Northern Exports of Softwood Products, 1980–85[1]

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ABSTRACT. Assessment of export opportunities for softwood products from the North has been hampered by a lack of information describing foreign sales from the region. This article describes the value and volume of softwood products exported from the northern United States for 1980 through 1985. Roundwood products—mostly spruce logs from Maine and Vermont—are the largest northern softwood export. Canada, the principal market, accounted for 86% of all shipments over the 6-year period. Compilation of regional export data provides a basis for identifying opportunities for selected products in specific markets.

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Because northern exports of softwood products account for only about 6% of total U.S. softwood exports, they are often neglected in discussions of forest products trade. But foreign sales of softwood products from the North have averaged almost $130 million annually in recent years. Sales of this magnitude demonstrate that some opportunities do exist for exporting northern softwood products.

However, little information has been published that would help northern softwood producers assess export opportunities. Although the Bureau of the Census, and more recently the Foreign Agricultural Service, report national statistics on forest products exports, they do not publish regional breakdowns of the data. National statistics for softwood exports are dominated by shipments from the West, and therefore can be misleading for northern softwood producers interested in developing international markets.

This article describes the value and volume of softwood products exported from the northern United States for 1980 through 1985. Compilation of regional export data identifies the products and markets that are most relevant for current and potential exporters within specific regions. Information describing regional shipments of softwood products was obtained from Bureau of the Census reports, which contain U.S. export data by customs district of exportation (U.S. Department of Commerce 1981–86). These reports, available only on computer tape or microfiche, are derived from Export Declaration Forms that are filed by exporters with the U.S. Customs Service. Data for softwood products grouped under four categories—roundwood, lumber, wood-based panels, and miscellaneous manufactured products—were compiled for 17 customs districts along the Canadian border from Pembina, North Dakota, to Maine and the North Atlantic Coast from Maine down to Baltimore, Maryland (U.S. Department of Commerce 1982).

NORTHERN SOFTWOOD EXPORTS

The value of all solid softwood product exports from the North fluctuated while declining from $146 million in 1980 to $125 million in 1985 (Fig. 1). Annual sales have been determined mainly by the overall economic conditions prevailing in Canada and the rate of exchange between the Canadian dollar and the U.S. dollar. That is, exports slumped during the 1981–1982 recession; the decline over the whole period also reflects the sliding value of the Canadian currency against the U.S. dollar, which caused U.S. products to be more expensive. The total value of northern softwood exports and the value of the Canadian dollar both fell by 14% from 1980 to 1985.

Shipments are strongly influenced by conditions in Canada because it has

[1] Annual compilations of northern softwood exports since 1985 are available from the author.

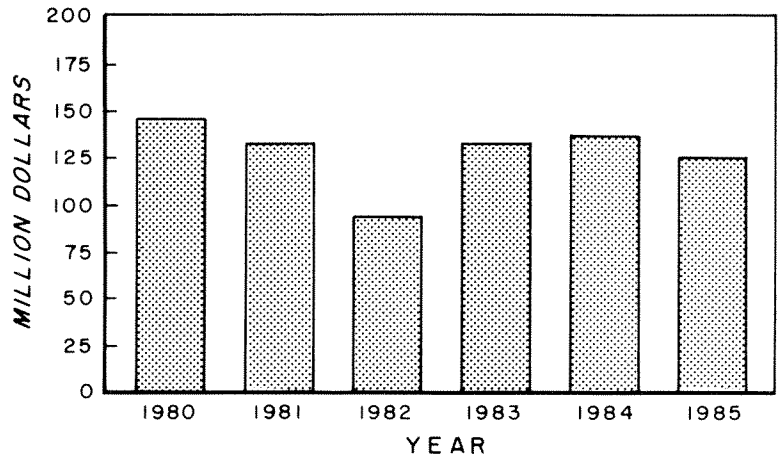

Fig. 1. Total value of northern softwood exports, 1980–85.

been the destination for 86% of all northern softwood exports (Fig. 2). The only other notable markets have been the Near East and Western Europe. Exports to Canada are generally transported by truck or rail from the customs districts along the northern border. Shipments to overseas markets occur mostly from North Atlantic ports, principally New York and Baltimore.

About two-thirds of all shipments exit from only two customs districts: Portland (which includes all points of export in Maine) and Detroit. These two districts are prominent because of large shipments of softwood logs from Maine, and the Detroit district is a major railroad corridor for other product exports from the United States to the most densely populated area of Canada.

Of the major commodity groups, roundwood products were the largest export in 1985 (Fig. 3). Roundwood shipments—mostly logs but also some pulpwood and poles—have increased since 1980, replacing lumber as the largest export group, while other product groups have declined. Panels include veneer, plywood, and particleboard; while building components and structures, such as millwork and prefabricated wood buildings, make up most of the miscellaneous group.

Roundwood

Logs Logs are the largest softwood export from the North, accounting for 90% of the value of roundwood shipments and 47% of the value of all exports in 1985. Although the volume of log exports dropped during the 1981–82 recession, shipments have since grown substantially (Table 1).

Most logs are shipped to Canada from Maine and Vermont. For example, in 1985 log exports from the Portland (Maine) customs district totaled 327 mmbf, and 28 mmbf were shipped from the St. Albans (Vermont) district, leaving only 4 mmbf exported from other customs districts.

Regarding species, most of the log exports are spruce-fir; some white pine and other miscellaneous softwoods comprise the remainder (Table 2). Only the past 3 years are shown because there were substantial misclassifications in prior years, particularly with large amounts being lumped in the miscellaneous softwood category.

Softwood log exports have been a controversial issue in both Maine and Vermont. It is questioned why the Canadians are able to compete more effectively than U.S. producers for the logs. And the importation of lumber made from those logs back into the United States is equally controversial. Several studies of the issue have generally concluded that Canadian subsidies have not been a factor in the log exports from the Northeast (Aley 1981, Gove 1981, Irland 1983, Blackmer 1985). However, cheaper manufacturing costs in Canada, particularly cheap hydroelectric energy, have been cited as a factor, as well as the exchange rate. Furthermore, some Canadian mills are located closer to the standing timber than are U.S. mills, and a majority of the logs are sold by large land management companies located near the border.

Unlike the national debate over Canadian lumber imports, however, the question of cheap Canadian stumpage is not a factor—at least for the U.S. log portion of the Canadian mills' raw material supply. In addition, the average U.S. dollar price of the softwood logs exported increased from $134 per mbf in 1980 to $164 per mbf in 1985. The effective price to the Canadians was even more expensive because of the weakening Canadian dollar. But that additional cost can be nullified by the gains made if the lumber is sold back to the United States.

There has also been some question as to the accuracy of the softwood log export data. Other estimates, utilizing data collected by state agencies and from Canadian sources, indicate a somewhat higher level of log exports than shown here (Blackmer 1985, Miranda 1987). However, Aley (1981) noted that data from Canada were based on the lumber manufactured from the imported logs, and higher figures can be partly explained by overrun factors that range from 20 to 30%. In any case, species data for log shipments are less reliable than the total figures. The categories for reporting softwood log exports are not sufficiently detailed for northern species, and confusion with more numerous categories for western softwoods may contribute to misclassifications.

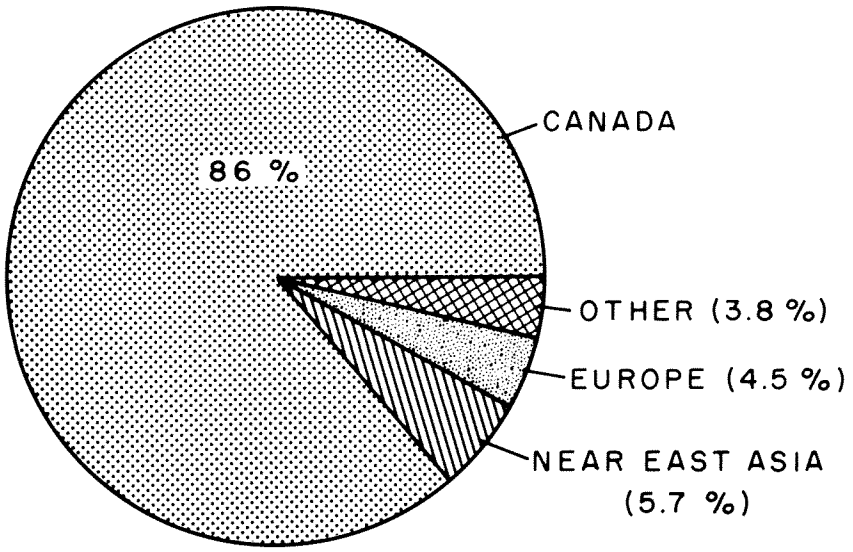

Fig. 2. Export markets for northern softwood products, 1980–85.

Pulpwood Overall, pulpwood exports declined over the 6-year period,

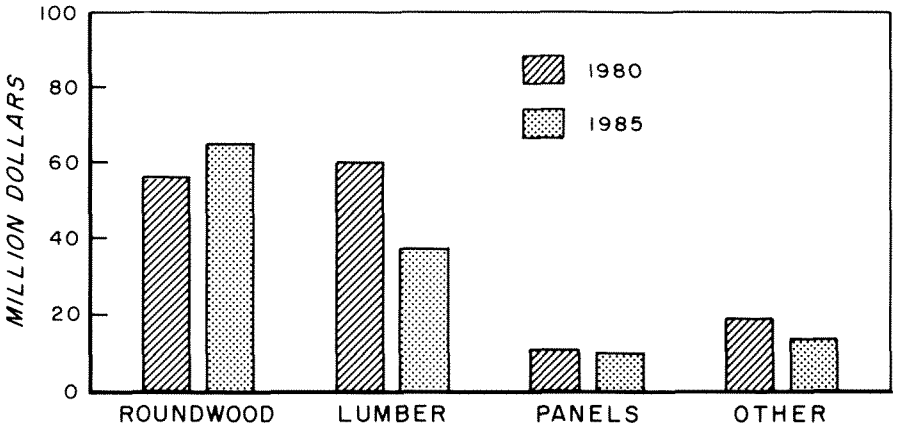

Fig. 3. Northern softwood exports by commodity group, 1980 and 1985.

although chips actually gained while boltwood dropped significantly (Table 1). Almost two-thirds of the boltwood was exported from Minnesota, and most of the chip exports were from Maine. Because species or species groups are not recorded for pulpwood bolts and chips, the statistics for these products may include a small fraction of hardwood.

Poles Pole export statistics are categorized by length and treatment—15 ft or less and over 15 ft, and whether treated or untreated (Table 1). In this paper, long poles over 15 ft are labeled as poles, those 15 ft or less as posts.

Pole and post exports substantially declined over the 6-year period. Canada has been the main market, although there have been occasional shipments to western Europe and other overseas markets. Incidentally, Canada has been one of the few markets for U.S. exports of poles and posts that are not treated; most northern shipments are probably northern white cedar. Also, some of the treated exports may be southern pine, which accounts for about three-fourths of the poles treated in the United States.

Although posts usually exceed the number of poles exported, poles typically account for about 90% of the value of these shipments. To illustrate the value differences, annual values were summed for each category and divided by the total volumes to determine an average price (Table 3). The large difference in unit values is the reason poles dominate the value of shipments, even though the number of short poles or posts exported in a given year may be larger.

Lumber

Except for 1982 and 1985, softwood lumber exports from northern customs districts amounted to nearly 200 mmbf (Table 4). However, these shipments are less significant for the North than the totals indicate.

On average, only about half of the softwood lumber exported is comprised of northern species—primarily eastern white pine, spruce, and smaller quantities of other softwoods, such as balsam-fir and cedar. But a majority of the remainder is western softwood—mainly ponderosa pine—that is shipped to Canada primarily through the Detroit customs district. In 1983, for instance, when total shipments were nearly 200 mmbf, lumber shipments from Detroit to Canada were 115 mmbf, of which 76 mmbf was ponderosa pine; Douglas-fir, western red cedar, and redwood were also notable. These shipments filled requirements for specific uses that probably could not have been adequately met by locally produced lumber in Canada.

Some softwood lumber is exported to overseas markets from North Atlantic ports, but these shipments are of minor importance relative to the volumes moving to Canada. Overseas shipments dropped from 15% in 1980 to less than 5% in 1985.

Table 2. Northern softwood log exports, by species.

Species	1983	1984	1985
		(mmbf)	
Spruce[a]	252	335	337
Pine	20	10	9
Other	31	10	13
Total	303	355	359

[a] Includes fir shipments.

Panels

As noted earlier, softwood panel exports from the North are relatively small (Table 5). This might be expected because there are few northern panel facilities that primarily process softwood. Although particleboard is generally considered a softwood product, particleboard plants in the North use a higher percentage of hardwood than do southern and western plants. In any case, the Detroit and Pembina (North Dakota) customs districts were the largest exporting points for particleboard, which may indicate a western origin for a significant portion of these shipments. This is the case for plywood exports, where a species breakdown shows Douglas-fir to be the largest component. Also, in regard to plywood, different product standards and a 15% tariff limit the potential for exports to Canada, whatever the region of origin.

Miscellaneous Products

Other softwood products exported from the North are primarily prefabricated wood structures and building components, such as moldings and other millwork (Table 6). Pencil slats are shown because they are a softwood item, but these are western in origin and a small amount moves to foreign markets through northern customs districts. Products in the small "other" category include softwood dimension blocks, wood laths, shingles and shakes, and picket fences. Because there is no common measure of

Table 1. Northern softwood roundwood exports.

Product	1980	1981	1982	1983	1984	1985
Logs (mmbf)	276	207	204	303	355	359
Pulpwood: (thou. cords)						
Bolts	170	168	104	68	95	46
Chips[a]	12	25	18	28	20	41
Poles: (thou.)						
Poles, treated	66	61	40	16	32	14
Poles, untreated	68	53	17	6	8	4
Posts, treated	59	34	28	13	60	8
Posts, untreated	863	203	209	420	31	41

[a] Export data for wood chips, which are recorded in oven-dry tons, were converted to cords at the rate of 1.2 tons per cord.

Table 3. Pole export values, average for 1980–85.[a]

Product/treatment	Average value
	($ per unit)
Poles, treated	78.80
Poles, untreated	56.72
Posts, treated	7.80
Posts, untreated	1.07

[a] Values are free alongside ship (f.a.s.) at the port or point of exportation. These include the f.o.b. mill price, inland freight, and—for overseas shipments—port charges for handling and placement alongside the vessel.

Table 4. Northern softwood lumber exports.

Species	1980	1981	1982	1983	1984	1985
			(mmbf)			
Spruce	22.8	25.1	11.3	25.1	22.7	6.8
E. pine[a]	21.7	30.3	9.7	22.2	21.8	16.1
Pine, other[a]	30.1	23.3	13.0	26.7	15.3	10.4
Fir	18.7	5.5	1.5	3.6	1.8	1.9
Hemlock	4.5	2.3	.3	2.1	2.3	1.5
Cedar	8.0	8.0	2.1	2.3	2.9	.8
Western	67.5	108.6	47.3	96.3	98.8	101.2
Other[b]	22.2	25.0	14.7	19.6	24.8	10.6
Total	195.5	228.4	99.9	197.9	190.4	149.3

[a] Eastern pine includes eastern white pine and red pine. Although the second category is for pine shipments that are not specified by species, it is likely that most shipments in both categories are eastern white pine, with an exception for the western material that moves through the Detroit customs district in the other pine category. Thus, estimated white pine exports (the two categories combined minus the other pine shipments through Detroit) are: 1980, 35.1; 1981, 38.5; 1982, 15.4; 1983, 32.7; 1984, 27.1; 1985, 21.6.

[b] Includes softwood flooring, siding, railroad ties, treated lumber, and other softwood lumber species.

volume, these products are shown in terms of value only.

Unlike the case for the previous products, however, overseas markets were most important for this product group, accounting for 62% of all shipments. Largest of the overseas markets were the oil countries in the Near and Middle East. Nevertheless, the strength of the dollar over the 1980–85 period weakened exports to these markets, as well as to Canada.

DISCUSSION

Canada is the dominant market for northern softwood exports. Furthermore, most of the exports are for use in Canada, except for a portion of the lumber manufactured from the softwood log shipments. United States exports transshipped through Canadian ports are not a factor in the softwood trade, although such movements are common for hardwood products. In 1984, for example, the value of softwood exports transshipped through Canada from northern customs districts was only $445,000, whereas hardwood transshipments totaled $35.7 million (U.S. Department of Transportation 1985).

Because softwood shipments are so closely tied to Canada, the prospects for most products will depend upon the rate of exchange between the U.S. dollar and the Canadian dollar. If the Canadian dollar strengthens relative to the U.S. dollar, there should be some improvement overall for northern softwood exports.

Roundwood products are the most important northern softwood export, and probably will continue to be in the future. Although softwood log shipments from the Northeast may decline from 1980–85 levels after spruce budworm salvage operations are completed, additional log exports from the Upper Peninsula of Michigan to Canada were initiated in 1985 (The Timber Producer 1986).

Overseas opportunities for most products in the roundwood, lumber, and panel categories are limited. On occasion, the potential for pulpwood and chip exports to Scandinavia has been mentioned. But since early 1986, roundwood and chips from North America have been banned in Scandinavia, due to discovery of the pinewood nematode in shipments of wood chips from Canada and the southern United States. Among other products, treated red pine poles could represent an overseas opportunity, provided an adequate supply of raw material is generated. But U.S. softwood lumber is not competitive for construction uses in Western Europe, the most logical market, and northern softwood panel production is too small to be a factor overseas. For the most part, overseas potential for these product categories appears limited to specialty items.

However, some opportunities may be opening up overseas for products in the miscellaneous group. Overseas markets have been most important for these exports, and the decline of the U.S. dollar against several foreign currencies since early 1985 is making these products less expensive and more competitive in those particular markets. As an example, a northern white cedar log house has been erected by a Michigan firm as a model in Japan. There has been a rising interest in Japan in the use of rustic buildings for resort developments, and this is a product that is not produced in that country. The rise in the value of the Japanese yen against the U.S. dollar will make this product more attractive to Japanese buyers.

The use of prefabricated wood buildings for resort developments also has been attracting interest in other markets, including Puerto Rico and other islands in the Caribbean Basin. By and large, exporting of prefabricated wood buildings is an area that has not been explored and may present a significant opportunity—primarily for the panelized, pre-cut, and log buildings that can be shipped in containers.

Puerto Rico is an offshore market that should not be overlooked as an opportunity for northern wood products—both for softwood and hardwood. In fact, practically all the wood used on the Island is imported. Because Puerto Rico is a possession of the United States, wood shipments to the Island are not counted as U.S. exports in trade statistics. But it is a sizeable market. U.S. wood shipments to Puerto Rico were valued at more than $68 million in 1985 (U.S. Department of Commerce 1986). Although most wood shipments to Puerto Rico are made from southern ports, about 10% of the total shipments annually are

Table 5. Northern softwood panel exports.

Products	1980	1981	1982	1983	1984	1985
			(mm ft^2)			
Veneer	40.3	76.3	71.5	98.1	63.8	61.0
Plywood:						
Douglas-fir	4.5	9.3	7.1	11.6	8.6	8.9
Southern pine	5.5	7.6	1.5	1.3	.5	.2
Other	9.3	19.6	2.2	7.7	3.7	7.7
Total	19.3	36.5	10.8	20.6	12.8	16.8
Particleboard[a]	8.9	5.9	8.3	14.6	20.5	24.3

[a] Includes oriented strandboard and waferboard.

Table 6. Northern exports of miscellaneous manufactured articles.

Product	1980	1981	1982	1983	1984	1985
			(mill. $)			
Moldings	1.2	1.2	0.9	1.9	1.8	2.6
Prefab structures	6.4	2.9	6.3	2.1	3.5	2.1
Building components	9.2	9.0	8.3	9.2	3.9	8.0
Pencil slats	1.8	1.8	2.2	1.7	2.5	.9
Other	.8	.5	.5	.5	.4	.2
Total[a]	19.3	15.4	18.2	15.4	12.1	13.8

[a] Data may not add to totals because of rounding.

made from the northern ports of New York, Philadelphia, and Baltimore. These shipments have included spruce and pine lumber, particleboard, and a wide variety of manufactured products. Most U.S. wood shipments have been softwood.

Export opportunities for northern softwood may not be large, but they still should be pursued. Exports can be important for individual producers, even though in the aggregate export shipments may not be large. Of more significance, perhaps, is the realization that exports can enhance timber values, thereby encouraging more complete utilization while providing incentives for improved forest management. □

LITERATURE CITED

ALEY, J. 1981. The export of Maine sawlogs to Quebec. Maine For. Serv., Dep. Conserv., Augusta, ME. 53 p.

BLACKMER, S. D. 1985. Lost opportunities: The export of sawlogs to Canada. North. Logger and Timber Processor 34(4):10–11, 30.

GOVE, W. 1981. The Canadian log market. North. Logger and Timber Processor 30(1):3, 39.

IRLAND, L. C. 1983. New England and Canada share 'an uneasy peace.' For. Ind. 110(2):20–21.

MIRANDA, J. 1987. Fact, perceptions and research needs for a sustained Quebec-Maine timber trade. P. 345–55 *in* Resource economies in emerging free trade: Proc. Maine/Canadian Trade Conf. Univ. Maine, Orono.

THE TIMBER PRODUCER. 1986. Barges to haul sawlogs. The Timber Producer No. 2:5.

U.S. DEPARTMENT OF COMMERCE. 1981–86. U.S. exports of domestic and foreign merchandise. Bur. of the Census Rep. No. EA 622 (magnetic tape).

U.S. DEPARTMENT OF COMMERCE. 1982. Schedule D—Classification of customs districts and ports. Bur. of the Census. 12 p.

U.S. DEPARTMENT OF COMMERCE. 1986. Shipments of merchandise from the United States to Puerto Rico and the U.S. Virgin Islands. Bur. of the Census Rep. EA 694 (microfiche).

U.S. DEPARTMENT OF TRANSPORTATION. 1985. U.S. exports & imports trans-shipped via Canadian ports—1984. Maritime Adm. 11 p.