THE FUTURE OF TRADE AND INVESTMENT IN FOREST PRODUCTS BETWEEN THE UNITED STATES AND CANADA

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ABSTRACT

The future of trade in forest products between the United States and Canada will be measured in terms of Canadian exports to the United States.

From the statistics of world production and utilization a trend to self-sufficiency in forest products is evident. This trend is further borne out by the statements of forest policy of many countries which favour the development of local forest industries.

Changes in manufacturing technology and in the methods of utilization of forest products have caused a considerable relaxation in the traditional specifications of quality in the raw material. This relaxation of specifications has placed in use raw materials which were formerly waste and has placed certain fast growing species in the class of commercial wood.

The tremendous forest growth potential which exists in almost every country is made more evident by the modified specifications of the raw material. The desire for self-sufficiency in many countries, including the United States, is moving to fulfillment.

The benefits of possession of a particular species or size of timber are rapidly fading. With the improved opportunities for growth because of changes in raw material specification, the ownership of extensive land area and large timber inventory is an advantage which is diminishing in importance.

To the extent that certain regions of Canada are advantageously located relative to the U.S. market compared to competing regions, these will occupy a place in future U.S. markets if steps are taken now to provide a source of cheap raw material for the future. There is certainly no guarantee that future trade in forest products between Canada and the United States will be at a high level; it will depend on the extent to which Canadians recognize and take advantage of the opportunities provided by their accessible productive forest land.

INTRODUCTION

To fully appreciate the attitude which has been taken by the author in the preparation of this paper, the reader must have some acquaintance, however brief, with the general conditions prevailing in the larger units of the major wood-using industries in Canada.

The typical wood-using plant in Canada is deriving its raw material from forest land which has never been previously cut over or from land cut over so long ago that all traces of roads, river improvements and buildings have long since disappeared. The area must therefore be made accessible by a sizeable investment in improvements before recovery of the raw material can begin.

One of the major segments of the Canadian forest industry, the pulp and paper industry, enjoyed the unusual advantage, immediately following

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World War II, of having excess capacity in a period when demand for its products was high. Profits increased while stumpage rates remained relatively stable. The result was increased demand by woods and mill labour for greatly increased wage rates. The result has been an increase which has led to wage costs in the woods operations of the Canadian pulp and paper industry at least as high as any in the world.

The relatively low level of expenditure on the care of the forest in the past by both industry and governments has meant that many of the areas previously cut over are yielding low volumes or are providing species which are already available in quantities exceeding demand in areas closer to the established markets.

Canada is still heavily oriented to primary industries—fishing, mining, agriculture and forestry—which traditionally demand a high level of return on invested capital.

With a few notable exceptions the conditions described above add up to extremely high costs of production for many of the existing plants and prospects of higher costs for any expansion which may involve the opening up of presently inaccessible regions.

Another major factor of importance in appreciating the intent of this paper concerns the policy and thinking of Canadian forest industry and Canadian governments in their administration of the forest. To date, a "Timber volume philosophy" has predominated which has placed emphasis on the importance of a huge growing stock of merchantable or near-merchantable timber. Little, if any, attention was paid to land potential. The "forest land philosophy", which must eventually guide the thinking of those responsible for raw material production, has all but been ignored. Roads have been constructed not to put forest land under management for timber production but to recover existing mature timber—both road and land being generally ignored following the harvest of the merchantable timber.

It has been argued that, under Canadian conditions, the more intensive use of even the accessible productive forest land is not economically possible. This paper attempts to show that the future of Canadian trade in forest products may be influenced, to a much greater extent, by the degree to which the accessible productive land is utilized for timber production than by the billions of cubic feet of wood which adorn the millions of inaccessible acres in the Canadians' northland.

It is of interest to note that the program planners recognized that our two countries—Canada and the United States—cannot be considered as a unit isolated from world trade in forest products. Thus this paper, while concentrating on the North American aspects of trade, will not ignore the possible implications of broader trade horizons.

The title of this session also suggests that this group is to be concerned with the influence which trade and investment in forest products may have on forestry in our two countries. It is of the utmost importance that full recognition be given to this in the discussion. If the analysis of the development of trade in forest products is to be of any value to the practicing forester

and forest administrator, it must interpret the significance of the industrial development to the primary resource from which it stems—namely the forest itself.

This means, therefore, that a look at the future of trade in forest products must indicate the situation which is likely to exist at the time at which forestry action taken now will yield harvestable timber. Since one of the greatest problems of North American forestry appears to be the regeneration of desirable species this means that the look into the future should cover the rotation of the common conifers that make up the bulk of North American wood production. While some may be fortunate enough to be dealing in rotations—and hence projection periods—of 15 or 20 years, others must think in terms of up to 80 or even 120 years. From the point of view of Canadian foresters, it is doubtful if a projection period of less than 60 years could provide any useful guide to forest policy related to the problems of forest regeneration. A projection period of this length cannot be extrapolated from past statistics with any great degree of confidence. Certain observable trends related to forest policy will be of greater help in the formulation of a statement of probable future world trade relations in general and trade between Canada and the United States in particular.

However, as a background for this study consideration was given to the forecasts of future demand and supply in forest products made for periods of from 15 to 40 years by such eminent authorities as the Stanford Research Institute, the U.S. Forest Service, the Royal Commission on Canada's Economic Prospects, the Food and Agricultural Organization of the United Nations (World Demand for Paper), D. A. Wilson (Demand Prospects for Forest Products — paper for Resources for Tomorrow Conference in Canada), and Thorsten Streiffert (World Timber Trends and Prospects).

In these prognoses the North American situation is described, generally, as one in which lumber utilization will not increase greatly (rates of growth of 0.7% per annum for U.S. and 1.8% per annum for Canada have been forecast) while the consumption of paper and paperboard is estimated to grow with relative rapidity (rates of growth of 2.5% per annum for both the U.S. and Canada have been forecast). These statistics can be related to population growth trends indicating reduced per capita consumption of lumber and increased per capita consumption of paper and paperboard. For the periods concerned, 20 to 40 years, these forecasts represent the probable development of the major forest products industries. The rates of growth could be projected for 60, 80 or 100 years and combined with estimates of future demand in the two countries which would be a basis for prognoses respecting trade. It is probable, however, that few people would have sufficient faith in such estimates of future requirements to use them as a basis for current policy decisions respecting the regeneration and care of the forest.

A somewhat more meaningful forecast of the more distant future respecting production and trade in forest products can be developed from a study of the forest policies of the important and potentially important timber exporting and timber importing countries or regions of the world. These policies may be stated directly or inferred from the statistics.

Dr. D. A. Wilson, in a paper prepared for the Canadian "Resources for Tomorrow Conference", stated as follows, "Most of the paper in the world . . . is manufactured in the consuming country and most paper is made of domestic pulp." An examination of the statistics revealed that the same thought could be expressed with equal justification for lumber. The relevant current statistics indicate that 13% of the world's production of paper pulp, 16% of paper and paperboard and 10% of lumber moves between countries, i.e. becomes an item of international trade in forest products. Other forest products are of far less importance and need not be considered here.

When it is appreciated that, for these products—paper pulp, paper and lumber—the Canadian export to the United States plus the Scandinavian export to Western Europe represent not less than 85% of the total it is evident that forest products move very little between countries (aside from the exceptions noted) and much less between continents.

World statistics indicate that from 1927 to 1952 the movement of forest products among the continents decreased from 8.5% of total production to 3.0%. In the same period annual production increased over the 1927 rate by 36%.

Taken at face value this trend indicates that, although the production of forest products has increased materially in the period under consideration, a larger proportion of the wood has been utilized within the continent in which it was produced; and this in spite of the improvements in transportation facilities which might logically have been expected to improve inter-continental trade.

Thus it may be concluded that continents, while increasing their consumption of forest products, are tending to provide for more of their own requirements.

Are there any other observations concerning world or local trading trends or statements of policy which might support this conclusion?

In the field of trade tendencies Western Europe will first be considered and, later, the United States.

From 1900 to 1937 Europe was a net importer of sawn softwood at the rate of about 210 million cubic feet per year. In more recent times, from 1955 to 1959, the imports show a net balance of 155 million cubic feet. In the latter period total utilization was six percent higher than in the earlier period; yet imports were reduced by over 26%. To offset this reduction in imports local production was increased by more than 13% between the two periods—an increase made possible in part by an increase of over 10% in the utilization of annual wood growth of the Scandinavian countries.

An example of the tendency for nations to become more self-sufficient in wood products is the trend of trade between Canada and the United States in newsprint. Up to 1925 the United States produced the bulk of the newsprint that it required. From 1926 to the present, Canadian newsprint has dominated the U.S. market; in the period 1925-29, Canada's proportion was 54% and domestic production 43%. By 1945-49, the respective proportions were 80% and 17%; this was the peak of Canadian participation in the

U.S. newsprint market. In the period 1956-60, Canadian proportion had decreased to 73% and home production had increased to 25%. U.S. domestic production of newsprint in 1960 at almost 27% of consumption represented a higher proportion than at any time since the mid-1930's.

In addition to these statistics it is of interest to note that self-sufficiency in forest products seems to be a primary objective of many countries and many regions of the world as indicated by the statement of policy presented. In 1957 for instance, the Union of South Africa reported as follows: "The Department of Forestry, in carrying out the State's policy which aims to make the country self-supporting in regard to its requirements, has declared its goal to be an annual rate of afforestation of 30,000 to 35,000 acres." By the year 2000 it is estimated that South Africa will have an annual increment of 509 million cubic feet in plantations which is almost ten times the present cut of 56 million cubic feet.

Numerous statements of similar intentions can be found. One which appears to be of particular importance concerns the situation in South America. The following quotation from Pulp and Paper Prospects in Latin America is pertinent: "... it is urgent to reconcile the need for developing newsprint output to economize in foreign exchange and to supplement industrialization with the need for a permanent source of newsprint at sufficiently low prices to encourage cultural progress in Latin American countries. It is of great importance that Governments should make every effort to accomplish this aim by encouraging the establishment of newsprint mills."

Does this apparent trend to domestic self-sufficiency in forest products mean that, by and large, there is no absolute advantage of one country over another in the production of forest products? For those steeped in the forestry tradition of Europe and North America where growth rates are generally slow and the importance of adequate growing stock and extensive forest area is emphasized, it must appear that Scandinavia, North America and the U.S.S.R. have decided advantages over the other potential producers of forest products.

Past history suggests that there were areas which possessed overwhelming advantages at a time when timber had to be of a certain size or species to meet the specifications of the market.

Thus the early white pine industry of North America developed in response to rigid lumber requirements of England; the spruce newsprint industry developed in Canada to meet the specifications of a quality-demanding U.S. press. However, changing technology in the manufacture and use of forest products has resulted in a relaxing of the specifications covering the raw material. The advantages of any country in the production of wood products may still be measured in terms of a particular species or timber size but these specific features are becoming of decreasing importance. Wood of high quality for specific uses will always provide its owner with an advantage over those who do not possess such material but these specific uses will represent a constantly decreasing proportion of the total wood requirements of industry.

As wood specifications are relaxed the advantages of the fast growing species such as *Pinus radiata* and the *eucalypts* will be augmented. Conversely, the disadvantages of holding the tremendous growing stock which is a necessary part of the management of slow growing species for quality products will become more apparent. Those individuals who feel a warm glow developing in their breast at the thought of "unlimited" domestic timber resources may be due for a rude awakening. Much of this timber that they hold so dear may never be utilized.

Absolute advantage will not be measured in terms of a particular species or size of timber nor in terms of timber inventories. Even land area, provided a certain minimum is available, will not represent an increasing advantage with increasing area. In fact it appears that the existence, within a country, of large areas of forest land and a high inventory of timber volume may work to the disadvantage of the country by disguising the need for intensive forestry on productive accessible lands to provide cheap raw material.

Absolute advantage in the future will rest with the country or region which has land close to the markets on which rapid tree growth can be procured with either indigenous or exotic species.

Canadians are inclined to think in terms of a growth rate of 15 or 20 cubic feet per acre per year although the potential of much of the accessible forest land is at least twice this amount. In the United States the same relative situation exists but at a somewhat higher absolute level.

In contrast to the low actual recovery from the land in North America other regions of the world, including Northern Europe, South America, New Zealand, Australia and parts of Africa are commencing to take advantage of the tremendous potential offered by their favourable climatic conditions. On lands under management in these regions the yields will be ten times or more the present recovery from Canadian forest land.

As the countries of the world—including United States and those of Europe—move toward a recovery of the growth potential of their forest lands the advantages of countries with extensive unused land area fade. The potentialities of the land for timber production cannot be assessed with precision but from what is known it appears that few countries or regions of the world have any shortage of timber potential which would make them dependent on Canadian production. The extent to which this potential is utilized in the United States and elsewhere around the world will determine the future of Canadian trade in forest products. The fact that self-sufficiency in forest products is a politically attractive national policy in almost any country suggests that the future of trade in forest products is not likely to advance at all rapidly and may well decline as forestry becomes more efficient in wresting the potential from the land.

To offset the nationalistic sympathies which forestry appears to engender it will be necessary for the would-be exporter of forest products to establish a decided economic advantage. As already shown this will not be easy to accomplish in areas where yields are generally low per unit of area administered. Financial and technological advantage associated with the manufac-

ture of the product are temporary and highly transportable. Land productivity and its situation relative to the market will in the long run have an immense influence in determining the location of the forest industries.

A future high level of trade in forest products between Canada and the United States, which is measured in terms of Canadian exports to the United States, is not guaranteed on the long term. Sixty to eighty years hence, yields from U.S. forest lands relative to U.S. demands for forest products may be considerably increased. Many of the countries of the world that are now net importers will be net exporters of forest products. Canadian production will be geared much more closely to Canadian demand than at present and some of the advantages presently enjoyed may be lost.

The location of certain regions of Canada relative to U.S. markets represents an advantage which could be utilized if steps are taken now to provide for the future requirements of raw materials in these areas at prices which will be attractive to the forest products industries of the day. These industries will be highly competitive in international trade.

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