Compensation for Historical Takings: Descendant vs. Ancestor-Based Measures

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Overview

▶ This work considers how to interpret equitable compensation for 'takings' that have inter-generational consequences.

▶ An obvious scenario is land that has been unjustly usurped (e.g. as in a specific land claim).

  ▶ Land is bequeathed across generations.
  ▶ Earlier generations can also save financially for later ones.

▶ Two big questions:

1. How should compensation paid to the current generation account for the forgone consumption of earlier generations?

2. Can we 'back out' an implied value on foregone consumption even if we do not explicitly calculate it?

The Problem of Foregone Consumption

> *"The central issue in the case was whether foregone revenues hypothesized to be spent on consumption merit compensation under the remedy of equitable compensation. Canada interpreted Whitefish as excluding consumption from compensation. It was its submission that foregone consumption would have had no long term benefit and would not have contributed to the position that the band would have been in today absent the breach. The band sought compensation for consumption as a lost opportunity because it provided real benefits that could have a significant impact on the future life of the band."*
> *(2017 FC 906, Southwind v. Canada [274])*

Overview

I use a simple behavioral model to investigate implied equivalencies between two temporally-distinct compensation measures:

▶ Descendant-Based (DB): calculate compensation to restore the current generation to the present-day level of utility that would have obtained had the taking not occurred.

▶ Ancestor-Based (AB): calculate compensation on the basis of what would have to have been paid to a forward-looking ancestor to willingly part with the taken asset.

The DB measure is calculated relative to the benchmark of 'land not taken.'

The AB measure is calculated relative to the benchmark of 'land taken, but equitable compensation paid to the ancestor.'

Overview

▶ If strictly applied, the DB measure does not compensate for foregone consumption of ancestors, since it only considers *what would have been saved* for descendants.

▶ The AB measure values foregone consumption since the ancestor would require compensation on this basis to permit the taking. But if the ancestor discounts the future as is conventional in many applied settings, they may under-weight the impact of the taking on descendants.

▶ It is easier to calculate DB in practice, but DB ignores foregone consumption value. AB accounts for foregone consumption issue, but relies on a hypothetical counterfactual.

▶ I attempt to map compensation measure onto the other by explicitly considering savings and consumption decisions under the two compensation frameworks.

▶ Find an equivalent value on 'foregone consumption' implicit in the DB measure.

Main research questions:

1. Assuming that compensation is paid to the current generation on the DB-basis, what is the implicit weight, w, placed on the foregone consumption of ancestors, if we assume that the AB-compensation measure would generate the same compensation?

2. Assuming that some arbitrary weight, q, is placed on the foregone consumption of the ancestor, what compensation would be due to the descendant generation calculated using the AB-compensation measure?

I characterize the answers to these questions in terms of the parameters of the model.

Stripped-down model

Consider a community in two periods. The Ancestor lives in the first period (past), the Descendant in the second (present). Perfect foresight; no population change.

- ▶ Fixed land parcel with value v (so v is actual or implied rent).
- ▶ All land in the possession of the community is automatically bequeathed.
- ▶ In first period, a taking occurs. Land value is reduced to $x < v$. This is either a degradation of the land, a taking of some parcel of the land, or both.
- ▶ Financial savings, s, between periods at rate r. Restrict $s \geq 0$ for ancestor.
- ▶ Ancestor's utility: $U_a = u(c_a) + \delta u(c_d)$, $0 < \delta \leq 1$
- ▶ Descendant's utility: $U_d = u(c_d)$

Given assumed preferences, estimate a pattern of consumption, financial savings, and loss of use values on the basis of parameters: v, x, δ, r.

Financial savings are not a given for all parameters since land value also represents a bequest.

Straightforward extensions to expand the model, also with observable parameters *ex post*:

▶ Population Growth
▶ Asset Appreciation
▶ Intervening Generations
▶ Higher use-value for taken assets

Compensation

Under DB, compensate descendants by amount m in current period to restore descendant utility *to what it would have been* if no taking had occurred.

- ▶ m includes value of foregone financial savings plus current value of taken land.

Under AB, compute a virtual payment p which *would have had to have been paid* to forward-looking ancestors in the first period to compensate for agreeing to the taking.

- ▶ Remit to the current generation (descendants) the amount n, where n equals: (1) The total value of counterfactual savings plus (2) The present value of some fraction, q, of foregone ancestor consumption.

Notes on Results

- If financial savings would have occurred after the taking (either with or without ancestor compensation), then $n \geq m$. Otherwise $n < m$.
- This is a consequence of a high-δ ancestor requiring additional funds at the time of taking to support the welfare of the future generation.
- Financial savings may not occur for some (δ, r) values if there were no taking (since land of value v is bequeathed). But they might under AB compensation, since the ancestor would anticipate the reduction in descendant utility due to lower land value, $x < v$.
- Incorporating population growth encourages financial savings.
- Incorporating asset (land) appreciation discourages financial savings.

Example

- ▶ Assume constant population, no land appreciation.
- ▶ Use logarithmic period-utility, $u(c) = \ln(c)$.
- ▶ Let $x = v/2$ (half of land value is taken), $r = 0.05$.
- ▶ Focus on impact of altruistic parameter, δ: ancestor weight on descendant welfare.
- ▶ Calculate values of w (weight on foregone consumption needed to equate m and n)
- ▶ Calculate ratio of n/m (compensation due to present generation using AB/DB measures) with $q = 25\%$ weight on foregone ancestor consumption).
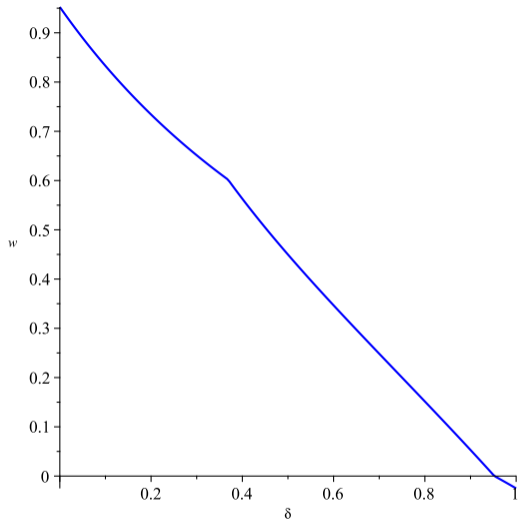
Weight on foregone consumption needed to equate m and n: "w"
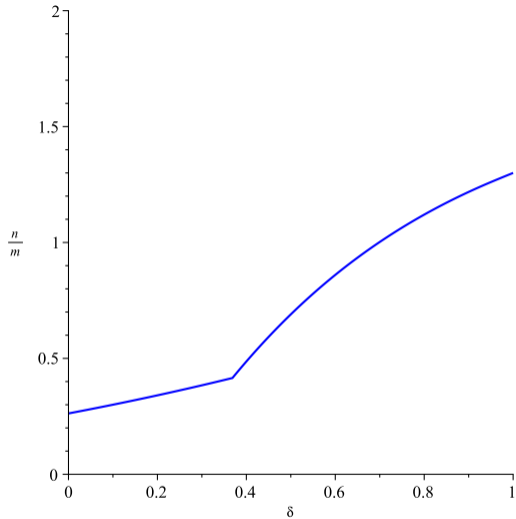
Ratio of n/m with 25% weight on foregone ancestor consumption

Discussion

▶ The analysis has intentionally side-stepped some obvious normative questions: which measure is more ethically appropriate? If we do consider foregone consumption, what weight to place on it?

▶ From a practical perspective, DB compensation (amount m) is easier to derive: requires historical asset / land values, rates of return, and reasonable assumptions on savings behavior that can be retrieved from the historical record.

▶ However, it omits the foregone-consumption consideration.

▶ By contrast, the AB measure backs-out a "what if?" scenario which builds in compensation for foregone consumption but is hypothetical by construction.

▶ If we assume that only m is calculable, we can use the counterfactual n for compensation calculations ...

Discussion

Interpretation 1: If we prefer to use the DB-measure, then what is the implicit weight we are placing on foregone ancestor consumption had we instead used the AB-measure (with equal compensation due)? Answer is a calculated value: w.

Interpretation 2: If we prefer to use the AB-measure with arbitrary weight q on foregone consumption (but can only calculate DB), then what is the appropriate multiplier on the calculated DB value to use for compensation? Answer is n/m.

This method can therefore incorporate different ethical approaches into practical studies of compensation for takings. Applicable, but not limited to, the context of specific indigenous land claims.