

Forestry as a growth sector

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The task I have set myself is twofold. First, I want to present what economists mean by a growth sector, illustrating the broad principle using the forestry sector. Second, I want to use this as a background to discuss a current policy debate. Ultimately this paper aims to assist foresters to understand the economics of forestry, as it is currently conceived, in the context of the economy, and to better present their own case.

Forestry as a Growth Sector

Forestry is what economists call "a leading sector" of the economy, but it is not New Zealand's only leading sector. Much of the economic analysis I shall use could be applied, with appropriate adaptations, to horticulture, to the energy sector, to fishing, and to the tourism sectors.

I want to examine the development of forestry as a leading sector in relation to the pastoral farming sector. I have chosen this contrast not only for the obvious reasons of their both being major land users, but because pastoral farming has been the traditional leading sector of New Zealand. Since 1881, the dairy, meat and wool industries provided a main thrust around which much of the growth and prosperity of New Zealand evolved. In recent decades that thrust has been less vigorous, and we are beginning to see other leading sectors take over.

I perhaps do not need to emphasize that we can expect a spectacular growth in the wood harvest over the next 30 years; perhaps by as much as four times what is harvested today.

Given a likely long run growth role for the economy as a whole of 3.5 per cent per annum, that means in a couple of decades the forest sector, including processing, will be relatively twice as large as it is today, or about 10 per cent of GDP. Admittedly there is not much growth within the current decade, reflecting the low planting programme of the 1950s, but analysis

of a leading sector involves decades, not years, and already we are seeing planning and investment activity in the 1980s as firms and local authorities position themselves for the 1990s.

But a leading sector is not defined by size and growth. Rather a leading sector involves a perceptible transformation of the economy. Economists describe the processes which generate the transformation as "linkages", because not only does the sector itself change but through linkages the other sectors are transformed. There are backward and forward linkages. Backward linkages arise where the sector purchases from other sectors. The most obvious backward linkage is the transport industry, but the impact on land use is even more evident.

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But in some ways the forward linkages are even more interesting. They occur where the output of the forestry sector is purchased for use by another sector. The sawmilling, and pulp and paper industries are obviously examples of forward linkages from the forestry harvest. But there are others, such as the furniture industry, and wood residuals for chemicals and energy, all of which promise additional exports or import substitutes. Noting that the pastoral sector exports dairy machinery, I wonder if we can look forward to the day when we are a net exporter of sawmilling equipment.

Understandably the traditional leading sector of pastoral farming has been a little hesitant about this invasion by a new leading sector — a hesitation I also observe in its attitudes towards horticulture and energy. We can obscure the issues by praising farm forestry, but the reality is that there is real conflict, for land, for other resources, and for facilities. If there was no

conflict, forestry would not be a leading sector.

Nor do I necessarily think that the conflict is wrong. If there are not conflicts over resources, then there is no economic development. The point is how we organize and resolve the conflicts. We can do it by political means; or we can leave it to the market.

The best example we have of the market resolving a conflict over resources induced by a leading sector is the growth of the pastoral/freezing industry. Landowners, farmers, businessmen, investors, and workers responded to the market signalling that there were greater returns in frozen meat and dairy products. They successfully entered the industry, and pastoral farming and the country prospered. In the process other industries suffered, particularly, one suspects, the large labour-intensive employee grain and sheep stations, and also mining.

It is unrealistic to assume that a leading sector will not affect some of the other sectors adversely, not least through the exchange rate. This phenomenon, known in Australia as the "Gregory Effect", or in Europe as the "Dutch Disease" (which has nothing to do with elm trees), is illustrated by the finding of a mineral resource which is exported or reduces the demand for imports. This improves the balance of payments with the result that the real exchange rate rises so that imports become cheaper and exporting less profitable. As a result the other exporters suffer, as do import substituting manufacturers. Thus the leading sector which improves the balance of payments, crowds out other sectors.

I have gone through this analysis because I want to get across the crucial point that any conflict between farm and forestry development is not merely over land use. Even if they were not competing for land, their respective impacts on the balance of payments will influence the balance between the sectors.

How this conflict will be resolved is an issue I view with some trepidation. Basically the decisions will be made on the basis of what the owner thinks will give the best return to the resource.

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If a piece of land gives a higher return to radiata pine than grass, it will be planted in pine. If the wood gives a higher return as chips than as sawlogs, then down the chipper it will go. If the chips give a higher return for pulp than ethanol or chipboard, then pulp-mills will be erected. In a market economy the private return to the owner of the resource is a dominant consideration in that resource's use.

But should we have Government intervention? After all, a hundred years ago the leading sector of the pastoral/freezing industry expanded satisfactorily as individuals pursued market returns, although we should never forget that there was considerable Government intervention to assist farmers over that century. The issue becomes what sort of intervention?

Policy Stances for Development

It is at this point I have reached my second topic: the current policy debate. To explain what is going on, I want to consider a couple of extremists' positions, from the point of view of a pragmatist somewhere in the middle.

At one extreme we have those with a total commitment to forestry. They believe forestry is a major leading sector, important to the future of the economy. When economic policy is proposed they assess its validity by whether it enhances the prospects of the forestry sector. If it does not, they argue that the policy and its underlying theory is wrong.

At the other extreme is a group of economists who have a similar commitment to a particular economic theory — one which says that the market almost always gives the best outcome. They may have a personal view that forestry is a leading sector, but if the market under their policies indicated otherwise, then they conclude that they were wrong about the forestry sector.

So at one extreme we have forestry (or whatever sector), right or wrong; at the other it is a theory right or wrong. Each is dogmatic. You can well appreciate that the pragmatists in the middle suffer from the cross-fire. You can also appreciate that there has been quite a distinct shift in Government policy in the last three years from the forester's extreme to the theorist's extreme; those of us in the middle still suffer.

I illustrate this with reference to the recent proposed changes in the tax-

tion of primary industries. Basically what was involved was that in the past forestry had been subject to special taxation conditions, which any forestry extremist could justify by pointing out that they enhanced the growth of the forestry sector. The new proposals are intended, so we are told, to treat the forestry sector more "neutrally" in relation to other sectors.

Although the new policy is based upon theory, it is not always the best theory. Indeed dogmatism often can only function by using a limited range of the totality. A couple of examples of fundamental deficiencies in our thinking about business taxation illustrates this point.

First, an important publication on business tax reform is Paul Bevin's "How Should Business be Taxed?" Unfortunately the study does not ask the prior question "Why Should Business be Taxed?" Without pursuing this question, of "why", any answers to "how" are somewhat arbitrary. Incidentally, the paper hints that its justification for business taxation is to raise Government revenue, which in my view is a far from comprehensive answer to the "why" question.

A second example of not thinking through these issues with sufficient analytic precision comes from the "Consultative Document on Primary Sector Taxation". It argues for tax "neutrality" which it defines as: "a neutral tax regime would result in investments with a given pre-tax rate of return generating the same post-tax rate of return for any given tax rate".

This definition has a fundamental ambiguity, for it is unclear as to whether a neutral tax regime means (1) the post-tax return for an investment should be the same as the pre-tax return, or (2) two investments with the same pre-tax return should have the same post-tax return.

Assuming we settle these fundamental questions, and ignoring some other pretty important issues — like the consultative document itself shows that the proposal is clumsy with regard to inflation — we are still left with a very important matter.

Consider two products, one of which is exported on a competitive world market so that the New Zealand supplier is a price taker, and the other is produced only for the domestic market but although there is natural protection and no threat of overseas suppliers, the existence of a number of

local suppliers means the domestic market is competitive.

Now, suppose the Government increases taxation on the two products along the line proposed in the consultative document. In the case of the export where we are price takers, the supplier has to bear the burden of the tax, which presumably leads to reduced profits and reduced supply. But in the case of the domestically supplied product, all the competitive suppliers experience the same increase in costs from the tax, and pass most of it on to the consumer.

The forestry extremist will jump at this little story, saying "I told you so. You have to treat forestry, which tends to be an international pricetaker, different from other sectors", and conclude that the tax change is inapplicable. Meanwhile the theory extremist will state that the theory being used is appropriate; and there is no need to distinguish between different products, since essentially the taxation is imposed upon capital, and the tax is equitable and efficient since at the point of investment all capital is malleable. At least I guess that is their argument, because as the consultative document illustrates, much of the extremist argument is obscure.

How does the pragmatist tackle the issue? I was commissioned by the New Zealand Forestry Council to look at the consultative document as a part of their preparation for the presenting of evidence to the Review Committee. As I have already indicated, I had a number of worries about the theoretical underpinning, but the issue I want to consider is about the nature of forestry. In what respects is forestry like farming and manufacturing that it should be treated the same for tax purposes; in what respects is it so different that it should be treated differently? You can see one extreme pointing out that a radiata pine sapling is fundamentally different from a farmer's lamb or manufacturer's stocks, so that each should be taxed differently. The other extreme says they are all examples of capital stock and should be taxed the same.

There is no simple pragmatic answer to this quandary; except "it all depends." I had a very short time available for comment, and I chose to focus upon what seemed to me to be one issue so crucial that it was likely to dominate any others.

One of the most outstanding characteristics of forestry is its time dimension. For instance, the forestry cycle is over ten times longer than the sheep cycle. The time dimension creates very great problems in economics, and the good economists always approach time-dependent problems with the greatest respect.

By itself the time dimension is not sufficient to reject the proposed tax changes, but what becomes crucial is that one must have reservations about any changes which are proposed in a rush for an industry with a 30-year planning horizon.

The logic, therefore seems to me to be to delay the proposed changes of forestry taxation, until we have a more convincing account for their justification.

In deriving one, we may end up with a better policy also. However, while it is easy to pick holes in the argument in the consultative document, it does not follow that the policy conclusions are wrong. They may be correct. The pragmatist cannot tell without further investigations. What a pragmatist can say is that a hasty implementation of a new tax regime is likely to be followed by yet a further one in a year or so. Good economic management warns against such changes particularly when we are dealing with a very long cycle process.

I have illustrated the issue with the consultative document on taxation. The Institute of Economic Research has not been consulted over the creation of the new Forestry Corporation, but I conjecture that the same situation applies there. We have been consulted on both corporatization of the New Zealand Electricity Division and the Broadcasting Corporation, and in both cases there was evidence of an extremist position being taken. On the one hand there were a few uncritically committed to their industry; on the other there were those uncritically committed to a rather limited form of economic theory. Somehow or other pragmatic economists have to work their way through these opposing firing lines.

I therefore want to make a plea for a little more understanding of the role of pragmatic economists. I do so particularly to forestry extremists and their other sector equivalents. Let us say that you are correct; that there is a need for a vigorous promotion of forestry as a leading sector for the next two decades. It is not in your interests

to ignore those pragmatists in the middle, for two reasons. First, there is a danger that an insensitive extremism of dogmatic theory will dominate. Second, the economist who is rigorously reviewing your industry is also rigorously reviewing other industries. Any lending sector faces a danger of being held back by a crowding out from a stagnant sector, which could well occur under inappropriate policies.

Moreover it is important that those in the middle have a strong understanding of the industry. The Institute of Economic Research, for whom I work, has a proud record in the energy area, where we have done an enormous amount of research, and are able to provide the rigorous analysis which is necessary for good policy making. I accept that there are economists in the Forestry Research Institute and in the NZ Forest Service in Wellington, but if forestry is as important a sector as I have suggested, it needs more economic research and analysis than that. Quantitatively, even if you were satisfied with the number of economists working on forestry issues in the past,

do you not think there is a strong case for four times as many in the very near future?

Moreover there is a need for more foresters to have a working knowledge of the economic debate, not just in terms of a narrow focus on the economics of forestry, but also in terms of the relationship between forestry and other sectors — that crowding out argument I referred to earlier shows the importance of doing that. And foresters are going to have to learn to discriminate between dogmatists and pragmatists, between the analytically tough and the analytically weak, between those who have a grasp of the empirical issues and those who see no need to have such a grasp. Fundamentally, they are going to have to decide which economists are right and which economists are wrong.

Given that forestry is a growth sector, it is important that it gets its economics right. Bad economics lead to bad policy, which in turn will stunt a leading sector, and the growth prospects of economy as a whole. I invite you to reflect on developments over the last decade, and draw your own conclusions.



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