

Northern Territory Submission on a Capital Cost Index

This submission is in response to questions outlined by Commission staff regarding the proposal to incorporate a capital cost index in the equalisation process and staff discussion paper CGC 2014-02S.

Introduction

The Territory supports the concept of a capital cost index, as a means of measuring the cost of construction within each state relative to the average and the difference in the cost of construction between states. However, the Territory continues to have concerns that the proposed capital cost index will understate the cost of construction in the Territory, and suggests that the Commission consider making adjustments to ensure equalisation outcomes are not diluted.

Questions from Commission staff

Is it reasonable to consider building codes are driven by technical considerations of the implications of local conditions and are broadly consistent across areas with similar conditions?

The Territory argues that the impact of state policy on interstate construction cost differentials is negligible, and that differences in construction costs are born from market factors that are unavoidable and technical considerations that are largely consistent across states. As such, the Territory does not support the proposed policy neutrality adjustment of a five per cent reduction of cost differentials on the basis that it is arbitrary and adversely dilutes equalisation outcomes.

For twenty years, the Rawlinson's indices have reported that the cost of construction in Darwin, relative to other state capital cities is consistently and materially higher. Over this period the cost of construction in Darwin has been on average 12 per cent higher than Sydney and more recently 20 per cent higher. The Northern Territory Department of Infrastructure has advised, that, while a 12 per cent differential understates the cost of construction in Darwin, it is nonetheless indicative of an inherent difference in cost.

In discussions with officers from Rawlinson's and Rider's, the view was expressed that the difference in the cost of construction between cities is primarily due to differences in market characteristics. The market characteristics that were identified as having the greatest impact on the cost of construction in the Territory were:

- The small construction market which results in diseconomies of scale;
- A lack of competition which results in businesses seeking higher returns and increasing prices;
- The cost of freight, particularly in remote areas that are far from supply centres;
- The cost of labour, particularly in remote areas where availability is low; and
- Environmental considerations, where infrastructure needs to meet unique conditions and construction is disrupted.

The Territory argues that the factors above are inherent characteristics of the market and the environment and are for all objective purposes unavoidable, just as demographic factors are considered unavoidable and attract an appropriate weighting for the cost and use of services.

While it is reasonable to suggest that state government policies may either increase or decrease construction costs, the Territory argues that the impact of these policies are immaterial as they are largely consistent across states. Each state has legislated the adoption of the National Construction Code (NCC), which is an initiative of the Council of Australian Governments and requires each building in Australia to be built in accordance with that code. The NCC allows some scope for states to add further requirements commensurate with the social and environmental conditions of the state. As such there are specific construction policies such as the bush fire prone construction codes and the cyclone provisions which have implications on the cost of construction; however the Territory found no evidence that these are inconsistent across areas that share the same natural hazards (for example a building in Cyclonic Region C in the Territory would be designed to the same structure requirements as a building in Cyclonic Region C in the Queensland or Western Australia). The Territory believes there is no case or evidence to suggest that state policy results in material interstate cost differentials for building infrastructure. The Territory suggests that the Commission should only consider recognising the impact of state policy on cost differentials if they can identify a reliable way of measuring it.

However the Territory has found evidence that local government policy will commonly exceed the NCC, which increases the cost of construction (Productivity Commission 2004), but also impacts construction cost differentials due to the high degree of variance in by-laws imposed across local government areas (Cooperative Research for Construction Innovation 2007). The Territory argues that any adjustment for policy influences would need to distinguish local government policy from state government policy, and as such the impact of state government policy on the cost differentials would be even more negligible.

In summary the Territory does not support excluding five per cent of costs from the indices to account for policy influence on the basis that: variations from the NCC respond to technical and environmental considerations that are consistent and unavoidable; there is no way of accurately measuring the impact of state policy on interstate cost differentials, nor is there any consideration for auxiliary influences such as the impact of government policy on market factors (such the level of competition) which arguably have a greater impact on the cost of construction; and the exclusion only impacts the Territory, the jurisdiction with the highest construction cost differential, which is reflective of the market and environmental factors that it faces. Applying a five per cent discount that disregards these factors would be a perverse outcome for the objectives of equalisation.

Can states provide insights into reasons for the differences between the Rawlinson's and Rider's indices?

Officers from Rawlinson's, Rider's and the Northern Territory Government were unable to explain the difference in the results produced by the two indices. However, in terms of comparing the two indices the Territory understands that Rawlinson's is more comprehensive as it includes a greater number of inputs and a greater range of buildings, including more buildings that are typical of government infrastructure and which usually cost more than commercial projects. The Territory also considers that the Rider's indices may be more susceptible to short term volatility in the market as it is produced on a quarterly basis, as opposed to the Rawlinson's indices that is produced on an annual basis.

The Territory was also advised that the Rawlinson's indices are the most commonly used in arbitration across Australia, which is an indication that it is deemed fair and accurate by the courts and quantity surveyors in assessing the cost of construction.

The Territory supports the use of the Rawlinson's indices over the Rider's indices because: it is more comprehensive in both the inputs and range of buildings analysed; it covers buildings that are more typical of government infrastructure including housing which makes up a large component of the government's construction work; it incorporates market factors into its construction cost estimates; it is reported on an annual basis; and it includes loadings for population centres outside capital cities.

Any questions or other comments on other aspects of the paper?

Coverage

The Territory considers that the proposed method for estimating costs in population centres that are not covered by the Rawlinsons' indices - by using the cost structure of the closest population centre with a similar degree of remoteness - is not necessarily the best approach and will continue to understate costs in these centres.

The Rawlinson's regional indices provide building cost differences for selected locations in each state, relative to the state capital. The loadings in each of these locations are based on historical data and are updated every year to reflect changes in drivers that impact building costs. From our analysis of tender price data, the loadings estimated by Rawlinson's for the Territory seem to be in reasonable order in terms of the cost differential between centres.

However the regional indices do not cover every population centre across Australia, particularly remote and very remote locations. As a consequence the regional indices do not reflect the true extent of construction cost differentials across states.

This consequence is more extreme for Tasmania and the Northern Territory with only 60 and 68 per cent of the population covered respectively. In effect, the cost differential of providing infrastructure to 32 per cent of the Territory's population is not accounted for. As this population is from remote or very remote regions which face relatively higher costs of construction, the Territory's cost differential will be understated - which will ultimately dilute equalisation outcomes unless an appropriate method for accounting for these population centres is applied.

The Territory believes that the method proposed in CGC 2014-02S to use estimates from the closest region with a similar degree of remoteness is lacking, a fact that is also recognised by Commission staff. The Territory has previously argued that it is erroneous to assume that a population centre with a similar degree of remoteness would reflect a similar cost structure, due to the high degree of heterogeneity between remote communities and various other factors outside of government's control which can impact construction. In the Territory's last submission the case of Gunbalanya was highlighted to confirm this point. The Territory is of the view that adjusting the method by using the closest population centre with a similar degree of remoteness does not necessarily alleviate the issues that were identified.

The Territory is concerned that using a “similar degree of remoteness” could clump remote and very remote populations together. The Territory suggests that the Commission use loadings from population centres with the same level of remoteness, to improve accuracy and comparability.

The Territory also suggests that the Commission use loadings from population centres that have the most similar population level as possible to further improve accuracy and comparability. In remote and very remote regions, population size is indicative of available services and community dynamics which have an impact on building costs, and similar sized population centres generally require similar levels of infrastructure.

While the Territory acknowledges that the idea of transposing loadings from one population centre to another based on some broad factors is arbitrary in nature; the Territory believes that making these adjustments would improve the accuracy of the current proposal in accounting for population centres that do not currently have loadings and the overall equalisation outcome. Using the case of Gunbalanya, the table below shows that if the Territory’s proposed adjustments are made, the loading applied to this population centre would be closer to the estimated cost uplift.

Table 1: Analysis of CGC Proposal and Territory Adjustments

<p>Case study: Gunbalanya</p>	<p>Gunbalanya</p> <ul style="list-style-type: none"> • Cost uplift¹: 56 per cent • Remoteness level: Very remote • Population: 1371
<p>Commission staff proposal: <i>Closest population centre with a loading and a similar level of remoteness.</i></p>	<p>Jabiru</p> <ul style="list-style-type: none"> • Cost uplift: 27 per cent • Distance to Gunbalanya: 60 km • Remoteness level: Remote • Population: 1289
<p>Adjustment 1: <i>Closest population centre with the same level of remoteness.</i></p>	<p>Nhulunbuy</p> <ul style="list-style-type: none"> • Cost uplift: 35 per cent • Distance to Gunbalanya: 400 km • Remoteness level: Very remote • Population: 4455
<p>Adjustment 2: <i>Closest population centre with same level of remoteness and similar population level.</i></p>	<p>Groote Eylandt</p> <ul style="list-style-type: none"> • Cost uplift: 57 per cent • Distance to Gunbalanya: 430 km • Remoteness level: Very remote • Population: 972

1. cost uplift relative to Darwin, estimated by Northern Territory Government.

Note 1: all other cost uplifts are from Rawlinson's Regional Indices (2012) and relative to Darwin.

Note 2: remoteness level based on Accessibility/Remoteness Index of Australia (ARIA)

Note 3: population figures are based on ABS 2012 ERP at SA1 level.

Physical environment

The Territory believes that there is a strong conceptual case that environmental conditions are unavoidable and thus the impact it has on the provision and maintenance of government infrastructure should be recognised in the equalisation process. The Commission agreed with this conceptual case and has investigated the possibility of a physical environment factor.

The conceptual case has now been empirically confirmed by the consultant's report. While some states questioned whether environmental conditions have a consistent impact on state costs due to the variety of conditions within states; the consultant's report clearly shows that at an aggregate level some states face significant cost uplifts due to environmental conditions.

The Territory supports the view of the Commission staff that the consultant's report provides a basis for assessing a physical environment factor. The consultant's report is an explicit measure of the impact of certain environmental conditions on the provision and maintenance of government infrastructure and is therefore considered fit-for-purpose.

Further, the Territory believes that for the purpose of assessing a physical environment factor the consultant's report cannot be substituted by the Rawlinson's indices. The Rawlinson's indices do not explicitly account for the impact of the environment, it does so implicitly and only to the extent that environmental conditions are reflected in building codes. It is therefore not fit-for-purpose.