

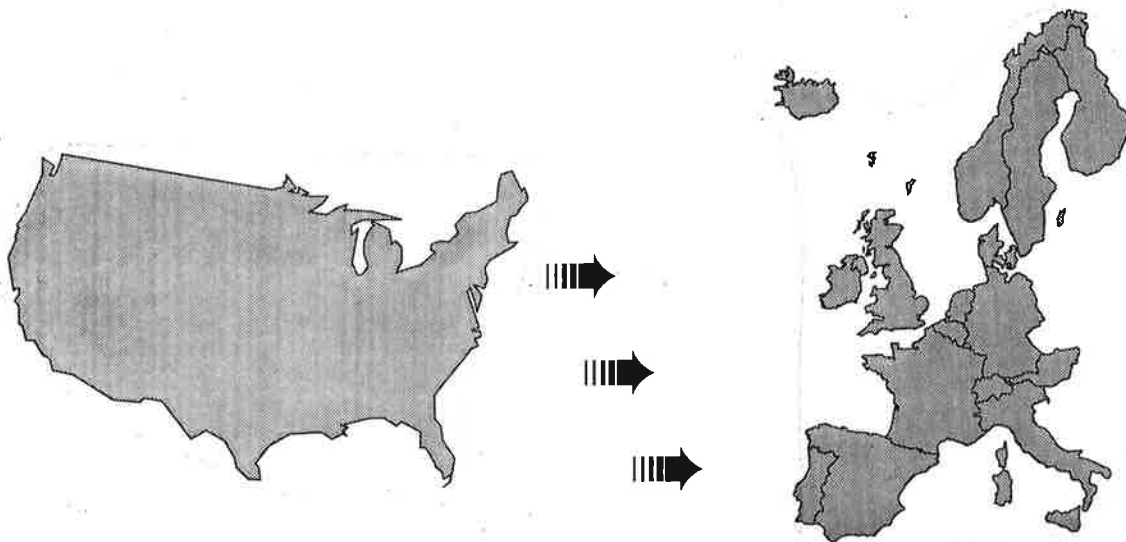
Working Paper

41

**Exporting
Value-added Wood Products to Europe:
The Quality Imperative**

March 1993

Håkan Ekström



EXECUTIVE SUMMARY

EXPORTING VALUE-ADDED WOOD PRODUCTS TO EUROPE: THE QUALITY IMPERATIVE

Highlights:

- US manufacturers who wish to be more competitive in European markets should shift from traditional production-oriented manufacturing of industrial commodity products to more market-oriented production of specific products.
- Opportunities exist for increased US export of value-added wood products to Europe, particularly components for furniture and windows.
- US wood manufacturers can improve their image as suppliers of higher value-added products in Europe by learning more about the market, meeting customers' specific demands, and understanding cultural differences dictating how business is conducted.
- German customers are very concerned about consistent dimensions, rapid delivery and consistency in pricing. Italians are particularly interested in long-term relationships with their suppliers, consistent supply, and close customer relations. Industrial end-users in the Netherlands value quality of wood drying, long-term commitments, and close contacts with their suppliers.

US lumber suppliers who wish to be more competitive in European markets must understand the European definition of quality. Quality is much more than accurate grading. Other factors like dimension accuracy, consistent supply, and customer service are also very important. Customers in European countries do not have the same preferences as US customers.

The objectives of this study have been 1) to investigate how industrial end-users of lumber, importers and agents in Germany, Italy and the Netherlands, define quality, and 2) to present factors that may contribute to the success of American lumber exporters in the European market.

US EXPORT OF WOOD PRODUCTS TO EUROPE

There was a slight increase in the export of wood products from the United States to Europe during the 1980s. The European Community (EC) is a very important export market for US sawmills, having imported \$1.1 billion of wood products from the US in 1991. Approximately 41% of US hardwood lumber exports and 22% of softwood lumber exports were shipped to the European Community in 1991.

DISTRIBUTION CHANNELS

The trend at many European manufacturers of furniture, cabinets, windows and doors is for fewer, closer wood suppliers. This results in more direct sales and reduced involvement of intermediaries. Today approximately 10% of softwood lumber and 30% of hardwood lumber is imported directly to the industrial end-users, who are primarily larger manufacturers of furniture and windows.

Even if direct sales are a preferred sales strategy, there may be advantages, particularly for small and mid-size firms in the US, in contacting a European intermediary. Agents and importers have an understanding of the culture and the traditions dictating how business is done. They can also help small producers find customers, follow design trends, and deal with complaints.

THE SWEDISH SAWMILLING INDUSTRY

In this project, US export strategies are compared to the strategies practiced by Swedish exporters. Sweden has for many years exported large quantities of lumber to the countries in the European Community and therefore has extensive experience in trading in these markets. The European Community (EC) imports almost 22% of its softwood lumber from Sweden compared to 4% from the US.

Closeness to the market is an advantage Swedish lumber producers have over North American producers. In today's fast-changing market and with importers and end-users interested in minimizing their inventory, it is crucial to be able to meet orders with short notice, arrange fast shipments and offer just-in-time deliveries. Knowledge of the market and a better understanding of the business culture are often mentioned as major differences between Swedish and North American exporters.

Perhaps the most important advantage the Swedes enjoy is the long-term relationship they have shared with many of their customers. These old relationships result in loyalty, reliable business relations, and relatively stable prices over business cycles.

OPPORTUNITIES FOR US WOOD EXPORTERS

There is an increased interest in Europe for buying more finished wood products from the United States. European industrial end-users want to be less involved in the primary wood process and spend more time and effort on developing new products, marketing and distribution.

United States hardwood species like cherry, walnut, red alder, oak and ash can be promoted as substitutes for tropical hardwoods in furniture, cabinets, panelling and flooring. US manufacturers also should promote some species and products that are unique to North America, for example, thick and wide dimensions with clear wood from species such as Douglas-fir, redceder and hemlock. A preferred strategy is to promote products that are less sensitive to price and encourage end-user loyalty to suppliers.

Germany

The unification of East and West Germany has increased investment in the repair and remodelling sector. This has resulted in strong demand for wood products such as construction lumber, windows and doors. Although clear solid wood is preferred, glued and finger-jointed products are becoming increasingly accepted due to decline in the quality of lumber imported from both North America and Northern Europe. Preferred North American species are hemlock, Douglas-fir, lodgepole pine, spruce and oak.

The increased activity in the renovation sector has resulted in a higher frequency of special orders and demand for custom-cut components. The do-it-yourself market, which is already the largest in Europe, has also seen an expansion, particularly in eastern Germany. Opportunities also exist for hardwood lumber and components for furniture and flooring.

Italy

Imports of semi-finished and customized wood products to Italy are expected to increase, particularly for use in windows and furniture. Italy is one of the largest producers of furniture in the world. Opportunities exist for lumber and components of red oak, red alder, yellow-poplar, walnut, white ash and black cherry.

Old-growth Douglas-fir is the species preferred by many window manufacturers in Italy. However, there is an increased interest in alternative species since the wood quality of Douglas-fir has declined and the price has increased in recent years. Two alternative species of interest are hemlock and redcedar. There is also an increased market for three-layer laminated window stock made from second-generation Douglas-fir and southern yellow pine.

The Netherlands

The Dutch Timber Information Centre promotes US species such as Douglas-fir, hemlock, southern yellow pine, red oak and white oak for increased use in such areas as construction, furniture and windows. Because of bans on use of tropical hardwoods for certain products, US ash, white oak and red oak are increasingly substituted.

With the increasing price for clear wood, acceptance of laminated window stock is growing. Opportunities exist for use of three-layer components from Douglas-fir, western redcedar and hemlock.

QUALITY IN EUROPE

"Quality" is a buzzword often used by marketers of forest products today, especially if there are plans for expanding sales to the European market. It is important to remember that customers in Europe do not have the same preferences as US customers. Before spending too much time and effort on advertising and promotion overseas, it is crucial for US wood suppliers to understand how Europeans define quality. For European wood users, quality stands for a synergism between wood quality, manufacturing quality and quality of service.

German customers of lumber and wood components are very concerned about consistent dimensions, rapid delivery and consistency in pricing. Germans also desire that imported wood originates from sustainably-managed forests. Italians are particularly interested in long-term relationships with their suppliers, consistent supply, and close customer relations. Industrial end-users in the Netherlands value quality of wood drying, long-term commitments, and close contacts with their suppliers. The large fluctuations in exchange rates between the guilder and the dollar are a major Dutch concern.

ADVANTAGES FOR PACIFIC NORTHWEST MANUFACTURERS

Manufacturers in the US have higher labor costs than many other countries now producing commodity lumber. In order to be more competitive, US manufacturers should therefore concentrate on manufacturing value-added products of high quality. Low-quality products and bulk-type production can be made less expensively in other countries with lower salaries. Today, Pacific Northwest wood manufacturers have some advantages over their Scandinavian counterparts. These include lower labor costs, lower raw-material costs, larger logs, larger components of clear wood and a greater variety of species.

ENTERING THE EUROPEAN MARKET

US wood manufacturers can change their image in Europe by learning more about the market, meeting the customers' specific demands, and understanding the cultural differences dictating how business is conducted. It will take some time and effort in traveling to meet the customers and determine their specific needs. It may also be necessary to invest in new equipment.

Some important key issues US manufacturers should consider when exporting to Europe are:

- Try to develop a strong relationship with the industrial end-user.
- Look to the European market as a long-term investment, not a market to turn to when the US economy is down.
- Develop a long-term strategy to seek loyal customers rather than always trying to sell at highest price.
- Promote products that are less sensitive to price and encourage end-users to be loyal to their supplier.
- Concentrate on a few markets and customers, create a healthy niche, then try to service them well.
- Ensure a high quality of drying, as this is very important to European customers.
- Sort the lumber according to customer demands. Better sorting requires relatively little extra effort.

EXPORTING TO EUROPE

Even though Europe will be a single market it would be a mistake to adhere to a single "European" marketing strategy. To be successful in this large market, it is necessary to have a country-specific marketing strategy. Each country will continue to have specific product demands, design trends, and cultural differences dictating how business is conducted. These differences will not be significantly altered by the European integration.

To be more successful in the European market, US manufacturers can change strategy from traditional production-oriented manufacturing of industrial commodity products to more market-oriented production of specific products. There will be a large demand for wood components in Europe in the future. Increased export opportunities exist for US manufacturers if they can define quality and adjust to new market conditions.

ACKNOWLEDGEMENTS

During my travels in Europe and in the Pacific Northwest I visited many people who were very cooperative in answering my questions and often spent hours discussing trade, business culture and market opportunities in Europe. I would like to thank them for their willingness to share information with me. Their enthusiasm and wealth of knowledge made the writing of this report stimulating and enjoyable.

I also would like to thank Professor David Briggs and secretary Lynn Catlett at the College of Forest Resources and the Center for International Trade in Forest Products for their constructive criticism of my report and for critical appraisal of my English.

Seattle, March 1993

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C I N T R A F O R

Working Paper 41

Exporting

Value-added Wood Products to Europe:

The Quality Imperative

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March 1993

1. INTRODUCTION

Ongoing discussions within the forest products industry are focusing increasingly on the quality of wood products exported to Europe from the United States. Complaints heard from European customers are that US suppliers have not been dependable in terms of quality, responsiveness or availability.

US lumber suppliers who wish to be more competitive in the European market must understand the European definition of quality. Quality is much more than accurate grading. Other factors like dimension accuracy, consistent supply, and customer service are also very important. Customers in the European countries do not have the same preferences as US customers.

The four largest lumber importing countries in Europe are the United Kingdom, Italy, Germany and the Netherlands. According to FAO data, these four countries purchased a total of 17.5 million m³ (7.4 billion board feet) of lumber in 1990. This study focuses upon imports of lumber to Germany, Italy and the Netherlands. The United Kingdom, which is the biggest importer of lumber in Europe, is not included for two reasons. One is that the United Kingdom imported substantial volumes of lower-grade lumber, and this study focuses mainly on lumber of high quality. The second reason is that there is an ongoing study at Virginia Polytech Institute in Blacksburg, Virginia, concerning importance of different products and service attributes for lumber exported to the United Kingdom.

The emphasis in this project is on requirements expressed by the window industry, since this industry is a large consumer of high-quality wood components and provides a good indicator of European requirements.

In this project, US export strategies are compared with the strategies practiced by Swedish exporters. Sweden has for many years exported large quantities of lumber to the countries in the European Community and has extensive experience in trading in these markets. For example, approximately 30% of softwood lumber imported to Germany is purchased from Sweden.

Interviews for this report were conducted with industrial end-users, importers/agents, scientists and trade associations in Germany, Italy, the Netherlands and Sweden during May and June in 1992. A total of 34 firms and associations were visited in the four countries (see Appendix A).

2. OBJECTIVES AND BENEFITS

The primary benefit of this research is to provide current market information to those involved with trade development and the lumber-producing industry, so that better manufacturing, promotion, and distribution strategies can be developed for the European market. Key quality attributes important to European importers, and issues that should be addressed to change the US image will be presented. A better understanding of these crucial marketing factors may provide US wood manufacturers opportunities to increase exports to Europe.

This study has three main objectives:

1. Investigate how customers of imported lumber in Germany, Italy and the Netherlands define quality. The emphasis is on requirements expressed by window manufacturers.
2. Describe differences and similarities between Swedish and US export strategies. These include, for example, strategies relating to wood quality, service and distribution channels.
3. Present factors that may contribute to the success of American lumber exporters in the European market.

3. US EXPORTS OF WOOD PRODUCTS TO EUROPE

There has been an increase in the export of wood products from the United States to Europe during the last six years (Figure 1). The wood products trade to the European Community (EC) totalled \$1.1 billion in 1991 (USDA-FAS, 1992b), which is approximately equal to 1980 when adjusted to inflation. Hardwood lumber and softwood plywood are the two single products that have experienced the largest increase in demand. During the first six months of 1992, exports increased 23% and 69% respectively as compared with the same period the previous year.

The United States exported more hardwood veneer and softwood plywood to Europe than to the rest of the world in 1991 (Figure 2). Europe is a very important export market for US sawmills. Approximately 41% of exported hardwood lumber and 22% of softwood lumber was shipped to the European Community in 1991.

Figure 1. Value of US exports of wood products to the European Community between 1980 and 1991. Note that the product group "Other wood products" includes logs, flooring, panel products, building components, containers and woodenware. Source: US Department of Commerce.

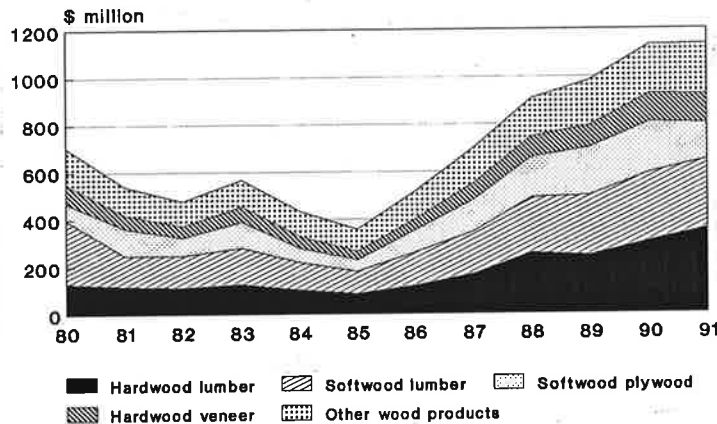
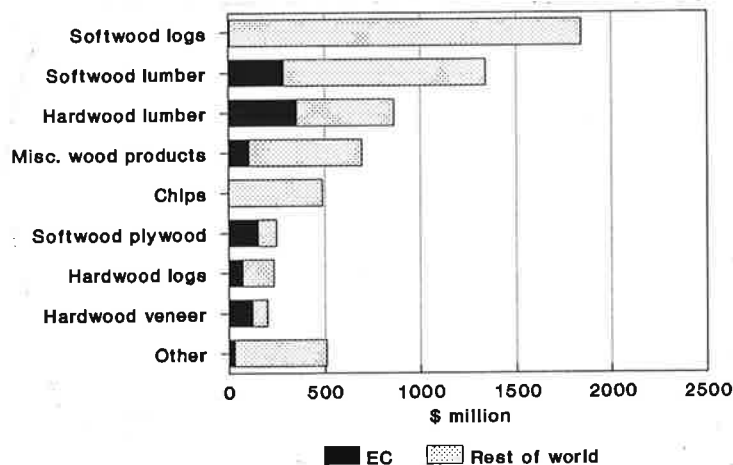


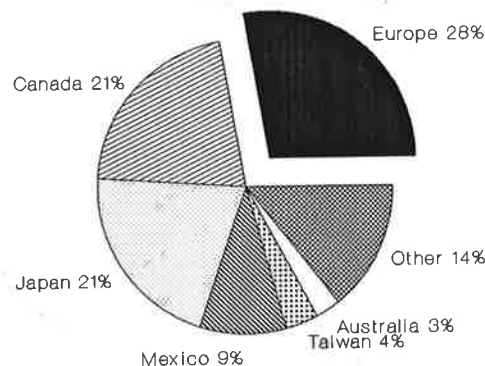
Figure 2. Value of US exports of wood products in 1991, in total and to the European Community. The product group "Misc. wood products" includes products such as building components, containers and woodenware. "Other" includes flooring, mouldings and panel products. Source: US Department of Commerce.



Approximately 17% of the US total wood products export was shipped to Europe during 1991. The sales to Europe comprise mostly processed products and only small quantities of logs and chips. More than 28% of the United States exports of processed wood products (all wood products except logs, poles and chips) were shipped to Europe. This represents nearly the combined total of the sales to Canada and Mexico (Figure 3).

Figure 3. Value of processed wood products exported from US in 1991. Source: US Department of Commerce.

Total value: \$ 3,811 million

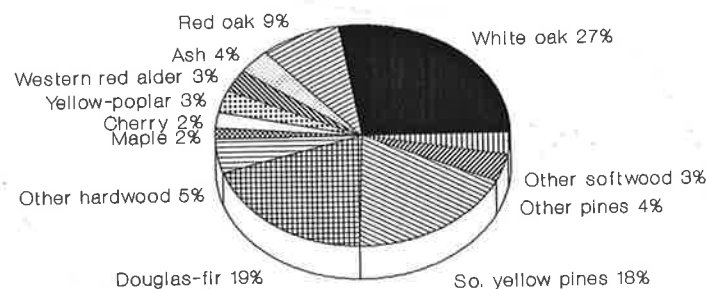


US exported \$665 million worth of lumber to the EC in 1991. More than 50% was hardwood species (Figure 4). The major hardwood species exported were white oak, red oak, ash, red alder and yellow-poplar. Hardwood exports to Europe continued to grow during the first half of 1992 and were up 23%. The most significant increases were of red alder and yellow-poplar to Germany and Italy, respectively.

The major softwood lumber species exported were Douglas-fir and southern yellow pine. The latter was in increased demand particularly in Italy, Germany and Spain, while the demand for Douglas-fir in Europe declined to a five year low in 1991.

Figure 4. Value, by species, of US exports of lumber to the European Community in 1991. Source: US Department of Commerce.

Total value: \$ 665 million



Almost 28% of the lumber exported to Europe originated from western United States. The two major west coast species exported were Douglas-fir (301,600 m³) and red alder (47,200 m³). While the demand for Douglas-fir has declined the last few years, the demand for red alder has increased substantially (Table 1).

Table 1. Value of US west coast species exported to the European Community 1989 to 1991 (in millions of dollars). The species group "fir" includes small quantities of balsam fir from the US east coast. Source: US Department of Commerce.

	Douglas-fir	Red alder	Hemlock	Fir	Red-cedar	Redwood
1989	131.9	10.0	4.3	2.6	1.4	0.9
1990	150.1	14.6	4.7	4.9	1.2	1.1
1991	125.4	21.1	4.6	2.5	1.2	0.9

Italy was the number one European importer of US softwood lumber, as well as hardwood lumber during 1991 (Figure 5 and 6). The major species imported to the EC were white oak, Douglas-fir, southern yellow pine, red oak, ash, red alder and yellow-poplar. Other major importers of US lumber were Germany, Spain, the United Kingdom and Belgium.

Figure 5. Value of US softwood lumber shipped to the European Community in 1991. Source: US Department of Commerce.

Total value: \$ 289 million

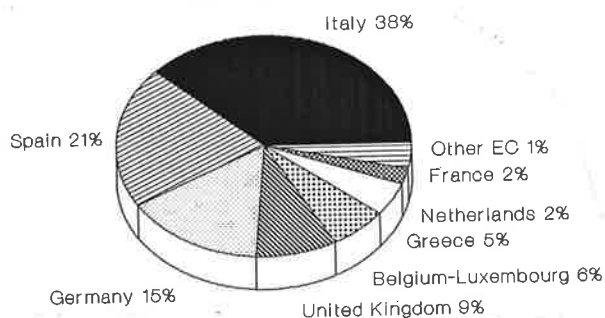
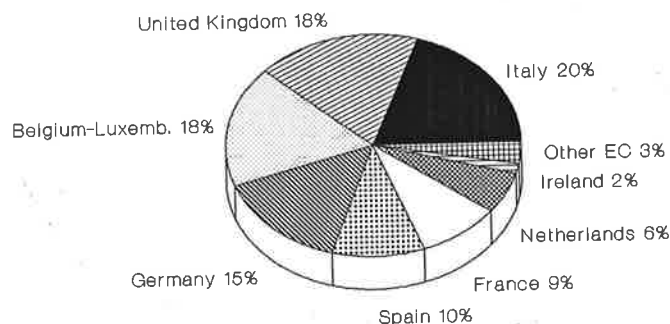


Figure 6. Value of US hardwood lumber shipped to the European Community in 1991. Source: US Department of Commerce.

Total value: \$ 356 million



3.1 To Germany

US exported wood products worth \$260 million to Germany in 1991. Germany is the fifth largest market for US wood products and the largest within the European Community. Hardwood logs was the number one wood product imported from the United States in 1985. Since the mid-1980s, the demand for value-added products such as lumber and veneer has increased significantly and are now the major wood products imported (Figure 7).

The United States, which is Germany's leading supplier of temperate hardwood lumber, shipped lumber worth \$53 million in 1991 (Figure 8). The major US hardwood species imported were white oak (58%), red alder (14%), ash (10%) and cherry (6%).

Figure 7. Value of US exports of wood products to Germany between 1980 and 1991. The product group "Other wood products" includes softwood plywood, building components, containers and woodenware. Source: US Department of Commerce.

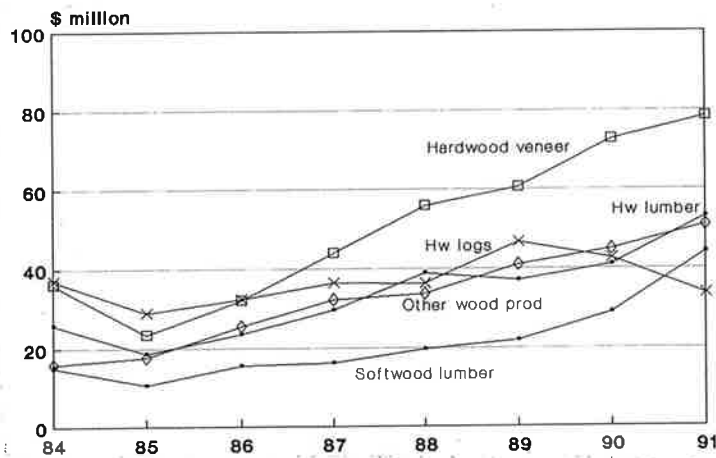
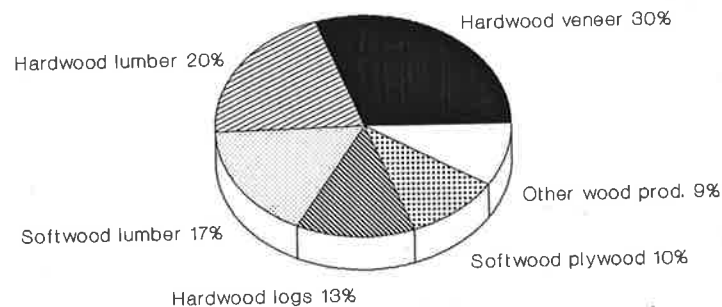


Figure 8. Value of US exports of wood products to Germany in 1991. The product group "Other wood products" includes building components, containers and woodenware. Source: US Department of Commerce.

Total value: \$ 260.0 million



3.2 To Italy

The total value of US wood products exported to Italy in 1991 was \$224 million. More than 80% of the exports were lumber (Figure 9). Italy is the fourth largest market for US lumber after Japan, Canada and Mexico. Italy purchased 14% of its imported temperate hardwood lumber from the US and seven percent of imported softwood lumber. The major US softwood species

exported to Italy was Douglas-fir, accounting for approximately 70% of all US softwood imported. The remainder was southern yellow pine, spruce and hemlock. The number one US hardwood species shipped to Italy in 1991 was yellow-poplar, comprising 37% of all hardwood lumber sold to Italy. Other hardwood species imported from US were white oak (24%), red alder (15%) and sweetgum (10%).

There has been a dramatic change in demand for US hardwood and softwood lumber in Italy between 1984 and 1991. The demand for US hardwood lumber has increased by approximately 700% followed by an increase of 200% for softwood lumber (Figure 10). Wood products such as plywood, veneer and logs have seen a stable upward trend in recent years.

Figure 9. Value of US exports of wood products to Italy in 1991. The product group "Other wood products" includes building components, containers, woodenware and flooring. Source: US Department of Commerce.

Total value: \$ 223.8 million

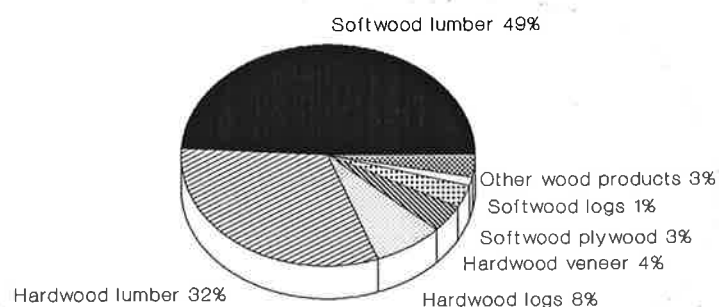
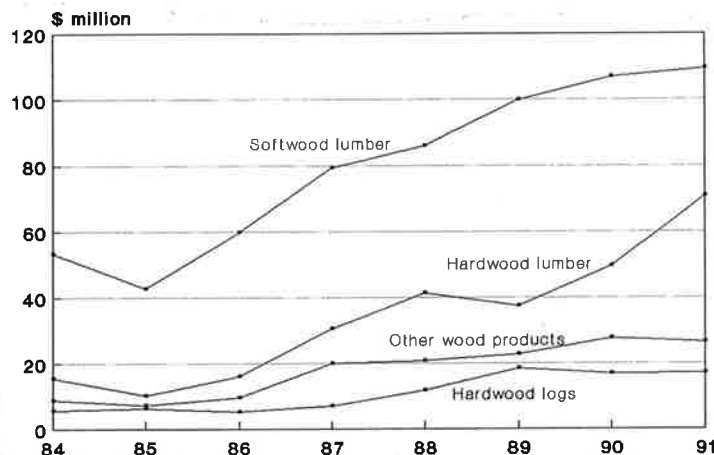


Figure 10. Value of US exports of wood products to Italy between 1980 and 1991. The product group "Other wood products" includes hardwood veneer, softwood plywood, softwood logs, building components, containers, woodenware and flooring. Source: US Department of Commerce.



3.3 To the Netherlands

The value of US wood products exported to the Netherlands was \$60 million in 1991, which was twice as much as in 1984 (USDA-FAS, 1992c). The two major products exported were hardwood lumber and softwood plywood. These products have seen a substantial increase in demand since 1984 and now account for 67% of the total export to the Netherlands (Figure 11 and 12). Although the Netherlands is the sixth largest importer of softwood lumber in the world, only small

quantities have been imported from the United States. On the other hand, the US is a major supplier of temperate hardwood lumber to the Netherlands. White oak was the major species exported and comprised 65% of all US hardwood exported to the Netherlands in 1991. Other species were red oak (12%), ash (11%) and hard maple (3%).

Figure 11. Value of US exports of wood products to the Netherlands in 1991. The product group "Other wood products" includes building components, containers and woodenware. Source: US Department of Commerce.

Total value: \$ 60.4 million

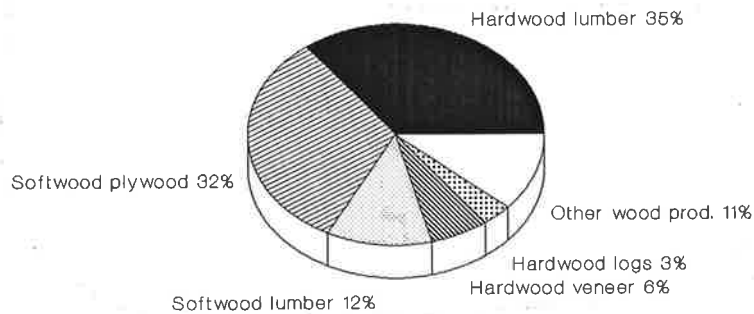
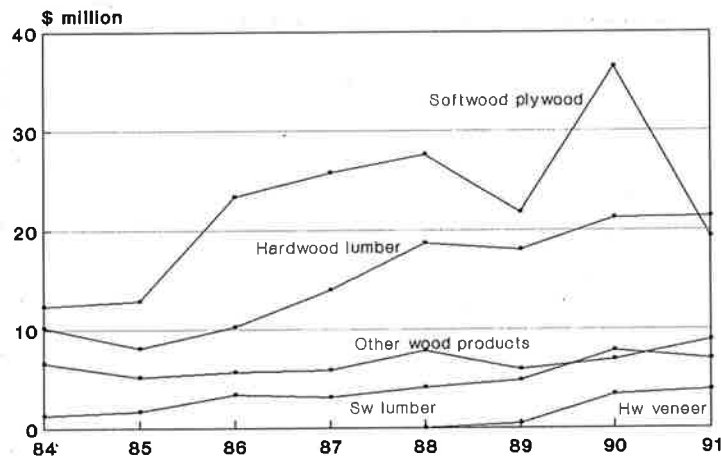


Figure 12. Value of US exports of wood products to the Netherlands between 1980 and 1991. The product group "Other wood products" includes hardwood logs, building components, containers and woodenware. Source: US Department of Commerce.



4. SWEDISH SAWMILLING INDUSTRY

Sweden has more than three times as much productive timberland than the state of Washington but less than half the productivity per acre. The forest industry in the country is very important. More than five percent of the gross national product (GNP) is related to the forest industry and one out of every 16 gainfully employed individuals lives off the forest.

There were approximately 2,500 operating sawmills in Sweden in 1990, producing 12 million m³ (5 billion board feet) of lumber (Andersson, et al., 1991a and 1991b). Although total production of lumber remained the same as in 1984, employment was down 23% to 13,400 people. The species sawn are Norway spruce (55%), Scots pine (43%), birch (1%), and other hardwoods

such as oak, beech and alder. Eight percent of the sawlog consumption during 1990 was logs with a top-end less than 14 cm in diameter. This share has increased in recent years and is expected to be an even larger share in the future.

Modernizing the Swedish sawmilling industry has resulted in a high degree of automation. Computers are commonly used for planing, optimized edging and packaging machines. The number of sawmills using computers for production planning increased from 8% to 60% between 1979 and 1990. Value-added processes and product manufacturing at Swedish sawmills have seen a rapid increase in the last decade. For example, more than 50% of the 250 largest sawmills had planing facilities, and 41% dried lumber to 8-10% moisture content (MC) to be used in the furniture industry (Table 2).

Table 2. Value-added processes and product manufacturing at Swedish sawmills in 1990. Number of sawmills as a percentage of the 250 largest plants. Source: Andersson, et al., 1991b.

	percent
Planing	55
Drying to 8-10% MC for furniture	41
Trimming to specific lengths	25
Stress grading	20
Impregnation	19
Components for packaging	17
Millwork components	12
Prefabricated building components	11
Finger-jointing	10
Laminated products	10
Furniture components	10
Painting	8

As a result of mechanization and automation, the productivity per person has increased dramatically, from an average of 450 m³ of lumber per man-year (m³/my) in 1960 to almost 900 m³/my in 1990. The most efficient and automated sawmills produced almost 3000 m³/my.

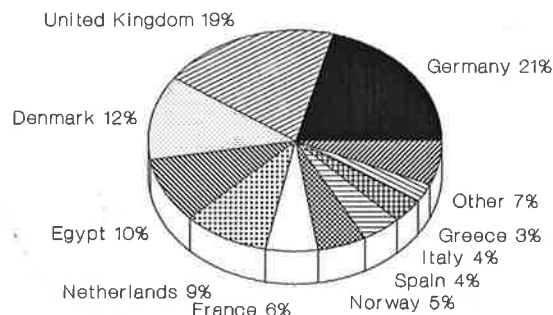
Sawmill inventory of logs and lumber has decreased steadily over the last decade. It has been possible to reduce the sawlog inventory because mechanized and computerized logging systems have provided a more stable flow of logs required by the mills. The major reasons for reduced inventory of lumber are the sawmilling industry's improved kiln dry capacity (88% of the total lumber production is kiln dried), high interest rates, and changed marketing strategies (Swedish sawmill industry, 1992).

Sweden, together with Finland, is the major supplier of lumber to the European market. The European Community (EC) imports almost 25% of its softwood lumber from Sweden. The major importing countries are Germany, the United Kingdom, Denmark and the Netherlands. Swedish export of lumber to the three countries studied in this report varied greatly. Sales to Germany and the Netherlands were significant, while sales to Italy only accounted for four percent of the total lumber export (Figure 13).

Germany purchased approximately one third of its imported softwood lumber from Sweden in 1990, making Sweden the number one supplier of lumber (FAO Yearbook, 1992). Higher-grade spruce was imported for inner wall panels and doors, while pine was used for products such as windows and mouldings. Almost 30% of the Netherlands' imported softwood lumber originated from Sweden in 1990. Approximately 90% of this quantity was spruce used for windows, doors,

Figure 13. Swedish export of softwood lumber 1991. Source: Swedish Customs Department

Total volume: 6.7 million cum



wall panels, mouldings, flooring and constructions applications. Swedish exporters of lumber had only a six percent share of Italy's total softwood lumber import in 1990. Pine with narrow annual rings from northern Sweden is appreciated for fine products such as furniture, cabinets and windows.

Closeness to the market is an advantage to Swedish lumber producers compared to North American producers. In today's fast-changing market and with importers and end-users interested in minimizing their inventory, it is crucial to be able to meet orders with short notice, arrange fast shipments and offer just-in-time deliveries. Knowledge of the market and a better understanding of the business culture are often mentioned as major differences between Scandinavian and North American exporters.

Perhaps the most important advantage is the Swedes' old relationships with many of their customers, resulting in loyal and reliable business relations and also a relatively stable price over the business cycles. According to a survey of German wood products manufacturers, Swedish lumber suppliers are very reliable and loyal in their deliveries of products and have superior manufacturing quality (Nygren, 1985).

One German broker said about Swedish lumber producers: "Meeting the specifications is not enough, they have often exceeded them."

5. WOOD PRODUCTS MARKET IN GERMANY, ITALY AND THE NETHERLANDS

5.1 Production and Consumption of Wood Products

Table 3: Lumber Production and Trade Highlights for 1990 (in million m³). Source: ECE Timber Committee

	Germany	Italy	Netherlands
Lumber Production	12.2	1.9	0.4
(softwood/hardwood)	(85/15)	(45/55)	(37/63)
Lumber Import	5.1	6.0	3.2
(softwood/hardwood)	(84/16)	(74/26)	(74/26)
Lumber Export	1.3	0.1	0.3
(softwood/hardwood)	(74/26)	(37/63)	(40/60)
Domestic Lumber Consumption	15.6	7.8	3.6
Lumber Consumption/Capita	0.25	0.14	0.26

5.1.1 Germany

According to Eurostat data, Germany imported \$4.5 billion of solid wood products in 1991, of which \$3.4 billion came from European countries. Imports from North America totaled \$430 million (USDA-FAS, 1992c).

The total consumption of lumber during 1990 was 15.6 million m³. Approximately 85% of the consumption was softwood lumber, 12% temperate hardwoods and 3% tropical hardwoods. Domestic production of lumber, which has increased continuously during the 1980s, is about 78% of the consumption. The major suppliers of softwood lumber to Germany are Sweden (30% of total import in 1991), Finland (15%), Russia (12%), Austria (11%) and Poland (11%). The US share of softwood lumber imports was only 2.5% during 1991.

In terms of value, the United States is Germany's leading supplier of hardwood lumber with 27% of the total hardwood imports. Other major suppliers of hardwood lumber are France, Poland and Czechoslovakia.

The major species imported from the US are Douglas-fir, southern yellow pine, western hemlock and oak. Ash, alder and maple imports have increased noticeably. Germany imports' hemlock, spruce, cedar, white oak and hard maple from Canada.

Wood for windows in Germany

The total consumption of wood for windows in Germany was 170,000 m³ in 1989 (SIND, 1991). The main species used were pine (44%), dark red meranti (25%), spruce (11%) and western hemlock (8%). The use of meranti has decreased significantly from a 70% to 80% share in the mid-1980s. Douglas-fir and temperate hardwoods are showing increased use for window stock. By tradition, more spruce and other light colored species are used in the south of Germany, while pine and dark tropical species are more popular in the north. It is also more common that windows are painted in the north.

Most of the pine used for windows was purchased from Sweden and Finland, while western hemlock and Douglas-fir were imported from the US and Canada. The German import of lumber from the US has seen an increase during the 1980s. The demand for US lumber is expected to increase further as window manufacturers search for substitutes to tropical wood.

Most window manufacturers purchase lumber that is further processed at the plant. Approximately 17% of the wood is bought as components or laminated stock, predominantly by small and midsize firms (SIND, 1991). The use of laminates is expected to grow due to a shortage of high-quality lumber with few knots or none.

German window manufacturers have a strong interest in purchasing value-added products. In a survey of 62 German window manufacturers, 38 firms, representing 85% of Germany's total window production, were interested in purchasing components of clear window stock (SIND, 1991). In the same survey, firms representing 69% of the window production, were interested in using more laminated window stock in production.

A strategy growing more common among window producers in Germany is to have close and long-term relations with a limited number of wood suppliers. Some of the advantages of increased cooperation between producer and supplier are prompt deliveries, better response to changes and more flexibility by the suppliers.

Due to design trends toward lighter colors and resistance to using tropical hardwoods, there is increased interest in the use of temperate hardwoods and softwoods. Pine from Sweden, Finland, Poland, Canada and the US is becoming more popular. Species from the US that are in growing demand include ponderosa pine, southern yellow pine, hemlock, Douglas-fir and oak.

The use of laminated components is expected to increase and finger-jointing is becoming more accepted. Windows made from wood, which now comprise 40% of the market, are expected to enjoy a slight increase in future market share. This results in growing demands for recyclable products from a renewable resource and demand for triple-glazed windows that require thicker profiles.

5.1.2 Italy

According to Eurostat data, Italy imported \$3.2 billion of solid wood products in 1991. Imports from North America totaled \$224 million, up from \$66 million in 1985 (USDA-FAS, 1992). The total consumption of lumber during 1990 was 7.8 million m³, of which approximately 67% was softwood lumber, 28% temperate hardwoods and 5% tropical hardwoods. Domestic production, which has been stable for the last five years, is about 19% of the consumption. This necessitates importation of large volumes of lumber. The major suppliers of softwood lumber are Austria (60% of total import in 1990), Russia (11%), United States (6%) and Sweden (5%). The main softwood species imported from the US are Douglas-fir, hem-fir and southern yellow pine.

Italy is by far the leading hardwood importer in Europe. The US share of hardwood lumber imports was 14% in 1990. US suppliers increased their sales by 41% from the previous year, despite a decrease in total hardwood imports to Italy by 24%. Other major suppliers of hardwood lumber were Yugoslavia (40%) and France (21%). The major hardwood species imported to Italy are red and white oak, white ash, yellow-poplar, maple and red alder.

Wood for windows in Italy

Windows are the premiere product made from wood in Italy. The total consumption of wood for windows was 54,000 m³ in 1989 (SIND, 1991). In 1988, 58% of the windows in Italy were made from wood, according to FAO data. A majority of the producers were small and consumed less than 2000 m³ per year.

There were between 8000 and 9000 window plants in the country in 1988 (Ligasacchi and Johnson, 1988). The trend is toward fewer and larger plants, with a production not only limited to windows but also doors and other millwork.

The main species used in the window industry were Scots pine (32%), Douglas-fir (24%), dark red meranti (18%), spruce (8%) and western hemlock (6%). Because of price increases and a decline in quality of Douglas-fir, there is a strong incentive to search for substitutes. Alternatives to Douglas-fir include pine from Northern Sweden, Finland and Poland; hemlock and redcedar from the North American west coast, or southern yellow pine from southeast US. There may also be increased use of iroko and other tropical species with high resistance against decay. Changed attitude and acceptance of laminated components have increased the use of three-layer window stock. Some of the species used are Scots pine, ponderosa pine, southern yellow pine, spruce, hemlock, oak and meranti.

Most Italian window manufacturers purchase lumber that is further processed at their plants. Only about 13% of the wood supply is bought as components or laminated stock (SIND, 1991).

Larger firms are commonly increasing the use of components. Approximately 95% of the Italian window manufacturers have an interest in purchasing more value-added products, according to a Swedish survey of Italian window manufacturers (SIND, 1991). The same survey showed that firms representing 63% of Italy's total window production were interested in purchasing custom-cut lumber. Firms representing 25% of the industry had an interest in purchasing more solid or laminated components. One of the largest window producers in Italy used approximately 50% lumber and 50% components of Douglas-fir in its production.

5.1.3 The Netherlands

The Netherlands is the third largest importer of hardwood lumber and the fifth largest importer of softwood in the world. The Netherlands imported \$1.9 billion worth of solid wood products in 1991, of which \$1.3 billion came from European countries. Imports from North America totaled \$103 million, including US wood products valued at \$60 million (USDA-FAS, 1992).

The total consumption of lumber during 1990 was 3.6 million m³, of which 73% was softwood lumber, 10% temperate hardwoods and 17% tropical hardwoods. The domestic production of lumber is only six percent of the total consumption.

The major suppliers of softwood lumber to the Netherlands are Sweden (26% of total import in 1990), Finland (19%), Russia (15%), Germany (9%) and Belgium (9%). The US suppliers' share of softwood lumber imports was less than one percent. Softwood species imported from US were southern yellow pine, Douglas-fir and redcedar. The United States was one of the leading suppliers of hardwood lumber to the Netherlands with 19% of the total hardwood import. Other major suppliers were Germany, France and Belgium. The major hardwood species imported from the US in 1991 were white oak, red oak and ash. Smaller quantities of yellow-poplar, red alder, cherry and walnut were also purchased.

Wood for windows in the Netherlands

The window industry in the Netherlands consisted of 54 producers consuming more than 500 m³ of lumber annually. These manufacturers consumed a total of 88,000 m³ of wood in 1989 (SIND, 1991). The main species used were dark red meranti (72%), Norway spruce (15%), iroko (5%) and Scots pine (5%). Most of spruce and pine were imported from Sweden and Finland. The use of meranti and other tropical species is expected to decrease significantly, while spruce, pine and Douglas-fir will be used more commonly.

Most window manufacturers purchase lumber that is further processed at the plant. Traditionally they have imported a few standard lumber sizes with a moisture content 14-18%. Dutch window manufacturers do not have a tradition in buying components or custom-cut lumber. Only one percent of the total supply was bought as components or laminated stock in 1989 (SIND, 1991). This share is expected to grow due to a shortage of high quality lumber with no defects. The interest in purchasing custom-cut stock is also increasing. In a survey of the Dutch window industry, manufacturers representing 79% of the production were interested in buying more custom-cut lumber (SIND, 1991).

5.2 Distribution Channels

The trend at many European manufacturers of furniture, cabinets, windows and doors is for fewer, close wood suppliers. This results in more direct sales and reduced involvement of intermediaries. This strategy demands that the suppliers are responsive, flexible and reliable.

There are two broad categories of intermediaries for forest products going into Europe. Agents, who typically take no title of the products they are handling, and importers who keep inventory and resell goods to other wholesalers, manufacturers or retailers.

It is likely that in the future commodity products will be sold through agents and importers, while specific customer products will be imported direct to the industrial end-user.

It also will be more common for suppliers to sell their products direct to builders, wholesalers and chains of wood users. A major Swedish lumber producer expects increased direct sales of commodity lumber in the future resulting in more company-employed sales people. Today, many Nordic lumber suppliers have their own sales offices or agents in countries such as the United Kingdom, Germany and the Netherlands.

The competition among brokers is tough and customers of wood products are becoming more demanding. Many small agents who traditionally were involved only in paper transactions will not survive in the new environment where extended services are required. The successful intermediaries must be more service-oriented, more involved in the actual trade, and more knowledgeable of the market and its suppliers.

Since intermediaries usually receive commission as a percentage of the value of the delivered product, agents prefer to promote exclusively higher-grade lumber. This strategy often results in higher commission, and usually fewer complaints from customers vis-à-vis distribution of lower-quality lumber. One European furniture producer complained that agents only wanted to sell high-priced lumber with few knots even if less expensive lumber of lower grades could be used by the manufacturer. Agents usually gross 3-5% commissions on a f.o.b. (free on board) price basis, while importers gross 5-15% depending on what kind of service they provide.

Agents and importers can have considerable influence in the introduction of new products and species to the market. For example, laminated lumber was introduced and promoted by importers. One of the largest brokers in Italy introduced yellow-poplar a couple of years ago, which has resulted in a dramatic increase in demand. Yellow-poplar is now Italy's number one hardwood import from the United States. The introduction of new species as substitutes for tropical hardwoods is another area where agents and importers have been playing an important role. They have promoted species such as red alder, birch, aspen, redcedar and hemlock.

There is a change in most European markets toward more direct contacts between producers and consumers of wood products. Even if direct sales may be a preferred sales strategy it is not always possible for small producers to find customers, to follow design trends, and to deal with complaints.

"Americans don't have a clue about distribution channels," according to a larger German broker. Even if this statement is an exaggeration, it reflects one of the reasons why some US suppliers have had difficulties entering the export market and finding European customers. Meeting trade people and wood manufacturers in Europe is a key to successful exporting. It is more common for US counterparts in Sweden and Finland to promote their products internationally by travelling to meet agents, importers and end-users.

There are many advantages, particularly for small and mid-size firms in the US to contacting a European intermediary. Agents and importers have an understanding of the culture and the traditions dictating how business is done. They also have knowledge of the language and the country's specific standards, codes and regulations. Other services an intermediary can assist with are:

- working out contract agreements and arrangements
- providing credits or financial arrangements

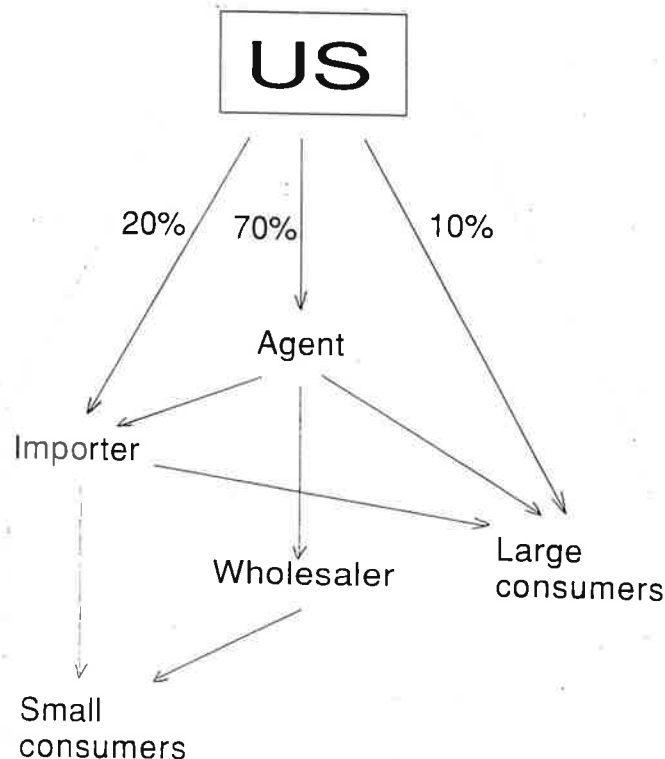
- negotiating delivery and price terms
- maintaining contacts
- taking care of complaints

Established and serious intermediaries usually have years of experience and personal contacts which enable them to do their job with great expertise.

5.2.1 Germany

The traditional distribution channel for lumber imported to Germany has been via an agent or an importer. Approximately 70% of imported lumber to Germany is distributed via agents, 20% via importers, and the remainder distributed direct to end-user or via foreign companies' own sales offices in Germany (Figure 14). There are 50 agents and 200 importers of lumber and logs in Germany according to the Verein Deutscher Holzeinfuhrhäuser (The German Timber Importers Federation). Import agents distributed on average about 70.000 m³ of lumber, while the average-selling importer handled about 5000 m³ of lumber in 1991. Approximately 70% of the lumber distributed by intermediaries is sold to wholesalers while the remainder is sold direct to industrial end-users. The current trend in Germany is toward more direct sales and closer contacts between supplier and end-user.

Figure 14. Simplified chart of the main distribution channels for lumber imported to Germany.



The German wood products industry consists mainly of small to mid-sized companies, making the intermediaries play a key role in the distribution system. The link between importers and manufacturers has traditionally been very strong.

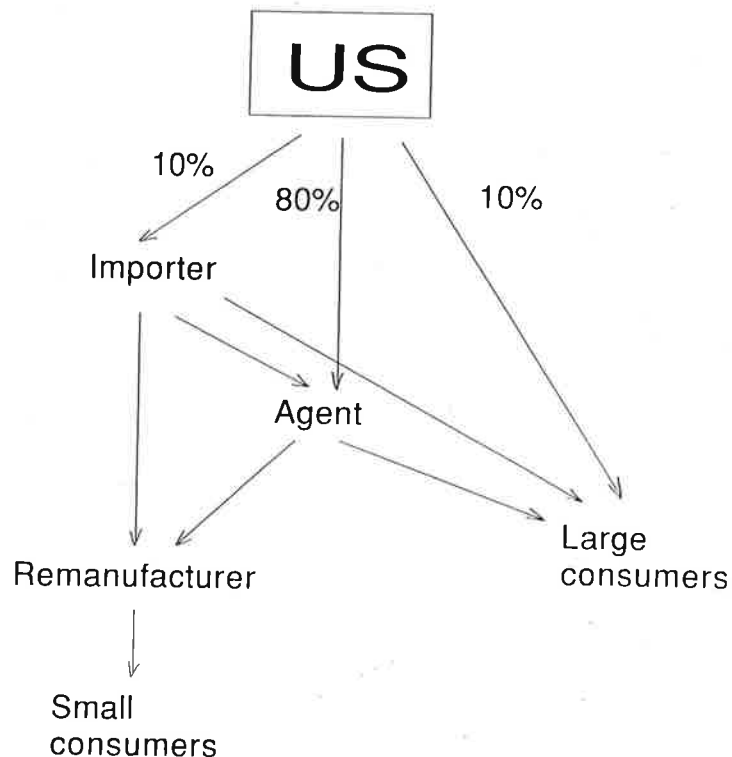
Even if closer customer relations and direct sales are becoming more prevalent in Germany, involvement of agents or importers is not precluded. They can play an important role, for example, when smaller US exporters want to sell to do-it-yourself chains or groups of buyers. Intermediaries can also be of big help for millwork manufacturers.

Especially small producers may find it difficult to do product promotion and stay updated on changes in the market, and to handle complaints. However, it is still important for the US supplier to have knowledge about the end-user's specific demand. This can be accomplished by visiting manufacturers and by inviting them to the US plant.

5.2.2 Italy

Most of the lumber imported to Italy is distributed via hundreds of importers and agents. There are more importers than agents in Italy, a condition that is expected to change in the near future. Increased cost of inventory and more direct container deliveries are two reasons for a decreasing number of importers. Direct sales is becoming more common. Approximately 10% of softwood lumber and 35% of hardwood lumber is imported direct by wood manufacturers in Italy (Figure 15). The direct sales are primarily conducted by larger manufacturers of furniture and windows. More direct sales are expected in the future, especially of hardwood lumber. Austrian and Nordic suppliers do more direct sales to Italian end-users than their American counterparts.

Figure 15. Simplified chart of the main distribution channels for softwood lumber imported to Italy.



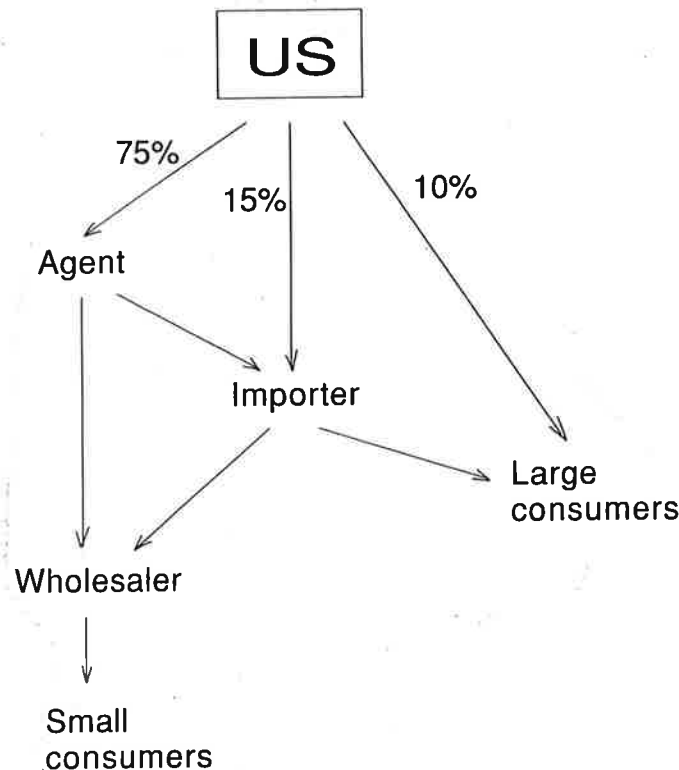
Many Italian importers have traditionally imported logs for further processing at their own sawmills. Now it is becoming more common for importers to purchase rough lumber that is

planed, dried and cut to specific lengths. It is not unusual in Italy to have agents and subagents between importers and manufacturers. This long chain of intermediaries makes it difficult for suppliers to know the end-user and to produce customer-made products.

5.2.3 The Netherlands

Approximately ten percent of imported softwood lumber is distributed directly to the industrial end-user. An estimated 75% is distributed via import agents to importer/wholesalers before delivery to the industrial end-user (Figure 16).

Figure 16. Simplified chart of distribution channels for lumber imported to the Netherlands.



Many of the larger Swedish lumber producers have their own sales offices in the Netherlands. Others have import agents that either exclusively sell for the Swedish firms or are shared with other exporters.

Approximately 30% of hardwood lumber imported to the Netherlands is distributed directly to the end-user. Most of the US hardwood lumber is purchased by importers/wholesalers or import agent. While the direct sales may increase for larger wood consumers, it is unlikely that Dutch millwork manufacturers, which often are small, will purchase direct from the supplier in the future.

The number of intermediaries is expected to decrease. The importers will be fewer because of direct sales and inventory costs. There will also be fewer agents in the future. Today's 40 to 50 existing agents will be reduced to a few big agents. Small agents will either disappear or be forced to specialize in niche markets.

5.3 Opportunities for US Wood Exporters

There is an increased interest in Europe for buying more finished wood products from the United States. European industrial end-users want to be less involved in the primary wood process and spend more time and effort on developing new products, marketing and distribution. US exporters should therefore focus their effort on promoting high wood quality. Lower-grade lumber and components can be bought more inexpensively within EC or from countries in Eastern Europe. There are opportunities for high-quality hardwood and softwood material that is dried and cut to customer demand. The renovation market, which is more quality-demanding, is growing in importance all over Europe. This market often requires specific dimensions and custom-made products.

US hardwood species like cherry, walnut, red alder, oak and ash can be promoted as substitutes for tropical hardwoods in furniture, cabinets, panelling and flooring. US manufacturers also should promote some species and products that are unique to North America, for example, thick and wide dimensions with clear wood from species such as Douglas-fir, redcedar and hemlock. A preferred strategy for US manufacturers is to promote products that are less sensitive to price and encourage end-user loyalty to suppliers.

There are opportunities for commodity lumber exports to Europe, especially when the US dollar is weak compared to major European currencies. The lumber, which must be dried after June 1992 (see chapter 5.4), must be consistent in size and quality, and delivered on time.

European users of wood are geared to standard metric sizes but accept non-standard sizes when price and market conditions are right, or when they have no choice. Since European manufacturers must plane to standard metric dimensions, resulting in a loss of 2-9% of the volume (EAITC, 1991), they prefer suppliers who can produce the demanded dimensions.

Even though the US grading system is understood by trade people familiar with North American products, Nordic standards are much more familiar. These standards, primarily based on various appearance attributes of the wood, are now being changed to a system where the focus is on the end-use. The more exporters try to sell directly to European manufacturer and to help in product identification, the more company-specific premium grades are established.

Information for this chapter has been collected mainly by interviewing agents, importers and end-users in Europe (Appendix A). Other sources are US Department of Agriculture, Foreign Agricultural Service, and External Affairs and International Trade Canada.

5.3.1 Germany

Existing opportunities in Germany:

Species: Hemlock, Douglas-fir, southern yellow pine, ponderosa pine, white spruce, red alder, red oak, ash, maple, birch

Products: Window stock (clears and laminated), hardwood lumber and components for furniture, wood products for the do-it-yourself market, flooring

The unification of East and West Germany has increased investment in the repair and remodelling sector. This has resulted in strong demand for wood products such as construction lumber, windows and doors. This increased activity in the renovation sector has also resulted in a higher degree of special orders and demand for custom-cut components. The do-it-yourself

market, which is already the largest in Europe, has also seen an expansion, particularly in eastern Germany.

The German demand for high-quality lumber from US has been stable and strong during 1991 and 1992 (USDA-FAS, 1992b). Although clear solid wood is preferred, glued and finger-jointed products are becoming increasingly accepted due to decline in the quality of lumber imported from both North America and Northern Europe.

There is a continuing search for substitutes for currently used species because of problems getting the required qualities and quantities at an acceptable price. The market changes rapidly with customer preference and when future wood supplies are in question. For example, red alder from the US west coast was introduced to Europe during the end of 1980s.

It was promoted as a substitute to tropical hardwoods for use in furniture. At that time, alder was presented as a species that was easily stained to imitate other more "valuable" species like mahogany, walnut and cherry. Recently, unstained and natural red alder has been promoted strongly for furniture (Ekstrom, 1992).

The customers' appreciation for the color and texture of the wood has resulted in a significant increase in demand for alder furniture. The consequence has been not only increased lumber prices but, more importantly, increased concern by German manufacturers about the reliability of future wood supply. Some industrial end-users who would like to purchase red alder lumber and components are finding that demanded qualities and quantities are not always available. In the search for alternative species, some German importers are now promoting white birch from eastern Canada as a substitute for red alder.

Other examples of current substitutes are:

- laminated pine stock as a substitute for Douglas-fir clears for windows.
- stained hard maple as substitute for cherry for furniture.
- western redcedar as a substitute for preserved pine or spruce for garden furniture.
- clears of hemlock for windows as a substitute for Douglas-fir.
- softwood species such as pine, hemlock and Douglas-fir, and hardwood species such as alder, oak, cherry and walnut as substitute for tropical hardwoods.

Wood products that are of particular interest for increased market penetration in Germany are:

Window stock, clears. The use of tropical hardwood for windows is decreasing. Substituting species are pine from Sweden, Finland, Poland and Russia; hemlock, Douglas-fir and oak from the US; and hemlock, Douglas-fir, lodgepole pine and spruce from Canada. The quality requirements for wood raw-material within the window industry are probably the highest in Europe. The traditional demand is for solid, clear wood with no knots and preferably vertical grain. With the increasing price of clear wood, acceptance of laminated window stock is growing.

Window stock, laminated. There is an increased use of glued components for window stock in southern Germany, most commonly consisting of three layers. Finger-jointed stock, mainly for use in the center layer, is slowly becoming accepted. For the outer layers there is a demand for components with vertical grain. Species used for laminated stock are southern yellow pine, hemlock, Douglas-fir, ponderosa pine, white spruce, white oak and Scots pine.

Furniture components. The furniture industry reported a 14% increase in turnover in 1991, supported mainly by strong demand in eastern Germany (USDA-FAS, 1992a). There is an increased demand for furniture of solid wood made from white oak, red alder, ash and hemlock. The increased interest in solid wood may partly be explained by a growing concern about possible formaldehyde emissions from particleboard in furniture and cabinets. Edge-glued and finger-jointed components are becoming increasingly accepted for use in furniture.

Ready-to-assemble furniture. There is a growing market for inexpensive furniture, particularly in eastern Germany.

Glue-laminated beams. The German glue-lam market is the largest in Europe. During the first nine months of 1991 imports from the US increased to 2,700 m³, up from 350 m³ during the same period in 1990 (USDA-FAS, 1992b).

Flooring. The German parquet market, which is the largest in Europe, consumed 9.2 million m³ in 1989, according to FAO. Germany is also the largest importer of parquet in Europe. Wooden floors have come into fashion again, resulting in increased demand. Opportunities exist for US hardwood species such as oak, maple, ash and birch.

Garden products and decking. There is an increased interest in using western redcedar as a substitute for treated wood. Treated wood has traditionally been used for garden furniture and decking but is now less desirable because of environmental concern. The primary market for outdoor furniture is in southern Germany.

Wood products for the do-it-yourself market. The German do-it-yourself market is the largest in Europe and is expected to grow in coming years. Examples of products for this market are dimension lumber cut to metric sizes, planed and dried lumber, and mouldings.

Other wood products. Opportunities exist for smaller niche markets such as mouldings made from hemlock, spruce and redcedar, and staircases made from hemlock and southern yellow pine.

5.3.2 Italy

Existing opportunities in Italy:

Species: Douglas-fir, southern yellow pine, hemlock, red oak, red alder, yellow-poplar

Products: Window stock (clears and laminated), hardwood lumber and components for furniture, door components

Imports of semi-finished and customized wood products to Italy are expected to increase due to a change in attitude by Italian wood users. Traditionally lumber from the US has been sold in random lengths. There is now a growing demand for products that are dried and cut-to-size. US manufacturers should focus on kiln dried lumber of higher qualities. Lower grades can be bought from other suppliers such as Austria, Germany and countries in Eastern Europe.

The Nordic countries hold only a small share of the Italian softwood lumber market due to distance and tradition. This may offer an opportunity for US manufacturers to supply the Italian market, not only with unique North American species, but also with Nordic species such as spruce and pine. Wood products that are of particular interest for increased market penetration in Italy are:

Furniture components. Italy is one of the biggest producers of furniture in the world. There is an ever-changing design trend resulting in shifting preferences of wood species. Opportunities exist for lumber and components of red oak, red alder, yellow-poplar, walnut, white ash and black cherry. Yellow-poplar is commonly used as a substitute for red alder and ramina.

Window stock, clears. Old-growth Douglas-fir is the species preferred by many window manufacturers in Italy. While the price has gone up the last couple of years and the wood quality has gone down, there is an increased interest in alternative species. Italian manufacturers are particularly interested in importing lumber and components with a moisture content of 12-15%. Also preferred are components planed to the exact dimensions, with no or small sound knots. One of Italy's largest window manufacturer has in the past exclusively used lumber and semi-finished products of Douglas-fir.

Since the future supply of old-growth Douglas-fir is in question, the manufacturer expects only 30-40% of the wood supply to be Douglas-fir in the near future. Alternative species for window producers may be pine from Sweden, Finland and Poland, and hemlock and redcedar from North America.

Clear wood from second generation Douglas-fir is not as stable and is, therefore, not preferred by window producers. As one window manufacturer remarked, "second-growth Douglas-fir is a completely different species compared with old-growth--we don't want to use it!"

Window stock, laminated. There is an increased market for three-layer laminated stock made from second-generation Douglas-fir, southern yellow pine and Scots pine from the Nordic countries. Knots or finger-joints are less accepted for windows of Douglas-fir and tropical species, since it is usually used for the most exclusive windows. Windows of pine are usually less expensive and commonly painted, which allows smaller knots and sometimes finger-joints. Because of the high percentage of sapwood, southern yellow pine is not commonly accepted by Italian customers with the exception of consumers along the Italian coast and on the Italian islands. Laminated components must be of high quality to be accepted. The components, with possibilities of a finger-jointed layer in the center, should be dried to a moisture content of 12-15%.

Doors. Douglas-fir has been one of the major species used for wooden doors in Italy and had a 14% share in 1989 (SIND, 1991). Painted doors are becoming more popular, making species such as pine and hemlock attractive. Hemlock takes paint well and will be an alternative species when the price is lower than for pine from Sweden and Finland. Other US species of interest are walnut, oak and southern yellow pine.

Other wood products. Opportunities exist for smaller niche markets such as lower-grade southern yellow pine for the packaging, pallets and finger-joint industry, western redcedar for high-quality garden furniture, and oak and red alder for kitchen cabinets.

5.3.3 The Netherlands

Existing opportunities in the Netherlands:

Species: Hemlock, Douglas-fir, western redcedar, southern yellow pine, white and red oak, ash

Products: Window stock (clears and laminated), hardwood lumber and components for furniture, lumber and components for doors

The Dutch Timber Information Centre is promoting US species such as Douglas-fir, hemlock, southern yellow pine, red oak and white oak for increased use in such areas as construction, furniture and windows. The consumption of tropical hardwoods is declining due to bans on use of these species for certain products. Some of the substituting species are US ash, white oak and red oak. Wood products that are of particular interest for increased market penetration in the Netherlands are:

Furniture components. Market expansion for temperate softwood and hardwood species is likely since the Dutch furniture industry is seeking substitutes for tropical hardwoods. Due to changes in design trends, US white oak is becoming increasingly popular at the expense of red oak. There is also a growing interest in the use of cherry and walnut for high-quality furniture and Douglas-fir for exclusive office furniture.

Window stock, clears. The use of tropical hardwood for windows is decreasing. Substitute species are spruce from Sweden and Finland, Douglas-fir from US, and pine from Sweden, Finland, the US and Russia. With an increasing price of clear wood, acceptance of laminated window stock is growing.

Window stock, laminated. Opportunities exist for use of three-layer components from Douglas-fir, western redcedar and hemlock. Laminated components must be of high quality to be accepted. The components, with possibilities of a finger-jointed layer in the center, should be dried to a moisture content of 12-15%.

Doors. Hemlock and southern yellow pine are two species recently being used for doors because of price, color uniformity and machineability.

Outdoor wood products. Instead of using treated wood, western redcedar is appreciated for garden furniture, outdoor panels and decks.

Other wood product. Opportunities exist for smaller niche markets such as western redcedar for indoor panels, Douglas-fir for ladders, staircases, beams and kitchen cabinets, and southern yellow pine for millwork and staircases.

5.4 Restrictions in Green Lumber Exports to Europe

The European Community (EC) has decided to ban all green coniferous, oak, chestnut, poplar, sycamore, hard maple and eucalyptus lumber from North America beginning June 1993. Western redcedar will likely be exempted, provided it is bark and grub-hole free. The reason for this ban is the pine wood nematode, a secondary associate of native conifers in North America. Concern over this non-native nematode and its possible influence on the health of the European forests led to the EC decision.

From 1993 on, all softwood lumber and some hardwood species exported to Europe must be kiln dried. It is expected, however, that a new heat pasteurization requirement will be incorporated into the EC Plant Health Directive. This requirement that will be less stringent than kiln drying. The process heats each board to a core temperature of 56°C for 30 minutes, thus eradicating the nematode and its vectors. This heat pasteurization is not in commercial use today but estimates show the costs are 50-60% of traditional kiln dry costs.

The regulation will mainly affect sawmills in the Pacific Northwest, since a vast majority of the green lumber is Douglas-fir. The United States exported over \$54 million worth of green softwood lumber to the EC during 1991, according to the Western Wood Products Association. More than half the total green shipment was exported to Italy. The impact will be significant as European importers usually buy high quality lumber products from Pacific Northwest sawmills.

Although many sawmill managers would prefer to have the flexibility and opportunity to sell both green and dry lumber to Europe, they do not see the derogation as a major problem. Mills that will be affected by the ban plan either to export more to Japan and Australia or to dry more of their lumber. Some mills have increased their dry-kiln capacity and the general opinion is that the industry could adjust to the new situation in the market since the upcoming derogation has been known for a long time.

The dry-kiln capacity of the US west coast today is approximately 18% of the total lumber production. This capacity is expected to increase. One of the larger lumber producers in the region thought the regulation could be an advantage for them since they kiln dried almost all of their lumber today. They hope to export more lumber to Europe in the future.

The ban will create problems for some sawmills particularly for those exporting lumber with dimensions of 12 by 12 inches and larger. These larger cross sections are usually not dried for their final use. European customers of these products are concerned because they cannot get these sizes from any source other than North America's west coast.

Much of the lumber currently exported to Europe is of larger sizes and is cut and dried by the customer overseas. The ban may therefore open opportunities for facilities that specialize in drying lumber, others that produce value-added products and for sawmills that have excess kiln drying capacity. New opportunities may exist for US producers to export more semi-finished products. Exporting these products, however, requires a good knowledge of the different markets and distribution channels in each individual country. From this perspective, the "green lumber ban" may be a positive incentive for US lumber producers and secondary manufacturers targeting the European market. This market has historically been supported by local producers in Europe using raw materials from the forests in the Pacific Northwest.

6. QUALITY--THE COMPETITIVE EDGE

Worldwide, customers are becoming more demanding in terms of their requirements for high quality products. In order to compete and survive as a company it is essential to produce quality goods. The industry must invest and demonstrate that it can deliver products of the quality the end-user demands.

An increasing number of wood products manufacturers in Europe are now asking that suppliers embody an appropriate quality assurance system. US companies now exporting or planning to export wood products to Europe adopt an international standard of quality assurance.

6.1 ISO 9000--The International Quality Assurance Standard

The quality assurance standard ISO 9000 was stipulated in 1987 by the International Organization for Standardization (ISO) in Geneva, Switzerland. Now there are more than 51 countries that have adopted ISO 9000 as their national standard, including all countries in Western Europe (Sullivan, 1992). The standard was developed in Europe in preparation of harmonized markets and is the first attempt to establish a worldwide non-military quality standard.

The ISO standard is becoming compulsory for many manufacturers who are sub-suppliers of major international corporations, especially in the electronics, telecommunications, aerospace, chemical and nuclear industry. It is also becoming more common for forest industries to be ISO 9000 certified. While there are no legal requirements that companies become registered, there is a clear competitive advantage to register. In addition, the future federal and local governments

will most likely demand that companies be ISO 9000 certified when delivering products and services.

Today there are many wood products manufacturers in Europe that either are ISO 9000 certified or have a quality assurance program similar to the ISO 9000 standard. More than 20,000 facilities in the United Kingdom and a few thousand more in the rest of Europe are already ISO-certified. In contrast, only 400 facilities are certified in the US (Levine, 1992). Wood manufacturers in the United Kingdom, Germany and Norway have made the most progress in adopting quality assurance systems. The first forest products company to receive ISO certification in North America was Westvaco Corp.'s pulp and paper mill in Covinston, West Virginia, in October 1991 (Ferguson, 1992).

Quality assurance in manufacturing is not new to the United States forest products industry. US companies have for years been using various quality control techniques to maximize value, producing products that satisfy national or international grades and standards. Traditionally, this control focused on the final product after it had been processed. This type of control does not necessarily result in better quality and is expensive. Typically, this system discards product without tracing the failure source.

The ISO 9000 system does not apply only to companies making products such as windows and doors. An increasing number of furniture and cabinet manufacturers that are certified, will demand quality assurances from their wood suppliers. For example, is it expected that at least 50% of the Swedish exporting sawmills will have ISO 9000 certification before 1997. An even larger percentage of the mills exporting millwork is expected to be certified within five years.

There are three systems with different stringency within the ISO 9000 system (Rothery, 1991):

- **ISO 9001** quality systems, the most complete standard, is a model for quality assurance in design, development, production, installation and servicing.
- **ISO 9002** quality systems applies to quality assurance in production and installation. These standards will be implemented by some sawmills interested in exporting lumber to the European Community (EC).
- **ISO 9003** quality systems, the least stringent standards, are quality assurances in final inspection and test.

To obtain ISO certification, three major tasks must be accomplished:

1. a quality manual is written according to ISO guide lines,
2. all relevant procedures are documented,
3. all relevant work instruction will be written.

Some motives for US sawmills and millwork manufacturers to learn about ISO 9000 are:

- compliance with the standards may become a necessary value-added service.
- increased awareness of quality by everyone at all levels in the company.
- better utilization of the raw material and less waste.
- better control of the manufacturing procedures throughout the production process, from buying logs to delivery of the processed product.
- fewer complaints from the customer.

- ISO 9000 may become a non-tariff trade barrier.
- recognizable ISO 9000 logo that may be used in promotion.

Quality assurance programs such as ISO 9000 have also been credited with improving plant safety, worker accountability and management efficiency.

Du Pont Corporation, one of the US leaders in ISO registrations, has reported numerous benefits directly implementing ISO 9000. For example, on-time delivery increased from 70 to 90% at one plant. Another site reduced the number of test procedures from more than 3000 to 2000 (Marquardt, 1992).

Hewlett Packard has saved \$12-16 million annually and is producing better products faster at the two plants which qualified for ISO 9002 (Inglesby, 1992).

The German electronics giant, Siemens, now requires ISO compliance in 50% of its supply contracts and is asking other suppliers to follow suit (Levine, 1992). By requiring ISO-certified suppliers, Siemens can eliminate the need to test parts which save the company time and money.

Many US manufacturers now have the clear choice of waiting until customers formally demand quality assurance (for example by demanding a ISO 9000 certification), or choosing an offensive strategy and adopting the ISO 9000 standard to anticipate future customer needs. The latter alternative is obviously preferred if a company's strategy is to remain on the European market for the long term.

6.2 What is Quality?

"Quality is important to Europeans!", is a statement frequently made by marketers of forest products. Unfortunately, they rarely specify exactly what "quality" means. "Quality" can have quite different meanings depending on end-user and geographical region. Europe should not be seen as one homogeneous market with one single definition of quality. Each country or even region of a country has specific demands and defines quality differently. Some of the noteworthy characteristics will be presented in this chapter.

A broad definition of providing quality is "meeting customers' needs and expectations." For European wood manufacturers, these needs exceed simple **wood quality**. **Manufacturing quality**, including factors like dimension accuracy, quality of planing and accurate moisture content, is also of great concern. **Quality of service** is becoming increasingly important and must be addressed by every firm planning to enter the European market. Long-term commitment, stable supply, responsiveness, reliability and closer customer relations are examples of service attributes crucial to many European customers.

European customers are becoming increasingly quality-minded. Manufacturers, wanting to avoid large inventory, demand just-in-time deliveries of high quality lumber. These customers cannot afford any quality problems that would interrupt the production. The best marketing strategy for the European wood market is therefore to sell products of **high and right quality**. To understand what quality is, it is crucial to US exporters to have close contacts with customers. Customers in Europe do not have the same preferences as those in the US.

Some of the concerns expressed by many European agents, importers and end users can be summarized by following commonly asked questions:

- Will US producers export to us even when their domestic market is booming?

- How big is the available timber supply of US species like Douglas-fir and red alder?
- Can species we import today be purchased tomorrow?
- Do US producers have the capacity to produce kiln dry lumber after June 1993?
- Can US firms increase the deliveries of customer-specific orders?
- Why don't US suppliers ask us about what we need instead of asking who wants to buy their products?

6.2.1 Quality in Germany

Key factors important to German end-users:

- Long-term commitment
- Stable supply
- Wood from well-managed and sustainable forests
- Wood with no or few knots
- Consistent dimensions
- Prompt deliveries
- Reliable and responsive supplier
- Delivery on time
- Consistency of pricing

Orderliness and consistency are two key words for German importers. Wood products manufacturers demand lumber or wood components of consistent quality, dimensions and moisture content. They want consistency in deliveries and pricing, and they expect the products to be delivered precisely according to what was agreed in the contract. Important quality attributes to German wood manufacturers are:

Wood quality. There is a demand for wood with few or no knots. However, knots can often be accepted by furniture and cabinet producers since the lumber is cut to components of clear wood. Knot size, the basis for US grade rules, is often not the central concern; yield of clear wood in the manufacturing is. For many industrial end users appearance is more important than strength. For example, color uniformity is of particular importance for many laminated and edge-glued products that are being used for furniture and cabinets. Wood with vertical grain is often demanded by window manufacturers.

Timber sources. "Green" issues have expanded the definition of quality in Germany. Buyers of furniture and windows may ask if the wood originates from well-managed and sustainable forests. Importers are also concerned about future timber supply and the increased preservation of US forests which will result in a reduction of timber harvests.

Just-in-time deliveries. With today's high costs of inventory, everyone is trying to minimize inventory and instead rely on suppliers who can offer just-in-time deliveries. It is becoming more common for import agents to sell truckload by truckload instead of the traditional way when German manufacturers planned purchases by the quarter.

Flexibility. With manufacturers demanding more custom-cut products and prompt deliveries, it is necessary for suppliers to be more flexible and responsive to changes. US producers are sometimes seen as inflexible and not always willing to deliver small orders or customer-specific orders.

Customer relationship. German manufacturers like to meet the supplier and develop a strong and lasting relationship.

Grading. German customers do not always understand the US grading and measuring systems. This has resulted in misunderstandings and dissatisfaction with delivered products. Therefore US suppliers should learn about the customers' grading systems and adopt the metric system.

Packaging. Wood exported to Germany must be packaged with material that can be recycled. German packing regulations are very strict and require disposition of all transportation packaging by the manufacturer, distributor or shipper.

Opinions expressed by interviewed agents, importers and wood products scientists:

"A German buyer can talk one hour about quality and two minutes about price--and price decides."

"The supplier must deliver products of consistent quality."

"Quality of manufacturing is very important to German manufacturers."

"We have to go to the US to find suppliers since they don't come here."

"Germans often demand higher quality than what is needed, but they are prepared to pay for it."

6.2.2 Quality in Italy

Key factors important to Italian end-users:

- Heartwood with no knots or stain
- Narrow annual rings
- High quality of drying
- Consistent dimensions
- Stable supply
- Close customers relations
- Long-term commitment
- Reliability in deliveries

Italian customers want serious relationships with reliable wood suppliers who are committed to delivering products more than once. They prefer suppliers that have good knowledge of wood quality and an understanding about the Italian way of doing business. Many Italian manufacturers want the US lumber producer to visit their mills to look at the processes, the equipment and the final products. Having knowledge of the production may give the US supplier a better understanding why certain wood and manufacturing qualities are important to the Italian manufacturer. Important quality attributes to Italian wood manufacturers are:

Wood quality. Wood quality is crucial to many Italian manufacturers, especially high dimension stability. There are tough restrictions on the use of sapwood with southern yellow pine as the only species exempted. Italians are famous for their superior design in furniture. For them to be able to produce high quality furniture, high wood quality and high yield of clear wood is paramount. Moreover, appearance is often more important than strength. Window manufacturers want heartwood with narrow annual rings and vertical grain, no blue stain, splits or cracks. Door manufacturers prefer wood with narrow annual rings and color uniformity.

Dimensions. There are many more factors than price deciding which supplier the Italian manufacturer choose. For example, dimension of delivered lumber is also important. One window manufacturer said, "We have to accept 10-15% of smaller size-lumber to be able to get demanded sizes. This is a larger percentage than in contracts with Swedish exporters."

Small orders. Since many Italian millwork manufacturers are small firms, they desire limited purchases. Most US exporting companies have not been interested in supplying these firms with wood or delivering custom-made products. There is, however, an interest by many wood manufacturers in purchasing more custom-cut stock from abroad.

Sorting. Italian importers want the suppliers to sort the lumber by size and quality. US firms do not always do this. As a result the lumber has to be resorted in Italy with an additional cost passed to the customer.

Drying. The moisture content level is usually very stringent. Italian wood manufacturers often prefer to dry the lumber themselves since they consider imported lumber is not properly dried. They claim most US lumber is dried too fast.

Opinions expressed by interviewed agents, importers and window manufacturers:

"New exporters always fail."

"Americans must be more sensible of doing business."

"Why aren't the Americans coming over to look at our mills?"

"We want more exchange of information with the Americans."

"US firms can't deliver the right lengths--we have to adjust it here."

"We are trying to educate our customers to accept more knots."

"Many of our customers want high quality Douglas-fir old-growth and we can pay higher prices than today."

6.2.3 Quality in the Netherlands

Key factors important to Dutch end-users:

- Quality of drying
- Consistency of pricing
- Level of pricing
- Stable supply
- Long-term commitment
- Close customer relations
- Reliability in deliveries

The Dutch people have a long tradition in trading. They are therefore very knowledgeable in doing business and also very price conscious. Pricing level and consistency are important to many Dutch customers of lumber. Wood quality and manufacturing quality are also of great importance. Since Germany is a major trade partner to the Netherlands, many of the quality attributes preferred by German wood manufacturers are also crucial to Dutch importers. Important quality attributes to Dutch wood manufacturers are:

Timber sources. The "green" movement is very strong in the Netherlands resulting, for example, in a concern whether wood used in furniture and windows originates from well-managed and sustainable forests. Wood manufacturers are also concerned that reduced harvests on the US west coast may effect future lumber exports to the Netherlands.

Pricing. Many Dutch wood manufacturers prefer suppliers with stable lumber prices making it easier to plan costs for future purchases of raw material. US lumber prices often change every day contrary the Swedish and Finnish lumber prices that are much more stable.

Grading. Dutch importers believe US firms keep too much to their own grading rules instead of adjusting to grades used in the market.

Dimensions. Dutch agents and end-users are of the opinion that US firms offer too few sizes and qualities. Many Dutch manufacturers also want to purchase standard widths instead of random widths that are commonly offered by US exporters today.

Flexibility. With many Dutch end-users minimizing their inventory of raw material, suppliers must respond to changes and become more flexible.

Drying. Dutch brokers are of the opinion that imported kiln dried lumber is often not dried properly. For example, southern yellow pine is often dried too fast resulting in excessive wood tension.

Small orders. Dutch agents and end-users wish the American exporters were more interested in delivering small orders.

Opinions expressed by interviewed agents, importers and window manufacturers:

"European suppliers protect their products from shipping damage better than do the Americans."

"US salesmen are like cowboys."

"US and Canadian companies disappear from Europe when times are good at home."

"No problem with deliveries of promised qualities and dimensions [about US wood suppliers]."

"Americans don't visit us--Scandinavians do."

"We don't always receive prompt answers to inquires to American lumber producers."

"Dutch manufacturers don't like when it is one price today, and another price tomorrow [about US lumber prices]."

7. CONCLUSIONS

Europe is a net importer of wood products. The outlook is for a continuing deficit in self-sufficiency. This market, comprising 19 countries, will be the world's strongest economy in the 1990s according to some experts. A strong economy, stable prices, harmonized standards, and a large, borderless market are some of the reasons wood manufacturers in Pacific Northwest may want to expand their sales to Europe. Douglas-fir, red alder, hemlock, western redcedar and sitka spruce are all species appreciated by European consumers today for windows, furniture, panels, cabinets and mouldings.

Pacific Northwest sawmills exported lumber at a value of \$155 million to Europe in 1991 (US Department of Commerce). This market, with more than 340 million consumers, is as populous as the United States and Japan combined. The United Kingdom alone imported about 30% more lumber than Japan during the 1980s, making the UK the second-largest importer of lumber in the world after the US.

Small and medium-sized companies often consider exporting as a risky and difficult venture best left to the big companies. However, size of the company is usually not crucial to the degree of success in the export market. There are many examples where forest industrial giants operating internationally have not always been the most successful exporters. If a smaller company has a good product and can find a niche market, looking into the opportunity for export may well pay.

One Single Market But Not One Single Marketing Strategy

Europe became a unified market in January 1993. This common market will ease trade across all western European borders. A borderless market, together with standardized building codes and product testing procedures, should greatly simplify European market entry for Pacific Northwest wood products manufacturers.

Seller beware! Even though Europe will be a single market, it would be a mistake to adhere to a single "European" marketing strategy. To be successful in this large market, it is necessary to have a country-specific marketing strategy. Each country will continue to have specific product demands, design trends, and cultural differences dictating how business is conducted. These differences will not change after 1992.

Quality is Important, but It Must Be Defined

"Quality" is a buzzword often used by marketers of forest products, especially if there are plans of expanding sales to the European market. Before spending too much time and effort on advertising and promotion overseas, it is crucial for US wood suppliers to understand what the European definition of quality is. Quality means much more than accurate grading. Other factors like dimension accuracy, responsiveness, consistent supply, and customer service are also very important. Customers in European countries do not have the same preferences as US customers. For example, German customers of lumber and wood components are very concerned about consistent dimensions, rapid delivery, consistency in pricing, and that imported wood originates from sustainably-managed forests. Italians are particularly interested in long-term relationships with their suppliers, consistent supply, and close customer relations. Industrial end-users in the Netherlands value quality of wood drying, long-term commitments, and close contacts with their customers. The large fluctuations in exchange rates between the guilder and the dollar are a major Dutch concern.

Learn From Swedish Experiences and Mistakes

Sweden has exported timber and lumber to the European market for centuries. During the last decade, a change has been toward increased exports of value-added products. US manufacturers may learn from the Swedish, as well as the Finnish, exporting sawmill industry how to export, market, and promote lumber in the European Community.

In 1921, the US Department of Commerce Bureau of Foreign and Domestic Commerce sent trade commissioner Axel H. Oxholm to Scandinavia to investigate the sawmilling industry and its

exports (Oxholm, 1921). The objectives of the eight month(!) trip were to learn about utilization of raw material, accuracy in manufacturing and export policies. The results of the study should be of benefit to American forest owners, lumber manufacturers and lumber exporters.

What Oxholm discovered in Sweden more than 70 years ago is, in many respects, still accurate. He writes about Swedish:

...wood quality

The small percentage of clears and upper grades is the most serious handicap for Swedish lumber, and here American lumber has a great advantage.

...grading

In Sweden the grades are not uniform for all mills, but the grades for each mill are uniform from year to year."

...dimensions

The Swedish lumber has the advantage of being cut to a smaller standard of measurement than the American lumber.

...flexibility

Practically any size of stock can be produced, but if odd dimensions are ordered an additional charge is made.

...manufacturing

Accuracy of manufacture is the principal advantage of Swedish lumber. It is always true to size--neither more nor less than the specifications.

...exports

The excellent marketing methods, the branding of every piece of lumber, planed and rough, for export, adequate steamship connections with the principal markets, arbitration service abroad, and other factors have built up the export trade in Swedish lumber, in spite of its inferiority in both quality and size as compared with the principal American softwood exported.

He also wrote about US exporters:

The American exporter has the great advantage of being able to supply lumber having special qualities; for instance, rot-resisting, fire-resisting, and especially strong construction material, pattern wood, cabinet woods, etc. But he has not yet availed himself of this opportunity by advocating his products for special purposes.

Advantages for Pacific Northwest Manufacturers

To be more competitive, manufacturers in the US, who have higher labor costs than many other countries now producing commodity lumber, should concentrate on manufacturing high-quality products. Low-quality products and bulk-type production can be made less expensively in other countries with lower salaries. Today, Pacific Northwest wood manufacturers have some advantages over their Scandinavian counterparts including lower labor costs, lower raw material costs, larger logs, larger components of clear wood and a greater variety of species.

Success Depends On Addressing Many Varied Issues

To enter the European market or to expand sales in an already existing market, US manufacturers should consider the following key issues:

Define and sell quality. Many European end-users ask for products of high and consistent quality, which includes wood quality, manufacturing quality, and quality of service. It is important to understand the definition of quality for each country, since this definition varies within Europe.

Know the customer. Try to develop a strong relationship with the industrial end-user. Travel to other countries and make personal contacts.

Stay in the market. Look to the European market as a long-term investment, not a market to turn to when the US economy is down.

Be responsive. Suppliers must respond to changes and become more flexible when end-users minimize their inventory of raw material. It is also important to respond promptly when there are inquiries about deliveries.

Be consistent. Many European wood product manufacturers demand lumber or wood components of consistent quality, dimensions, and moisture content. They also want consistency in deliveries and pricing.

Create customer loyalty. It is a better long-term strategy to seek loyal customers than always trying to sell at highest price. The long distances and rapid changes in exchange rates make it difficult for US wood manufacturers always to compete on price. It is therefore important to promote products that are less sensitive to price and to encourage end-users to be loyal to their supplier.

Invest in promotion and market knowledge. Commonly, wood manufacturers invest almost entirely in upgrading existing machinery and new equipment but spend minimal time and money penetrating the market and meeting with customers. Having greater market knowledge, the manufacturer may make wiser decisions about new investments in production facilities.

Adjust and focus marketing strategies. Since traditions and cultures in trading vary, it is important to understand and develop country-specific strategies. Concentrate on a few markets and customers, create a healthy niche, then try to service them well.

Learn from the Nordic countries. The main suppliers of wood in the European market, Sweden and Finland, have been in the market for a long time and can provide valuable examples from their experiences and mistakes in marketing.

Promote products--not grades. Forget about US grades and produce the products the customer wants and needs. This may result in developing company-specific grades.

Sell in metric. European wood end-users prefer suppliers who can produce metric sizes. If US manufacturers change from US to metric measurements they may well increase their export competitiveness.

Present the product. Canvass the market and promote the product through advertising in local magazines, visiting trade shows, and inviting industrial end-users to the US mill. Be prepared to show product end-uses.

Think green. Promote products in an environmentally conscious manner. Wood should be promoted as being a renewable raw material and environmentally friendly to recycle.

Advertise the timber source. Present the origin of the wood and how these forests are managed. A label with "From sustainable forests" can be of help in the promotion of the final wood product.

Add value. More value-added products contributes to steady demand across the business cycle, price stability and customer loyalty. Value-added production is not always equal to higher profits; therefore, it is important to penetrate the market carefully before investing in new equipment.

Spend effort on drying. The quality of drying is very important to European customers. The most common complaint by industrial end-users in Germany, Italy and the Netherlands is that imported US lumber does not meet the required moisture content (MC). The wood has either too high or too low MC. Many European manufacturers believe the lumber is often dried too fast, resulting in wood cracks and tension. There is a particular problem in attempting to plane fast-dried lumber with knots. Lumber that is not properly dried may also get stained during the transport to Europe. Stain is the most important reason for reduced price for red oak lumber exported to Europe.

Sort the lumber. Sorting the lumber according to customer demands requires relatively little effort. Better sorting may yield higher prices, since the importer does not have to re-sort it, something that too often is the case today.

Spend effort on packaging. An attractive, clean and well-protected package contributes to a company's image and its reputation as a high-quality supplier. As with the product itself, it is important to ask the end-user about specific requirements for the packaging. Lumber wrapped in plastic is preferred by most countries. The German packing regulations are very strict and require disposition of all transportation packaging by the manufacturer, distributor or shipper. Each individual package should be sorted and have a clear declaration of the contents with sizes and qualities. The company's logo on the package is also of importance, especially when industrial end-users purchase lumber and components via importers.

Network. Industry cooperation can provide advantages to small and mid-size mills in areas such as product development, promotion and sales. For example, to meet large orders, specific customer orders, or orders for fast delivery, cooperation can be essential. More coordination may also increase timber utilization and decrease lumber inventory.

Get help for market penetration. For most firms it is not possible to accomplish all of their own research and development. Therefore, it is very important to use external resources. These resources can be found in universities, Forest Service Research Stations, and other research centers. Market information and exporting assistance can be found at trade organizations, state Departments of Commerce, US Department of Agriculture, freight forwarders and the US embassies in the European countries.

Develop a skilled labor force. With a flexible and knowledgeable labor force, performance and recovery rates can be high. The skill level of the labor is particularly important when customers' specifications may be more demanding and there are many custom-made products and value-added processes required.

Tips for Trying to Enter the European Market

- Penetrate the market carefully and collect current market information with help from US export agents, trade associations, state Departments of Commerce, US embassies and other agencies dealing with the timber industry in Europe and the US.
- Analyze the firms' own capabilities to enter the European market. Decide if it is possible to compete effectively and if timber supply, personnel, and production facilities are sufficient to stay in the new market for a long time.
- Plan to stay in the market and make a decision for a long-term commitment to exporting. This may include special training of employees and mill upgrading.
- Travel to Europe to meet people personally and try to develop a strong relationship with the industrial end-users. Spend time understanding the customers' specific demands.
- Contact import agents or importers in the chosen country to discuss market opportunities and future shipments.
- Respond quickly to inquiries from customers. Send trial shipments to help promote products.
- Concentrate on a few markets and customers, create a healthy niche, and try to service it well.
- Start small and bring it along. Don't expect significant results even for a couple of years.

When exporting to Europe special emphasis should be placed on ensuring high quality of drying, consistency in manufacturing quality and dimensions. Effort should also be spent on delivering metric sizes and carefully sorted and packaged products. Additionally, cultural differences dictating how business is conducted should be identified and understood.

Value-Added Export Opportunities Exist

Wood products that are of particular interest for increased market penetration include window frame stock, components for the do-it-yourself market, door stock, flooring, and furniture parts. A subjective ranking of opportunities for exports of value-added wood products to Germany, Italy and the Netherlands are:

1. Components for furniture
2. Clear components for windows
3. Laminated components for windows
4. Door components

Unfortunately success does not come easily. To compete with wood producers from Sweden, Finland, Austria, East Europe and other parts of the world, US exporters must understand what the European customers want and need rather than trying to sell the products the US mills produce.

US wood manufacturers can change their image in Europe by learning more about the market, meeting the customers' specific demands and understanding the cultural differences dictating how business is conducted. It will take some time and effort in traveling to meet the customer. It may also be necessary to invest in new equipment.

To be successful in the European market, US manufacturers have to change strategy from traditional production-oriented manufacturing of industrial commodity products to more market-oriented production of specific products. There will be a large demand for wood components in Europe in the future. Increased export opportunities exist for US wood manufacturers if they can define quality and adjust to new market conditions.

Market and Marketing Research Should be Expanded

The conditions in the wood products market in Europe are changing rapidly. Market information which is just a few years old may no longer be accurate. To make the US wood industry more competitive in Europe the following research areas are important to address:

Country profiles. Domestic production, consumption, trade, wood suppliers, standards, product requirements, distribution channels and market opportunities are changing. Market and marketing information must therefore be updated continuously. This includes information about housing starts, house renovation activity, and wood use for products such as windows and furniture. Broad information is often easily available but it is more important to obtain detailed information by gathering first-hand intelligence.

Product profiles. Even though Europe is a single market, each country will continue to have specific product demands and design trends. What products US manufacturers should promote in each country or region should be researched further by detailed intelligence gathering. This should include information about required species, dimensions and qualities.

ISO9000. To help govern cross-border commerce, European Community and European Free Trade Association have adopted the only internationally recognized set of quality assurance procedures, known as ISO9000. Canada, New Zealand, Sweden, Norway, Finland, and other competing wood supplier nations have already accepted the ISO9000 system. As other countries require this international standard, US wood suppliers will find it increasingly beneficial to be proactive about quality assurance. Compliance with ISO9000 standards may become a necessary value-added service. Currently not much is known about how far the ISO net will be cast and how it will affect various segments of the wood products industry.

New Europe. Unification activity in Europe is causing many changes. Forest products standards and codes are being harmonized across Europe. The twelve countries in EC are united in one single market with fewer trade barriers between the countries. The seven countries in EFTA (European Free Trade Association), which include two of the world's biggest forest products exporters, Sweden and Finland, have signed an agreement with EC to ease the trade between the two trade blocks. In this new market, with faster and less expensive deliveries of goods across borders, and with a new set of standardized grading rules of lumber, it is important to learn more about the expected changes. With all the changes in Europe it is important to be updated on new standards, building codes, and how these changes will affect the relative competitiveness of US producers.

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Appendix A

COMPANIES AND ASSOCIATIONS VISITED IN EUROPE

Germany

Institut für Fenstertechnik, Rosenheim. (Institute for Window Technology)
Jacob Jürgensen GMBH, Hamburg. (Lumber Agent)
Richard Anders Holzimport, Hamburg. (Lumber Importer)
University of Hamburg, Federal Research Centre of Forestry and Forest Products. Hamburg.
U.S. Embassy Bonn, Office of Agricultural Affairs. Bonn.

Italy

CSIL, Milano. (Economic Research Consultant)
Fratelli Feltrinelli, Milano. (Lumber Importer)
Holzprodukte, Segrate. (Lumber Import Agent)
Il Legno, Milano. (Wood Magazine)
LM, Milano. (Wood Industry Magazine)
Rosada, Conegliano. (Window Manufacturer)
3elle, Imola. (Window Manufacturer)
University of Padova, Dipart Territoria e Sistemi Agro Forestali. Padova.
Visit to exhibitions with 700 exhibitors from 20 countries in Milano:
INTERBIMALL. Display of wood working machinery.
SASMILL. Supply show for furniture producers and other wooden products.

Netherlands

Altius Houtagenturen B.V., AH Laren. (Import Agent of Wood Products)
Centrum Hout, Almere. (Wood Information Center)
Houthandel H. & P.H. Heuvelman B.V., Ouderkerk A/D IJssel. (Lumber Importer)
Interforest Terminal Rotterdam B.V., Pernis. (Shipping Terminal)
Research Institute for Forestry and Urban Ecology, Wageningen.

Sweden

Bordörren, Bor. (Door Manufacturer)
Bottenviken Sawmills Trading AB, Umeå. (Lumber Export Agent)
Domän, Umeå. (Forest Service)
Elit-Fönster, Lenhovda. (Window Manufacturer)
Myresjö fönster, Vetlanda. (Window Manufacturer)
SCA, Umeå. (Sawmill)
Skogsägarna Västerbotten, Umeå. (Federation of Forest Owners in Sweden)
SNIRI, Stockholm. (National Association of the Swedish Joinery Factories)
Swedish University of Agricultural Sciences, Department of Forest-Industry-Market Studies.
Uppsala.
Swedish University of Agricultural Sciences, Department of Forest Products. Uppsala.
Sågab, Umeå. (Lumber Export Agent)
Timwood, Stockholm. (Forest Industry Consultants)
Träinformation, Umeå. (Swedish Timber Council)
Umeå University, Department of Statistics. Umeå.