by the Forest Service (Maxwell & Baines, 1985).
3) It was a mistake to liquidate the bulk of indigenous production forest since 1920 and replace it with exotic plantations.

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A Kirkland, Director-General of Forests, unpib. report.
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As the Forest Service no longer exists a discussion about its structure and economic performance may appear to be somewhat sterile and irrelevant. However a comment which purports to quantify the Forest Service's inefficient use of capital, show that the Forest Service understated its growing costs, exaggerated the profitability of exotic forestry, and concealed its lack of accountability with misleading accounts, is worthy of at least a few moments' consideration. Even if the Forest Service is no longer with us, the knowledge that a structure such as that possessed by it leads inextricably to such problems would be well worth possessing.

STRUCTURE.
What was the Forest Service structure? What evidence is there that this structure caused the Forest Service to act badly, producing a notably poorer economic performance than that of other agents in the New Zealand economy? After reading Dr Grant I still don't know answers to either of these questions nor even if the economic performance was poorer than that of other agents.

Advocacy rather than reasoned argument has been used to 'prove' the various points — in what must in the final analysis be a metaphysical discussion.
Even were one to accept Dr Grant's thesis, it is less than completely fair to give full credit for all the problems to the Forest Service alone. Throughout its whole existence the Forest Service's actions were governed by an Act of Parliament. There was Ministerial and Parliamentary oversight, and presumably acceptance of the fact that the Service had conflicting goals and Treasury, as the Government's economic advisers, failed to convince Government that allocating funds to this organization was inefficient, for successive Governments continued to fund the organization for some 70 years. Thus Government, Treasury, and the people of New Zealand in general must share in any blame — if blame there is.

GROWING COSTS
Does the fact that achieved prices for past crops are lower than estimated growing costs for new crops, which in turn are about half the costs resulting from performance-based calculations, demonstrate that the Forest Service understated its growing costs? I think not. Past reasons for growing wood and the prices achieved for this wood when harvested are not necessarily relevant to the future. Material which will be harvested in the future has been planted for a number of reasons ranging from:
"providing for the domestic market while ensuring a small but increasing exportable surplus" (1969 Forestry Development Conference), through:
"attempting to ensure forestry would contribute 20-25% of total export earnings by the year 2000" (1974-75 Development Conference), to:
"achieve the rounding out of afforestation activity... to produce forest resources while to sustain internationally competitive processing facilities..." (1981 Forestry Conference).

As well some land has been planted not for economic reasons.
"Of the 262,000 hectares planted over the last 15 years 53,000 hectares or 18% have been undertaken with funds appropriated for special employment programmes. Such areas have been... located to suit employment creation rather than commercial needs". (Report of the Establishment Board of the Proposed New Forestry Corporation.)

and much silviculture has also been similarly for social reasons.
He (Mr Kirkland) said that much of the pruning in the past had been done under Government-subsidized work schemes, and was not justified by normal commercial criteria. (NZ Herald 1.4.1987)

Performance-based costs which fail to recognize and attribute these social costs appropriately will overstate the cost of growing wood. I believe this is what has happened with performance-based cost measures quoted by Dr Grant. Finally we have the estimated growing costs. Consistently these have been economic in character and have invariably shown as stated by Fenton (1972) that:
1. Interest rate is the dominant variable for economic evaluation of a given afforestation project; and
2. costs of production can be reduced by restructuring forest enterprises to give first priority to the tree crop.
Invariably economic costings have been made on the basis of good site productivity, location, and a management not hidebound by tradition producing desired products for sale at world market prices. That performance-based cost measures are nearly double the economic projections may be as much a measure of the cost of achieving some of Government’s social objectives as of Forest Service underestimate of true timber production costs. As Treasury (1984) has stated, review of the data suggests “that production forestry is an expensive way of creating employment”. It is also difficult to see, if Forest Service accounting was as bad as implied by Dr Grant, how one could have any faith in a performance-based, i.e. accounting-based, cost produced by it.

OTHER POINTS
Nothing the Forest Service or its employees have done seems to be right; even optimism about the future of the industry in which one was employed, seemed to be inexcusable. Dr Grant makes no attempt to demonstrate that with the knowledge available in 1980/81 the viewpoint taken by Le Vack and Gilchrist was untenable. While I agree with Dr Grant that the Forest Service accounts were over the years less than totally satisfactory, and that historic cost accounting can be misleading, it is also fair to point out that the Forest Service accounts were always prepared in accordance with relevant New Zealand standard accounting practice and audited and approved of by the Audit Office itself. As mentioned previously, Dr Grant fails to demonstrate a notably poorer economic performance by the Forest Service than by other agencies, and this despite the fact that he has apparently ignored the debilitating effects of the social costs/constraints imposed on it over the years to help achieve Government’s social objectives.

CONCLUSIONS
Although Dr Grant’s conclusions are not, I believe, supported by the evidence presented, many of them are obviously strongly-held opinions. Whether or not his opinions will change, only time will tell. Certainly public opinion has gone against the Forest Service in recent years. Set up as a result of interaction of the following elements:

2. TAXATION CHANGES
b) Hardwoods can be expected to have more value has been stopped and we can now note a real drop in rural land values of the order of 20%, depending on the region. This will have the effect of making land more attractive to the forest sector as prices for better quality pastoral land will be of the order foresters can afford.

c) In silviculture there is probably more case to be made for the extensive establishment and management of forests has a long-run character, ill-suited to rapid change. Accommodation to the requirements of the market place has to be at a ponderous pace simply because of the inertia of investments already in place, and the narrow range of management options available for foresters with the wit to perceive the need for change.

During the last 22 years the forest investment environment has been relatively stable with confidence in the marketability of the radiata resource expansion supporting continuation of investment. Since 1983 however, there has been an erosion of this confidence which has coincided with changes in forest taxation and together they have created an almost negative attitude to future expenditure by most of the large members of the forest industry.

If we examine some of the items of change, the impact can be observed as a result of interaction of the following elements:

1. LAND USE
The most publicly perceived change is in taxation and financial incentives for rural activities, with the pastoral farmer being the hardest hit.

The historic long-run increase in farmland value has been stopped and we can now note a real drop in rural land values of the order of 20%, depending on the region. This will have the effect of making land more attractive to the forest sector as prices for better quality pastoral land will be of the order foresters can afford.

2. TAXATION CHANGES
Along with the rest of the rural sector, forestry has been put through the taxation mill, and the Treasury demand that expenditure claims for deduction be matched with incorporation by that expenditure, has resulted in the resurrection of the pre-1965 “Cost of Bush” approach to deductibility. The complex and onerous burden of treatment for costs incurred early in the rotation has had the effect of active disincentive to projects based on more distant steep reverting farmland.

This change has been viewed by the potential new entrant into forest industry investment as a discouragement and has reinforced the tendency of established industry to reduce new forest development.

3. IMPACT ON PEOPLE
a) The forest industry generally shows the pressure being exerted on established companies to yield profits. The place where the first gains can be perceived is by labour shedding and this has a built-in price of deflation of regional economies. The constant concern with company performance as a means of keeping takeover bids at arms length can be expected to reinforce the trend to avoid high labour content establishment and silviculture.

b) Within the forest industry there appears to be a tendency to restrict investment. Outsider interest being shown in already established forests possibly depends on the assumption that prices of these will reflect a better return than a new project.

Regional economy effects will include reduction of spin-off benefits for associated business and the change in the requirement for social services and good quality housing.

4. FOREST MANAGEMENT
a) Better sites will be sought for those few investors who are active and for the extension of establishment by current forest companies. Those will be preferred to the more distant low fertility sites where companies have the cash flow to sustain new establishment.

b) Hardwoods can be expected to have more priority in this period where site fertility has been a constraint in the past. Eucalyptus planting can be seen as an example of this.

There would be some case to be made for a wider range of species, although this will tend to be preferred by those for whom planting is an article of faith rather than the purely market-driven assumptions which support the present emphasis on radiata pine.

c) In silviculture there is probably more case to be made for intensive regimes aimed at clearwood, although in the Bay of

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