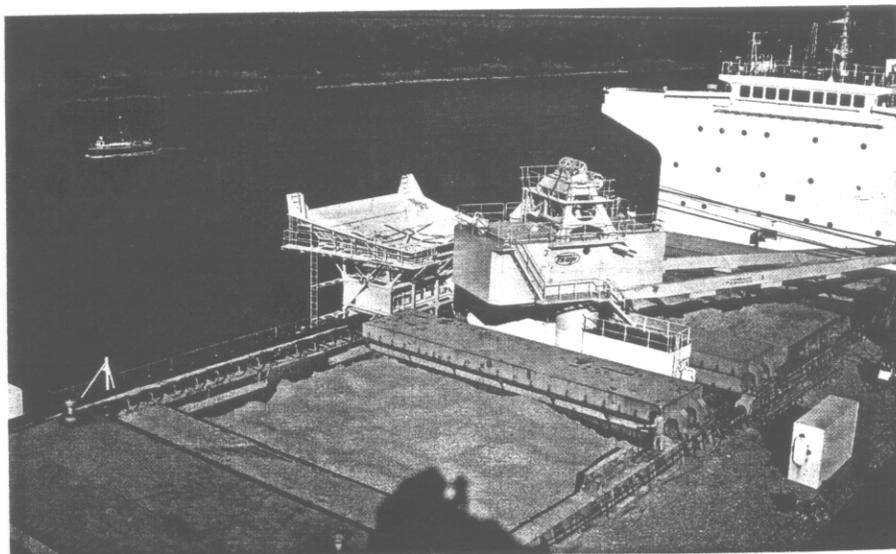


GEORGIA FOREST RESEARCH PAPER

52
MAR., 1984



International Markets and the Development Of Georgia's Forest Economy



by
Peter Walters
and
A.A. Montgomery



RESEARCH DIVISION

GEORGIA FORESTRY COMMISSION

About The Authors



PETER G. P. WALTERS is Assistant Professor, Norwegian School of Management, Oslo, Norway.



ALBERT A. MONTGOMERY is Senior Research Associate and Professor, College of Business Administration, Georgia State University.

ACKNOWLEDGMENTS

The authors wish to acknowledge the assistance of Mr. Robert L. Chaffin and Mr. James D. Strange as well as the Georgia World Congress Institute, which shared in the support of the research with the Georgia Forestry Commission.



International and Development Forest

by Peter Walters and A.A. Montgomery

Abstract

Although export demand has been depressed recently by an overvalued dollar and the lingering recession abroad, international markets have come to be increasingly important for the economic health of Georgia's forest industry. The export of logs, poles, piling, lumber, veneer, plywood, and other solid wood products through Georgia ports increased fivefold from 1978 to 1982, reaching \$38.4 million in that recession year. These solid wood exports incorporate 60 million board feet of sawtimber or the equivalent of the annual output of a world class lumber mill. Half of the solid wood exports were destined for the Caribbean Islands, where U. S. construction grades and sizes are readily accepted. Over the past five years Georgia has also become an important exporter of wood chips and sawmill residues to Scandinavia. After reaching 690 thousand tons in 1981, the equivalent of the annual wood supply of a 1,000 ton per day pulp mill, chip exports declined to 322 thousand tons in 1982 because of the recession. But the fact that Scandinavian mills are having to forage thousands of miles for even a small part of their wood supply gives Georgia's large, integrated pulp and paper mills,

which run on local wood, a significant competitive edge in supplying international markets with pulp, paper, and paperboard.

Reflecting this competitive edge, exports of pulp, paper, and paperboard through Georgia ports grew from \$152.6 million in 1978 to \$437.7 million in 1981 before declining to \$345.8 million in the recession year of 1982. The annual export of chips, pulp, paper, and paperboard incorporated the equivalent of 1.8 million cords of pulpwood or the equivalent of 20 percent of Georgia's annual harvest of roundwood and chips for pulp. Wood pulp, paper, and paper board comprised 77.9 percent of the \$493.1 million annual average of forest product exports over the 1980 to 1982 period, the large share of which was destined for Western Europe. Western Europe was also the major destination of all forest product exports, accounting for 56.7 percent of the total. By nation of destination, West Germany was the most important, accounting for 18.1 percent of all forest product exports flowing through Georgia ports. Japan, accounting for 8.5 percent of the total exports, was the second largest destination. The top six importing nations, including Italy, France, Netherlands, and the United Kingdom as well, accounted for half of the forest products exports. But the remaining half was

spread widely over more than seventy-five nations, including many less developed nations.

Of the forest products firms surveyed by the study, a majority considered exports to be more profitable than domestic sales. But most respondents took the view that higher export prices and profits were necessary to compensate for the increased costs of producing, processing, and shipping exports as well as for the increased risk. The survey companies identified a wide range of obstacles to expansion of export sales. Among these export barriers are the fact that the export markets require different products, the difficulty and cost of shipping forest products, economic instability in foreign markets, and the high and rising value of the dollar in world money markets. Tariff and non-tariff barriers were not perceived to be a major obstacle to forest product exports. A majority of the respondents expected an increase in the relative importance of exports to their business primarily as a result of diversification into new export markets. Western Europe was the most popular target for market diversification especially among lumber exporters. Among survey companies there was a general consensus that the outlook for increased forest exports from Georgia was good once the current recession has abated.

Markets the Of Georgia's Economy

Introduction

The export of forest products has a long history. From colonial times to this day, Georgia has been a leading producer of the pine gum, rosin, and turpentine entering world trade. Over the postwar period these exports of naval stores have come to be overshadowed by wood pulp, kraft linerboard and kraft paper exports, as the pulp and paper industry has located its large, efficient mills in Georgia so as to take advantage of the economies of the southern pine forest. Until very recently, however, forest product exports have been perceived to be of less interest to people in Georgia than to businessmen in distant corporate headquarters.

Within the past five years there have been three important developments in forest product exports, nationally as well as for that part flowing through Georgia ports. Exciting the most interest among timberland owners and foresters, because of its implications for the sawtimber stumpage market, has been the rapid growth in the exports of logs, poles, piling, lumber, veneer, plywood, and other solid wood products. Solid wood exports through the Savannah customs district (Savannah and Brunswick ports) increased fivefold from 1978 to 1982, reaching \$38.4 million in that recession year. Over the 1980-1982 period, solid wood exports incorporated an annual average of 60 million boardfeet of sawtimber. While this volume is less than 3 percent of Georgia's annual utilization of sawtimber, it is the equivalent of the annual output of a world class lumber mill.

A second development is an important indicative factor both with respect to the world wood shortage and to the competitive standing of Georgia's pulp and paper industry in the world market for its products. Seeking an alternative market outlet for their chips and residues, Georgia lumber manufacturers formed an association to facilitate the export of these sawmill

byproducts. As a measure of the success of this enterprise, wood chip exports through Georgia ports grew from \$1.4 million in 1978 to \$49.4 million in 1981. The latter year's export of wood chips to Scandinavia of 690 thousand tons was the equivalent of the annual wood supply of a 1,000 ton per day pulp mill. Reflecting the onset of the worldwide recession, chip exports then fell precipitously to \$22.8 million and 322 thousand tons in

1982. This decline and the fact that the management of the exporting process has effectively passed to a consortium of Scandinavian pulp mills has dampened somewhat the local enthusiasm for chip exports. But the mere fact that any chips are being exported is of enormous significance for forestry and the Georgia economy, as was concurrently being reflected by trends in another category of forest product exports.

Scandinavia and Japan are major competitors of Georgia's pulp and paper industry in the world market. The fact that pulp mills in these countries have been foraging thousands of miles for even a small part of their wood supply gives Georgia's large, integrated mills, which run on local wood, a significant competitive edge in supplying any growth in the world market. Reflecting this competitive edge, from 1978 to 1981 the export of pulp, paper, paperboard, and converted paper and board products through Georgia ports virtually tripled from \$152.6 million to \$437.7 million.

By comparison the absolute dollar growth in solid wood and chip exports is minute. Granted, pulp and paper exports then declined to \$345.8 million in the recession year of 1982. But even at this much reduced level, pulp and paper exports were more than two and a half times larger than just five years earlier.

As a measure of the importance of the export of chips, pulp, paper, and paperboard products for the Georgia pulpwood stumpage market, the 1980-1982 average annual tonnage of these products flowing through Georgia ports incorporated an estimated 1.8 million cords of pulpwood. This is equivalent to 20 percent of Georgia's recent annual pulpwood harvest in both roundwood and chip form. It should be mentioned that an indeterminate but important share of the forest products flowing through Georgia ports does not originate in Georgia and, conversely, forest product exports incorporating Georgia timber flow through non-Georgia ports.

But even with this statistical imprecision it should be apparent that Georgia's \$6.6 billion dollar, 75 thousand employee forest products industry is coming to depend increasingly upon the export market. Over the 1980-82 period, notwithstanding the recession, the export of all forest products through Georgia ports averaged virtually \$500 million annually. Indeed, the tens of thousands of Georgia's timberland owners who have or will be selling timber may not yet be aware of it but their stumpage market is coming to be increasingly dependent upon the export market, both directly and indirectly.

Procedures

In order to learn more about Georgia forest product exports contact was made with the population of the exporting companies located in Georgia, as identified in the Georgia International Trade Directory for 1980-81. This directory identified 31 separate companies exporting lumber and other solid wood products and 16 separate companies exporting pulp, paper, and allied products. Of these 47 firms, 33 or 70 percent agreed to be personally interviewed by the authors. The nonrespondents did not share any obvious common attributes and it is not thought that the research findings are biased by their nonresponses. The mode of data collection was an in-depth personal interview with the company executive primarily responsible for export operations. Additionally, personal contacts were made with several industry associations and government agencies concerned with forest product exports. These included the National Forest Products Association, the American Paper Institute, the U. S. Department of Agriculture, the Georgia Department of Industry and Trade, the Georgia Ports Authority, and the U.S. Department of Commerce, which supplied the data for forest product exports through Georgia ports.

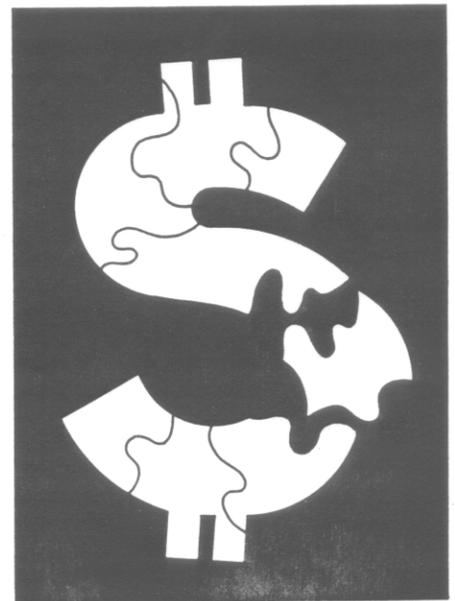
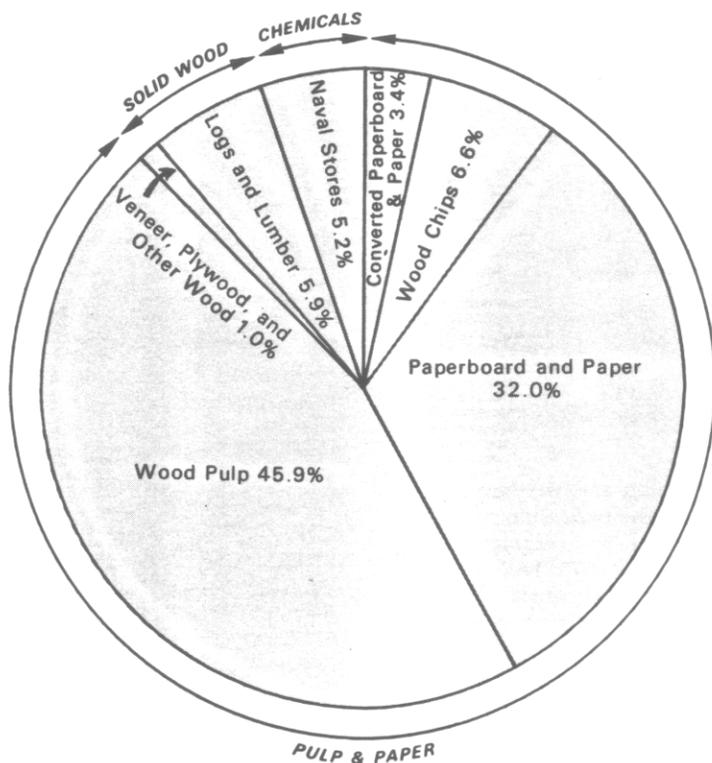


Figure 1
DISTRIBUTION OF FOREST PRODUCT EXPORTS THROUGH GEORGIA PORTS BY PRODUCT 1980-82 ANNUAL AVERAGE
Total Value \$493.1 Million



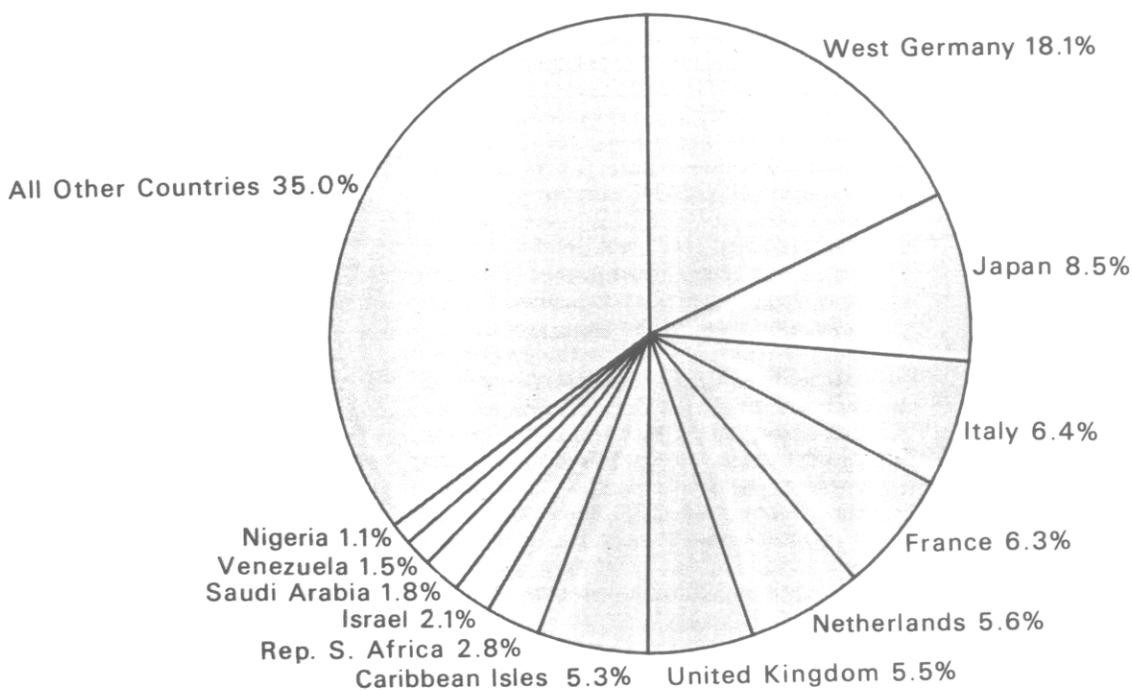
Results

Export Patterns

Forest product exports through Georgia ports averaged \$493 million a year over the 1980-1982 period. By product type, at 45.9 percent the largest share of these exports consisted of wood pulp; followed by the 32 percent share of paper and paper board, Figure 1. While exports of logs, lumber, plywood and other solid wood products have grown rapidly in recent years, jointly these still comprise only 6.9 percent of the total export of forest exports. From the description of these commodities it is apparent that most are raw or semi-processed materials and thus are destined for further manufacturing in the importing nations.

By world area of destination, Western Europe accounted for 56.7 percent, by far the largest share of forest product exports through Georgia ports (Map 1). The Far East was the second most important destination, 15.5 percent. Central America accounted for 8.1 percent and South America and Africa each accounted for 6.9 percent - with the Middle East having 5.7 percent. Industrial nations predominated, Figure 2. With an 18.1 percent share West Germany was by far the largest importer. Japan (8.5 percent), Italy (6.4 percent), France (6.3 percent),

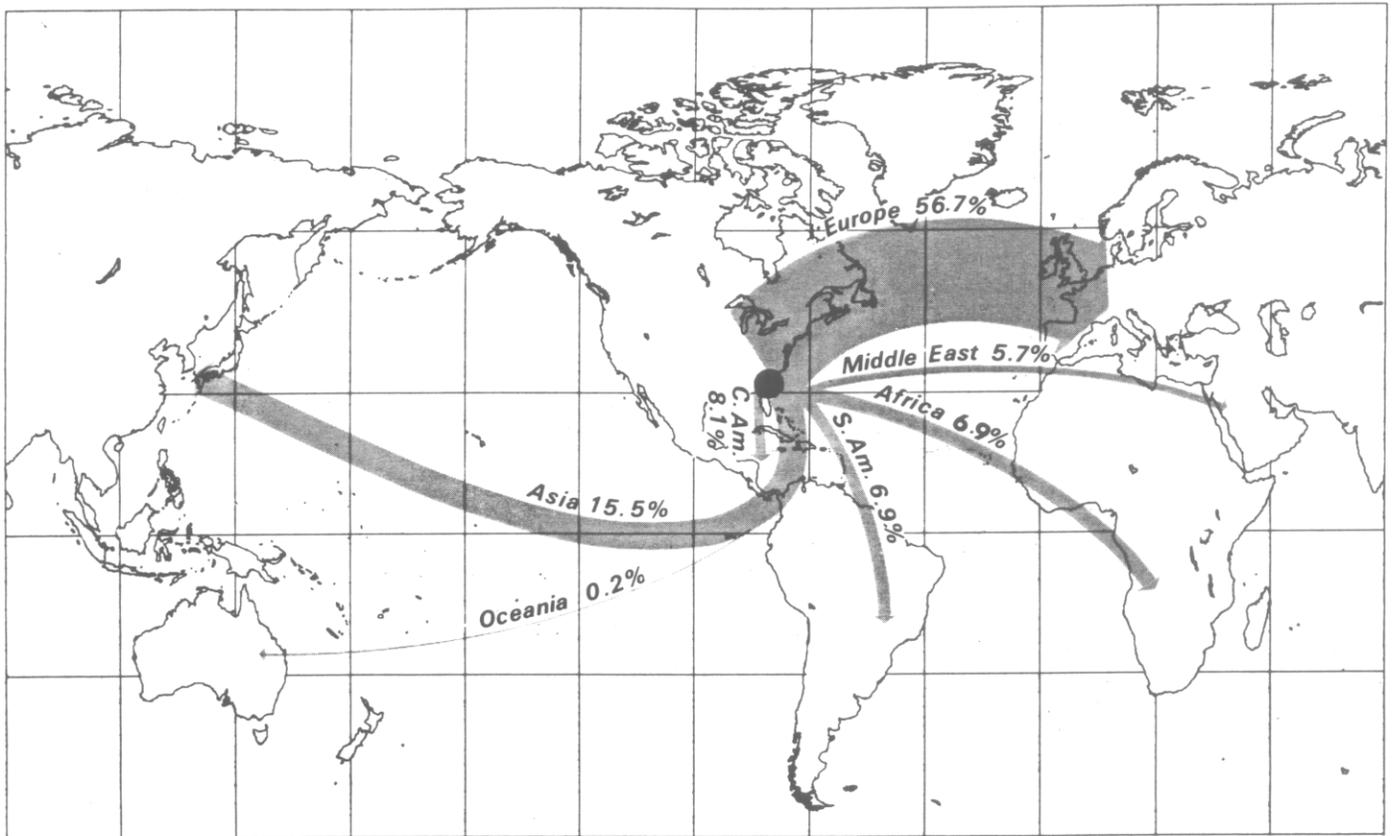
Figure 2
DISTRIBUTION OF FOREST PRODUCT EXPORTS THROUGH GEORGIA PORTS BY COUNTRY OF DESTINATION 1980-82 ANNUAL AVERAGE
Total Value \$493.1 Million



Map 1

**Percent Distribution Of Forest Product Exports Through Georgia Ports
By World Area Destination, 1980-82 Annual Average**

Total Value \$493.1 Million



Netherlands (5.6 percent — and the United Kingdom (5.5 percent) followed in the order of importance. Jointly, the six leading importing nations accounted for half of the forest product exports through Georgia ports primarily because of their imports of pulp, paper, and paperboard. Collectively, the Caribbean Islands ranked as the seventh largest importer because of their imports of Georgia lumber and plywood. Fully half of the solid wood exports from Georgia were accounted for by these tiny island nations.

While half of the forest product ex-

ports were destined to six industrial nations, the remaining half was widely distributed among more than seventy-five nations, including many less developed countries. One implication is that the bulkiness and low value of most forest products do not appear to materially circumscribe the destination of these products once they reach and pass through Georgia ports. Another implication is that the strength of the export demand for Georgia's forest products is dependent upon economic conditions throughout the world.

Export Experience

The survey companies were asked to compare their export sales experience with that of domestic sales in terms of several important variables (Table 1). Of the 27 companies responding to the question of the profitability of export sale, 19 considered exports to be more profitable than domestic sales. Most respondents took the view that higher export prices and profits were necessary to compensate for the additional costs of producing, processing, and shipping exports as well as for the increased risk.

TABLE 1 Experience With Export Sales Compared to Domestic Sales

	Much Less Than Domestic	Somewhat Less Than Domestic	About Same As Domestic	Somewhat More Than Domestic	Much More Than Domestic
Probability of Export Sales	—	1	7	12	7
Risks of Export Sales	—	1	13	5	7
Production Cost of Export Product	—	—	9	13	1
Shipment Cost of Export Product	—	—	2	2	4
Management Time Required to:					
Locate Export Customer	—	—	5	—	2
Negotiate Export Orders	—	—	4	2	1
Fulfill Export Contract	—	—	4	2	1
Price of Export Products (FOB Mill)	—	—	4	9	5

Of 23 companies responding, 14 regarded the cost of producing export goods as being higher than for goods destined for the domestic market. However, most of these companies rated the incremental cost as being only somewhat more than for domestic sales. Many of the lumber, paper, and other forest products exported by the survey companies were identical with domestic shipments in that U. S. grades and sizes are accepted in many foreign markets. Shipping costs were not a major concern of many companies simply because they commonly shipped on FOB mill terms and contracted with freight forwarders to make all export arrangements. There were however a number of complaints about the difficulty and expense of arranging shipment to some foreign markets.

Respondents were almost evenly divided as to whether export sales were more risky than domestic sales. The major risk to which exporters were exposed was acceptability by the ultimate consumer in the foreign country of the product being shipped. This was a particularly important concern of lumber exporters, who reported numerous disputes about such matters as blue stain, knots, and imprecise cutting standards. The risk of product quality problems as well as other export risks can be essentially eliminated by selling to merchants or distributors who take title to the good in the U.S. and perform the export marketing functions. Thus, companies using third parties to perform the export marketing functions viewed their export business as essentially the same as for domestic business in most respects including risk. An important implication is that the apparent higher prices and profits of export business are necessary compensation for the export marketing functions that must be performed.

Export Barriers

A wide range of obstacles to export operations were identified by executives in the survey companies (Table 2). The fact that export markets require different products from those of domestic markets appeared to be the primary obstacle to exporting, being identified by 18 companies. But two-thirds of the companies that identified this as a major problem were primarily lumber producers and it was mentioned mainly in context of export sales to Europe. In this regard, the Caribbean Islands have become a major destination for lumber and plywood exports, in no small part, because standard U. S. grades and sizes are readily accepted by the construction industry there. Log and lumber exports to European markets in contrast are frequently for special purposes requiring odd sizes and superior quality, such as the manufacture of high quality pine furniture preferred by Europeans.

TABLE 2 Export Barriers

Potential Obstacle to Exporting	No. of Firms Identifying Factors as a Barrier	Barrier Score ^{1/}
Shipping Costs	13	41
Tariff Barriers	7	16
Non-Tariff Barrier	2	7
Problem of Obtaining Adequate Representation in Foreign Markets	5	15
Economic Instability of Export Markets	11	33
Political Instability of Export Markets	6	18
Product Required is Different From U. S. Product	18	47
Insufficient Information on Foreign Markets	6	20
Problems when Collecting Payment	6	15
High Value of \$	9	32
Difficult Overseas Customers	3	10
Insufficient Capacity	5	17
Management Disinterest	3	10

^{1/} The scores were computed as follows:

Respondent ranking Very Important = 4 points; Important = 3 points; Some Importance = 2 points; Little Importance = 1 point.

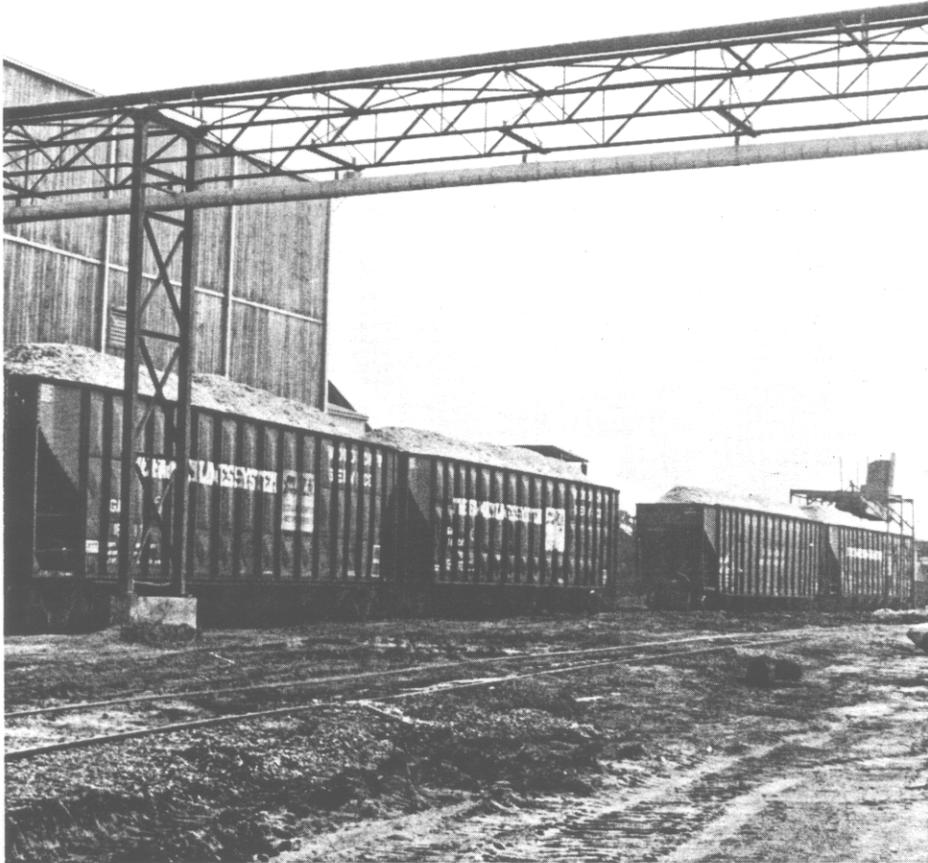
Total responses on each potential barrier were scored as indicated and then summed to give the overall score shown in the volume. Obviously, the higher the score the greater the importance of the barrier.

Difficulties arising from non-standard product needs were not as frequent for the pulp and paper industry exports. However, many of the new European customers gained by the pulp and paper industry in recent years were accustomed to buying Scandinavian paper, the standards of which could not be achieved by U. S. grades. Accordingly, some minor refinements have been necessary to serve these new customers. Despite these problems, much of the pulp and paper export business can be sourced with U. S. grades.

The difficulty and cost of shipping forest products to foreign customers was perceived to be an important obstacle by the survey companies. As noted above, most arranged for third parties, typically freight forwarders, to do this work. Complaints about the service received were not uncommon and some respondents felt they could offer their customers a better service by doing the work themselves. But complaints were also expressed by those companies that did undertake some or all of their export shipping. A common complaint was that lumber and paper shipments are not popular with carriers because of their bulkiness and low value. This complicates the task of finding shipping and causes delay because

many carriers prefer to give priority to higher valued goods. In the case of shipment to destinations lacking a liner service, such as many of the smaller Caribbean Islands, it is very difficult to arrange timely shipment without chartering a vessel. Indeed, one company attributed its success in export markets as being due, in large measure, to its skill in chartering vessels.

Progress has been made recently in surmounting the shipping barrier. The Georgia Ports Authority, the facilities of which serve much but not all forestry exports through Savannah and Brunswick, completed new berthing and warehousing facilities especially for forest products. There has also been a marked increase in the number of carriers making Savannah and Brunswick regular ports of call. Then, too, the export of wood chips on a large scale from Savannah would not have been possible without a substantial private investment in chip loading facilities there. But shipping problems remain. The potential for expanded forest exports through Savannah is cramped by the low overhanging Talmadge Bridge which prevents the larger container vessels from reaching most of the Authority's berths. More than this, a continued investment in



The annual export of chips, pulp, paper and paperboard incorporated the equivalent of 1.8 million cords of pulpwood or the equivalent of 20 percent of Georgia's annual harvest of roundwood and chips for pulp.

maintaining Georgia's system of roads, highways, and bridges will be required to sustain, let alone expand, the flow of these bulky and heavy commodities from forest to mills and mills to ports.

The next two most important export barriers were economic instability in foreign markets, primarily the depressing impact of the world recession upon demand, and the high and rising value of the dollar in world money markets. At the present time, it could be argued that these are the two most important obstacles to increased forest product exports and, indeed, they are probably causing a continued decline in these exports. While many respondents mentioned neither factor, when identified, they are commonly rated as being very important barriers.

The pulp and paper industry has been most affected by the strength of the dollar and these exporters were unanimous in delineating it as a major problem. This is because in most export markets for commodity grades of paper and board, price is the crucial competitive variable. The competitive disadvantage arising from the strong dollar has been exacerbated by devaluations in the currencies of some major competitors over the past year most notably that of Sweden. In the

case of lumber exporting companies, it appears that export demand has been more robust despite the dollar's appreciation. Possibly this is because the suppliers of solid wood products have less competition for the construction grades exported to the Caribbean. The impact of the economic recession in Western Europe and in other export markets (which lingered beyond our own) on the demand for U. S. forest products has been made worse until very recently by the depressed demand in the domestic market in that it encouraged new competitors and price cutting in export markets.

The remaining export barriers were of significantly less general importance. Perhaps surprisingly, tariff and non-tariff barriers were not perceived to be a major obstacle to forest product exports. Tariff levels vary from product to product and market to market, but are relatively low in major export markets. Some Latin American markets and Japan were exceptions, however. In the case of paper and paperboard exports, complaints were voiced that Scandinavian forest product manufacturers are receiving preferential tariff treatment by the European Economic Community (EEC). On U.S. exports of bleached board, for example, the

EEC tariff was 10.9 percent as compared with only 2.0 percent for Scandinavian exports. Mention was also made of a disagreement between the U.S. and the EEC concerning the definition of kraft, which must contain at least 80 percent softwood in order to be so designated by the EEC. Since products without the kraft designation are placed into a higher tariff category, U.S. producers of kraft linerboard can be penalized if they substitute to a greater degree cheaper hardwood fiber for pine fiber in the kraft pulp-making process. This exemplifies the kinds of problems that the federal government must be able to resolve with our trading partners around the world in order to facilitate a growing flow of U.S. forest product exports. In turn, it is obvious that the ability of our government to negotiate favorable changes in tariffs on U.S. forest product exports importantly depends upon our willingness to sustain the competition of foreign goods in our domestic markets, including markets for forest products.

Other barriers to exports, such as the problem of obtaining adequate representation in foreign markets, insufficient information on foreign markets, problems when collecting payment, difficult overseas customers, insufficient production capacity, and management disinterest, were infrequently mentioned and in any event they are of less public interest.

Export Plans and Outlook

Despite the recession in many world markets for forest products, most indications point to the U.S. becoming an increasingly important supplier of solid wood and pulp and paper products in world markets. When questioned about their current export plans, 17 companies or 60 percent of respondents expected an increase in the relative importance of exports to their business. Although the respondents were rather vague as to how this objective was to be achieved, the entry of new export markets appeared to be the main way of achieving export growth over the near term.

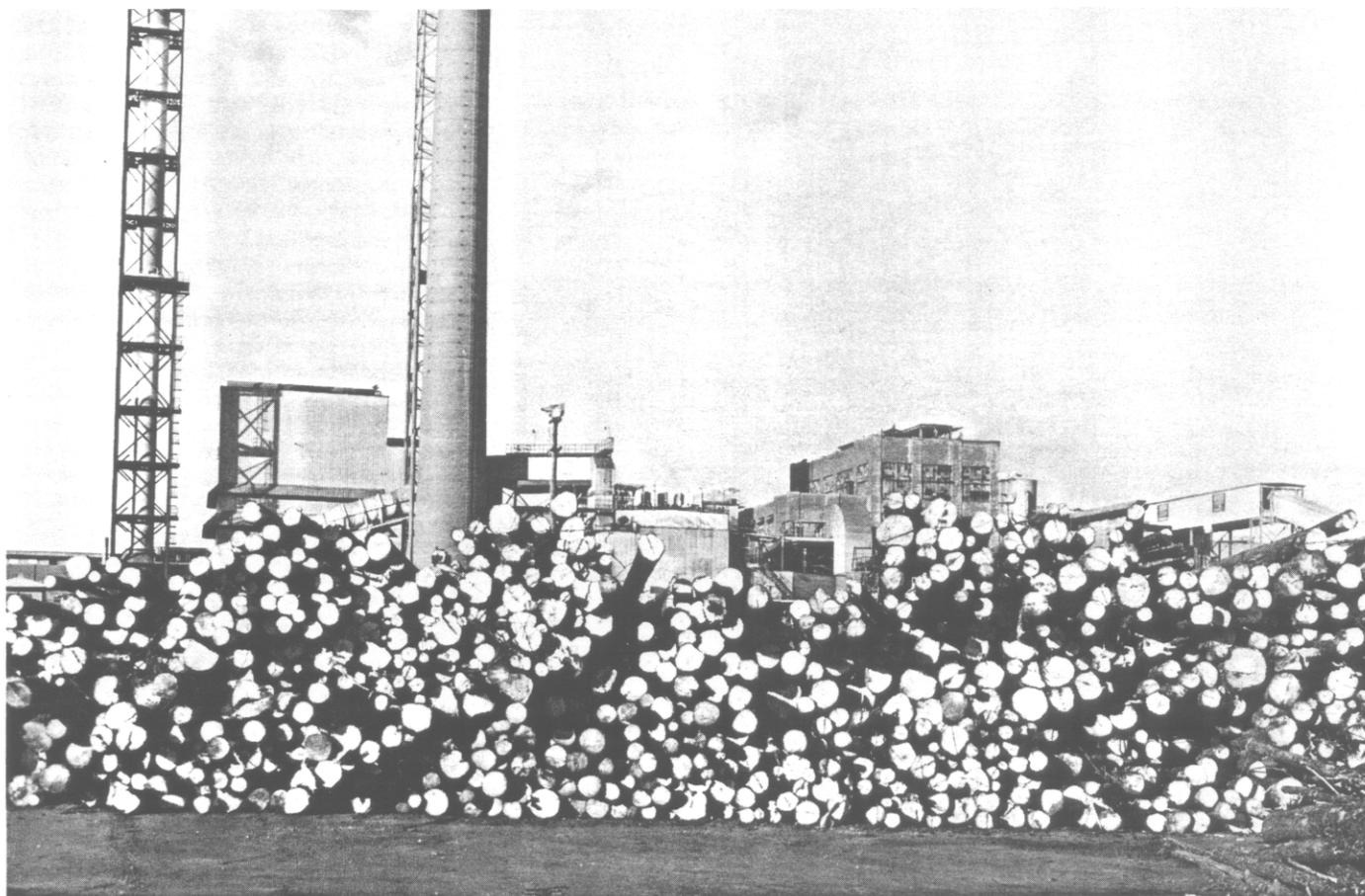
The most popular target for market diversification is Western Europe particularly among lumber exporters. The growth in the European demand together with insufficient supplies of indigenous timber resources was expected to lead to attractive export opportunities over the near future. In this context it was noted that the consent decrees signed by Swedish pulp and paper companies during the 1970s was a major reason for them importing wood chips from the U.S. These decrees were a conservation measure to reduce the volume of chips being acquired from the Swedish forest, which was suffering attrition at the then existing level of industry operation.

There was a general consensus among respondents that the outlook for increased forest product exports from Georgia

was good once the current recession begins to abate. The expectation is that access to relatively low cost wood will be an important competitive strength. This local view of future forest product exports echoes the national outlook. The Office of Technology Assessment, an analytical agency of the U. S. Congress, concludes in a recent report that the United States could greatly expand its role in world forest products trade over the next decade and become a net exporter of solid wood and paper products before 1990. The report observes that in contrast to many basic U.S. industries, the forest products industry has a distinct

advantage over its foreign competitors. More specifically, Georgia possesses a number of these advantages. They include the advantage that Georgia's forest industry is becoming an increasingly integrated and mutually supporting complex of forest products and activities, ranging from the forest through the manufacturing and distribution of solid wood and paper products. Another advantage is that, with careful management, the southern pine forest has a rotation period of about one-third that of northern softwood forests. As a result, heavy annual harvests can be maintained indefinitely from relatively small areas, enabling comparatively

short hauling distances from forest to mill. This enables operation of very large scale, economical lumber, pulp, and paper mills that despite their enormous timber consumption can remain indefinitely at a single location without attrition of timber supplies. Industry logistics are also favored by the terrain and climate which allow for year-round highly mechanized logging and by an excellent transportation system. Georgia is well-served as well by an infrastructure of small towns and farms providing for the labor and other requirements of the industry's forestry and manufacturing operations.



The export of logs, poles, pilings, lumber, plywood and other solid wood products through Georgia ports incorporate 60 million board feet of sawtimber or the equivalent of the annual output of a world class lumber mill.

CONCLUSIONS

But Georgia's ability to capitalize upon its competitive advantages in world markets is contingent upon several considerations. In the near future, Georgia forest product exports will depend importantly upon the economic recovery abroad especially in Western Europe where the combination of the recession and weakening currency values in relation to the U. S. dollar has seriously eroded the demand for forest product imports from the U. S. Forest product exports are also threatened in the near term by a potential trade war and regression from freer trade due to the fact that recession-impacted industries both here and abroad

have been pressuring governments for import quotas and higher tariffs. If this threat to free trade can be avoided and continued progress can be made in gaining tariff concessions from the EEC, exports of pulp and paper to Western Europe from Georgia should rebound sharply with economic recovery there.

Over the longer term, Georgia's ability to maintain its competitive advantage in world markets for forest products in large measure depends upon the expanded current investment in increasing timberland growth and yield, especially by nonindustrial timberland owners who control most of the forest and who are presently failing

to reforest much of their cutover timberland. Continued growth in forest product exports from Georgia could also be choked off in the future if investments are not made to sustain and improve the state's excellent transportation system, including specifically replacement of the Talmadge Bridge.

Finally, aggressive promotional efforts on behalf of Georgia's forest product exports especially for lumber, plywood, and other solid wood products, may be necessary to achieve greater acceptance abroad for U.S. grades and sizes.

Literature Cited

American Paper Institute, Statistics of Paper, Paperboard, and Wood Pulp, 1982.

Butts, P. M. and Wells, W. S., Wood-Using Industries in Georgia, Georgia Forestry Commission, 1981.

Georgia Department of Industry and Trade, Georgia International Trade Directory, 1980-1981.

Georgia Ports Authority, Georgia's Deepwater Ports Update, 1981, 1982, 1983.

Montgomery, A. A. and Chaffin, R. L., The Economic Importance of Georgia's Forest Industry, Georgia Forestry Commission Research Paper 27, 1982.

Resources for the Future, Postwar Trends in U. S. Forest Products Trade, and Issues in U. S. International Forest Product Trade, 1981.

U. S. Congress Office of Technological Assessment, Wood Use: U. S. Competitiveness and Technology, 1983.

U. S. Department of Commerce, Forest Products Review, 1979, 1980, 1981, and 1982.

U. S. Department of Commerce, International Trade Administration, Atlanta District Office, Microfiche EEA663, 1978, 1979, 1980, 1981, 1982.



John W. Mixon, Director
J. Fred Allen, Chief of Forest Research

Cost \$3.650
Quantity 5M