

THE VALUE OF WOOD

B. H. CHILDS*

In discussing the value of wood in relation to internal and external trade, my remarks will be confined to the trade in sawn timber, the value of this product on selected overseas markets, and the effect of world lumber prices on stumpage within New Zealand and their repercussions on the sawmilling industry. This paper has been prepared in my capacity as a member of the Institute and does not necessarily (or even perhaps remotely) reflect the official views of the N.Z. Forest Service.

As an opening gambit, let me say that Russia has indirectly proved to be the best salesman for N.Z. Douglas fir on the Australian market, while the Japanese have indirectly been more effective in promoting "farm forestry" in New Zealand than anyone else. I say this to illustrate that New Zealand can no longer follow an insular approach in valuing sawn timber and the standing forests supplying the raw material.

The value of wood is basically no different from the value of anything else, being precisely the amount that someone is prepared to pay for it at a given time. At present the Japanese are prepared to pay high prices for logs from New Zealand and elsewhere. The high price they are now paying for Russian logs has caused an increase in the value of North American logs and lumber of greater magnitude than would have normally occurred. This in turn has influenced prices of North American lumber in Australia and the higher prices now being charged have been the most effective fillip given to sales of N.Z. Douglas fir in that country—hence my first remark.

The Japanese are now paying stumpages three times higher than can be paid by local sawmillers in parts of the North Island of New Zealand, with the result that farmers living within striking distance of a port are now boggling at the sort of money being offered for standing timber, which often was a liability until recently—hence my second remark.

Before examining the effect of these world prices on the New Zealand scene, it is necessary to examine what has caused the changes and consider whether their effect is long-term or temporary. Therefore, the first study must concern the Japanese supply/demand forecasts.

In 1955, Japan imported a mere 88 million cu. ft of logs, but by 1967 this trade had grown to 928 million cu. ft, with significant quantities of sawn timber and chips also being imported. The Japanese Forest Agency predicts that Japan will require even greater volumes of imported logs and/or sawn timber till 1985, after which there will be a gradual drop to 833 million cu. ft in 1995 and 674 million cu. ft by the year 2000. These import demands could prove conservative, as they presuppose a more dramatic increase in domestic production than has been achieved in the past (see Fig. 1). From this it is clear that Japan offers a continuing market for logs and/or sawn timber through to the year 2000.

*Assistant General Manager, Commercial Division, N.Z. Forest Service, Wellington.

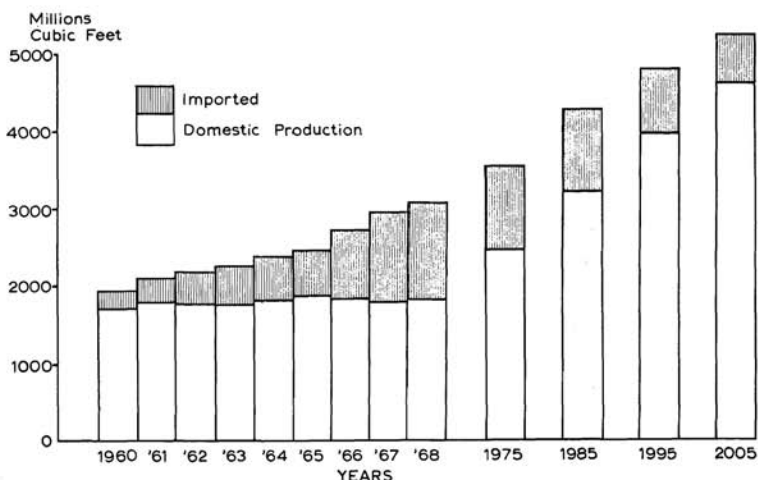


FIG. 1: Annual Japanese wood requirements from 1960 to 2005. Actual values up to and including 1967; thereafter based on estimates by Japanese Forestry Agency.

The next question is: Where does New Zealand fit in as a supplier to the Japanese market? Japanese log imports are divided almost equally between hardwoods and softwoods and it is in the latter that we are mainly interested. The suppliers of softwood logs are the United States of America, the U.S.S.R., and New Zealand, in that order of importance. New Zealand supplies approximately 5% of the total softwood requirements. Though U.S.A. has been exporting massive quantities of logs (238 million cu.ft a year), that country is a net importer of timber and there is increasing disquiet within U.S.A. regarding the continued export of logs on this scale. It is likely that the export of logs will be controlled by the U.S.A. in the not too distant future.

This leaves the Japanese dependent mainly on the U.S.S.R., now supplying 175 million cu.ft a year of softwood logs. The Russians have extensive forest resources in the east, far from their major industrial processing plants. The ability of the Russians rapidly to develop highly capitalized processing plants in the east is limited, so that for many years it will suit the Russians to export unprocessed logs through ports on the Japan Sea. Therefore Russia offers the best prospects for reasonably long-term supplies of logs to Japan—a fact now well recognized by the Russians, who are exploiting the situation by demanding high prices, and also by the Japanese, who are reluctantly paying these high prices for the raw material to safeguard their industrial activity.

New Zealand, with lower log prices than both North America and Russia, has an assured market for as long as we wish to supply unprocessed material, as our contribution, although comparatively small, represents so much less that has to be purchased elsewhere at higher prices.

Though a market at *good* prices is assured, there is no guarantee that the very high prices now being paid for Russian logs will

continue. Japan's willingness to pay high log prices is obviously governed by a desire to maintain its industrial activity. To achieve this, Japan is prepared to pay high prices to obtain raw material in preference to importing sawn timber, in spite of the fact that even now imported sawn hemlock can be sold cheaper than timber cut from imported hemlock logs. However, several factors are constantly militating against Japan's ability to absorb this price margin in order to maintain its sawmilling industry at its current level of activity, based on imported logs. The wage rate in Japan is increasing and with it the cost of sawmilling. Already new sawmills find it better to have capital invested in a highly mechanized sawmill rather than to rely on an abundance of cheap labour as in the past. Further, the need to pay such high prices to secure logs is in itself threatening the sawmilling industry, as the ultimate cost of sawn timber is already proving unacceptable to many end users, who are turning to substitutes such as aluminium for cable drums and plastic for re-usable concrete formwork.

The sawmilling industry is therefore faced with the alternatives of a reduction in output through not paying the price for logs set by Russia or of paying the price set by Russia and thereby losing at least a percentage of the market to substitute materials. This is not a very happy position and the only long-term solution is the increased availability of domestic logs and a shift in imports from logs to sawn timber—a move that is logical, and welcome, in the eyes of most timber-exporting countries.

When a price ceiling for sawn timber in relation to competing materials is established in Japan, and that point may be reached very soon with Russian timber selling at \$NZ14.45 a 100 bd.ft and ungraded radiata pine at \$NZ12.40 a 100 bd.ft on rail Tokyo, there is little doubt the Russians will be quite prepared to adjust their price in order to retain a market in Japan.

It is therefore important to watch closely not only the price of Russian logs but also the volume being purchased, as this is the barometer that will indicate changes affecting both North America and New Zealand.

If the foregoing is correct, we can now view in perspective the effect current log prices are likely to have on the New Zealand forest owner and the New Zealand sawmiller.

First, the forest owner with no interest in, or commitment to, a local processing plant is now able in many localities to sell his logs for export at a stumpage perhaps three times as high as a local sawmiller would pay. This the forest owner will do, thereby sounding the death-knell for local sawmills without secured supplies of raw material. However, those sections of the sawmilling industry relying on such resources will, almost without exception, be confined to small units serving a very localized market.

The demise of these small units will hasten the trend towards concentrating New Zealand sawmilling in fewer but larger production units.

The forest owner who also processes his raw material is now confronted with the incongruous situation whereby unprocessed logs yield a higher f.o.b. return (39 cents a cubic foot) than material passed through his highly capitalized sawmill (33.5 cents a cubic foot roundwood equivalent). However, the forest owner/sawmiller will be compensated in some localities by an increased domestic

market, if some of the smaller sawmills have to close because of losing their supply of raw material. This increased throughput, leading perhaps to shift-work in sawmills, will in itself give a better return on the raw material, although this will probably still be lower than the return for export logs. This improved domestic situation will also provide the larger sawmills with a sound basis for expansion of export trade in sawn timber. Nevertheless, forest owners with their own processing plants will assess their growing stock even more carefully to ensure that surplus logs are turned into a good profit as log exports rather than being allowed to waste away.

This discussion has now considered how the forest owner without commitment to the N.Z. industry is likely to act under today's market conditions, and has also considered the position of the forest owner who processes his own raw material. This leaves the question of how the Forest Service as custodian of the taxpayers' forests should react to today's markets. It is one thing to quote "public interest" and another thing to decide what is best in the public interest.

The first bleat is likely to come from the sawmills dependent on scattered privately owned resources of raw materials, as these logs are lost to the local industry in favour of Japan. I suggest it would not be in the public interest to support these numerous, relatively small units, which in many instances are ill-equipped for efficient sawmilling and wasteful of a raw material which is now rapidly increasing in value. People more authoritative than I have counselled the concentration of New Zealand sawmilling into fewer but larger sawmills, so we could be witnessing merely a hastening of an inevitable outcome, and the taxpayers' resources should not be frittered away only to prolong the agony.

The next fear is likely to arise in the minds of the larger processors who rely on State forest resources and who see themselves being asked to compete with export stumpages. In such instances I suggest "public interest" is analagous to "shareholders' interest" in the case of the forest owner/sawmiller. Higher stumpages can be expected, but not because of competition with log exports.

Higher stumpages will arise first as a result of increased throughput, the possibility of working heavily capitalized units longer hours, and improved conversion coupled with the ability to convert waste-wood, often a liability in small sawmills, into saleable and profitable chips.

The second factor that could influence stumpages paid by sawmillers is the price that New Zealand timbers can command on world markets, which in turn could lead to higher prices of sawn timber within New Zealand. If the conversion of logs to sawn timber within New Zealand does become increasingly concentrated in larger units, these are the very ones best suited to service export markets—again a matter of public interest. And if the prices for sawn timber on overseas markets give a better return than the domestic market, we must consider whether timber is realistically priced within New Zealand having due regard to the cost of growing raw material on the one hand and the need to avoid losing the market to wood substitutes on the other. I do not in this con-

text regard particle board or other such panel boards derived from wood as "substitutes".

Already Douglas fir sold in Australia gives a better net return than the same timber sold in New Zealand. Also indicative of the value of wood is that ungraded radiata pine now retails in Japan for \$NZ12.40 a 100 bd. ft.

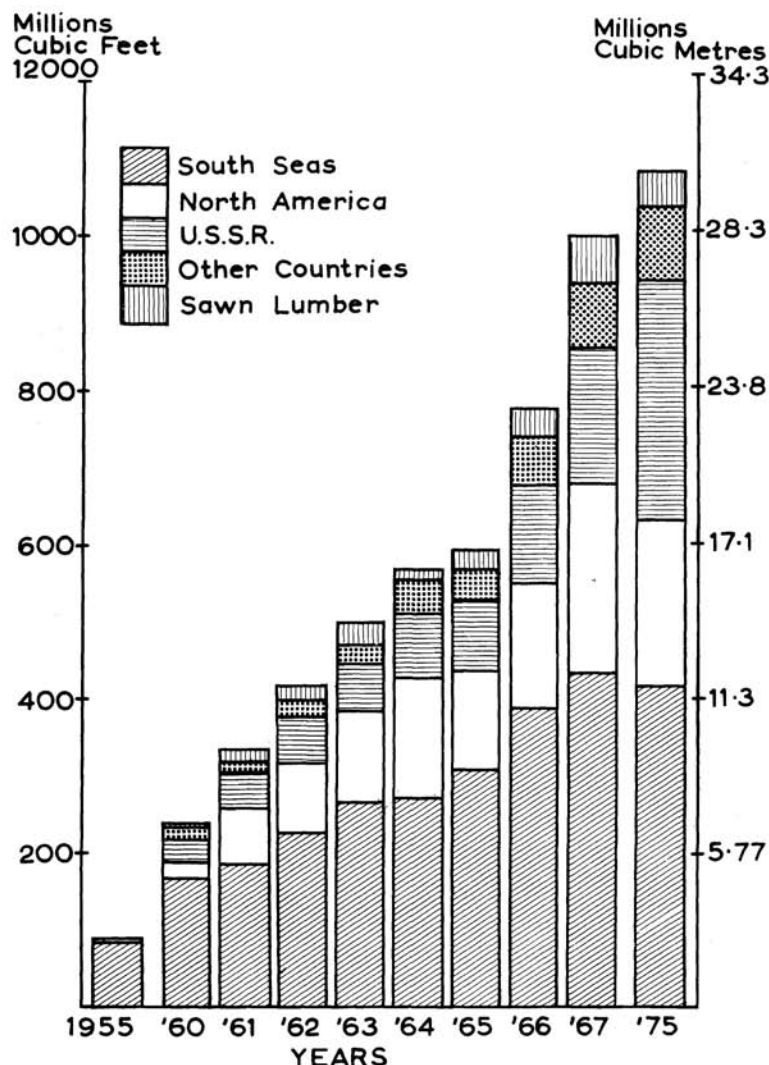


FIG. 2: Sources of logs actually imported into Japan between 1955 and 1967, with Japanese Forestry Agency estimate for 1975. "South Seas" referred originally to Philippines (tropical hardwood logs), but latterly has been extended to the South Pacific area also.

Perhaps it is not illogical to increase the selling price of sawn timber within New Zealand and with it the stumpage for logs. If this reduces the *per capita* consumption of *sawn timber*, this may merely reflect the fact that New Zealand's high *per capita* consumption of *sawn timber* (273 bd.ft a year) is itself a reflection of the comparatively low price of the article. If the reduced demand concomitantly frees increased volumes for overseas sale at competitive prices and allows higher stumpages, the outcome appears desirable. In this way, I see increased stumpages, and thereby improved economics for forestry, going hand in hand with an improved sawmilling industry. This, of course, assumes that overseas markets for sawn timber will be available and we must now return to this question.

As far as Douglas fir is concerned, it appears that our limited supply of raw material will be fully absorbed by the domestic market, Australia, and the South Pacific islands; therefore, the major question is: Have we an assured outlet for radiata and other pine species? Now we must turn again to Japan.

The problem of maintaining the Japanese sawmilling industry with its current level of dependence on imported logs has already been covered. The increased use of imported sawn timber is an unwelcome development in the eyes of the Japanese sawmiller, but one he is being forced to face because of acceptance of this timber by the Japanese end-user. This is the alternative to the spiralling costs of sawn timber produced from imported logs, costs which the Japanese sawmiller is finding increasingly difficult to hold at acceptable levels.

In spite of the wish to protect its own industry, Japan has already been forced to import 840 million bd.ft of timber a year, a total greater than the entire sawn timber output (indigenous and exotic) of New Zealand.

Japan is already buying sawn radiata pine from New Zealand (admittedly in the form of flitches, which leaves a share of the processing for the Japanese industry) at a level of over 60 million bd.ft a year—twice the level of trade built up with Australia during the last 20-odd years. Figure 2 shows the growth in lumber imports and this trend can be expected to continue as imported log supplies become insufficient to satisfy the demand, the resultant timber too expensive, or as a result of a combination of these factors. Therefore the total demand for logs shown in Fig. 1 can, for all practical purposes, be taken as a combination of logs and/or sawn timber.

Thus, I conclude that there are sound reasons for believing that Japan offers a good market for sawn timber, not only regarding the quantity that can be sold but also the range of sizes that can be marketed in future. If this is so, the foregoing may not be too wide of the mark and will in the meantime at least serve as a basis for discussion at this meeting.

I will make one last observation to the effect that, while the future supplies of raw material for New Zealand industry must be safeguarded, it would be tantamount to glaring negligence under today's conditions for any forest owner within economical hauling distance of a port to be cutting his forest below the level of sustained yield. A market is waiting to provide New Zealand with much-needed export earnings for this produce.