Economic Issues in Valuation of and Compensation for Loss of Native Title Rights

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Introduction

For valuation methodology to be appropriate in the native title context it will need to accommodate the ‘special (even unique) features of native title’. While compensation for loss or diminution of native title rights might be arrived at through negotiation, the impact on the right to negotiate of the 1998 amendments to the Native Title Act 1993 (NTA) may have removed this opportunity. Even were a negotiated outcome achieved, questions of whether the outcome is equivalent to a free and equitable exchange would continue.

This is but one of a number of questions and a degree of uncertainty that exist in valuing native title rights under the NTA. This paper is a response to some of these questions, and shows how economic analysis can provide insights into the nature of Indigenous rights and interests and into the nature of compensation. Also offered is a behavioural-based approach in which the value of those special features of native title rights might be estimated in monetary units. The emphasis given to the use of money for compensation under the NTA (s.51 (5)-(8)) provides additional reason to provide estimates given in monetary units of value.
Questions and issues in the valuation of native title

Ambiguity exists as to whether the loss of cultural benefits should be included when assessing compensation for loss or diminution of native title rights on the basis of *just terms* (s.51 (1)). According to s.51 (3), the amount of compensation is limited by the *similar compensable interest test* (s.240). That is, that compensation be applied as if the native title holders held ordinary title; while s.51A (1) requires that the assessment of compensation be made on the basis that estimated value must not exceed the amount payable if the title were instead a freehold title. However, s.51 (2) and s.53, in requiring just terms, appears to override ss.51 (3) and 51A (1).

Even were the freehold test to limit the amount of compensation payable, the value of cultural rights may still apply when loss is less than freehold value, as may be the case with non-exclusive native title rights over a pastoral lease. In any case, if the *Native Title Amendment Act 1998* did diminish native title rights, it this must constitutes a compensatable future act according to the NTA.

**Rights**

Generally rights can be viewed either as legal rights and/or as economic rights. 3

**Legal rights.** Legal rights arise as a result of formal arrangements, including as a result of constitutional, statutory, judicial rulings or as part of an organised system of Indigenous law, and informal conventions and custom. 4 The nature of property rights will affect how resources are used and the net social benefit enjoyed by a community from their resources.

**Economic rights.** Economic rights depend on the enforcement of legal rights and consist of the right holder’s ability to enjoy the benefits from that holding. Economic rights may include the ability to enjoy benefits and to meet responsibilities, either directly through consumption and cultural appreciation or indirectly through exchange, including barter, sale, rent, inheritance and gift giving.

**Indigenous rights and interests.** Those Indigenous rights and interests recognised under the NTA define the range and type of privileges and responsibilities 5 holders of native title rights possess. The special or unique features of native title affect value and the way valuation might be estimated. Pre-existing Indigenous rights and interests differ from common law concepts of title in land. Indigenous rights are uniquely ‘of their own kind’, in that the rights provide closely intertwined, or joint, material and cultural benefits, whereas a community’s scultural benefits are specific to place. This is contrary to the assertion by Sheehan that the existing land law ‘provides an irresistible framework for the valuation of native title’. 6 Neate, Litchfield and Smith reviewed the nature of this difference and how compensatory programmes might apply under Indigenous law. 7

**Economic value**

The benefits or choices available to an individual, or community, are not without limit. If they were, there would be no conflict over resource use, nor would there be any need to make choices between different items, and there would be no relative differences in the value of items. Value, then, is the result of scarcity and the need to make choices. The choices available to an individual or a community are constrained by the individual’s or the community’s budget. Economic value indicates the relative preference for the benefits obtainable from the ownership of an item relative to the benefits obtainable from some other item and the willingness to go without something in order to obtain more of something else. 8

Confusion about what is meant by the term ‘value’ has created difficulties in its application to native title rights. Many think of value solely in terms of market or monetary value, and often attach intrinsic value to money itself. While market prices may provide a low cost estimate of the relative value society places on the benefits obtainable from different items, neither money nor the market are necessary for value to exist.

The lack of trade in native title rights does not preclude Indigenous people from treating the benefits of their native title rights as economic goods. 9 For example, members of a family group might at some time decide they prefer more finfish to kangaroo and forego hunting kangaroo so as to spend more time fishing. As a result of the choice made and the resulting behaviour, we can surmise that at that time the family group placed a greater value on the benefits of time spent fishing relative to the benefits of time spent hunting kangaroo.
Part of the confusion with ‘value’ occurs as a result of the limitations of language, such as with the terms ‘value’ and ‘values’. For instance it might be observed that in relation to a particular site, the women in a community will have different values to the men in the community. The point of such an observation is not that women are likely to place a higher or a lower value on the site, but rather, that their use of, or the flow of benefits they might derive from the site may vary due to differences in their preferences.

Value, then, depends on the characteristics of the resource, the preferences of individuals in the community and, as further discussed, the individual or community budget.

The joint nature of native title benefits

From an economic perspective, the special feature arising from the ‘jointness’, or linkage between material and cultural benefits from the holding of Indigenous rights, corresponds to the joint supply of private and public benefits. Private benefits occur when benefits are exclusive to one person and unavailable to another. Within an Indigenous community the direct nutritional value from eating a helping of fish, say, is restricted to the individual consumer. Public benefits might occur when the consumption of a benefit by one person does not diminish the amount of that benefit that is available to others. For example, public benefits may arise as a result of a community’s enjoyment of place or the totemic significance of particular species, such as dolphin. In large measure, ‘material benefits’ are private goods, while cultural benefits are public goods. The intertwining of material and cultural benefits in the utilisation of native title rights results in the joint supply of private and public benefits.

While jointly supplied public and private benefits may be inseparable, the total amount of material and cultural benefits enjoyed by a community may be altered. Many cultural benefits require ongoing investment, such as through the use of ceremonies and the sharing of food. In addition, the proportions in which cultural and material benefits are provided may be altered depending on relative changes in the amount of effort applied to different activities. That is, any preference for increased cultural (public) benefits can be achieved by giving up activities that have more material (private) benefits such as the collection and hunting of food, and spending more time carrying out activities having higher ritual and spiritual significance.

Alternatives in deriving value

In Australia most of the input to the valuation of native title rights has been by land valuers. A major criticism of this method, however, is its failure to accommodate the ‘special features of native title’. Little consideration has been given to the use of alternative economic valuation methodologies. Many, including Whipple, believe the issues might be resolved through the courts. United States experience, however, indicates that such a reliance should be made with care, as the courts have been observed to be inconsistent in the application of economic principles to the claims of Native Americans. While recognising payment of compensation to the wider community for damage to non-use environmental values, the courts have difficulty in accepting compensation for the non-use cultural loss suffered by Indigenous peoples due to environmental damage. Yet, in terms of social benefit, or economic utility, there is little difference between Indigenous cultural non-use values and environmental non-use values.

Others have examined the possibility of using contingent valuation methods: that is a willingness to pay and willingness to accept. Contingent valuation is argued to be the only approach amenable to the accommodations of non-use values. There are, however, conceptual difficulties in using contingent valuation, including being able to conceptualise a hypothetical market. These difficulties are likely to be even greater when applied to Indigenous non-use cultural values.

The basis of value rests on the principle of consumer sovereignty. Lavarch and Allison go to the crux of valuing native rights in observing that only the holders of rights are in the position to assess the value of these rights.

Consumer surplus

Consumer surplus is the total benefit enjoyed by an individual through the consumption and enjoyment of a particular item or activity in excess of the benefits foregone or costs incurred. Any loss in consumer surplus
incurred as the result of any diminution of native title rights will depend on the uniqueness of the benefits foregone and whether close substitutes for these benefits are readily available. That is, if items of similar characteristics exist (such as beef meat for kangaroo meat\(^2\)), there may be little or no loss in consumer surplus. If, however, readily available substitutes do not exist, as will occur with cultural icons, as might be provided by a geological feature, and any loss of ‘place’, there will be a decrease in consumer surplus.

**Summing total change in value**

A unit change in material benefits, such as the nutrient value of a serving of meat, will only affect the individual eating the meal and will involve little, if any, consumer surplus. However, a unit change in cultural benefits, such as damage to an icon, is likely to affect all of the members of a community, including any extension to adjoining communities. The loss of icons, and similar public items, are also likely to result in a loss of consumer surplus.

**The economics of compensation**

A loss or diminution of native title rights results in a decrease in a community’s ‘budget’ and a loss of the choices and benefits available to the community. While both material and cultural benefits are likely to decrease as a result of a budget decrease, following compensation, a lack of cultural substitutes is likely to result in a greater loss of cultural over material benefits.

These relationships are shown in figure 1, where the iso-benefit curve I-I represents the highest level of satisfaction available to a community given their initial Indigenous budget \(B_m\). While enjoying \(0C\) and \(0M\) cultural and material benefits. Alienation of part of an estate for mining, for example, will result in a loss of cultural and material benefits and a decrease in the community’s Indigenous budget. A leftward movement of the budget \(B_m'\) represents the budget decrease. As a result, the maximum level of satisfaction attainable by the community is at \(W'\) where the new budget line is tangent to the lower iso-benefit curve, \(I' - I'\). In returning the community to their original iso-benefits curve (I-I), compensation will most likely be primarily made up of material benefits and the budget line will move to \(B_m''\). This results in a substantial increase in material benefits to \(0M''\) and a small increase in cultural benefits, \(0C''\).

Just compensation occurs when those suffering a loss of rights are at an equivalent level of satisfaction to that enjoyed before the loss of rights. It need not require those compensated to be able to hold the same bundle of goods before their loss of benefits. Indeed, given that many cultural benefits are specific to place, it not possible to return native title holders to their original position. To observers unaware of cultural loss, the increase in material benefits might appear to be excessive. Such apparent largess can result in misplaced claims of unfairness by those unaware of the nature of native title rights and the benefits enjoyed with these rights. It is important to note that valuation and compensation for lost native title rights does not necessarily assume the separation of cultural and material benefits.

**Figure 1: The Economic Characteristics of Compensation**
Estimating value on the basis of opportunity cost

In living on their estate, Aboriginal and Torres Strait Islander communities forego the benefits they could obtain by living elsewhere. Such benefits might include easier access to commercially provided food, easier access to a broader range of health and other social services, housing, training and employment. These foregone benefits are a cost incurred by remaining on the estate. For a community wishing to optimise their level of wellbeing, the cultural values of remaining in place will at least equal the foregone benefits.²¹

It is possible to estimate the monetary value of both the optimal amount of material benefits (0M) and the maximum amount of material benefits (0M'). For a community wishing to maximise the benefits from the choices available to them, the net foregone material benefits (0M - 0M', in figure 2) provides a minimum estimate of the cultural values enjoyed from staying on the estate.

Figure 2: The Effect on a Community’s Welfare in Maximising their Material Benefits
The additional information required for a more accurate measure of cultural values is to obtain an estimate of the rate at which a community gives up material benefits for cultural benefits at the point of tangency ‘W’. This information will provide a measure of the slope of the budget line and can be used along with the data on total material benefits (the point of intersection of the budget line with the vertical axis) to establish the budget line.

**Construction of an integrated Indigenous-monetary budget**

Anthropologists, such as McCarthy, McArthur and Altman, and economists, such as V. Smith, North and Butlin assumed Indigenous communities optimise their economic welfare according to a time budget. That is, on the assumption that time is allocated between activities such as catching fish or hunting kangaroo or partaking in a cultural activity so as to maximise the level of benefits to the community. The budget \( B \) is a function of time \( T \):

\[
B = f(T).
\]

The functional term ‘\( f \)’ accounts for the effect of exogenous variables, such as technical and institutional change, natural resource availability and variation in environmental conditions.

Because the Indigenous estate is managed by the community, it is endogenous to the community and should be included in the community’s budget as a function of time:

\[
B = f(T(N)).
\]

Although cultural and commodity assets may be supplied and consumed jointly, Aboriginal and Torres Strait Islander communities can make choices in regard to the proportion of cultural to material benefits enjoyed. That is, on the margin, it is possible for a community to carry out activities that differ in the proportion of cultural to material benefits. Some activities are primarily cultural in nature with little or no direct material benefit. By comparison, other activities, such as hunting, will result in relatively greater material benefit. As a result, the possible flow of benefits from an Indigenous estate can be represented as separate material benefits ‘Nm’ and cultural benefits ‘Nc’:

\[
B = h(T(Nc, Nm)).
\]

Aboriginal and Torres Strait Islander communities have contact with the monetary based market economy. Members of a community may obtain employment on their estate or go off their estate for employment, in
addition they may receive social transfer payments. Because social transfer payments can vary depending on the level of monetary income, they need to be considered in conjunction with other sources of monetary income:

\[ B = k(T(Nc, Nm, I)). \]

However, monetary income may be allocated to cultural as well as material benefits, such as with the sharing of income or the goods purchased with other community members, and:

\[ B = k(T(Nc, Nm, Ic, Im)). \]

The optimisation problem for Aboriginal and Torres Strait Islander communities, then, is to allocate their time resources between different Indigenous and market activities so as to maximise the benefits from their budget ‘\( B \)’, subject to their time constraint ‘\( T \)’:

Max \( U(B) \)

s.t. \( tNc + tNm + tIc + tIm \leq T, \)

where ‘\( tNc \)’, is the amount of time allocated to cultural activities; ‘\( tNm \)’, is the amount of time allocated to the production of commodities; ‘\( tIc \)’, is the amount of time allocated to money earning activities used for cultural activities and ‘\( tIm \)’ is the amount of time allocated to money earning activities used for material activities.

In a partial equilibrium analysis, the allocation of time will be optimal when:

\[ \frac{U'}{tNc} = \frac{U'}{tNm} = \frac{U'}{tIc} = \frac{U'}{tIm}; \]

when the marginal change in benefit, per unit of time used, is the same for each activity.

The slope of the budget line shows the rate of transformation between cultural and material benefits and, therefore, the opportunity cost in units of time. As time can be used to earn income, it has a monetary value. That is, the slope of the budget line provides the relative amount of time and therefore the relative price of cultural and material benefits.

**Discussion and conclusion**

Questions regarding the applicability of economics in valuing the ‘special features of native title’ have been addressed including the use of a simple consumer model to show the impact of the loss of rights and the choices available to a community, depending on the community’s budgetary constraints. This required an extension of the Indigenous budget beyond monetary or time constraint to include the budgetary effects of native title rights on the choices available. This is then used to introduce a behavioural-based methodology into the discussion on the economic valuation of native title rights. While value does not depend on the use of monetary units or on market behaviour, this approach can be used to derive a monetary estimate of the total value and of the unit value of native title rights.

The ability to obtain these estimates depends on the special features of native title rights, in that cultural values are in most part restricted to place and to community, and that some of the choices made within the community affect the amount of monetary income. These outcomes do not require the separation of cultural and material benefits. Instead, all that is required is that along the margin the relative amount of cultural-to-material benefits can be altered.

There are a number of difficulties in using opportunity cost to assess the value of compensation that are not addressed in this paper. A major difficulty is that different parts of a community’s estate will differ in cultural significance and their value to the community; it is not possible to apply an average value per unit area across the whole estate. One way of addressing this question may be to use the total value data in conjunction with estimates from community members of a ranking of different locations or areas within the estate.
It is clear that the methodological developments presented in this paper require additional work. In particular, how the approach might be quantified. While the data needs for this approach may be demanding, there are likely to be substantial economies in subsequent valuations.

1. This paper has been substantially strengthened by comments made by two referees and by comments made by Indigenous Australians and Indigenous Americans. I have also been assisted in writing this paper by comments made by fellow economists and the questioning of anthropologists. The remaining errors, however, are of my own making.


4. The Native Title Act 1993 sets out a system involving different levels of formal and informal arrangements in which the Indigenous rights of Aboriginal and Torres Strait Islanders might be recognised under common law.

5. Neate provides a clear and precise description of how traditional responsibilities may be exercised, ibid p. 33.


8. T.A. Lee, Income and Value Measurement: Theory and Practice, 2nd ed, Van Nostrand Reinhold, Berkshire, England, 1980, p. 12. The existence of relative value between all goods depends on the consumer preferring more to less, being able to rank all items according to preference, and being able to compare preferences over all items — that is that preferences are transitive. The outcome of agreements made to date indicates that these assumptions might be met, although the institutional framework in which these agreements occur are often to the disadvantage of those holding Indigenous rights.


10. Joint benefits occur when it is not possible to separate the different benefits and the benefits occur jointly.

11. R. Cornes and T. Sandler, The Theory of Externalities, Public Goods and Club Goods, 2nd edition, Cambridge University Press, 1996. The literature on impure public goods refers to the supply of public goods as a result of individual supply and consumption of private goods. Because the supply of impure public goods is expected to increase with expenditure on private goods, the supply of impure public goods will increase according to an individual’s budget. As a result, modelling this relationship can be very complex, because the marginal private benefits enjoyed by the individual consumer do not equal the marginal benefits of their supply. This complexity is circumvented in this case, by internalising the benefits and decisions concerning the allocation of an Indigenous budget, to the beneficiaries (the community group holding the rights). As a result, the beneficiary of private and impure public goods is the decision maker. That is, the community or family group that is the holder of the native title rights.

13. Whipple, loc cit.


15. Duffield, ibid.


20. Recognising that there are other elements to the capture and consumption of kangaroo meat to a family or community in addition to the material benefits that beef cannot supply.

21. Under certain conditions, it is possible to achieve a ‘corner solution where the indifference curve is tangent to the budget line at the point where the budget line intersects the vertical or horizontal axis at B or Bc. These conditions can meet when the slope of the indifference curve is less than the slope of the budget line at all points. Or, alternatively, the slope of the indifference curve is greater than the slope of the budget line at all points. This will result in a corner solution and value might be estimated using discrete value estimates (M.A. Freeman, The Measurement of Environmental and Resource Values: Theory and Methods, Resources for the Future, Washington, D.C., 1993.) It is highly unlikely, however, that these conditions will normally apply in regard to a community’s indigenous estate, although it might be arrive at the position through negotiation.


23. Altman provides one of the earliest examples in which the choices of an Indigenous Aboriginal or Torres Strait Islander community between market and non-indigenous goods are documented.

24. The implicit assumption is that the production possibility frontier is linear over the range of valuation.
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ISSN 1326 - 0316 ISBN 0 85575 377 3

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