with mills on stocks and on offerings, and generally know at what prices lumber may be purchased. As soon as sales contracts are consummated, orders are covered by wholesalers to the best possible advantage to them. Wholesalers usually have numerous sources from which to draw lumber, and to know where surplus stocks of given sizes and grades are available. Surplus stocks are purchased for cash from small mills at some concession in prices. Wholesalers' offices are supplied weekly with offering sheets from mill operators who facilitate the purchasing of surplus stocks. In addition to their knowledge of sources, wholesalers are experts in traffic matters, particularly in freight rates and in routing of railroad and truck operations and activities. As the mills are chiefly interested in delivered prices, the wholesalers must reconcile both mills and retail yards to their own advantages. Commissions earned by wholesalers are usually five per cent of the f.o.b. mill value.

There never has been complete harmony between manufacturers and wholesale dealers. Many large producers have tended to assume the
attitude that wholesalers are a non-essential factor in the field, and both sides have been prone to point out each other's weaknesses. Although the manufacturers successfully market a portion of the lumber cut, the activities of the wholesalers represent an essential feature in distributing not only the output of the army of small mills, but likewise an appreciable part of the large mill production.

Another middleman in the same category of merchants as the wholesaler is the operator of the retail yard. This type of distributor engages in marketing functions similar to the wholesaler in buying, selling, handling and taking title to the lumber. Many times, he is the ultimate distributor of lumber since he sells in both large and small lots to anyone and everyone, and constitutes the final stage in the marketing of lumber. From the very nature of the business, the retail yard operator incurs heavy costs, such as, taxes, insurance, unloading, piling, handling, and distributing of the lumber. Storage and overhead charges are exceedingly high for he must maintain large stocks of lumber in various species and sizes in the yard.

The success of the retail lumber dealer depends somewhat upon his location with respect to the consuming area and market, the energy and efficiency of his management, the conditions of his terms and prices, the advertising and the merchandising policies, and the programs and the procedures. Practically all buyers of lumber, outside of those in areas where sawmills are situated, purchase through retail yards, except the larger industries, the railroads, the mines, the oil companies, the shipbuilding firms, and the construction companies.
These large users can afford to purchase in carload lots and have the necessary storage facilities, (5, p. 87).

The second category of middlemen are those who sell and take title, but do not handle lumber. In this group, there are office wholesalers (discussed previously with wholesalers), direct buyers, and line yard buyers.

Another class of middlemen that have the features of this category of middlemen, but do not take title, are known as commission men. The commission men sell purely on a commission basis, and take no responsibility for shipments, deliveries, or payments of accounts. They sell for either mills or wholesalers, or both. Commission men occupy an important position in the channels of distribution. Their commission is usually paid upon shipment of the orders, or at the end of the month. However, some firms pay commission men on the basis of one-half on the acceptance of the order, and the balance on its final delivery and payment. Commission men or lumber brokers, as they are often named, operate on different bases of commissions. For instance, their commission may vary from approximately fifty cents per thousand board feet on lower-priced and highly competitive lumber such as roofers, small dimensions, timbers, common grades, to $1 to $2 per thousand board feet, or even five per cent, on high-grade hardwoods. Commission men, when buying similarly to drop shippers in other industries, bill lumber shipped in the names of their buyers rather than in their own names. This billing procedure is the direct opposite of office wholesalers' operations, (5, p. 146).
Other types of middlemen in the same classification with commission men and office wholesalers are the direct buyers and the line yard buyers. The direct buyers operate on a salary basis when working and buying directly for a company, and they operate on a commission basis when working independently as middlemen. Working independently, they will buy directly from sawmills for accounts such as, railroad companies, mine owners, and some large industrial firms of the factory type. They also may buy from large sawmill-wholesalers. Line yard buyers, too, working on salaries or on commissions, may or may not be independent middlemen. Very often they are regarded as buying office cooperatives when they represent or actually work for many retail yards that they serve.

The third category of middlemen are those who are neither buying nor selling, who are not taking title, but who are handling the lumber. These middlemen are both private and public transportation companies working on a contract or non-contract basis. Lumber is principally moved by rail, but truck and water transportation are used extensively too. A few of the large lumber companies, such as Weyerhaeuser Company and Pope and Talbot Lumber Company, have their own motor and water transportation equipment. Many of the larger sawmills and larger wholesalers have contracts with private carriers to handle all of their shipping needs.

The last group of middlemen found in the distribution of lumber are those that neither buy nor sell, handle or take title to the lumber. However, they play important parts in the movements of lumber
from production to consumption. This group includes banks, insurance companies, credit agencies, advertising agencies, market research firms, factors, public warehousemen, freight forwarders, and lumber inspectors of private inspection services. Each one of these middlemen performs a necessary service function which may or may not be used in each channel of distributing lumber.

As indicated above, there is a wide variety of middlemen involved in numerous channels of distributing lumber. With such a variety of middlemen and channels of distribution, it would appear, then, that there are some inherent inequities and inefficiencies in the lumber marketing system. There are many lumbermen who realize that the methods of manufacture have advanced with the advent of new processes and tools; but, during the same period there has been no determined advance, no education of buyers or sellers, no original approach to the revamping of the marketing system by the utilization of advanced methods of trading or communications of gathering and disseminating of market information, and little factoring.

Merchandising is one of the most complex and difficult problems which has confronted the producers and distributors of lumber. The problem is difficult to solve for various reasons, among which are the widespread distribution both of the production and consumption centers; the great variety of tree species forming the raw materials, each having diverse mechanical and physical properties; the multitude of purposes for which lumber is used, approximately several thousand items; the thousands of producers whose annual output ranges from a
few, to thousands of carloads; and the lack of adequate cooperation among producers, middlemen, and retailers who place the products of the industry in the hands of the consumer.

It is a well recognized axiom that continual fluctuations in prices result in a decreased demand for lumber, and other products, because the buyer is loath to make purchases when there is not a fairly well-established price level for a given commodity. The problem is, thus, how to attain harmony between production and consumption in an industry whose producers vary so widely in financial responsibility, in capacity to produce, and in knowledge of markets and marketing procedure.

The idea of a central market as an exchange from where many buyers and many sellers could meet and trade was an attempt to overcome these inadequacies and disadvantages of present day marketing of lumber.

In Chapter III, the development of the exchange for the lumber industry is discussed with the rules of trading, as well as a comparison of the lumber exchange with a grain exchange operation. From the foregoing part of this chapter, it can be seen that with the wide variety of middlemen, each with his individual system of merchandising, there is a need for a change in marketing and promotion of lumber, an exchange, or some new means of marketing to eliminate some of the wastes and inefficiencies in the lumber industry. The education of buyers and sellers would then become highly important in any significant change in the channel of distribution from what is now being done currently.
Chapter III

DEVELOPMENT OF THE EXCHANGE

The Army, Navy, and Air Force all procure finished lumber in carloads or larger lots through the Lumber Procurement Division of the Corps of Engineers of the Army. This is part of the overall service unification program. In addition to a central office in St. Louis, two subsidiary offices are situated near the sources of supply, Atlanta, Georgia and Portland, Oregon.

At Atlanta and Portland, the government conducts lumber auctions from time to time whenever it is necessary for the government to fill its lumber needs. These auctions actually operate in a reverse manner to the workings of an ordinary fruit, livestock, or tobacco auction. Sellers, representing sawmills and large wholesalers, calculate prices and submit bids to the government based upon buying lists published and circulated by the government. Neither quotations nor inquiries are made, as all lumber sold to the government is based upon the government lists and the seller bids. The lowest bidders receive the orders and consummations are made on a spot basis, or otherwise on a similar basis as in retailing.

These government auctions suggested the desirability of an exchange for the buying and the selling of lumber in private business. It was felt that there was some similarity between an auction and an exchange, as well as significant differences too, in that they are both marketing places for buyers and sellers to meet and to trade;
and that a continuous operation of this kind operating under definite rules of trading would be a quicker and more efficient way of distributing lumber when compared to methods and channels of distribution in use today. Mr. Lyle Baker, the originator of the exchange idea, approached and induced a group of four men, namely, Mr. A. Mills, Mr. H. Van Allen, Mr. G. Talbot, and Mr. J. Perry, to form a corporation for the purpose of setting up and operating a national lumber exchange with headquarters in Portland. A corporate charter was drawn up with the official name of National Lumber Exchange and, with an application, was approved early in 1957 by the State of Oregon. Capitalization was set at $76,000 with 950 shares of stock. This was a closed corporation with four members receiving 200 shares of stock each and one member receiving 150 shares. Next, a sum of $4,000 was appropriated for surveying the lumber industry and for getting the preliminary phases of the Exchange started. Brochures, publications, and letters were composed and sent out to interested lumber people; a board of directors with individual responsibilities was formed; a constitution and rules of trading were drawn up and approved; and a date, October 21, 1957, was set for the opening of the Exchange.

One month before the opening, a staff of six experienced lumber men was hired and dispatched for field public relations work. These men were to be the core of the Exchange. They were hired to contact wholesalers personally and induce them to join the Exchange as buying members. Later these men were to be the transactors for the Exchange on the Exchange floor when it actually opened. Direct mail and
telephone solicitations were used mostly to contact mill operators, as not much resistance was anticipated with mills as selling members.

A suite of rooms for offices and a large room for trading were rented in the Terminal Sales Building in Portland. In addition, a sixty-foot blackboard for listing offers and bids was secured and set up on the trading floor. Next, an arrangement was made with Remington Rand Company for later procurement of a Univac machine to speed up the paper work of the Exchange.

Before the Exchange could open, however, it became apparent that additional capital would have to be obtained from other sources, such as the selling of additional stock or the borrowing from banks or private individuals. Additional capital was received when Mr. G. Talbot, a Pacific Coast regional wholesaler agreed to provide an additional amount of $65,000 to the young Exchange as a loan with a limited interest rate of 2½ per cent.

The original plan for the Exchange was to sell memberships to sawmills and wholesalers and to be a listing board for the mills and the wholesalers. The mills would list lumber for sale in carload lots; the wholesalers would list offers to buy lumber in carload lots. The Exchange would then transmit information to both parties and, upon their agreement on price, notify them of the sale completion.

While the mill members would not pay a membership fee, they would pay a charge of $5 per car on all listings for sale on the exchange, whether listings were sold or not.

Wholesalers who accepted the invitations to join the exchange
would, however, carry an annual $1,000 membership fee and in addition, for each car listed, whether for purchase or for sale, the wholesaler would pay a $5 listing price per car listed to buy on the exchange, but, with the first 200 carloads purchased at $5 per car to apply to the $1,000 membership fee. In other words, the wholesaler would be paying in advance for 200 carloads of listings and the mill would not pay anything in advance for offers that were listed. The thought behind this organizational factor was to insure buyer listings; it was general agreement amongst board of directors at the exchange that resistance would be from the buyer, rather than from the seller.

With more money problems plaguing the Exchange a week before the scheduled opening, the chairman of the board, Mr. G. Talbot, made a hurried trip east to look for additional capital from other sources. While he was in the East, the scheduled date for the opening arrived, October 21, and the Exchange was opened at 7:30 a.m. The Exchange opened with its future clouded with uncertainty.

Rules Of Trading

There were eighteen rules of trading passed by the Board of Directors of the National Lumber Exchange in the summer of 1957. These rules listed in the National Lumber Exchange's Constitution and Rules of Trading manual (17, p. 15-22), were as follows:

Rule 1. The Exchange shall be open for transaction of business on every business day in the State of Oregon, except Saturdays, from 7:30 a.m. to 2:30 p.m., Pacific Standard Time, and at such other times as may be determined by the board of directors.
Rule 2. The board of directors shall have the function of approving the listing of lumber and allied products on the Exchange, and of the admission of trading of lumber and allied products on the Exchange. The Listing Officer may refuse to list, suspend dealings in or remove from listing, any lumber or allied products offered for sale or for purchase. Also, any member that has been aggrieved by any such action of the Listing Officer may appeal to the board of directors, whose decision on the matter shall be final.

Rule 3. This rule covers the unit of trading. The unit of trading in rail sales of lumber shall be one carload. A carload is defined as the amount of lumber in one rail car necessary to make the minimum weights. The unit of trading in cargo sales of lumber shall be in multiples of one-thousand board feet, and for purposes of computing fees chargeable, thirty-thousand board feet shall be the equivalent of one carload.

Rule 4. All bids and offers listed on the trading board will be made on a unit basis and to the even half dollar on a per thousand board feet basis.

Rule 5. All bids and offers on the Exchange will be made on an f.o.b. mill basis, unless otherwise specified in the listing.

Rule 6. All bids and offers shall be on a firm basis and shall be considered firm until withdrawn from the trading board. No withdrawals shall be allowed, unless accepted by the Listing Officer. Bids and offers shall be regarded as accepted in a consummation upon the filing by a member with the Listing Officer of a notice of acceptance. Notices of acceptance shall be in the form prescribed by the board of directors and shall specify whether the purchaser is to pay cash for his purchase. The member filing the proffered listing shall bear the responsibility of any risk of error in transmission of bids and offers to the Listing Officer.

Rule 7. All bids and offers on the Exchange for mixed carloads will be determined by the Listing Officer. He will deem what is to be odd lots and what shall be handled by members on the floor or through the floor traders and shall not be listed on the trading board.

Rule 8. Unless otherwise indicated in the listing, all sales are for immediate shipment. Immediate shipment shall be defined as two weeks or sooner from the date of acceptance of the bid or offer, unless otherwise specified at time of listing.
Rule 9. All bids and offers shall be time stamped on receipt by the Listing Officer. In case any dispute arises as to priority, those bids or offers shall be given preference as to listing, sale, and purchase on the basis of the time received for them.

Rule 10. This rule deals with offers to buy or bids to buy. A wholesale trader member may offer to list for purchase one or multiple carloads, and in case of cargo sales — specified thousands of feet of lumber of allied products, any time he wishes. Such listing shall be for immediate delivery unless otherwise indicated in the listing and permitted by the Listing Officer. An offer to buy so listed is thus firm until withdrawn by the wholesale trader in the manner provided in Rule 6.

The wholesale trader may list his offering in one of three ways:

a. He may notify the Listing Officer by wire, teletype, telephone or other form of communication of his desire to purchase a specified quantity at a set price and such listing will go on the trading board as a firm order to buy. It will remain on the trading board until he withdraws it, or the offer to purchase is accepted.

b. He, or a designated agent or alternate, may physically present himself on the floor of the Exchange and make offers to buy as offers to sell appear on the trading board from the mill traders.

c. The wholesale trader may notify a floor trader of the Exchange of his desire to buy at a set price or at a price fixed in the judgment of the floor trader. By doing this, the wholesale trader lets the floor trader buy on the floor for him according to the instructions given. The floor trader of the Exchange may list any offer to buy that has been transmitted to him in the manner provided in Rule 6. In addition, the floor trader will file with the Listing Officer a copy of any written agreement he may have with a wholesale trader. When the wholesale trader handles his own trading on the floor, he pays a flat fee of $5 per carload to the Exchange when billed by it for all cars purchased on the Exchange. When the wholesale trader is represented by the Exchange floor trader on the trading floor, the wholesale trader pays a fee of $5 per car plus an additional fee of one-half of one per cent of the net purchase price of the lumber or allied product on an f.o.b. mill basis for the service of the floor trader. When the bid is consummated and accepted on the Exchange, the wholesale trader is notified by the Exchange of the consummation
of the sale and the terms on which he bought the lumber, and is instructed as to the location of the mill that has accepted the bid. At the same time, the mill that has accepted the offer to buy is notified by the Exchange of the sale, the price and the name and address of the wholesale trader member who is buying the lumber. Shipping instructions are not handled by the Exchange, but is left to the wholesale trader who notifies the mill trader.

Rule 11. This rule deals with offers to sell. A mill trader member may offer to list for sale one or multiple carloads, and in case of cargo sales - specified thousands of feet of lumber or allied products, any time he wishes. Such listing shall be for immediate delivery unless otherwise indicated in the listing and permitted by the Listing Officer. An offer to sell so listed is firm until withdrawn by the mill trader in the manner provided in Rule 6.

A mill trader may list his lumber or allied products for sale in three ways:

a. The mill trader may notify the Listing Officer by wire, teletype, telephone or other forms of communication of his desire to sell a specified quantity of lumber at a set price and such listing will go on the trading board as a firm order to sell. It will remain on the trading board until he withdraws it, or the offer to sell is accepted.

b. The mill trader, or a designated agent or alternate, may physically present himself on the floor of the Exchange, and make offers to sell as offers to buy appear on the trading board from the wholesale traders and users of lumber.

c. The mill trader may notify a floor trader of the Exchange of his desire to sell at a set price or a price fixed in the judgment of the floor trader. By doing this, the mill trader lets the floor trader sell on the floor according to the instructions given. The floor trader of the Exchange may list any offer to sell that has been transmitted to him in the manner provided in Rule 6. In addition, the floor trader will file with the Listing Officer a copy of any written agreement he may have with a mill trader.

When the mill trader handles his own trading on the floor, he pays a flat fee of $5 per carload to the Exchange when billed by it for all cars sold on the Exchange. When the mill trader is represented by the Exchange floor trader on
the trading floor, the mill trader pays a fee of $5 per car plus an additional fee of one-half of one per cent of the net sales price of the lumber or allied product on an f.o.b. mill basis for the services of the floor trader.

When the offer is consummated and accepted on the Exchange, the mill trader is notified by the Exchange of the consummation of the sale and the terms on which the mill trader sold the lumber, and is instructed as to the location of the wholesale trader that has accepted the offer. Shipping instructions, as stated previously in Rule 10, are then sent to the mill trader direct from the wholesale trader.

Rule 12. Alternates may be used, if designated by members of the Exchange, to participate in trading and to receive information of floor activities. All alternate activity falls under the supervision of the board of directors. Also, only members of the Exchange, designated agents or partnership and corporate members, and designated alternates are allowed on the floor of the Exchange and may participate in the trading and may receive information as to trading floor activities. When a member or designated agent is present on the floor of the Exchange, the designated alternate of such member shall not be allowed also, upon the floor.

Rule 13. This rule is specifically for Exchange floor traders. Floor traders are selected by the Exchange, and admitted to membership on the Exchange for the express purpose of acting as agents for mill trader members and for wholesale trader members who do not wish to maintain their own agents to trade on the floor of the Exchange. Floor traders act as the representatives of such members in buying, selling, or trading, according to instructions furnished by such members.

Mill trader members and wholesale trader members can make application to the Executive Vice President of the Exchange, if any one member is desirous of obtaining the services of a floor trader. Unless the services of a specific floor trader are requested, assignments of accounts to floor traders by the board of directors will be primarily on the basis of geographical distribution. No floor trader will be assigned to a member's account whose trading area or interest conflicts with any other account being handled at the time of assignment by the floor trader. Also, mill traders and wholesale traders may request the services of a particular floor trader by application to the board of directors and such request will be granted as long as the assignment does not create conflict of interests between floor traders and member or members.
Floor traders are admitted to membership on the Exchange for the benefit of the mill trader and the wholesale trader members as an aid to the greater utilization of the Exchange facilities by such members. Floor traders are to be governed in their conduct by rules and regulations laid down by the board of directors. They will never be allowed to trade for their own account. All fees earned by the floor traders are payable to the Exchange which will in turn compensate them upon terms laid down by the board of directors. Floor traders are subject to immediate expulsion from the Exchange and floor trading for any private financial arrangements or deals entered into with Exchange members.

Rule 14. As far as credit requirements are concerned, all wholesale traders upon application for membership shall furnish the Exchange with any necessary financial information that will allow the Exchange to determine the wholesale trader's qualifications for membership.

Rule 15. This rule deals with lumber grade requirements and terms of sale. The following rules of trade and terms of sale of the various organizations indicated, are to apply to each individual species traded on the Exchange:

West Coast Lumbermen's Association
West Coast Lumber Inspection Bureau
Pacific Lumber Inspection Bureau
Douglas Fir
Western Hemlock
Western Red Cedar
Sitka Spruce

Western Pine Association

Ponderosa Pine
Sugar Pine
Idaho White Pine
Lodgepole Pine
White Fir
Engelman Spruce
Western Larch

California Redwood Association

Redwood

All lumber listed on the Exchange board, whether or not by a mill trader member who is a member of one of the above trade associations, shall be manufactured according to the above grade specifications and listed and sold on the basis of such associations'
grades, unless specifically excepted in the offer of listing.

Rule 16. All claims by members as to grade, or shortage, or other causes shall be settled as provided in the grading rules and terms of sale of the trade associations specified in Rule 15, according to specie and according to the individual terms of sale of the lumber sold. However, claim settlement does not lie within the province of the Exchange or of the board of directors of the Exchange. However, if any member feels that unfair business or trade practices have been utilized in any transaction occurring on the Exchange by any member in the matter of claims, he may file charges against the offending member, and such member shall be brought for trial before the board of governors under the procedure as outlined in the constitution.

Rule 17. Any communications with the Exchange by any member are at the member's cost; all notifications to members of sale and purchase completion, other than by mail, are for the member's expense. The privilege of telephonic or other wire connections between the office of a member and the Exchange shall be at the discretion of the Exchange. The Exchange may grant or withhold such privilege from a member without being obliged to assign any reason or cause for its action. Any members desiring to broadcast or disseminate news and quotations of the Exchange, shall first obtain the consent of the Exchange.

Rule 18. Terms of sale, as specified in an offer of listing shall be two per cent cash discount on the basis of eighty per cent receipt of invoice, balance in five days after arrival at destination, except by any special agreement between buyer and seller.

As will be noted with those who are acquainted with the operations of other exchanges, the above rules conform closely to the usual procedure, and they are set forth in detail here in order that this similarity may be more apparent.

Comparison With A Grain Exchange

As noted in this chapter, the rules of trading of the National Lumber Exchange were adopted from usual exchange procedures. In
order to emphasize this more fully, a comparison between a grain exchange and the National Lumber Exchange will be made.

The principal organizational features of the ordinary exchange can be briefly summarized. The object of any exchange is to facilitate the market activities of the trade and its members. It does not buy or sell products as an organization. It provides a place for carrying on trade for its members. Some exchanges are formed to regulate and facilitate dealings in a wide variety of merchandise, but others confine their activities to a narrow range of products or even to a single one. Examples of the first class of exchanges are the Boston and New York produce exchanges. The Chicago Mercantile Exchange, the Chicago Board of Trade, the Minneapolis Grain Exchange, the New York Coffee and Sugar Exchange, and the London Metal Exchange are examples of those in which dealing is confined to a few products. The New Orleans and New York cotton exchanges, the Rubber Exchange of New York, Inc., and the National Raw Silk Exchange are confined to trading in a single commodity.

In comparing the National Lumber Exchange to the Chicago Board of Trade grain exchange in Chicago, it was found that there was some similarity. The Chicago Board of Trade operates on a spot cash trading basis at current purchase and current sales prices just as the Lumber Exchange did. The grain exchange determines who may be members and who may use the exchange and deal through members. The National Lumber Exchange Board of Directors was the determining body that decided on membership in the Lumber Exchange.
Another similarity of the Lumber Exchange and the grain exchange was their power to regulate business dealings of members trading on the exchange, voiding all "shady" dealings that hurt the orderly marketing of lumber through a free play of supply and demand. In addition, the National Lumber Exchange assisted in settling disputes arising from any trading on the Exchange, because it did not trade in lumber itself.

Similarities of the National Lumber Exchange with the grain exchange in Chicago, and with any other exchanges in the country, were very few. There were, however, many dissimilarities between the Lumber Exchange and the grain exchange. For instance, the grain exchange is operated as a grain industry enterprise. The board of directors is composed of representatives of member companies in grain. Also, the grain exchange is a non-profit organization and ownership of the exchange belongs to the members who buy stock in it and vote at stockholders' meetings. The National Lumber Exchange was not organized in that manner. It had incorporated as a private corporation and was in business for a profit. Ownership was vested in only eight men who controlled all of the shares in the corporation.

The Chicago Board of Trade is under the Commodity Exchange Act of 1935 and thus is under strict federal control. Federal control is vested in the Commodity Exchange Authority of the Department of Agriculture. The National Lumber Exchange had no government jurisdiction to contend with in their operations, since lumber was not listed as a commodity under the provisions of the Commodity Exchange Act.
The grain exchange operates actually in two markets that are independent of each other, but that are related to each other. These markets are cash and futures. The National Lumber Exchange, being a new enterprise, started operations on a spot-cash basis only, and did not have any facilities for futures trading. This will be discussed later in another chapter.

The National Lumber Exchange did not establish grades for lumber, and did no selling by actual inspection and sampling. The grain exchange establishes uniform grades for its grain products listed on the boards, and provides a system of inspection. This is important in grain trading in either cash or the futures markets. Cash trading in grain is done entirely by samples submitted on the floor, by railroad car number and by grade; futures trading is in terms of a contract grade which is determined by the grain exchange.

Trading in the grain exchange is a floor operation. Buyers and sellers represented by members of the Exchange meet on the floor and consummate deals by bidding and offering through verbal communication and hand signal operation. Lumber exchange trading was done by exchange transactors who took the initiative in bringing buyer and seller together in consummating sales, much as a broker would do. There were no floor activities and all buyer and seller members had to transact their business through an exchange transactor, who was employed by the lumber exchange on a salary basis.

The grain exchange sells seats to members and a limit of 1,322 seats, (23, p. 1), is placed on the grain exchange membership. Seats
are sold between individuals, but with the consent and approval of the board of directors of the grain exchange. The National Lumber Exchange did not handle its membership on that basis. It believed in unlimited membership to start activities, and eventually planned to restrict and cut down on numbers of buyers and sellers on some basis such as the Chicago Board of Trade has done.

The grain exchange acquires and disseminates market news about sales and prices on grain products listed on its trading boards. This is important not only to the middlemen engaged in buying and selling grain, but also to the farmer in aiding him in his decisions on when to sell his grain. The National Lumber Exchange did not collect and tabulate any market news or maintain any statistical service of any nature; therefore, no market news or prices on lumber species and grade were disseminated to the trade.

The grain exchange lists only price changes on each grain commodity; it does not list any amounts in volume traded. Only when a trade is made in which the consummation is above or below the price listed on the trading board, is the price changed on the board. Each day a list of trades in volume and prices is made, as well as the opening, closing, high and low prices. The trading board at the National Lumber Exchange was a listing board for it listed all bids and offers, as well as inquiries, and showed all listings to buy and to sell by price and numbers of cars for all species and grades. These listings remained on the board as firm listings until a consummation was made or was taken off by the member making the bid or offer.
There are limits in price fluctuations at the grain exchange on all commodities, but there were no limits at the National Lumber Exchange.

The following chapter relates how the exchange operated with step-by-step office procedures, using actual forms and flow charts. Also, the statistics of all operations in bids, offers, and consummations by prices and species are summarized and analyzed. A brief description of the board of director's future plans for the Exchange is given, including factoring, the use of automation, and the establishment of an elaborate educational and public relations program.
Chapter IV

OPERATION OF THE EXCHANGE

Cash Trading On The Exchange

Forms Used and Flow Charts. Cash trading on the National Lumber Exchange involved several steps in the buying and selling of lumber. A flow chart of the paper movements involved in cash trading on the floor of the Exchange, (Appendix A), explained list-to-buy and list-to-sell procedures.

Also, an organizational structure of the National Lumber Exchange, (Appendix B), as it existed and as it operated was drawn up. Telephone calls, teletype communications, and letters were received and sorted and given to the transactors. They were responsible for accepting and originating list-to-sell orders, (Appendix C), and list-to-buy orders, (Appendix D), upon receipt of communications from sellers and buyers. List-to-sell and the list-to-buy order forms were designed. On these forms, the transactors entered the following information: the number of cars, the price or prices, the dimensions, the grade, the surfacing, the moisture, the specie, the manner of shipment, the name of a customer, and the transaction number.

After entering the foregoing information, the transactors forwarded the forms to the board listers who recorded receipts of all list-to-sell orders and list-to-buy orders, (on the reverse sides thereof), as well as the date and the hour of receipt. This was done by means of a time-clock stamp.
Following the recording of the receipts of the list-to-sell orders and the list-to-buy orders, the board lister checked the selling and the buying prices of the orders against the prices previously listed on the listing board for identical lumber species and grade. If no prices had been previously posted for a species of lumber or species and grade, the price on the list-to-sell order or list-to-buy order was posted.

In the event that the selling prices on a subsequent list-to-sell order or a list-to-buy order was higher or lower than that shown on the trading board for the same species and grade, the board lister listed the new offering in the appropriate section on the board.

The next step for the buying and the selling forms was the forwarding of them to the key punch machine operator. This operator was responsible for the recording of the data on a tabulating punch card, (Appendix E). After this operation, the list-to-sell orders and the list-to-buy orders were sent to the file clerk for filing by customer name. The tabulating punch card was then forwarded to the tabulating operator for further processing.

Upon the receipt of the tabulating card, the tabulating operator reproduced a set of transactor reference cards, (Appendix F & G), one card for each transactor on the Exchange floor, and one additional card for confirmation purposes for the mill or for the wholesaler, depending upon the nature of the order — as a list-to-sell or a list-to-buy. Disposition of the cards was as follows:

1. The tabulating card was sent to the permanent file of the
accounting department after being used by this department for statistical, accounting, and billing purposes.

2. The transactor reference cards were forwarded to the transactor desks of each transactor for board trading purposes. At the transactor desks a filing clerk filed these cards and kept the transactor desks and files up-to-date at all times. These reference cards were continuously in use — being taken out of file and placed back into the file whenever a sale or inquiry for a sale was made by an incoming call, wire, or letter. Transactors would refer to these cards as they gave more detail, after observing the listing board to see if any orders were on file. These reference cards remained in file until a sale was made or were withdrawn by the buyers or by the sellers. In such cases, cards were removed and marked "consummated" or "withdrawn" and dated, and then sent to a dead card file.

3. The confirmation card, both for a buyer who was listing to buy and a seller who was listing to sell, was mailed to the wholesaler member and to the mill member, respectively, listing the commodity for purchase or for sale, whichever the confirmation card represented.

In regards to the procedure for handling and processing odd lots orders for selling and for buying, the transactor again was the originator in listing the order, (Appendix H).

A list-to-sell order, (Appendix I), and a list-to-buy order, (Appendix J), were used for odd lot orders upon receipt of a
communication by telephone, wire, teletype, or letter. The following
information was listed on these forms:

1. quantity of board feet;
2. dimensions;
3. grades;
4. surfacing;
5. moisture;
6. species;
7. shipment;
8. prices;
9. account name;
10. transactor number;
11. date.

After the list-to-sell order and the list-to-buy order introduced
by the transactor, the forms were forwarded to the board lister. The
board lister recorded the date and time of the receipt of the order
(on the reverse side thereof) by means of the time-clock stamp.
Following the recording of the receipt of the list-to-sell order or
the list-to-buy order, the board lister checked the order against
previous listings posted on the listing board for species, grade and
price. In the event that there were some previous listing on the
board for the same type of offer or bid, the board lister would merely
increase the quantity number that was available for sale or purchase.
Otherwise, the board lister would list the new odd lot bid, or sale
offer.
Next the list-to-sell order and the list-to-buy order were sent by the board lister to the central inventory clerk in the office. The central inventory clerk, upon receipt of the order, stamped a number on the order and inserted the mill member identification number in the space provided in the list-to-sell order, and the wholesaler member identification number in the space provided in the list-to-buy order. From this order, the central inventory clerk posted the following information to the appropriate inventory card:

1. date of list-to-sell order, or list-to-buy order;
2. list-to-sell number, or list-to-buy number;
3. shipment date;
4. price;
5. quantity in thousands of feet in the "in" column if a list-to-sell order, and in the "out" column if a list-to-buy order.

In addition, the new balance was brought forward in the "balance" column as additions and subtractions to the inventory card were made.

The central inventory clerk used these cards to determine the availability of lumber and the priority of lumber listed according to the list-to-sell order number and the list-to-buy number. Many times a car of a mixed lot or odd lot would be available from two mills, but had to conform to railroad stop-over rules. The central inventory clerk would, after checking the list-to-buy orders for availability, return the list-to-buy order to the originating transactor on the floor of the Exchange. The transactor then contacted
the wholesaler and advised the wholesaler as to the status of the list-to-buy order.

Next the list-to-sell order and the list-to-buy order were sent to the key punch operator. The key punch operator, upon receipt of the order, produced a punched tabulating card to reflect the following information:

1. quantity;
2. dimension;
3. grade;
4. surfacing;
5. moisture;
6. specie;
7. shipment;
8. price;
9. mill member identification number or wholesaler;
10. account name;
11. transactor number;
12. date;
13. list-to-sell number, or list-to-buy number.

Following the introduction of the punched tabulating card by the key punch operator, the list-to-sell order and the list-to-buy order were sent to the file clerk for permanent filing. The punched tabulating card took the place of the list-to-sell order and the list-to-buy order. The tabulating card was then sent to the tabulating operator who performed operations necessary to produce a
confirmation of sale. This was done by initiating a confirmation of sale order, and distributing copies to the buyer and to the seller, as well as one copy for the permanent file of the Exchange along with the original forms, the buying list and selling list forms. The tabulating card went to the accounting department for statistics and billing purposes and was then filed in the accounting department.

Sometimes, if the material requested on the list-to-buy order for odd lots was available, the transactor would complete the consummation order and forward the list-to-buy order and the consummation order together to the central inventory clerk for further processing. This was stated previously in an early paragraph of this chapter. In the event, however, that the material requested by the list-to-buy order was not available, the transactor would initial the "mill available" column on the list-to-buy order and return the order to the central inventory clerk. The central inventory clerk, who was in charge of odd lots and mixed car lots that did not appear on the listing board on the floor of the Exchange because of the many variations of these bids and offers, would post the uncompleted list-to-buy order to the appropriate list-to-buy inventory card, red print, and the inventory card would be placed in the inventory file and the list-to-buy order forwarded to the key punch operator.

The key punch operator, upon receipt of the list-to-buy order, originated a punched tabulating card and recorded all pertinent data shown on the list-to-buy order upon the punched tabulated card. The tabulated card was then forwarded to the tabulating operator for
introduction of the confirmation of listing. Distribution of the forms involved then were as follows:

1. The completed list-to-buy order was sent to the central inventory clerk for the permanent file; the uncompleted list-to-buy order were placed in a "pending file" by list-to-buy order number sequence. At hourly intervals, or as may be determined by volume input, the pending file was examined for the purpose of checking for possible consummations.

2. The tabulated card was retained in the accounting department files after being used by the accounting department for statistical and billing purposes.

3. The confirmation of listing was made in two copies—one copy being sent to the wholesale member who is listing the order, and the other copy going to the Exchange's permanent file.

In addition to the above, consummations made required a form and paper procedure to aid in completing transactions designated as "consummations" occurring through the Exchange operation.

Again, the transactor was responsible for originating the consummation order, (Appendix K), covering a completed transaction between the mill member and the wholesale member of the Exchange. The board lister was responsible for affecting changes on the trading board and for listing consummation orders as they occurred. A consummation order was originated by the transactor at the time an agreement to sell and to buy was reached between a mill member and a wholesale member. After an agreement on price between buyer and seller was made, two transactor reference cards, one for the buyer and one for the seller, were removed from each transactor file. The transactor who was handling the consummation then proceeded to complete the sale order by entering the following information in the
order obtained from the transactor reference cards:

1. number of cars;
2. dimensions;
3. grade;
4. surfacing;
5. moisture;
6. specie;
7. shipment;
8. mill number (identification);
9. wholesaler number (identification);
10. seller's offer price;
11. buyer's bid price;
12. consummation price;
13. list-to-sell number;
14. list-to-buy number;
15. transactor number.

Sometimes, the occasion arose when a consummation was reached without a previous list-to-buy order or a list-to-sell order being recorded. In such an event, the transactor immediately originated the required listing order, attaching the order to the consummation order, and continued processing.

Next, the transactor forwarded the completed consummation order, with any necessary attachments such as telegrams or shipping instructions, to the board lister who recorded the date and the hour of the consummation by time clock stamp on the reverse side of the
consummation order, and on any attachments pinned with the order.

The board lister, after recording the time stamp, listed the following information upon the consummation panel of the trading board:

1. reference card panel number;
2. list-to-buy number and list-to-sell number;
3. number of cars.

The board lister, after completing the foregoing action, forwarded the consummation order and attachments to the key punch operator for further processing. The key punch clerk completed the consummation order by filling in the required information that may have been omitted such as:

1. identification number;
2. list-to-sell number and list-to-buy number;
3. consummation number.

The consummation order with any attachments was then sent to the tabulating operator after the key punch operator had recorded into a tabulated card, (Appendix E), the data appearing on the consummation order. The tabulating operator received both the consummation order and the tabulated card and produced two confirmation cards, index reference cards, (see Appendices F and G), and distributed them as follows: one to the seller and one to the buyer.

The next disposition of the consummation order was made to the file clerk, after passing the communications desk and confirmation for filing, the tabulated card was sent to the accounting department for
An analysis in flow chart form of consummation paper work was made, (Appendix L). Too much stress on the use of complete and adequate paper forms and form processing cannot be made. The writer feels that they are highly necessary and indispensable as the basis for reporting, recording, and directing the various services of any company. No attempt was made by the Exchange to determine if these were complete and satisfactory forms, giving all the complete information. An increase in sales volume on the Exchange might have shown the need for improvement in form designing and in the elimination of some unnecessary and duplicate forms, so that unnecessary clerical work might have been reduced or eliminated and thus cut costs of operation.

Results Of Trading Without Proper Statistical Provisions

The accuracy of the results obtained by statistical procedures depends upon the accuracy of both the original data and the computations to which they are subjected. The concern in this study is with the data.

In the first part of this chapter the methods of cash trading on the Exchange were explained and the forms used were displayed. With the use of these forms, much data were derived from the National Lumber Exchange through observation by making a daily compilation of orders, of number of carloads, of prices quoted by mills and by
wholesalers, and of consummation prices. Then summaries were made of these actual figures.

Thus, all data compiled by the writer were primary in nature. That is, all figures were collected for the first time in connection with the study of the Exchange; no secondary data, no figures were taken from reports prepared in connection with other problems or for general use.

The significance of classifying this statistical material as primary or secondary can be readily seen when one notes that the final results of a statistical investigation are no more reliable than the facts which form the basis for interpretation. It should not be suggested that primary data are always more reliable than secondary data; but it must be observed that not all types of secondary data are equally reliable.

No sampling was involved in this study, due to the smallness of the size of the population and the availability of the data. Consequently, there was no possibility of a sampling error.

Because of the inadequacy as to the size of the population or sample (one and the same), sixty-four consummations, the question of whether these price figures were representative of the National Lumber Exchange's influence on future prices could not be answered. It is true that the extent to which the amount of care in which records were kept influences the study, but also the number of cases involved has a definite effect upon results and conclusions based upon the statistics obtained. For instance, in regards to consumption
prices on the Exchange and how they relate to prices of consummations on the open market; it would be folly to draw conclusions from the measurement of sixty-four cases, no matter how carefully records were kept on this small number of consummations. The number of cases, or consummations, was too small to give an adequate picture, statistically speaking, of the Exchange and its effect on consumption prices in the lumber industry in setting market prices industrywise. If a measurement of five hundred or a thousand or more could have been made, our sample would then have been more likely approximated to the true facts about Exchange consumption prices in relationship to consumption prices outside of the Exchange for the same period, and the relationship thereof. It has been proven in previous statistical studies that as the total sample grows larger, the changes in the average become less and less, and the standard error of the estimate becomes smaller with the results obtained being very close to the true facts.

Also, due to the fact that there were many different varieties of lumber species represented in the consummations, and also, due to the fact that price indexes of the trade, such as the West Coast Lumbermen's Barometer and Crow's Lumber Price Index, are so inadequate and do not represent actual true market prices of the trade, statistical methods and procedures were not used in this study. Market prices quoted by these organizations above are actually a series of "range prices" that are obtained from a sample of select mills and select wholesalers who periodically fill out questionnaires
that have been sent to them. With the receipt of these questionnaires from the mills and the wholesalers, a mode tally of prices is made and market prices are established on a range basis.

Most graduate students and others in research are frequently prone to employ unnecessarily elaborate and complicated statistical procedures in the belief that, in so doing, they will increase the value of their work. This writer does not wish to do this. The inadequacy of present day statistics in the lumber industry, as explained previously in this chapter, and the small number of actual consummations of the Exchange due to its limited life of operation, makes it imperative that this writer de-emphasize the stress on the use of statistics in drawing conclusions and making recommendations for an Exchange in the future.

However, Table 1 shows a list of Exchange consummations and their prices and compares these prices with prices furnished by the Crow Lumber Price Index for the same period.

This table shows the complete total of consummations made on the Exchange while in operation. There is a column each for bid, offer, and sale price of each consummation by species and, also, a column of the average prices for respective species of lumber sold on the open market, according to the Crow Lumber Price Index, on the dates of consummation. In addition, a column is shown giving the over-and-under price difference between open market consummation prices and consummation prices made on the Exchange for each consummation made.
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Results of the prices above show that Exchange consumption prices were under open market consumption prices thirty-six times during the same period, were over open market consumption prices twenty-six times for the similar period, and were exactly the same as the open prices of consummations seven times. It must, however, be kept in mind that these relationship results are somewhat tainted, because open market prices as reported by the Crow's Lumber Price Index are merely averages and are ranges of three average prices, listed as "most sales' prices."

There is no doubt in this writer's mind of the need for more efficiency and accuracy in obtaining statistics on prices, as well as statistics on shipments of carloads of the various species and grades, and the need for statistical methods and procedures to give the lumber industry information on trends, correlations, predictions, etc.

Today in the lumber industry there is no such thing as a
stabilized market price at a certain time, as prices vary from mill to mill. In addition, some mills do not work from established lists; those mills that use established lists do not always indicate a true feeling to continue to do so as they do favor price bargaining with wholesalers. It is a case of supply and demand on an individual operation, for middlemen as constituted now do not work collectively for a stabilized market. A lumber exchange would help correct this situation and it would be a step in the right direction for middlemen and mills to cut their costs of operation and to stabilize competitive pricing.

Its Future Plans Of Operation

The National Lumber Exchange had a number of devices which it planned to incorporate in its future operations. These devices, unfortunately, never got beyond the planning stage, as the Exchange closed too soon for their inception.

Factoring. One of these features was an agreement tentatively made with the Walter E. Heller Company of Chicago to factor credit transactions on the Exchange. The Walter E. Heller Company is one of the largest factors in the world, having reached a high of $807,000,000 in gross factoring sales in 1956, (11, p. 5). The average cost to a mill in moving a car of lumber is now approximately a five per cent sales commission plus selling and financing costs. Through the National Lumber Exchange, the total costs including
factoring, if it were desired, would be reduced to one and one-quarter per cent, (16, p. 10), and would furnish ready cash without recourse to the mill immediately after the transaction was made.

In conjunction with the National Lumber Exchange, factoring would offer mills and wholesalers the opportunity to sell merchandise on terms equivalent to cash, and yet extend to customers the open account terms customary in the trade. Factoring would eliminate the expense of a credit department to the Exchange, and yet the mill would have the financial assurance of credit responsibility in their transactions. Thus the user of factoring could concentrate his sales and merchandising efforts upon the development of maximum potential.

Factoring would eliminate debt loss hazards, which the factor assumes, without the expense of maintaining credit insurance. It would eliminate an accounts receivable department, including detail debit and credit postings, with the assurance that accounts receivable would receive careful attention. This would keep customer outlets open for additional business. In addition, factoring would aid in the expansion of capital to meet the demands of growing business volume, which might otherwise create excessive strain upon available operating capital.

This modern factoring program offered by the Walter E. Heller Company to the National Lumber Exchange has been tested for twenty-five years, (12, p. 1), by sawmills in the various producing states in the country. Wholesalers in the lumber industry also have been clients of Walter E. Heller Company, as well as the sawmills. At
the Exchange, the Heller Company planned to have a man from their firm constantly investigating the credit possibilities of each wholesaler that desired to factor a transaction. The Walter E. Heller Company would be prepared to report on the credit history of each wholesaler and then proceed to set a limit which would permit the mill to ship the wholesaler's requirements at the Walter E. Heller Company's credit risk. The mill would not be exposed to a credit loss if the wholesaler was financially unable to pay. Thus, it would permit the experienced Heller Company to become its credit, collection, and accounts receivable department, and to carry the insurance against bad debt losses, as well as a source of cash to meet the mill's immediate expanding sales requirements. Because factoring is not entirely new to lumbermen, not much in the way of educating buyers and sellers in the use of factoring on the Exchange was contemplated.

The mechanism of the factoring program would have worked this way on the National Lumber Exchange. Mill members of the Exchange and the Exchange, itself, would submit lists of active customers and the estimated credit requirements of each customer. The Heller organization would, thereupon, check credits, set credit lines, and inform the mills accordingly. To qualify, a mill would only need to demonstrate operating ability, basically sound financial responsibility, and the inherent capacity to grow. When a sale would be consummated, the Exchange would give confirmation to the mill, and in such a confirmation, Heller's approval of that sale would be incorporated. Upon receipt of this confirmation, the mill would
proceed to ship. The mill would prepare a billing in the usual way, and the invoice would bear a legend that payment was to be made to the factor. Sales invoices would be scheduled by the mill to the Heller Company daily, and on receipt of the schedule, the Walter E. Heller Company would credit the mill’s account with the gross amount of the sales represented by the assigned invoices, and would then debit the respective accounts of the mill’s customers as indicated by the invoices. The Heller Company would, therefore, undertake to collect payment, and assume any credit losses that resulted from a customer’s financial inability to pay. As the Heller Company received the assigned sales, cash advances, as previously agreed upon, up to ninety per cent of value of invoices would immediately become available to the mill. The remainder would be treated as a contingent reserve, and would be paid every two weeks to the mill to the extent that it would not be required to offset merchandise returns, or delivery disputes asserted by customers of the mill. The commission of the Heller Company was to be based upon the net invoice value, gross sales value less credit memos, freight, and cash discounts allowable to the mill’s customers.

Use Of Electronic Machines

Another innovation planned for the future of the National Lumber Exchange was the installation of a Remington Rand Univac, punched card electronic computer. With this computer the original punched
card operation which took two and a half hours to complete a cycle for each consummation, would take only eighteen minutes to complete, (19, p. 15-17). This would be done by combining a number of operations that formerly required separate steps. Accuracy and efficiency would be improved and the Univac would be excellent for taking care of large-scale operations.

The mechanics of the Univac operation would have been as follows. As an order was taken, the Exchange trader would initiate a transaction slip and would assign a serialized register number for each car listed to buy or to sell. Immediately afterward, a card would be punched showing dimensions, grade, price, name of mill and name of wholesaler. From the basic card, special index cards would be prepared by machine at the rate of more than ninety cards a minute if necessary. This would provide each Exchange trader with a running inventory of cards. All this could be done within a matter of minutes after the original order was received. Disposition of the original punched cards would be utilised for accounting and statistical records. With the installation of the Univac, a long range integrated accounting system could be designed to go along with the electronic computing system. In addition, this operation would enable the head office of the Exchange to communicate instantaneously via the computer with distant Exchange offices located at various points within the United States. In other words, with the Univac and a large scale accounting system, a far-flung operation and truly a National network of Exchange offices could be established.
Educational And Public Relations Program

One of the items on the itinerary for future development of the Exchange was to set up an educational and public relations program—a program, actually, for its members rather than for the public. A big problem of the industry that the Exchange had to face and solve was stability of prices. One important factor making for stability of prices, the board of directors believed, was to get current information of activity in the lumber industry. The board felt that the Exchange would be able to exert a great bit of influence, as a trading center of the industry, and thus get information coming to it. It was not the intention of the Exchange, however, to supplant any existing information, such as from the government, from the trade associations, and from lumber magazines, but rather to supplement these sources.

In a large way, a comprehensive lumber exchange, it was felt by the owners of the Exchange, could exert its position in the market by reporting not only national production, shipment, and price figures on a daily and weekly basis, but international production, shipment, and price figures as well. In other words, the Exchange would, in addition to being a central meeting place for buyers and sellers, be a clearing house for current lumber statistics, something the lumber trade does not even possesses now. Properly functioning, the Exchange would supply information which would take the place of rumors, uncertainties, and malicious information, with the bulk of
the lumber business passing through the Exchange. With information
coming direct from other countries, the new organization would uncon-
sciously act as a steadying influence in price. Besides, management
felt that the Exchange would be in a position to do whatever the
circumstances required to bring about still greater stability. By
stability of prices, the Exchange owners were referring to a reason-
able degree of stability, for they felt that prices should, neverthe-
less, reflect the situation at all times with respect to demand and
to supply.

In addition to the above program, the National Lumber Exchange
stockholders felt that the lumber industry in the past had been tardy
in adopting modern advertising methods; they planned, therefore, to
take steps later to handle lumber publicity from a broad national
viewpoint. For many years, the general attitude of the manufacturing
element of the lumber industry has been that "lumber is lumber" and
can be sold without much advertising. The manufacturer deals chiefly
with the wholesale dealer or with the retailer and so does not appreci-
ciate the desirability of appealing to the customer, with whom he does
not come in contact. But the Exchange leaders disagreed with this
logic. They felt that the chief factor which aroused an interest in
widespread advertising on the part of all distributing elements in
the lumber industry was the rapid and extensive inroads made in the
lumber merchandising field by various wood substitutes, the distri-
butors of which expended large sums of money in placing the merits of
their products before the public.
Most lumbermen have been content to confine their advertising campaigns to more or less stereotyped business cards in technical and trade journals, calling the attention of wholesale and retail dealers, contractors, and architects to the goods they have for sale.

The Exchange wished to give an impetus to modern advertising methods by the holding of a forest products exposition for the purpose of bringing before the public, in a visual manner, the wide range of uses to which lumber is adapted. This exposition would be on exhibition in all the key consuming cities in the Midwest and East.

Also, the Exchange hoped through press, television, and radio releases on activities on the Exchange, to give some practical advertising to the public. It was felt by the management that the more educational and public relations work that the Exchange could do for the industry, the more it would lead to greater activity on the Exchange by its members and thus a greater profit to the Exchange stockholders.

With future plans of the Exchange not materializing because the Exchange did not stay in operation long enough to put these plans into effect, the weaknesses and the causes of the failure of the Exchange discussed in Chapter V.
Reasons For The Failure Of The Exchange

On October 21, 1957, the National Lumber Exchange began actual operations in Portland after several months of preliminary work in planning its organization and its operational activity. This was to be a permanent operation and lavish plans and settings were made for the Exchange that was to improve the marketing of lumber and the stabilizing of lumber prices. However, the National Lumber Exchange at best could only be understood as an innovation in the lumber industry. It attempted to influence lumbermen, long indoctrinated in the old methods of marketing, to a new condition of price stability. This new condition, brought about by the exchange, led to the problem of how to incorporate an equilibrium price and output in an economic system, which attempted to adjust the older techniques and channels of marketing to new equilibrium prices and outputs based upon its presence in the market.

There were many weaknesses in the National Lumber Exchange. Some of these developed after the Exchange opened for business, while others were prevalent in its early stages of development. These weaknesses finally led to the downfall of the Exchange after a period of seven weeks of operation.

This chapter deals with the deficiencies and the causes of failure of the Exchange. The term "failure," when applied to a
business enterprise, may suggest to the layman anything from inability to earn a profit to a complete liquidation of the assets followed by a final discharge in bankruptcy. Failure of the Exchange embodied everything from failure to earn a profit to unsuccessful attempts to return even a large portion of the original investment to its owners. It became, through its outstanding weaknesses, encumbered with debt, beset with urgent claims and demands, and only met its pecuniary engagements and missed bankruptcy because of a few individuals who were willing to take the responsibility and the loss.

One of the foremost reasons for its failure was the weak public relations and sales promotion campaign that it attempted as a means of stimulating the desires of the sawmills, the wholesalers, and the other lumber users to transact their business dealings through the Exchange. Only direct mail and some advertising in the Crow Lumber Digest were used to introduce it to the trade. Two weeks of field work, visiting sawmills and wholesalers before the Exchange was opened, was done on a random basis, but nothing of this nature was performed after the opening. Letters were sent to wholesalers and sawmills in the East informing them of the opening and inviting them to list their bids and offerings on the Exchange. Local area wholesalers and sawmills were contacted largely by telephone. In every case, however, the $1,000 wholesaler membership fee was waived until further notice. The leaders of the Exchange had embarked on a crash program of public relations and sales promotion, but failed to carry on this program after the first week of operation. In other
words, the program of selling the Exchange to the sawmills and to the wholesalers started well enough but was abandoned too soon. It was a quick start, but had no follow-up. It is the feeling of this writer that this program was cut too soon. Many of the sawmills and the wholesalers in the East, by sending letters of inquiry, were only beginning to become interested in the Exchange when it was closed.

The much publicized original statement to run on a four-month basis was disregarded, even though it was generally agreed that it takes time for people, and especially uninformed lumbermen, to accept new ideas and techniques in any kind of endeavor. The Exchange opened its doors at a time when the lumber business was poor--prices were low and demand for lumber was dull. At no time during the seven weeks of operation did market conditions change. Thus, the writer feels, a true test of the Exchange was never made.

In addition, as business remained slow, attempts were made by the Exchange to "drum-up" business. Solicitations for business were made most of the time by mail, but often were made by telephone on a "reverse charge" basis. This was poor public relations and poor business, and further antagonized eastern buyers to by-pass the Exchange. This emphasizes the inadequacy of their selling program by heavy reliance on "telephone promotion" and indicates further the low quality of the promotion campaign which was used.

Timing was poor. Buyers were just not buying, and the lumber industry was in its usual off-season period. The East and the Midwest, which do most of the buying, do not ordinarily buy in November for
November and December delivery. This procedure would add to their inventories at a time when most companies deplete their inventories at the end of the year for tax purposes.

Timing was poor because the Federal Government, which normally purchases great quantities of lumber, was following a tight policy of non-purchasing. It was curtailing construction of government buildings as well as other uses. Many of the mills, therefore, were caught with an overabundance of production due to this underconsumption. This naturally forced prices of lumber down. The overproduction in inventories accumulated and affected mostly the small marginal mills. They were unable to move their inventories at a profitable figure to themselves and had to shut down. The market price, at this time, became so low that it was costing some mills more to operate and deplete the timber than to shut down and pay their fixed costs. Only the large mills could afford to continue operations. Because the Exchange depended mainly on the small mills, the supply sources of the Exchange were cut, too.

Voluntary orders to buy were coming very slow from the East. Interest, what little there was, had to be originated by the Exchange with the East. The Exchange made the telephone calls and sent the wires and teletype messages to the buyers in the East. Letters were written to stimulate activity, but inquiries and offers to buy from the East were slow. Actually, the volume of business that was being transacted was meager in relation to the costs of installation and leasing of the telephones and teletypes on the Exchange floor. In
addition, other costs, such as overhead in the form of rent and
lights, and labor which included salaries of the numerous officers of
the Exchange, were excessively high in relation to the volume of
business that was going through the Exchange. It was felt, by the
writer, that operation at this time could have been handled with less
help and less expense. In other words, the Exchange was operating
on too small a margin of profit to warrant staying in business with
limited volume and large overhead and labor expenses. Only $10 a
consummation ($5 from the buyer and $5 from the seller) was being
collected, and no charge was made for listing bids and offers on the
board. As only sixty-four consummations were completed during the
seven-week operation, the life of the Exchange could not last very
long without heavy capital resources to carry the load until it began
to function on a profitable basis. Thus, for only $10 the Exchange
was performing a service that costs mills and wholesalers many times
more to perform themselves in selling and buying.

Money problems were prevalent, along with a struggle for control
of the Exchange between two factions. Factions fighting within the
closed corporation for control forestalled any possibility the
Exchange might have had for success. One party had only seventeen
per cent of the stock in the corporation, and yet had eighty per cent
of the total investment. In other words, stock ownership and control
were not commensurate with investment. In addition, while one faction
was attempting to secure further necessary financial backing for the
Exchange preparatory to the opening of the Exchange, the other faction
proceeded to open and begin operations without the other faction's knowledge.

Perhaps all the inside causes of financial failure of the Exchange, other than chicanery, can be summed up as incompetence and inexperience. Poor management was reflected in attempting to expand business without provision for new working capital. One of the surest indicators of future trouble in a business is to have a lack of working capital—and the Exchange had a lack of working capital. Starting funds and current funds dwindled away, and expansion was attempted out of profits, of which there were none. Most of the incompetence, the writer feels, was attributable to inexperience, on the part of the owners and the officers, in both the lumber business and in the operation of exchanges. Inexperience in itself is not incompetence, except when it causes mismanagement, inefficiency and lack of organization as shown in the National Lumber Exchange.

Another basic weakness of the National Lumber Exchange which contributed greatly to its downfall was the lack of preliminary survey work of the market before opening. Much of the market research and public relations work never advanced beyond the office stage. Only a minimum amount of personal contact with men in the lumber business was made. Industry was not taken into the confidence of the leaders and founders of the Exchange. This is important. In other commodity exchanges around the country, the board of directors is composed of members of industry and the exchange belongs to the industry, operating as a non-profit organization mainly for the
convenience of the industry's buyers and sellers, and not as a private profit-making enterprise. No exchange has ever succeeded in the history of business in this country as a private profit-making organization. No other industry will allow only one private firm, as the National Lumber Exchange was trying to do with the lumber industry.

In line with the above weaknesses, other shortcomings of the Exchange were the lack of definite goals and established policies. There was a definite need for unified concerted decisions based on well-planned and concrete policies. The National Lumber Exchange did not have this. Too many bosses with too many or too few decisions, and each decision of a different nature, was the rule rather than the exception. The employees of the Exchange, particularly the transactors, hired to handle incoming orders and inquiries, were often in states of confusion and bewilderment because there were no set policies to follow. Each transactor was handling Exchange business to the best of his own ability and making his own decisions; there wasn't any direction from the front office of a set procedure to be followed. There were no established policies.

In addition, the paper handling of mixed car listings and inquiries was done in a slovenly manner. No one policy was ever followed, because there was no front office policy on the handling of mixed cars. Forms provided for taking listings for mixed cars were not used correctly, and many times they were not used at all. Often mixed car listings were not recorded on the board. This was
important omission or deficiency, for the Midwest buys thousands of feet of lumber on a mixed car basis.

The Exchange board showed only straight loads of surplus lumber for sale. Buyers were buying only for direct shipment, and only after they had obtained a sale for the lumber which they were purchasing. Therefore, lumber was being purchased for sale only, and not inventory. In addition, the listing board prices did not reflect true market prices. Mills and wholesalers quoting offers and bids were offering "test prices." These prices were higher than the market price on mill offerings and lower than the market price on wholesaler bids. In other words, the Exchange board was merely being used as a listing board to test buyers' and sellers' evaluations of prices, and buyers and sellers were each hoping to get the best deal possible by listing items they could not buy or sell themselves.

In addition to the above, wholesalers in the Portland area were visiting the Exchange floor in person and getting prices off the board and dealing with the mills themselves. Offers-to-sell listings were twice as many as bids-to-buy listings. Thus, the Exchange was acting only as a listing service. For instance, a retail yard would send a bid to the Exchange to buy for $70; the wholesaler, instead of going through the Exchange, would go to the mill directly and buy the lumber for $70 less five per cent, the usual margin of the wholesaler. Actually, however, the board was furnishing more outlets for wholesalers than would ordinarily be open to them.

A very important weakness of the Exchange operation was its
approach to the composition of the membership of the Exchange.

Originally, it was agreed that the Exchange was to be open for membership to only sawmills and wholesalers. Also, wholesaler membership was to include a fee of $1,000 from each wholesaler to be paid in advance and applied to carloads that they purchased at the rate of five dollars for each carload until the $1,000 was exhausted. However, this membership fee was waived before the Exchange opened, and wholesalers were placed on the same basis as sawmill members. Many of the lumber leaders felt that this was a poor move. When the membership fee was waived, the incentive to use the Exchange was gone. This is also the feeling of this writer. Some membership fee of some appropriate amount should have been set for wholesalers to make it necessary for them to work through the Exchange and get them in the habit of using the Exchange's facilities. One of the Exchange's strongest foes was the National American Wholesaler Lumber Association. They were particularly opposed to a lumber exchange and voiced their objections violently by sending representatives from the Association to wholesale members asking them to avoid and to boycott the Exchange. To further antagonize the National American Wholesaler Lumber Association, the Exchange officers changed their policy on membership composition after a few weeks of operation. Members were now to include not only sawmills and wholesalers, but retail yard buyers, as well as large users of lumber. This meant that retail yard buyers would now be able to buy lumber on the same basis, or as well as wholesalers and at the same prices. Retail yard buyers and
other large buyers would then be able to circumvent wholesalers and buy directly from sawmills if they were large enough and had sufficient capital or could get factoring services from the Walter E. Heller Company and, thereby, to circumvent the Exchange itself.

Another important weakness, was the lack of provision for a market news agency. All the other commodity exchanges in the country provide a news service and price listings in printed form for their members. For instance, the Chicago Board of Trade assembles information on market activities and market prices and disseminates it to the newspapers, radio and television stations, and by direct mail to its members and leaders in the grain industry. The National Lumber Exchange did not have any such valuable service for the communication media or for its members.

One of the big reasons causing large sawmills and large wholesalers to by-pass the Exchange was their dislike for anonymous marketing of lumber, which the Exchange advocated. Many buyers in the East and Midwest buy lumber by brand name and, therefore, like to know whose lumber they are purchasing. In addition, most of these wholesalers and mills are well-established with their channels of distribution and with their sales offices and purchasing departments.

These types of mills and wholesalers were not interested in an Exchange. In addition, many large lumber buyers in the East have verbal or written understandings between Western mills and themselves to sell and to buy only through an exclusive distribution agreement in particular areas. Any Exchange activity by any of these parties,
either by mills or by wholesalers in listing bids or offers on the
listing board of the Exchange would amount to an infringement upon
the contract and on the territories. The established methods of
distribution employed for so many years by the lumber producers and
users of lumber adhering to each other on prices and selling instruc-
tions and employing their own sales representatives on designated
territories throughout the areas they wish to serve would be hard to
change and would require extensive salesmanship and sales promotion
to overcome these entrenched traditions and practices.

Another important point relative to the large mills was the fact
that most of them are members of the West Coast Lumbermen's Associa-
tion, an organization that did not give any industry approval to the
National Lumber Exchange. The West Coast Lumbermen's Association
provides certified inspectors to check grade of large sawmill members
on the basis of West Coast Lumbermen Association standards. As there
are minimums and maximums for each grade of lumber, the lumber pro-
duction of large sawmills was usually producing a tighter grade,
which usually meant a better grade than the small mills could produce.
Small mills, who are usually not members, do not have this service.
They have their own inspectors which meets Association standards, but
produce mostly minimum grades. Listings on the Exchange board would
not reflect this difference. This is a good reason why large buyers
in the East would not favor anonymous selling of lumber as featured
on the Exchange. Possibly the answer to this should have been to
list offerings and names of mills, as well; in this way, wholesalers
would have known whose particular lumber they were bidding on for their needs.

In addition to the above, many of the large mills cut virgin growth or very old growth lumber; their second growth cuttings are usually cut several years later than cuttings of small mills. These second cuttings of large mills are usually cut from fifty-year stands; small mills having less supplies in standing timber, must cut their second growth after twenty years. Cutting trees too early does not provide for quality lumber—it means a coarser grain of lumber but it does, however, make grade. Timber cut after fifty years of second growth produces lumber with growth rings of a smaller and finer grain, and thus a better grade of lumber. This finer grain of lumber is identified by the larger mills in their private brands of high quality which buyers in the East have recognized for many years. In addition, a finer grain means less warpage in lumber and a lumber that will maintain its original form in all kinds of weather conditions. The National Lumber Exchange, as it was operating with an anonymous listing board with all lumber being pooled in a common arrangement, could not provide for this important differentiation and quality.

Possibly the largest contributor to the downfall of the Exchange was the opposition of the wholesaler groups. As previously stated in this chapter, the National American Wholesaler Lumber Association was opposed to an exchange operating and competing with their sources and outlets. Random Lengths, a weekly publication by The Lumbermen's Buying Service, market analysts since 1932, devoted an entire issue to an
analysis of the National Lumber Exchange and had this to say on
October 10, 1957, (18, 5p.).

"The backers of the National Exchange are well aware that
the world does not beat a path to the door of the man who
builds a better mousetrap--unless he makes it clear that his
mousetrap is best. The Exchange principals have adroitly
kept their program on the tip of the industry's tongue for
more than a month. Whether you are selling a product or an
idea, this is an essential of modern life. However, the
Exchange has fostered some publicity which has proved mis-
leading when investigated. There has been enough of this
to cast doubt on other parts of the operation.

Much trade magazine space has been devoted to the report
that around one hundred sawmills have applied for membership
in the Exchange. It is frequently pointed out that these
mills represent a combined annual capacity (not production)
of nearly two billion feet of lumber. The inference which
has been drawn by persons outside the immediate producing
area is that the mill applications constitute an endorsement
of some sort, and that the Exchange appears to have received
commitments on a substantial portion of the West's production.

Does it constitute an endorsement? Random Lengths called
a number of the applicants. One mill manager voiced senti-
ments which parallel a majority of those contacted: "As you
understand," he said, "membership places no obligation on the
mill. Quite frankly, I wouldn't send a car through the
Exchange under some of the rules that they have now. I felt
that if it would do anything toward stabilizing the market
I would be all for it, but I certainly won't list anything
that I can move through ordinary channels."

Does it constitute a commitment of production? None of
those with whom we talked planned to list anything except a
few doggy or hard-to-sell items as an experiment. Even if
all the mills on the list become members; even if they all
operate every working day of the year; even if they run
every stick of their production through the Exchange--and
few if any of them anticipate this--traffic will amount to
less than three hundred cars a day.

There has been a loose of names too. Two of our calls
to mills listed as applicants for membership revealed that
neither had applied, nor intended to apply. One man said,
"They jumped the gun on us. All I did was show them the
courtesy of listening to their story and all of a sudden I
find myself listed as an applicant." The other mill manager said that his "application" consisted only of sending in the coupon which has accompanied National Lumber Exchange advertisements and which was supposed to bring further information.

A recent report, widely circulated, stated that two nationally known members and officers of the National American Wholesalers Lumber Association had agreed to serve on the Board of Governors of the Exchange. Both men have denied the report and have added that they have not subscribed to membership in the Exchange.

Several weeks ago a newspaper story, attributed to one officer of the Exchange, reported: "A $500,000 punch card system and Univac computer have been installed to do the accounting and statistical part of the Exchange's transactions." At the same time, another company officer was telling callers that the firm had ordered a Univac and that shipment was expected within a few months. Since there has been no clarification of the conflict, it appears the public has been misled.

This analysis should cover three points: (1) A thorough study of the actual costs of operating through the Exchange; (2) An equally thorough study of when the Exchange offers a "member", of what exactly is the service provided for these costs; and (3) An awareness of the limitations placed on a "member" who joins the Exchange.

(1) The cost of buying or selling through the Exchange is frequently quoted at $5 per car for each party to the transaction. Actually, this is the minimum fee in the event that a firm offer to sell and a firm offer to buy match up in price, specifications and quality. In many transactions, it will take negotiations by a floor trader to match a specific car to a specific price. This entitles the Exchange to an additional fee based on a percentage of the net sales price. On a car valued at $2,000, this additional fee increases the cost of the transaction from $10 to a total of $30. This is not an unseemingly high price for a transaction, but it is a cost which should be considered by each potential member in the light of his own operation.

(2) What does the Exchange offer: In the first place, it does not offer a true membership in the traditional sense of a commodity exchange. It grants the privilege of dealing through the Exchange and rents, in essence, space on its board. In the case of a wholesaler the Exchange asks for this rent in advance. The costs of communication and of the services of
the floor traders are charged to the members. The prospective member should ask himself whether he will get, from the board rental, anything he is not getting from the stock lists already being published by mills and wholesalers.

(3) Limitations placed on a firm which becomes a member are largely moral obligations, but they could have a far-reaching effect on his relationship with mills or wholesalers with whom he has been dealing for many years. The requirements that member mills and wholesalers report on and pay a fee for sales consummated outside the Exchange will be difficult to enforce but it is the sort of rule which leads to backroom throd-cutting and bitterness.

It should be obvious by now that the National Lumber Exchange is not getting an unqualified endorsement from Random Lengths. There still is the outside chance that it may function from the scheduled October 21 opening date—as we said before—as another business in the lumber trade. But cars of lumber are not interchangeable commodities; the channels of distribution have been forged over a long period of years and are not easily changed; buyer-seller relationships have long been established on a first name basis—it will be all but impossible to inject an intermediary and change the first names to code designations on a listing board.

We won't comment on the character and integrity of the principals involved in organizing the Exchange. They are people who have had their ups and downs, just as the rest of us have. However, we are disappointed that among those actively involved none has had more than a limited experience in actual "pick and shovel" lumber buying and selling."

Comments Of Large And Small Lumbermen In The Industry

The desire for the adoption of an Exchange for marketing lumber in the channel of distribution has been expressed by all kinds of lumbermen active in the industry. This writer was interested in what their thinking was on the subject. Opinions were freely given in personal interviews conducted by the writer with different classes of lumbermen.

Generally those in favor of an exchange for the marketing of lumber felt that some improvement in distributing lumber was needed
and that perhaps an exchange might be the answer. Here are some typical illustrations of arguments for their point of view.

W. M. Leuthold, president of the National Lumber Manufacturers Association, in 1957, in attempting to show the need for a change in marketing and promotion of lumber, spoke in favor of the establishment in the future of a lumber exchange to facilitate the efficient marketing of lumber and allied lumber products. He arrived at the following conclusions:

"Our opponents are strong and determined. We must be no less resolute. It should be clear to us that we must use the same weapons as our opponents—publicity, advertising, trade promotions, merchandising—all the big arms in the arsenal of public relations.

Instead of continuing its defensive maneuvers against the inroads of competitive materials, the lumber industry must mount an offensive of its own. This calls for a united industry—and possibly a new method of marketing lumber similar to a grain exchange used in the marketing of grain and grain products.

This requires that we put aside differences arising out of species, regions, and other considerations. This must be done first. Actually we have no choice, if the lumber manufacturers and wholesalers of one region fail to cooperate with those of another, the competition will outflank them both and drive toward their objective unopposed. The conception of a common market place where buyers and sellers may meet and trade efficiently will no doubt be a step in the right direction.

Fred Talbot, chairman of the Board of the National Lumber Exchange and a regional wholesaler, had this to say on the need for an exchange in lumber:

"An exchange has been conceived and put in operation for the same basic reasons that the Chicago Board of Trade services the grain industry, the New Orleans Cotton Exchange services the great crop of cotton, and other exchanges around the
country service and perform duties which are for the express purpose of fulfilling the needs of their particular industries involved. It is my deep conviction that a lumber exchange will also fulfill a need—a need for a new marketing program that will move lumber and related products to the ultimate consumer and more rapidly and economically."

Ralph H. Carlson, vice president of the Walter E. Heller Company, one of the largest factors in the world, who has been in charge of supervising the mechanics for factoring of clients of the embryonic National Lumber Exchange in the future, said the following about the National Lumber Exchange:

"We worked on this Exchange problem from 9 a.m. until 11 p.m. for over a week. At first it looked as far away as Saturn... then it began to make a little sense... then more. We gave it every financial exposure possible. Then we let the legal boys toss it around to their heart's desire. Finally it looked solid enough to lend itself to the use of a full-scale factoring operation for its members. We have not financed the Exchange—nor were we asked to do so. We think the National Lumber Exchange will provide a needed industry service—that's why we are offering our factoring services to those who wish it."

A high-ranking member of Georgia-Pacific Lumber Company who did not wish to be quoted, since his particular company's policy was opposed to trading other than direct to consumer, felt that it would be especially a fine institution for the small sawmills who would be able to cut their costs of selling and increase their markets with the aid of an exchange operation.

Mr. Frank Clemmons, a small sawmill operator that are often referred to as peckermill firms in the Hood River, Oregon area, was especially enthusiastic about an exchange. He said:

"There are three basic advantages to an exchange. (1) Numerous buying and selling interests from many sections of the country can be concentrated at the Exchange; (2) Buyers
who must have special types and grades of lumber can have their needs filled and small sawmills would know that all types and grades could find a market; (3) The cost of doing business on an exchange would be far less than it would be if one did not use an exchange because a sawmill or a wholesaler would not have their buyers and sellers concentrated so numerously as on an exchange."

Oregon Lumber Yard, a local lumber retail yard, stated that they had heard of an exchange starting and folding in 1957, but had not participated. They believed that an exchange might help the lumber industry if everyone could be incorporated into the exchange, especially the large producers like Crown Zellerbach and Weyerhauser.

"An exchange to be successful," they said, "would have to include everybody. However, there is a problem in stabilizing prices because they usually fluctuate due to the eastern market and the shipping of lumber export."

Generally, those not in favor of an exchange for the marketing of lumber felt it wasn't necessary, that it merely added another middleman step in the channels of distribution. Wholesalers and office wholesalers, especially doubted the need for it because they felt it duplicated the performance of their functions of marketing.

Here are some typical illustrations of arguments for their point of view.

Mr. R. Aschman of Aschman-McGregor Company, lumber brokers in Chicago, was interviewed on August 13, 1959, by the writer personally and had this to say about the Exchange:

"The National Lumber Exchange was, mostly, a place to auction orders. The greatest obstacle for the Exchange to overcome was the variance or variation in timber and manufacturing quality, such as offered by the various sawmills in the country—coarse, wide ring, dense, etc.
The statement just given applies especially to the products manufactured by small units, which do not possess either the mechanical facilities or the technical knowledge essential to manufacture a high-grade, standard product. The volume of lumber produced by this group varies greatly with market conditions, and it often represents a disturbing element in the general markets because the sales policy seldom conforms to those standards which are essential to the interests both of the trade and of the consumer. Thus, there are, indeed, individual standards of each sawmill, as well as the standards set up by the industry. A grade of #2 and Better might be made by two mills, for example, but one mill may have a much higher quality grade than the other mill because of a better stand of timber or logs, and because of better methods and facilities in the manufacturing of the lumber.

The industry long has recognized the desirability and the need for large groups of producing and distributing units in order to attain an efficient and economic merchandising procedure. With great progress in horizontal integration on the part of larger units in producing and distributing units, and with little being accomplished in the consolidation of the vast number of small units because of their short life and lack of appreciation of the need for cooperative effort, no marketing procedure, such as afforded by an Exchange for distributing lumber, is necessary.

The only way that a Lumber Exchange might work its way into the lumber industry and show its worth, would be for an Exchange to form and take considerable experience and practice to prove itself—that it is reliable. Reliability has been established by individual companies for many years and it is hard to get lumbermen to change custom of marketing and change from dealing with long-established reputable sources. Intense jealousy and a high-degree of individualism amongst lumbermen makes it appear that it would be highly unlikely that they would be willing to change and lose their initiative by allowing an Exchange to do their buying and selling for them."

Mr. R. Fullerton of the Wallace Lumber Company, Chicago lumber brokers located in the Civic Opera House at 20 N. Wacker Drive, Chicago, had a few things to say about the Exchange on August 14, 1959:
"The Exchange would not be good for the lumber industry because lumber is the type of product that could not naturally be bought and sold this way. It would cut off the commission men, so we are against it.

The lumber industry is too big and unwieldy. Too much expense would be involved to buy and sell on an exchange—not only did the Exchange want $1,000 to join and get a membership, $5 for each buy and sell on the Exchange, but all phone calls were to be charged to the member as well.

The Exchange idea is good in theory, but can't work in practice. When the National American Wholesaler Lumber Association came out with a resolution against the National Lumber Exchange and asked its members not to trade on the Exchange, it put the skids on the Exchange.

I am skeptical on an exchange with futures trading, possibly because I know very little about futures trading. Anyway, we wants to carry all the inventories."

Another Chicago lumberman, Mr. W. Coleman of Crow Rollins, Inc., large wholesalers in lumber, was interviewed. He was interrogated personally by the writer, while in Chicago, and expressed his professional opinion on the National Lumber Exchange and any other exchanges that might be started in the lumber industry:

"I don't believe, honestly, that an exchange is a going-type of thing for lumber; it is good for grain, cotton, or stocks. For instance, it doesn't make any difference to a potential buyer of a carload of wheat or where the wheat comes from and who grew it, but it does make a difference to a potential buyer of a carload of lumber, for example, a car of fir flooring of C & Better grade, on where that lumber came from and who manufactured that carload of lumber.

Some associations and various groups of sawmills and individual mills have adopted distinctive grades and trade marks which are placed upon the ends or faces of boards to designate the quality and source of the product. Throwing all lumber production, regardless of mill and quality, into a common hopper, (the Exchange), and listing the lumber on the Exchange board by merely species, grade, and price, nullifies differentiation and distinctiveness of individual firms which is so important to buyers of lumber. We, as
wholesalers, operate basically on the theory that we are in business for our customers to secure the best manufactured product at the best price and in time and at a place when wanted. In other words, personal selling on the part of the wholesaler, as well as the mills and the retailers who also are engaged in the selling activities, is important for building individual company volume, and we here at Crow Rollins feel personal selling would be lost with an Exchange to do our selling for us."

S. Bishobnick, vice president of Dant and Russell, wholesalers and exporters, felt that the exchange idea for the lumber industry was fine in theory, but not in practice.

He said, "No, because of the following reasons: (1) Qualities of manufacture vary, (2) Customers' differences in evaluations of bid prices are varied, sometimes as high as $3 or $4 for products of various mills."

He further stated, "A lumber exchange would stabilize prices of standardized quality and manufacturing could be obtained which is not possible with so many different types of mills and variation of wood qualities in different districts. One just doesn't get the same quality of manufacturing out of a poor mill as one gets from a good plant. For example, also the texture of wood in Coos Bay is much different than the same species in the Grays Harbor area."

G. Reed of Reed Logging Company, a small independent logging transport company of three trucks was also contacted.

He said, "The lumber market is very competitive with many grades of lumber. A large per cent of lumber is sold by special order; an exchange could not handle special orders. However, as far as prices are concerned, I feel that it might stabilize prices, but would not have any effect on increasing trade to a large extent."

An official of Oregon Laminated Lumber Limited, manufacturers of laminated lumber at 2500 S. E. Harold Street, Portland, felt that an exchange introduced to the lumber industry would possibly help the industry as a whole, but not this company particularly. As a matter
of fact, he said that his company would not be in favor of price stabilization for he heard that the exchange would level out prices at such a high range that would appeal to them as they favored low prices.

These were the principal weaknesses and comments on the collapse of the Exchange. Many of these weaknesses could have been changed to strong points if the men that were in back of the Exchange and were in the organization in key positions had had a more extensive background in the lumber industry and in exchange operations.
Chapter VI

RECOMMENDATIONS FOR IMPROVEMENTS AND POSSIBILITIES IN
THE FUTURE FOR AN EXCHANGE

Much of the evidence assembled by this writer would seem to point to the desirability of a lumber exchange to stabilize prices of West Coast lumber and reduce the costs and wastes in lumber distribution. However, as was pointed out previously, this need was not recognized by all, which was not surprising nor unexpected. There were bound to be certain wholesalers and manufacturers whose immediate interests would not be served by an exchange or any other type of open trading. These people represented a source of resistance to the Exchange until the National Lumber Exchange could justify its existence and prove to be in the best interests of the entire lumber industry.

This type of resistance should not have been ignored; however, steps were not taken to prove the worth of the Exchange and at the same time to prove to doubting trade groups that this type of organization was necessary for the lumber industry during the inception and early life of an exchange. Eventually an exchange under the management and control of the industry should have been the goal.

In the opinion of the writer, it would have been difficult, if not impossible, under present conditions, for the lumber industry to organize and operate an exchange on its own. Only by an effort such as the National Lumber Exchange could the industry expect to create the kind of market so badly needed.

A private corporation, no matter how lofty its motives, usually
must expect that the lumber trade would remain doubtful and suspi-
cious, until the value of an exchange could be demonstrated. Actually
a private corporation with representatives of well-known lumber
leaders is, in the opinion of the writer, the best form of approach
for an exchange in its inception and early life.

In summary and conclusion of the study, it is quite apparent
that there were some outstanding deficiencies in the Exchange which,
if remedied, would have eliminated much of its weaknesses and would
have brought stability to the organization:

1. For instance, membership on the Exchange was not clearly
established. It was first agreed to accept only sawmills and whole-
salers; later, it was decided to include retail yards who compete
against wholesalers.

2. Also, there was a need for sufficient funds for a long period
of time. Few business enterprises succeed immediately and a large
reserve of capital is always highly desirable and essential. The
capitalization of the National Lumber Exchange was insufficient. In
fact, some additional capital had to be added within the first month
of operation.

3. No business is better than the individuals who manage it, and
the Lumber Exchange was no exception. There was a lack of organiza-
tion and coordination of the Exchange operation. There was confusion
between officers and workers, and between officers and officers
because of a lack of policy making, because supervision was poor, and
because understandings of responsibility and authority were limited.
In addition, board members were not representatives of the lumber industry, as was highly necessary for success. Membership on the Board was restricted to those who had invested funds in the Exchange, and these included only two lumbermen; the remaining three members of the Board were promotion men not in the lumber industry.

4. There was also a need for a greater amount of publicity, education, and public relations activities before and after the Exchange opened. More direct advertising and personal selling was highly desirable and could have brought more business to the Exchange in its inception. In addition, some publication and information on prices and consummations would have been helpful in creating and maintaining interest in the Exchange for its members.

5. Also, the Exchange was weak in the offerings of additional services. A lack of statistical information on prices for the members was already mentioned. In addition, some means of factoring sales would have helped both buyer and seller early in the Exchange, and provided a talking point for continued Exchange operation.

6. Also, an improvement in the floor plan of buying and selling lumber was needed for buyers and sellers of lumber. The Exchange in 1957 used a brokerage form of operation wherein list-traders were hired to take listings of wholesalers and buyers, and they attempted to match these listings into consummations, or attempted to get buyer and seller together by telephoning them and bargaining for them on an agreed price. The brokerage or fee charged, however, went to the Exchange as the list-traders were not independent but worked for the
Exchange for a salary compensation.

Actually, the objective of a lumber exchange would be to provide not only a place where buyers and sellers could meet, but also a place where market prices of lumber could be established and stabilized, a situation ultimately of benefit to both producer and consumer today.

Price stability is especially desirable to both producer and consumer in the long run. It is true, however, that in a short run of operation rapid rise and fall in prices is many times more desirable for producer and/or consumer, as well as for irresponsible speculators. On the other hand, the best interests of the long-term operators will tend to lie in relative price stability, rather than in extreme price fluctuations. Exchanges, such as the cotton, grain, and other commodity exchanges, have done much to eliminate or reduce the evils of speculations. Exchanges provide correct and adequate market information as a basis for opinions of price trends which are equally essential to the producer and the consumer, as well as to the best type of speculation which is necessary in exchange operation.

From the standpoint of the producer or the consumer, an exchange furnishes such things as: (1) a year-round market. Lumber supplies can accumulate many times in great quantities and must be carried for long periods of time before usage, either by the producer or the consumer. By exchange operation with futures markets where industry and storage people can hedge on price—protect their holdings, supplies in excess of demand can be absorbed any time of the year; (2) price
information through newspapers, radios, etc., where anyone, anytime, anywhere can get the latest lumber prices. This means that the producer or consumer, be he contractor or resident buyer, can be well-informed and thus able to choose his own time for buying or selling of lumber; and (3) a cut in middleman costs for both producer and consumer. By both producer and consumer being able to buy directly on the Exchange, either is able to reduce the number of middlemen with whom he must deal. Hedging, available in futures markets, results in relatively low marketing or handling costs, as witnessed in the marketing of grains on the grain exchange in Chicago, (16, p. 547). The farmer benefits from this fact in higher prices paid to him. In lumber, the user of lumber will benefit in lower prices paid by him for he could hedge against severe price and inventory losses.

The importance and advantage of an exchange operation can best be illustrated by referring to the Chicago Board of Trade. This exchange, the first American exchange, was organized in 1848 and is still operating today. This exchange has offered continuous futures trading in wheat, corn, oats, and lard since 1859, and in barley and rye since 1865, (16, p. 564). Moreover, similar experience in cotton, coffee, and stocks show the stability of an exchange operation. Certainly the persistence of an exchange in marketing these and other commodities is, in itself, a testimonial to the ultimate desirability of an exchange operation to both buyers and sellers, producers and consumers.
Recommendations

Attitudes and doubts of the workings of an exchange and its officers would be minimized and alleviated if the following recommendations were to be followed:

1. Membership on the Exchange should be restricted to professional traders now in the lumber business, such as wholesalers and sawmill operators, or to anyone who understood and knew lumber species, grades, and uses of lumber and can qualify as a competent office wholesaler or lumber broker. A member would be one who would be willing to buy or sell not only for himself, but for other buyers and sellers of lumber as well and would ethically represent them unbiassly to the best of his ability.

Number of seats on the Exchange would be limited and have to be established on the basis of the demand for representation on the Exchange by buyers and sellers and on the basis of the number of buyers and sellers who could not or wished not to purchase a seat but needed a representative in buying and selling lumber. The original purchase of a seat on the Exchange would be made to the Exchange itself; later, any sale and purchase of any of the limited number of seats by a member would be made between the member holding the seat and the purchaser, with the consent of the board of directors of the Exchange. Selling price of the seat would vary according to sellers' and buyers' agreed evaluation of the seat at that particular time.

In addition to the original price, a nominal fee per each purchase and each sale would be charged to the member by the Exchange for the service of clearing cash and futures consummations through the Exchange and the Exchange clearinghouse. This would be done after each day's operation and before the next day's Exchange opening. Also, each member would pay annual dues on a proportionate basis. The service fee and the dues would represent the needed revenue to pay Exchange expenses of operation, including salaries of Exchange officers and workers.

The privilege of members would be defined as such: (1) all transactions of the Exchange must go through some member of the Exchange; (2) members would collect a fee for each purchase and each sale that they made for their customers and would then compensate the Exchange for services rendered by the Exchange to them. In other words, customers would work through members, and members would work through the Exchange.
2. Sufficient funds should be assured to operate the Exchange during a test period of not less than four months and preferably for one year under private ownership.

It is the belief of the writer that the Exchange could be sold to the industry through a demonstration of its value. Some kind of membership fees should be charged to participants; but since paid memberships might be slow in coming into the Exchange, it would be advisable to provide a reserve that could carry the corporation safely beyond the test period. Possibly at least $75,000 to $100,000 should be the amount of the reserve and not all of this need be paid in, but it should be subscribed for and available upon request.

3. The main structure of organization of every business is the same and here are some basic principles that the Exchange should follow: (a) authority to make decisions should be vested as near as possible the point of original action; (b) responsibility for action and authority to act should be placed at as low a level of the organization structure as is possible; (c) clear statement and understanding of the functions of each individual at each level of authority and each one's responsibility and authority should be made; (d) competent persons should be placed in all key positions and the span of an executive's authority should be limited to the number of subordinates he can effectively direct, coordinate, and control; (e) policy with respect to all phases of operation should be definite and clear-cut and worded in understandable standard terms; (f) definite objectives of marketing should be established.

4. Acceptance by industry and financial stability should be provided by bringing into the Exchange corporation stockholders and directors with known and established financial resources.

Since so many in the lumber industry need reassurance as to the soundness and longevity of the Exchange, it is desirable that men providing additional funds be well-known in the lumber trade or have an acceptable reputation in general business or financial circles.

5. The organization should be formed to operate the Exchange at a minimum cost level during the early stages of the test period, without sacrificing efficiency. As a matter of policy, operating expenses should only be increased as actual business volume increases warrant.

On the other hand, sales and promotion expenses should be maintained at levels high enough to be sure that the trade is fully informed and that no opportunity is lost to fully educate wholesalers, sawmills, and other important factors in the industry. The test period then would be the time to sell the values of the
Exchange. Every bit of good news should be dramatized and fully used at this time.

6. A program of direct mail advertising combined with a telephone follow-up should be used to reach a representative cross-section of desirable sawmills and wholesalers prior to, and during, the test period.

Since both time and money are in short supply, a selected list of wholesalers and sawmills should be approached by mail prior to the test period with a complete description of the proposed operation plan. Their cooperation should be solicited and they should be told that a telephone call would follow within a few days to get their answers.

These particular test participants would not be required to make an investment, and since they would undoubtedly be curious as to what would happen, a high degree of participation could be anticipated.

These selected wholesalers and sawmills should, also, receive complete reports on Exchange prices and transactions at least twice a week during the test period. At this time there would be no charge for this service, but it should be understood that under actual working conditions in the future a fee would be charged.

7. All segments of the lumber trade should be kept fully informed and the number of participating companies should be expanded during the test period by adding seats on the Exchange.

Every publicity device should be used to keep the trade informed of the growth of activity as the Exchange would progress. This, coupled with active solicitation of desirable offerings from the mills and desirable bids from the wholesalers would build a gradual increase in volume as the test period progressed. All this should be done without losing the control feature of the test.

8. During the final stages of the test period, a review of the membership requirements, fees and operating policies, should be made and announced to the lumber industry in order to provide them with facts to formulate a final operating plan for lumber industry operation after the test period. It is important that this review and operating plan be made before the end of the test period so as to obtain continuity--so that operations will continue on through the test period into the permanent operation with as little trouble as possible.

After the test period, the details of carrying out an Exchange program would require the development of a sound, operating plan that has been proven during the test period. With the Exchange in full
operation and the lumber industry controlling and managing it, some efficient procedures of operation might be developed which would be appropriate for a permanent operation but might not have been good for a test run.

9. A floor trading system using floor traders and buying traders might be feasible, in the opinion of the writer. These traders would buy a seat in the original closed corporation Exchange. This would make them a part owner in the Exchange. The Exchange would sell seats in the same way that this procedure is done on the grain and cotton exchanges. Each seat would represent one share of stock in the Exchange and would entitle each trader to one vote. All traders would be men of long standing in the lumber field, whether they be independent, or represent some mill or wholesaler where they were employed. Only approved a highly reputable man in the field would be allowed to purchase a seat and operate as a floor trader on the Exchange floor. The board of directors would be composed of floor traders and representatives of wholesaler associations and mill associations. Much of the policy setting would be done by the board through committees and officers and other employees would be hired to carry out policies and perform the necessary duties and functions for operating the Exchange.

The proceeds of the sale of seats on the Exchange would be used to pay off the private corporation stockholders and the balance, plus additional funds derived through borrowing and donations, could be used to start an Exchange factoring service, if so desired.

10. An exchange factoring service would accept all invoices that wished to be factored through the Exchange. The mill would send an invoice to the customer and a copy of the invoice plus any necessary accompanying papers to the Exchange. The Exchange factoring unit would then deduct one-half of one per cent or one per cent for the mill trader, credit his account, and then charge the mill trader say five dollars per car for the Exchange. The mill trader might in turn charge the mill one per cent for factoring and then remit to the mill one hundred per cent, less ten per cent reserve, less one per cent for factoring, less the charges of the mill trader. Also, in turn, the Exchange would add to the customer's account the charge of one-half of one per cent, or the one per cent for the buyer-trader. If this was a brokerage transaction, it would be handled the same way by adding the one per cent sent at the Exchange. This kind of factoring system if operated by the Exchange would mean that an account would have to be kept for each mill trader and each buyer trader, but the Exchange would have its money each day after the invoices were sent out from the factoring unit. The above operations would mean more record keeping, and more operating and labor expense as well. If the Exchange wished to stay on a purely non-profit basis, the desired feature of factoring could be done by a private factoring firm.
11. The use of floor traders to represent sellers and buyers would facilitate trading on the Exchange. For instance, one mill trader might represent five to ten separate mills or more, or a different kind of production. He would be their sales manager on the floor. He would have a knowledge of their stock and know what they could produce. In addition, he would know how the mill's lumber was produced and what their future intentions were in regards to production. Exchange by-laws might provide for the mill trader to work on a set rate of one-half of one per cent for straight cars of lumber, and one per cent for mixed cars. Among his duties would be to list all the cars that the mill wanted to sell and to acknowledge for the mill all the orders that were sold and to represent the mill on any other basis that was needed at the Exchange. He would be a combination of sales representative and agent for the mill. This would allow the mill to cut down on some of their large sales force and selling expense by working through a mill trader on the Exchange floor. He would be in constant contact with the mill, would have the right to raise or to lower prices for the mill. He would also advise his mill what it could expect in prices for its products. In other words, all selling transactions of the Exchange would be with the mill trader. A good mill trader would be constantly "working for" his mills. He would be trying to hold prices higher and get more money for good stock, as well as pushing the supply as much as possible.

The buying trader, therefore, would also be a member of the Exchange, but he would represent possibly five to ten wholesalers, brokers, large retail yard buyers, or large industrial users. He would represent the buyer on the same basis as the mill trader might represent the mills— one-half of one per cent for straight cars of lumber and one per cent on mixed cars. He also would list on the Exchange board all the cars that he wanted to buy for his buyers or for himself. He would be a combination of buyer and agent for the buyers he represented and would advise his buyers on what they could expect to pay for lumber and for lumber products. He would be in constant contact with this buyers and would have the right to raise or to lower prices for the buyer. All buying transactions of the Exchange would be with the buyer trader. An
efficient buyer trader would be constantly "working for" his buyers. He would be constantly aware of prices and be attempting to lower prices as much as possible in order to get the best possible purchase at the lowest possible prices.

In the opinion of the writer, if this floor trading system had been put into effect, the position of the Exchange would not have been so precarious. Independent traders that have purchased seats on the Exchange and represent both sellers and the buyers would have provided a more sound and efficient operation. The Chicago Board of Trade, with one hundred years operation in this manner, is proof of that. Also, if the Exchange was to engage in factoring, it could finance inventories for the mills and write contracts with the brokers of finance transit cars, besides factoring purchases of lumber by wholesaler and other users.

Appendix M shows an organized chart of the trader system operating on the floor of the Exchange. Mill traders are handling the selling of lumber, and the buyer traders would be making the bids for purchase of wholesalers and users.

Futures Trading

Another compelling factor in the decision of those who were responsible for organizing an Exchange was the pressing necessity for a lumber market in futures trading, a time tested device of grain exchanges which would enable mills in the lumber industry to underwrite their sales prices in advance, and allow the lumber
consumers to hedge against their costs over an extended time period. A futures market organization was definitely in the future plans of the men in back of Exchange operations.

This badly needed instrument would enable the lumber industry to effectively compete with other construction materials on a stabilized industry basis. Only through an Exchange could futures trading be accomplished.

Futures trading would provide three principal services. First, it would provide for the process of hedging. The hedging function of futures trading was formerly stated clearly by the Federal Reserve Board, in order that the banks of the country might be informed on this much misunderstood subject. The Federal Reserve Board carrying the weight of official authority, had this to say about hedging in May, 1923:

"The problem of hedging is of great importance to the banks that extend credit to the merchants who handle cotton in the United States as well as to the banks that finance its importation. If the American cotton merchant keeps his cotton hedged through the sale of future contracts, the loans are more secure and business can be transacted on a much narrower margin than on cotton that is unprotected. In England, the banker is primarily interested in keeping cotton hedged, because he has accepted the bills under which it is moving, and if it was not thus protected the margin maintained on cotton loans would have to be much larger to insure the bank against loss." (10, p.124-125)

Hedging limits losses, protects profits, and safeguards bank credit. Risks are reduced, costs are reduced. Bank credit being safeguarded by hedging insures stable operations with the banks.
Second, futures trading would provide value barometers for lumbermen around the country. Buyers and sellers both making their own estimates of value and both putting their own price evaluations into the market, would have the same effect as an open, competitive auction—establishing of "correct values." Usually, the truth about market value is based upon the law of averages. If there are enough estimates with the law of averages, the mass estimate is usually taken as being nearly correct. A wide market, therefore, is our best value barometer. A futures market would be able to supply the widest market facilities in the lumber industry. Such a barometer is thus of the utmost value in the field of lumber activities, and to bankers and others who must finance the lumber industry.

Third, the establishing of a futures market at the Exchange would aid in stabilizing prices. In the grain exchange, where futures trading is a major part of trading activity, the traders in futures keep prices free from violent fluctuations which would otherwise occur from unforeseen natural causes. For instance, the trader who is short and is successful enough to continue in the market sells when prices are high; and he buys when prices are working downward. The short, by his covering supports the market when it most needs support. In a similar way, this same principle would work for the lumber industry. The strongest and safest market for the mill operator in futures trading would be the one with the largest short interest in it. Indeed, in time
of panics, the only support a market has is from the shorts. The short, therefore has an important position in the market. It is just as unwholesome to have prices too high as it is to have them too low—and the short applies "the brakes" against rising prices going up "through the ceiling," or falling prices dropping down into "the cellar." In addition, the short does not create economic conditions governing prices, but he merely conforms to them if he survives long as a short. Actually, too, there are no successful bear raids, which is concerted action by shorts to cause prices to move downward, for such manipulation of prices, if and when it does occur, is against the rules of any exchange and would be subject to suspension or expulsion from the exchange.

Along with the short, successful bulls also apply the brakes on prices. When prices are too low, they get into the market as buyers. Then when prices are too high, they sell. Thus, bulls and bears can change places; and, also, apply the brakes at the same time.

Futures trading is good for certain staple products such as grain and cotton and can be good for lumber too, where there are problems of risks incident to adverse price changes or where prices fluctuate with great frequency. These price risks, inevitably arising from ever-changing conditions of supply and demand, are hazardous trade risks, and lumber handlers are anxious to minimize or to avoid them entirely whenever possible.
When cash transactions represent a purchase or a sale by specified quantity, lot or grade, for a specific time at a given price and are fulfilled by the delivery of that grade, futures contracts can be satisfied through the delivery of one or more prescribed deliverable grades if actual delivery must take place. Futures trading is largely paper work with buyers and sellers dealing in futures contracts; delivery only occurs if future contracts mature. Most of the futures contracts on the grain exchanges merely "wash out"—in which buying and selling of the contracts are taken up. The fact that alternative possibilities in futures contracts exist, and the fact that delivery, or sales can occur at any time, makes a futures trading market for the National Lumber Exchange a strong possibility.

Lumber, like grain and cotton, has the following features that are needed by any product or commodity for futures trading. It is durable and suitable for storage over reasonable periods of time, without any danger of change in quality or deterioration.

Lumber, too, like grain and cotton, is adaptable for grading into distinct and definite standardized classifications.

Lumber, generally, is produced seasonally, similarly like grain and cotton, thus necessitating storage over a period of time for orderly marketing of the product.

In addition, commodities sold on exchanges should be produced by large numbers of producers and used by large numbers of consumers. Lumber is that kind of commodity.

Trading in futures for lumber would not mean that future trading
was to be independent of any cash trading in lumber. On the contrary, the grain exchange has proved in over one hundred years of operation that the two markets are inter-dependent, even though the operations of the cash market serve not only the producers, but the consumers as well.

From the viewpoint of the ultimate consumer of lumber, this tried and proven American system of competitive marketing has meant such basic things as a year-round market, price information that is always available, and the lowest possible middleman cost in commodity handling.

Lumber supplies accumulate in great quantities at seasonal times of the year and then must be carried, in some instances, through the balance of the year. By providing a futures market where the lumber industry and the storage people could hedge or price-protect their holdings, supplies in excess of demand could be absorbed at any time of the year. A futures market for the lumber industry would provide for all these things.

Another possibility where the Exchange might justify its existence would be in the plywood field. A spot market, such as the Exchange offered, would serve a need that could very well develop into a certainty for improvement in the marketing of plywood. In addition, it is highly possible that an exchange might be started in the plywood industry and later expanded to other fields, such as Douglas Fir lumber, pine, and others.

Increased production, coupled with changing demand and widely
varied sales and distribution practices have resulted in a market filled with uncertainty and characterized by sharply and constantly fluctuating prices. Such a market would give rise to heavy speculative risks for both buyer and seller—risks which are too substantial to be carried alone, without an opportunity for hedging or otherwise insuring the risk taker. Under present conditions in the plywood industry, there is no one to carry these risks, or in the other lumber industries as well, but the producer, distributor, and their bankers and stockholders. A commodity exchange dealing in futures contracts could remedy these situations. Again if the Exchange were to be designed and properly operated by the industry, a commodity futures exchange would provide a continuing form of price insurance for the plywood industry.

One of the compelling factors that should be considered for an exchange involving the plywood industry would be to satisfy a pressing need for a market in futures. Plywood, although a manufactured product, has all of the characteristics required of a product which can be sold on a commodity futures exchange.

Plywood is capable of being graded so that one lot of a given officially certified grade is just as acceptable to a buyer as any other lot of that grade. A limited number of commonly accepted grades dominate the market too.

Plywood standards are well-known and established and are readily identified by the trade throughout the entire market.
A plywood exchange should, too, be owned by its members. Each representative—the producer, the jobber, the consumer, and the professional trader—should all have special interests in a commodity exchange and should together organize the futures exchange, establish the ground rules, and take over the job of management. Only an extremely small portion of the futures exchange contracts should ever be consummated by delivery. The purpose of the trader in futures exchange contracts should be primarily not to make or take delivery, but to cancel out every sale by an offsetting purchase, and thereby avoid deliveries by settling all differences in cash payments. Although a buyer or a seller of exchange contracts may at times make or accept delivery of a contract, their primary purpose would be to use the exchange as an insurance device or for speculation.

Futures trading with its many ramifications for both buyers and sellers would prove, as it has on other exchanges, that it would aid in stabilizing cash lumber prices and would, also, provide more spirited trading activity and live marketing than is being done today in marketing plywood or other lumber, especially in slack periods.

In conclusion, therefore, a futures market is nothing more than a means or a device to insure and to safeguard cash trading that is being done today against losses from price fluctuations by means of a contract to buy or a contract to sell in the future, whether delivery is made on a futures contract or not. Buying or selling is
made in any future month for a price which tends to equalize supply and demand. Here is how it would work on the plywood exchange. A wholesaler would purchase possibly a few carloads of lumber, expecting to sell it to his trade. At the same time that he made the actual cash purchase, he would sell through the Exchange a futures contract covering as nearly as possible the same quantity of lumber that he purchased for use or sale to his trade. His position would now then become fairly safe, regardless of whether cash prices of lumber went up or down. If the price of lumber of this particular specie declined substantially before he sold the actual spot lumber or plywood, he would have to sell the actual lumber that he had at a lower price than he anticipated; he would, however, make an offsetting profit on the futures contract because he could buy it out for a lower figure than for what the futures contract originally was sold. Now, if the price of lumber rose, he would then be able to sell his cash lumber at a higher price than anticipated and make a speculative profit, as well as his normal trade profit. In this case, however, he would experience an offsetting loss, because he would have had to buy out the futures contract at a price higher than the futures sale.

The Exchange also could provide possibilities for making a legal speculative profit, for those engaging in futures market activity without any cash trading activity. These would be the speculators who took the risks of possible loss in price fluctuations, but also would gain a speculative profit if their activity showed a gain. Speculators in other exchanges are necessary and legal, for they take
their risks. They allow, through their activity, the cash market to remain alive, so that cash traders can continue to trade and be assured that their cash prices will be insured by futures market prices. Without speculators, there cannot be any hedging as they take the risks. Hence, without speculators there would be no futures market. Thus, in reality, there is an interrelationship between cash and futures.

In the opinion of this writer, the value of a commodity futures exchange is assured, not only in terms of insurance, but because of the service which it can render in stabilizing prices and in creating a sound base upon which to build new markets for the plywood industry.

The Lumber Exchange Institute

A brief investigation of business people in town and lumbermen in the industry revealed some interesting facts. Informal interviews with many people by the writer of this study disclosed that public interest in the lumber market and the operation of an exchange, as a means to improve the marketing of lumber, was high and that the demand for sound, factual, and comprehensive knowledge of lumber exchanges was generally desirable. The need for a broad and coordinated educational program was apparent because of the lack of knowledge and experience in the lumber industry in exchange operations.

A plan to instigate an educational program under the auspices of the Educational Information Committee of the Exchange would be to establish an annual Lumber Exchange Institute.
Under the Lumber Exchange Institute, a lecture course of several weekly sessions of two hours each duration, one possibly at 3:00 p.m. and the other at 7:00 p.m. would be held. This would allow many interested people to fit the course into their schedule. The length of the course, or number of weekly sessions in the Institute, would depend on the amount of material that would be covered.

One suggestion from Mr. Lyle Baker, the Executive Secretary of the Exchange at that time, was to hire a university professor of business or economics to act as coordinator and instructor, and to be assisted by guest lecturers who were specialists in their respective fields.

A lecture course method would be preferable. The value of communicating lumber and exchange marketing information to people by means of face-to-face discussions was recognized as the most needed method. A speaker on a lecture platform, in this case, would have the advantage in being able to tailor his talks to suit the particular audience. This, it was felt, would be desirable, especially, in the Institute course. Lectures could easily be enlarged on each subject that was covered, as the situation demanded. Later, conclusions could be made more easily when the question-period time arrived.

In addition, color films, charts, and other visual aids could be used to illustrate the talks and to supplement the lectures as well. Take-home study materials would be provided members of each class and informative literature would also be handed out to each member of the classes.
After each lecture, the Institute would provide ample time for questions and answers. Question-answer periods would include any questions from, possibly, "what makes lumber prices go up one day and down the next?" by a young graduate business student, to a portly broker's inquiry as to "how much margin is required when selling short?"

Lectures would, however, encompass the fundamentals of sawmill-ing, grades and grading, and complete marketing from mill through the Lumber Exchange to the final user. These fundamentals could possibly be given in a somewhat following sequence as this: "Sawmilling in the United States".

1. Lumber Grades of the West Coast
2. Lumbermen's Association
3. Lumber Grades of the Western Pine Association
4. California Redwood Association Grades
5. Southern Pine Association Grades
6. Grading and Inspection of Lumber at the Mill
7. Transportation of Lumber-handling, rates, etc.
8. The Lumber Exchange and Its Organization, Constitution, and Rules of Trading
9. Regulations of Lumber Exchange
10. Cash Trading on the Exchange
11. Floor Procedure
12. Mechanics of Futures Trading
13. Clearinghouse Operation
14. Lumber Spreads and Spreading
15. Speculation and Prices and Price Determining Factors
16. Factoring and Financing
17. Office Wholesaler and Brokerage House Operations
18. Wholesaler-Mill Operations
19. Retail Yard Operations
20. Market News
The above titles are some possibilities for weekly sessions, and others would be added or subtracted as the Institute was put into operation.

For admittance to the course, it was thought that there would be no necessary qualifications. The Lumber Exchange Institute's course would be available to all interested persons at a nominal fee. However, because of the technical nature of the course, the enrollment and classroom proficiency should be limited to men and women in some form of lumber activity or allied business, but including a wide and diversified range of types of businesses with which lumber is affiliated in some way or other.

To name a few, it would be expected that accountants, bookkeepers, secretaries and typists, railroad traffic experts, office wholesalers and brokers, wholesaler personnel, sawmills personnel including executives and management level, large retailers, advertising account executives from advertising agencies, marketing research people, newspaper and magazine reporters and editorial staff members, television and radio newsman and analysts, motor carrier and water cargo traffic and management personnel, banks and insurance representatives, importers and exporters, office managers of allied lumber industries, etc., would be members of the classes. In other words, a true cross-section of any and all fields of commercial endeavor.

All class sessions would be held on the Exchange floor after closing hours of the Exchange. Those interested in enrolling would
contact the Lumber Exchange Institute directly at Exchange headquarters. An example of a possible application blank that might be used is shown in Appendix N at the back of this study.

Financing of the Lumber Exchange Institute would be done by either contributions from lumber businesses and interests, or by certain percentages of Exchange service fees derived from members, earmarked for education. The latter method would spread the cost of Institute operation among members of the Exchange. This would also aid and increase buying and selling activity on the part of lumber interests, for the Lumber Exchange Institute would be aiding the Exchange in expanding the scope of its operations and in its influencing of the lumber industry.

In addition to the Lumber Exchange Institute itself another valuable aid in the education program of the National Lumber Exchange could well be the utilization of daily newspapers. This would mean not only the Portland newspapers, but newspapers in other large cities in the country, and especially where the buying market of lumber is located.

Newspaper writing, and magazine writing as well, could be one of the mainstays of the Exchange's educational program. Newspapers and magazines properly informed and given free reins at the Exchange to get news and price information, would write Exchange news and market progress that would gain public understanding and attract the widest possible readership by stimulating public demand for
informational literature that was being distributed by the Exchange, and could stimulate public desires to use the Exchange in their lumber dealings.

Another plan that could work well with the Lumber Exchange Institute would be to establish cooperatives with schools, colleges, and educational groups by aiding them to plan curricula, and by offering literature and films on the Exchange and its operations; along with this, Pacific Northwest college professors could be invited to the Exchange to study lumber exchange operation in seminars and symposiums between lumber education and Exchange leaders could be held to stimulate interest and educate all those interested and active in the industry. By this intensive educational program, an appreciation of the lumber industry as well as the Exchange itself, would come and more intelligent marketing and merchandising of lumber and its products would likely follow.

Education undoubtedly should play an important part of any future organization and operation of an exchange. The benefits and the values that could be received by implementing an educational program with an exchange for lumber would definitely add to the success of the exchange along with publicity and sales promotion.

Summary

The same forces for success in any business—capital, organization, supervision, a justification for existence in a channel
of distribution, extra services offered, and a good public relations and educational program—are important for a successful lumber exchange as well.

Briefly the foregoing conclusions and recommendations of this chapter are: (1) establish membership and rules for membership including fees and privileges for members; (2) provide sufficient capital; (3) observe and follow principles of management; (4) place well-known lumbermen on the board of directors and, if possible, have all buyer and seller classifications represented on the board; (5) provide sufficient sales promotion and selling effort; (6) provide extra services for members as a statistical service; (7) provide for a test run and get the facts from the test run to formulate a final operating plan for permanent operation; (8) set up a floor trading system using floor traders and sell seats on the Exchange; (9) include an Exchange factoring service for its members to aid trading on the Exchange; (10) set up a futures trading market with a futures clearinghouse, in conjunction with the cash trading market; (11) provide for a lumber exchange institute to educate the lumbermen and other indirect middlemen, as well as the public who might be interested in the Exchange, and its operations and trading procedures.

Actually, when the time comes that lumber producers realize that by the establishment of an exchange, they can more readily expect for themselves a profit, they will have accomplished that for which they have been searching for many years—an honest profit on their production regardless of market prices. This one feature, an exchange,
would establish security for all the employees of major lumber companies and would assure them that their jobs would not be abolished through a fluctuating market. With a stabilization of assured profits secured by exchange operations, the lumber industry, as well as individual operations, would have a good opportunity to operate profitably twelve months of the year for the first time in the lumber industry. This might be done by marketing lumber through an exchange with the active and healthy support of the lumber industry.
Bibliography


14. Lumber or wheaties. CROW'S Lumber Digest, September 12, 1957, p. 5.


APPENDIX A

FLOW CHART OF LIST-TO-SELL & LIST-TO-BUY ORDERS--CARLOADS LOTS

Listing Desks

No. 1  No. 2  No. 3  No. 4  No. 5

Transactors

List-to-Sell Order & List-to-Buy Order

Time Stamp & List on Board

Stamp the List-to-Sell No. & List-to-Buy No.

File List-to-Sell or to-Buy Order

Key Punch

Tabulating Card

Tabulating & Reference Cards

Confirmation & Billing

W. E. Heller representative

Listing Desk Files

Reference Cards
APPENDIX B

FLOW PLAN OF THE LUMBER EXCHANGE

--- W. E. Heller Co. representative

--- incoming & outgoing communication

--- Board Boy

--- Runner

--- Executive Director

--- Administrative Section

--- Comptroller

--- Secretary-Bookkeeper

--- Machine Accounting

--- Receptionist

--- File Clerk
# THE NATIONAL LUMBER EXCHANGE

## LIST TO SELL ORDER

<table>
<thead>
<tr>
<th>Number of Cars</th>
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<td>Price</td>
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<td>Moisture</td>
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<td>Specie</td>
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<td>Guaranteed Weight</td>
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<td>List to Sell No.</td>
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<td>Mill No.</td>
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<td>Date</td>
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<td>Transactor No.</td>
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## List-to-Buy Order

**The National Lumber Exchange**

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<th>Price</th>
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<tbody>
<tr>
<td>Grade</td>
<td>Surfacing</td>
<td>Moisture</td>
<td>Specie</td>
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<tr>
<td>Shipment</td>
<td>Guaranteed Weight</td>
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<td>Buyer No.</td>
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<tr>
<td>Buyer Name</td>
<td>Buyer Phone</td>
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<td>Transactor No.</td>
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FLOW CHART OF PROCEDURE FOR HANDLING ODD LOTS

Listing Desks

No. 1  No. 2  No. 3  No. 4  No. 5

Transactors

List-to-Sell Orders & List-to-Buy Orders

Board Lister

Central Inventory Clerk

Key Punch Operator

Tabulating Cards

Tabulating Operator

Confirmation cards

Filing--File Clerk
THE NATIONAL LUMBER EXCHANGE, INC.

Order To Sell - Odd Lot

<table>
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<th>Item No.</th>
<th>M.</th>
<th>It.</th>
<th>Mill No.</th>
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<th>Grade</th>
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<th>M.</th>
<th>Specie</th>
<th>Shipment</th>
<th>Price</th>
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Ident. No.  Account Name  Transactor  Date  Sell No.

Posted  Initial  Date

Form 6P-4 9/1/57
### THE NATIONAL LUMBER EXCHANGE, INC.

**Order to Buy - Odd Lot - Consummation**

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**Posted** _______ Date _______ **Credit Approval** _______ Date_______
## The National Lumber Exchange

### Consummation Order

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**Credit Approval**

**Date**
APPENDIX L
FLOW CHART OF CONSUMMATIONS
LISTINGS' DESKS

Heller Co. Receives Consumption Order For Credit Approval

Time Stamp & List on Board

Stamp Consumption Number

Tabulating Card & Consumption Order

Key Funch

Communications Desk -- Reference Card & Consumption Order

Reference Card to W.E. Heller & Customer

Tabulating Operator

File Tabulating Card & Consumption Order

Tabulating Card to Accounting

Reports & Billing
APPENDIX M

PROSPECTIVE FLOW CHART OF FLOOR TRADER OPERATION

(non-members) Buyers

Exchange Floor

(non-members) Sellers

Buy Members

Sell Members

Buy
Cash

Buy
Futures

Sell
Futures

Sell
Cash

Clearinghouse for Futures

Sellers of Lumber

Sellers of Futures

Buyers of Futures

Buyers of Lumber
To be Mailed not later than ________________, to:

Lumber Exchange Institute
Terminal Sales Building
Portland, Oregon

Gentlemen:

Please enroll me as student in the course of study "Lumber and Its Marketing," starting ________________, to attend classes:

    Thursday afternoons at 3:00
    Thursday evenings at 7:00

I agree to abide by the regulations of the Institute for the conduct of classes. Submitted herewith is the total fee of $_____.

Student's signature ________________

Information requested below must be completed in full-

NAME_________________________________________

POSITION WITH FIRM______________________________

FIRM NAME____________________________________

FIRM ADDRESS________________________________

FIRM TELEPHONE______________________________ EXTENSION______________

HOME ADDRESS________________________________

PREVIOUS EDUCATION (PLEASE CHECK): Grade School_____________________

    High School______________________________

    University______________________________

Please indicate above at what address to which you wish your ticket for classroom admittance be sent.
APPENDIX 0

HOW A FUTURES MARKET COULD OPERATE IN LUMBER

Although the operations of the cash lumber and the futures lumber markets would be different, these two markets would be interdependent. Cash market operations would be the same on the Exchange, as discussed previously, but the futures market would be simply a method of buying and selling lumber in specified quantities as carload lots of 30,000 lumber board feet, for delivery at a future date.

To conduct futures trading, the Exchange and a clearinghouse for futures contracts to clear, similarly to a bank clearinghouse on checks, would meet specific requirements and be licensed as a contract market by the United States government, possibly Department of Agriculture Forestry Division.

Buying and selling lumber for future delivery would be done through agreements called futures delivery contracts. In brief, a lumber futures contract is an agreement between two parties—one who agrees to sell and deliver and one who agrees to buy and receive, (1) a certain kind and quantity of lumber, (2) to be delivered during a specified month, (3) at a definite price, (4) under the terms of the rules and regulations of the National Lumber Exchange.

There would be no samples of lumber in futures market trading. Grades of lumber deliverable on futures contracts would be set, with possibly the use of the common grades and the shop grades and would
be published by the Exchange. For instance, dimensional lumber such as 2 x 4, 2 x 6, 2 x 10, 2 x 12, etc, which are used for residential construction and for general purposes thus having a variety of uses, might be the basis for future contracts. In other words, futures contracts and cash trading could work together in the lumber industry with the use of the common grades and the shop grades, and with the use of a proper spread of lengths, as 2 x 4 and wider.

Hedging would be especially desirable and would be appropriately used by all owners and handlers of inventory, by those who "roll" transit cars without buyers, and by those users of lumber who sell ahead for cash and buy actual lumber later for use. Also, interested in hedging in future trading would be the industrial consumer of lumber who buy and store for later use in building construction, in manufacturing of many consumer wood products, as furniture and all kinds of millwork and specialty cabinet work.

A large part of all lumber shipments originates in the west by a method known as "transit shipments." Transit shipments means that lumber leaving the Northwest will be destined for certain diversional points throughout the country that are not intended to be the final destination. From these diversion points the car is reconsigned, perhaps to another diversion point or perhaps to a final market. Such lumber is commonly not sold until the car is several days out of Oregon. When a buyer is secured for the lumber in question, the shipment will then be directed to its final destination.
The essence of transit shipment is shipment prior to sale. Anyone buying transit cars without sales for these cars could well use a future market for hedging against losses on these cars before sale.

Speculators, those who would be willing to assume the risks of future trading, by accepting contracts on a buy or sell basis from the hedgers, would be found, once the Exchange's educational program through the Lumber Exchange Institute, was organised and was functioning.

It is suggested by the writer that a trial or test period be first used with "volunteers" from the lumber industry of at least up to 200 firms, as a sample. Also, it would be necessary to use a separate futures board and to restrict activity to standard grades and to lumber that was mostly used and was used for a variety of purposes, excluding select grades. Plywood, incidentally, might also be tested later for use in futures trading.

It would be desired to begin slowly with only a few contracts at the start. Prices would be made through open competitive trading and would be posted on the board by species grade and dimension only as price changed—and each change in price on a transaction would indicate the market price as of that moment, not the number of transactions completed at each price.

Because lumber is a commodity subject to price fluctuations, futures trading would help stabilize the market and buyers and sellers across the country would know, by a teletype or a closed television communication, what the market price was at all times.
With the setting up of futures trading, provision would need be made to clear all futures contracts, each day through a clearinghouse which could either be independent or part of the Exchange.

Like other principle exchanges, this Exchange would have an affiliated organization known as the clearinghouse. Its function would be identical with that of clearinghouses which serve the banks of all larger cities, namely, a simplification of settlement of balances by use of the offsetting principle.

At the end of each trading day every member of the Lumber Exchange either directly or through another member of the Exchange who was also a member of the clearinghouse, would submit a recapitulation sheet showing all transactions by the member for that day.

At the close of each day's trading session too, the clearinghouse would establish a settlement price which would be approximately the closing price of the commodity for the day. The same settlement price basis is used by other exchanges, and all transactions of the day are computed against that price. Here is how it would work as applied to the lumber industry. If one member sold to another member 30,000 feet of lumber during the day's trading session at $60 per thousand feet and the closing price or settlement price reaches $61 per thousand feet, the buyer would have said to have made $30 and therefore would credit himself with this difference on his clearing report; and on the other hand, the seller would have said to have lost $30 and therefore would debit himself in that amount.
The clearinghouse would get reports from Exchange members and keep a futures position and a margin position, on each member, much as the grain exchange clearinghouse does. The individual Exchange members would, in turn, keep a futures position and a margin position on each of its customers. The members of the Exchange would pay the clearinghouse a small fee on each transaction for its services.

Details of forms and the workings of the clearinghouse from within itself, and the workings of the clearinghouse between members and the clearinghouse itself could be worked out and patterned from the grain or cotton exchanges, with changes being made that were necessary to meet the intricacies and differences of the lumber, the grain and the cotton industries.

Because lumber is a staple product, because lumber can be used for a variety of uses, because lumber is a product that can be standardized even though it has many species, grades, dimensional cuts (but stay with the standard grades and cuts), because it is a product that can be stored, and because it has many more mills than grain has producers and grain elevators, a futures market might well be established for the lumber industry.

Opposition to the establishing of an exchange and a future market have stated that lumber is a semi-finished product, whereas grain and cotton are raw materials, but eggs and powdered potatoes are also semi-finished goods that can be used still further for other possible uses, other than terminal usage, and these items are sold on an exchange with futures trading on the Chicago Mercantile Exchange.
A futures market is one form that might be the answer to the lumbermen's dilemma—the need for some kind of risk distribution on prices of lumber. It is true that this is not a perfect solution to the marketing function of risk-bearing, but it is a step in the direction of price protection, and it has worked before, as witnessed by the other commodity exchanges in the country that employ facilities for both a cash trading and a futures trading market.