

THREE VERY DIFFERENT ISSUES...

In 1995 Britain's Forest Enterprise made a cash surplus on its timber-growing activities, for the first time since the founding of the state forest service in 1919. There was an audible sigh of relief from many foresters. "Now that investment can be financed from current income," they seemed to say, "we can forget about compound interest on planting costs, or discounting future revenues."

The change of view straddles an historical division of outlook on how forest investment should be appraised. Where a near-normal succession of age-classes has existed, discounting has widely been regarded by foresters as a peculiar perversion of economists, ("who do not understand the renewable nature of the forest"). On the other hand, where new plantations dominate, forestry has looked more clearly like a conventional investment, to be judged by conventional investment criteria. Yet it was among Martin Faustmann's most important insights, that the forest economics was not fundamentally different, whether applied to a single stand in intermittent yield, or to one part of a normal forest in sustained yield: both are investments made to secure enhanced income in the rather distant future.

On the whole this insight has impressed foresters less than forest economists. Foresters argue that replanting costs in a normal forest can be paid from the revenues of the preceding harvest, and that in any case replanting is required by law or prudence. (Forest economists, of course, would reply that the revenues have an opportunity cost in other potential investments, and that if constraints oblige "un-economic" replanting, then at least the revenue forgone because of the constraint should be calculated.)

More recently it has been argued that commercial forest investments should be excused from paying interest, to allow for their non-market benefits (carbon fixing, recreation, and so on). This too is a false argument, given that commercial forestry may also have negative non-market effects (watercourses, landscapes, spotted owls). Moreover, whether net benefit or net cost arises lies less often in the presence of forests than in their *nature*. And yet the details

of British state forestry continue to be determined under a 5% discount rate, favouring short rotations (which are bad for carbon fixing and recreation) and (sometimes) penalising broadleaved species (which are good for landscape and biodiversity). Arguably, it would be more appropriate to determine *silvicultural details* by non-discounting comparisons, while whether to make a forestry investment *at all* would face some tougher test involving the opportunity cost of funds.

Rather than adjusting the discount rate in the hope that this will somehow promote non-market benefits, it is naturally more appropriate to attempt explicit evaluation: many recent conferences and several papers already published in this journal take this approach. Increasingly it is recognised that such benefits are location- and system-specific, and that *how* forestry is done matters more than *whether* forestry is done. General pronouncements about their influence on the case for forestry are not very helpful.

It is unfortunate that the false and special arguments for *adjusting the normal practice of discounting* have obscured the many excellent reasons for querying the relevance of investment rates of return to discounting future values. The question of whether sustainability can be made compatible with discounting is pertinent, but it applies to timber benefits as well as to environmental ones; to plantations as much as to normal forests.

The current discussions, in Britain and elsewhere, about how ongoing forestry investment is to be appraised raise three issues: how is the future to be treated? how are non-market effects to be included? how are investments to be compared? Forest economists are generally clear-sighted enough to recognise these separate problems and to treat them separately. It is in persuading foresters and politicians to adopt the same discriminating outlook that the real problem lies.

Colin Price / associate editor

