## RETURNS EXPECTED FROM FORESTRY AS A BUSINESS

## C. R. LARSEN\*

Tree growing, as distinct from utilization, is not a pusiness proposition at current stumpage rates. If it was, new forest planting companies would be springing up again like they did in the 1920s. Only large existing forest enterprises can finance new plantations because they must ensure their own raw materials for the future, and not because there is profit in this side of

their operations.

The dominance of State, tax-subsidized, forests has until now determined stumpage rates. Therefore, "forestry as a business" depends largely on what State stumpage policy is likely to be for the future, and upon the demand-supply situation. Stumpages for exotic forests would have to rise many times above the present basic level in order to attract investment from the normal channels and to pay the normal market rate demanded for risk capital, which is 10% after taxes. The latest Reserve Bank survey of company profits shows that this is the average return on shareholders' funds.

Even a going concern that can use current reserves for investing in new plantations cannot expect to meet the normal return on shareholders' funds in 30 or 40 years' time. If, during the first growing cycle, this market rate of return on the investment is compounded until the forest is paying its way, the capitalized cost per acre would reach at least \$780 for unpruned forest. This would subsequently require an annual stumpage income of \$78 per acre after tax to yield 10%. Such a return is inconceivable on today's values. Not only does compound interest have to be recovered on the initial cash outlay, but allowance must also be made for the fact that half the residual stumpage revenue received after expenses ultimately will be taken in tax.

The above compounding of interest is based on a cash cost of \$150 per acre to bring trees to maturity at 30 years, including \$20 for land. The tax-allowed cash cost of planting and maintaining trees to a company using shareholders' funds would, therefore, be \$85. The other \$695 would be compound interest at the 10%

rate.

Furthermore, over a period of 30 or 40 years, inflation is bound to halve the purchasing power of money. The erosion of capital through inflation is normally ignored when returns on investment come within a few years, but forestry is so exceptionally long an investment that this factor must be taken into account.

The investing public tends to regard forest assets as risky while they cannot be insured at economical rates and risky for a new planting company with no markets in sight.

Only existing large utilization companies can assure markets

<sup>\*</sup>Consulting Economist, Auckland.

in 30 years' time, because of the need for constant research to keep pace with rapid technological progress. There can be little doubt that many of the present uses of trees will change significantly by the turn of the century.

To be economic and competitive in export markets, all phases

of forestry and its utilization must be done on a large scale. If it is argued that stumpage rates must be kept low to give New Zealand mills a competitive advantage over other countries, then we cannot make tree growing an attractive private investment. Instead we have to make it possible for all private mills to share equally in cheap State forests, or make tax adjustments to enable them to finance their own tree growing on an equal basis.

The investing public today has a better knowledge of the economics of tree growing than it did when it blindly invested in forestry companies 40 years ago. Current returns on utilization may be satisfactory, but they are only average and they do not provide extra profits to compensate for the 30-odd years of waiting without a return. In fact, the State receives in company tax and employee tax four times the dividends paid to the investors who took the risk in the first place. I wonder how many enthusiastic foresters would invest their personal savings in a purely tree-growing company, as distinct from a forest utilization company.

Even the taxpayer, who has subsidized State plantings to the extent of nearly 100 million dollars over the past 40-odd years, is not receiving compensation at current stumpage rates. Despite the fact that the Forest Service receives stumpage revenue from native forests, which cost it nothing to plant, and is well into the first cutting cycle for its hand-planted exotics, its revenue still falls short of expenditure by more than eight million dollars annually.

Intrinsically, of course, hand-planted exotic forests are grossly undervalued, at a fraction of the stumpage rates for native forests, simply because the supply of exotics has up till now exceeded

It is clear therefore that the major tree growing of the future will have to be done by the State and the existing large forestutilizing companies, which must ensure their own future supplies of raw materials.

The large companies will of course continually strive to keep their costs to a minimum, by buying material from the State where possible or by financing their own tree growing with debenture capital - to the extent that they can comfortably service

the fixed interest from current profits.

There is a limit to the amount of debenture capital available to any company, because it is restricted to existing asset and profit cover. But, as debenture interest at, say, 7% is tax deductible, the effective rate is 31/2%. To the extent that such finance could be used for tree growing, it considerably reduces the compounded cost per acre of trees at maturity. However, companies would want to use most of the limited debenture capital available to them for utilization equipment anyway, so it should not be thought that this is the complete solution to the problem being discussed.

To grasp the magnitude of this problem, it should be realized that, whereas \$100 invested today at 3.5% interest will compound

to \$280 in 30 years, at 10% it compounds to \$1,740. It is this compounding effect of the current market rate for risk capital that is the crux of the problem for any new private enterprise in establishing exotic forests. If, of course, the State extended its farm forest loans to existing forestry companies, at, say, 3% or 4% per annum, it would completely alter the economics of tree growing for those companies using their own forests. Such a course would help to correct the present unfairness between competing forest users and could be justified on the grounds of export promotion. It is already being done in farm forestry with none of this justification and with little success.

If the Government seeks to induce private enterprise to grow

If the Government seeks to induce private enterprise to grow 40% of the new exotic forests in the future, and also wishes to correct the present anomalous situation whereby some utilizing companies enjoy tax-subsidized raw materials, while others have to grow their own at high interest cost, then one of the following

three alternatives must be allowed:

(1) Stumpage rates for hand-planted exotics would need to rise to indigenous rates so that private tree planting could compete for risk capital on the open market.

If this is not possible because supply is deliberately maintained ahead of demand by the State plantings, then —

(2) The State should offer to provide forest material for all utilizing enterprises, when and where it is required in the future, at uniform rates charged to its own mills or associated mills, so that all companies which process trees can compete on a fair and equal footing.

## Alternatively —

(3) The State must give cheap loans and alter the tax burden for existing forestry companies to enable them to grow their own trees at a cost equivalent to the low stumpage rates paid by users of State forests.