Government of **Western Australia**
Department of **Treasury**

Western Australia's Submission to the

Commonwealth Grants Commission's 2015 Methodology Review

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Executive Summary

This submission responds to the draft *Report on State Revenue Sharing Relativities 2015 Review* circulated by the Commonwealth Grants Commission (CGC) in August 2014. It focuses on new information presented in the draft report and builds on our July 2013, February 2014 and April 2014 submissions.

Western Australia will continue to engage with the CGC, including through the provision of additional relevant information, ahead of the release of the Final Report.

Key Themes

Western Australia considers that the CGC needs to give attention to a number of key high level issues.

Timely Assessments

Present time lags in the equalisation process exacerbate budget volatility, whereas concurrent equalisation would reduce volatility.

Consistency

The CGC needs to be consistent in its approach to issues such as uncertainty, national interest and measuring tax bases.

Fairness and Federation Dynamics

Where expenditure needs cannot be confidently assessed, the corresponding revenues should not be equalised. The fruits of different development efforts that have not been (e.g. North West Shelf), or cannot be, assessed by the CGC should not be equalised.

Difficult issues (e.g. high regional costs in growth areas, costs of community development and forward investment in infrastructure) need to be given the same priority as areas such as wages, public transport and health.

Simplicity/Transparency

Methods (e.g. health assessments) need to have enough logic and data to allow the informed layman to have some confidence in the outcome, and problems should be clearly acknowledged.

Unnecessary Redistribution

The CGC should not equalise where the underlying rationale is unclear (e.g. tax progressivity, public transport deficits).

Implementing Horizontal Fiscal Equalisation (HFE)

Implementation of fiscal equalisation needs to be improved to make the Australian federation better off and to avoid it increasing the very disabilities it seeks to equalise.

The four supporting principles are all equally important to achieving HFE.

Policy Neutrality

Policy neutrality is central to achievement of HFE, not a 'subsidiary principle'.

It is important to minimise the impact of the CGC's assessments on individual State policies and avoid creating disincentives for States to improve their own revenue generation or to make the reforms necessary to improve the operation of their economies[1].

It is therefore concerning that a number of the proposed assessments in the draft report appear to ignore this principle by, for example:

- not introducing a discount with the proposed mineral by mineral mining revenue assessment (which we consider essential to avoid individual States having a significant influence on the average mining policy);
- ignoring the impact of State policies on the value of land used to assess land tax revenue capacity; and
- assuming a cost curve for public transport net expenses based on data that is affected by State policies.

[1] This has also been acknowledged in the Commonwealth Government's terms of reference for its White Paper on Reform of the Federation.

Contemporaneity

The CGC needs to actually implement its contemporaneity principle.

While we have previously accepted that only lagged equalisation was achievable, we have re-examined the practicalities of implementing HFE with no lags and are now of the view that the CGC can and should implement its contemporaneity principle.

Western Australia's recent budget experiences (with iron ore prices dropping substantially, but relativities being largely unaffected until late in the forward estimates period) have highlighted the problems with HFE only being implemented on a lagged basis (despite the CGC's contemporaneity principle).

Implementing HFE without lags could substantially improve State budgeting by spreading revenue volatility (ups and downs) across all States. This would be more equitable by ensuring States share in the volatility costs as well as revenue benefits from (for example) royalty and conveyance duties.

Eliminating the lags in implementing HFE will also eliminate distortions in decision making caused by time lags that arise because most of the GST impact of a change in policy currently lies outside the forward estimates. As a result the time lags can make State budgets appear better or worse than they are.

It is difficult for governments to 'bank' temporary time lag equalisation benefits, so as to draw on reserves for any coming time lag losses. Hence States with significant reliance on highly volatile revenue do not in any practical sense see the long-run stabilising effect of equalisation, and experience rather even greater short-run revenue volatility. If these States have a policy of achieving a budget surplus or minimising deficits (arguably this a standard policy of the States) then the population of those States bear a disproportionate amount of the pain in terms of short term, reactive savings measures relative to other States that share in the lagged redistribution.

What States Collectively Do

We continue to believe that the CGC should be looking at the intent of State policies, when determining what States do. We acknowledge that intent is often not practically observable at the level of detail that the CGC makes its assessments. However, the solution is not to ignore intent but to broaden the assessments to a level where intent is more clearly discernible.

With regard to revenues, we believe that the CGC should in principle measure revenue bases using broad capacity to pay measures, rather than legal incidence (although legal incidence might be considered a suitable proxy in some circumstances).

States cannot levy taxes if communities do not have the capacity to pay those taxes. So, for example, the CGC should use a measure such as household income rather than (policy influenced) land values for the Land Tax assessment.

Practicality

The CGC acknowledges that it does not aim to achieve precise equalisation, including because some disabilities cannot be reliably measured. (paragraph 6, page 12)

These difficulties are evident in a number of the proposed assessments which identify data limitations and apply a high degree of judgement in the absence of reliable evidence. In some cases these issues can be addressed by using a different approach (e.g. the health assessment).

The CGC uses discounting and materiality thresholds to attempt to address problems that cannot be resolved through a different assessment. However, the discounts continue to be applied inconsistently and the results of the materiality tests[2] were not clearly outlined in the draft report.

In relation to the proposed assessment guidelines, we recommend point 8 ("The disability may not be assessed in a category, if the amount redistributed in that category is small") be deleted, as it:

- is inconsistent with the CGC's proposed use of materiality thresholds; and
- makes the total impact of disabilities dependent upon the category structure.

[2] For example, in relation to whether the individual assessments of emergency service levies and metropolitan improvement levies are material.

Proposed Assessments

Proposals Supported by Western Australia

Mining Revenue

We support the proposed mineral by mineral assessment, as it best reflects revenue raising capacity. However, we consider a discount is essential (see below).

We support the proposed iron ore fines phase-in adjustment, as it avoids redistributing more than 100% of the revenue from Western Australia's iron ore fines royalty rate increase in the 2012-13 data year.

Infrastructure

We support the continued use of the direct assessment approach, which captures the impact of population growth (including continuing the Net Borrowing assessment).

We support the CGC proposal to not assess physical environment, as the consultant's report did not comprehensively assess all influences.

Some other issues with the assessment are discussed below.

Roads

We support the CGC's proposals on roads.

Schools

We support the proposed schools education assessment, but are considering the policy neutrality implications of using actual enrolments data.

Post-secondary Education

We support the proposed post-secondary education assessment, including the inclusion of vocational education and training expenses in this category.

Welfare

We support the proposed welfare assessment, including the assessment of disability services.

Indigeneity

We are pleased that the CGC has adopted the NISEIFA/IRSEO[3] method to better identify Indigenous disadvantage.

Cultural and Linguistic Diversity

We support the proposal to cease assessing cultural and linguistic diversity (CALD), as low use of services by the CALD population offsets the higher service costs for these persons.

Stamp Duty on Conveyances

We support adjusting revenue bases of States that do not levy duty on non-real business property, as levying this duty is consistent with what States do collectively. Nevertheless, we do not think a separate assessment of non-real transfer duty would be material, so it should be assessed on an equal per capita basis.

Proposals Requiring Further Work or Consideration

Mining Expenditure

While we are not asking for a separate 'mining expenditure' assessment, we consider that mining-related expenditures are not adequately recognised in a number of the assessments, including the mining revenue, services to communities, services to industry, infrastructure and regional costs assessments. Specific recommendations are included in our comments on the relevant assessments below.

Mining Revenue

We believe that discounting the mining revenue assessments is essential:

- The only other way to reduce policy distortions to an acceptable level would be to apply a global revenue assessment.
- There is uncertainty in the mining revenue assessments because the observed mining revenue bases are an imperfect indicator of the revenue bases that would exist under average policy. The CGC's policy for dealing with uncertainty is to discount, so consistency requires discounting in the mining revenue assessments.

3 NISEIFA – Non-Indigenous Socio-Economic Indexes for Areas; IRSEO – Indigenous Relative Socio-Economic Outcomes (Index).

- The CGC is unlikely to be able to adequately assess mining-related expenditures and the CGC should not equalise revenues that fund expenditures that it cannot equalise.

Only net revenues from the North West Shelf project should be equalised, as the CGC has not equalised the investment by Western Australia in developing this project.

We believe that Western Australian values of production should be sourced from our Department of Mines and Petroleum, rather than the Australian Bureau of Statistics, as our data better reflects the value of sales on which royalties are levied.

Services to Communities

The utilities assessments should be based on populations living in remote and very remote regions, as this more adequately reflects the regions of higher costs.

We still believe that there is a water pipeline cost disability. As a practical solution, the CGC could assess Kalgoorlie (with its long expensive water pipeline supply) as ‘remote’ for the purposes of the water subsidy assessment.

The CGC should consider the amounts of *Royalties for Regions* funding that are directed to communities in remote and very remote areas (often in response to rapidly increasing regional populations due to mining activity). An assessment could be based on standard spending in remote/very remote areas, with a weighting for population growth.

The CGC should assess the regulatory costs of development, possibly using an economic growth factor.

Services to Industry

We believe that differential capacities to raise agriculture levies should be recognised.

There should be a differential assessment for business development expenses at least for mining, as the current equal per capita assessment does not pass a reasonableness test.

Infrastructure

We believe that the CGC should heavily discount the assessment of differential per capita urban transport infrastructure stock, as:

- the shape of the relationship is probably non-linear (with declining slope) rather than linear, and its quantification depends heavily upon only a few data points, which will be distorted by differences from average policy;
- the relationship may not have the same functional form for smaller urban centres and capital cities;
- there will be an offsetting impact on the requirement for urban road lane-kilometres, which is not assessed by the CGC; and
- the CGC has not provided the States with the data points, reducing the capacity for meaningful analysis.

We believe that the CGC should not discount capital cost factors derived from Rawlinsons cost indices, as these factors are superior to using recurrent cost factors, which have not been discounted. If the CGC persists with discounting, it should discount back to the recurrent cost factors, rather than to equal costs.

We believe that an assessment is required to reflect that infrastructure built to address population/economic growth will initially be relatively underutilised and faces the risk of growth not occurring as projected. This applies to both social and economic infrastructure, and is an important element of costs associated with growth economies.

Regional Costs

We are concerned that the CGC is not picking up the high accommodation costs of the Pilbara region, which are due to economic activity. We believe these are not significantly reflected in the ABS Survey of Education and Training (SET).

If ARIA remains the CGC's recommended approach, the proposal to assess interstate non-wage costs should be extended to Western Australia. To do so for Tasmania and the Northern Territory, but not Western Australia, is not even-handed.

We believe that the CGC should continue to use an average of the schools and police gradients for functions other than education and justice. Even if the schools gradient is more accurate (for schools), this does not mean that it is more representative.

We are reviewing the CGC's application of wage and regional cost factors to individual categories.

Revenue Assessments – the Broad Approach

We believe the CGC should measure revenue bases according to capacity to pay principles, rather than legal incidence. This would reflect the fiscal equalisation requirement that revenue raising capacity be measured according to average effort.

We believe that the CGC should use a global revenue base measure (such as an adjusted measure of gross State product) to assess taxes and mining revenues, as it would be simpler and remove the extreme policy distortions in the mining revenue assessments.

We believe that the CGC should discount all of the revenue bases, to reflect the uncertainty in how well the observed revenue bases (which the CGC uses) reflect the average policy revenue bases (which the CGC should use). The discount should be larger for revenue bases that are more susceptible to State policies, such as mining production and land values.

Payroll Tax

We recommend removing the payroll tax threshold adjustment, including because it gives significance to essentially random decisions by States.

We recommend the CGC investigate issues with how the payroll tax base is measured with regards to offshore and fly-in fly-out workers, and adjust States' revenue bases accordingly.

Housing

We believe the CGC should reconsider the proposed Indigenous cost weight, as it does not reflect Western Australian and Northern Territory experience or the higher costs for States such as Western Australia that have a larger Indigenous household size.

We recommend the CGC check that the use of equivalised income-based definitions of low income status does not create distortions in the calculation of housing revenue capacity.

If the CGC redistributes the Remote Indigenous Housing grants, we believe the CGC should ensure that it assesses needs for improving Indigenous housing.

We support assessing all first home owner assistance together and recommend that it be assessed according to population growth in the relevant age categories.

Service Delivery Scale

The definition for service delivery scale affected areas should be extended to include all areas with populations less than 5,000 people.

National Interest

We believe that the CGC should have a consistent approach to national interest, encompassing other relevant Commonwealth grants and State expenditures, rather than selectively making an assessment for National Network Roads.

In the absence of such an approach, we believe that the CGC should cease assessing "national needs" based on half the National Network Road grants as the conceptual case and empirical evidence for such needs, or whether those needs are correctly reflected by the distribution of National Network Roads grants have not been established.

If needs can be deduced from Commonwealth grants, then there should be an assessment of Western Australia's effort in developing the North West Shelf project based on retaining an above population share of the grants in lieu of royalties.

Justice

We consider that a majority of what the CGC terms 'community policing' should be subject to the socio-demographic factors applied to what the CGC terms 'specialised policing'. At the very least, 75% of police expenditures should be subject to the socio-demographic factors.

Wages Costs

We support the CGC's conclusion that no change to the assessment should be made, pending release and subsequent analysis of the new ABS Characteristics of Employment data. However:

- the CGC should consider rethinking the model entirely at this time, rather than making just minor technical simplifications to the model;
- the CGC should abandon its proposal to base the model on capital city wages rather than whole of State wages; and
- a fixed discount should apply to the assessment, not one that is determined subjectively on a year by year basis.

Proposals Not Supported by Western Australia

Health

We recommend that the CGC retain the subtraction model as it is conceptually simple and reliable, practical to implement, and we think that data problems with the method are limited and can be sufficiently resolved.

The proposed direct method has technical problems and requires a high degree of judgement with little to no data to support the decisions.

Transport

We do not believe that the conceptual case has been made for the urban transport assessment.

We consider there is a lack of evidence to support the view that for cities of significant size, per capita deficits continue to grow.

We consider that the assessment options are:

- equal per capita assessment; or
- a step-function assessment of per capita subsidy that increases with population size only for small cities (say up to one million population) and is flat thereafter; or
- discounting towards equal per capita the regression relationship derived by the CGC.

Land Tax

We recommend revenues in the 'all property component' be assessed on an equal per capita basis, rather than by using land values.

- It is not clear what a suitable revenue base indicator would be for the emergency services levies, or the revenues in aggregate.
- It is also not clear that separate assessments of the taxes/charges would be material.

We recommend using household income as the land tax capacity indicator for 'income producing property'. Land values do not provide a good indicator of capacity to pay, whereas the relationship between land tax and economic activity is strong and stable.

If the use of land values is retained, the current 25% discount that is in place to ameliorate data problems should be retained, and a further 25% discount should be applied because land values are significantly affected by government policies.

1. Introduction

Key Points

- Fiscal equalisation needs to be improved to make the Australian federation better off and to avoid it increasing the very disabilities it seeks to equalise.
- Commonwealth specific grant funding is unlikely to address the flaws of fiscal equalisation.

This submission responds to the Commonwealth Grants Commission's (CGC's) draft report on its 2015 methodology review. The focus is on issues of key concern to Western Australia and the issues are addressed at a high level.

The challenge for the CGC remains to make its implementation of the horizontal fiscal equalisation (HFE) principle more consistent with the stated HFE objective, and hence more 'federation friendly'.

What does this mean and why is it important?

It means that competitive pressures on States are maintained and that States have the capacity to provide the standard of common user services, amenities and infrastructure that are essential to the efficient development of regions with high economic potential.

It is important because evidence suggests that:

- Australia, as a federation, reaps substantial economic benefits from being a federation, but is missing out on further substantial benefits because of the degree of fiscal centralisation (Twomey and Withers suggest that per capita GDP is 12% higher because of federation, but could be 10% higher still with best practice decentralisation[1]); and

[1] Anne Twomey & Glenn Withers, *Federalist Paper I Australia's Federal Future: Delivering Growth and Prosperity, A Report for the Council for the Australian Federation*, April 2007, page 42.

- poorly implemented fiscal equalisation can exacerbate the very disabilities that it seeks to equalise. A recent OECD publication noted that "Equalisation may in fact be self-defeating in that it slows down regional convergence ... the more generous equalisation is, the less incentive there is for poor regions to catch up or for households and firms to migrate to more prosperous jurisdictions. As a result, disparities widen rather than narrow."[2]

It is also important because Commonwealth infrastructure funding is unlikely to correct flaws in the fiscal equalisation process. As noted in our July 2013 submission:

- the allocation of Commonwealth government infrastructure assistance is unlikely to properly reflect national interest considerations, due to political pressures. A former Commonwealth Finance Minister has publicly acknowledged this to be the case; and
- non-market oriented central planner approaches inevitably fail due to the central planner's lack of perfect knowledge. Infrastructure Australia's reports emphasise just how difficult it is for a central planner to allocate funding, with a 'profound disconnect'[3] between demands for new infrastructure and the community's willingness to pay, and uncertainty about the true comparative benefits of proposed projects.[4]

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2 *Fiscal Federalism 2014: Making Decentralisation Work*, OECD Publishing, 2013, page 111.

3 Infrastructure Australia's June 2011 report to COAG, *Communicating the Imperative for Action*, page 16.

4 "By themselves, Benefit Cost Ratios (even including so-called 'Wider Economic Benefits') are an insufficient basis for prioritising the 'Ready to Proceed' projects. Benefit Cost Ratios … need to be complemented by a consideration of a project's 'strategic fit'" (ibid, page 72).

2. The Equalisation Objective and Supporting Principles

Key Points

- Policy neutrality is central to achievement of HFE, not a 'subsidiary principle'.
- We continue to believe that the CGC should be looking at the intent of State policies, when determining what States do.
  - We acknowledge that intent is often not practically observable at the level of detail that the CGC makes its assessments. However, the solution is not to ignore intent but to broaden the assessments to a level where intent is more clearly discernible.

Policy Neutrality

The CGC comment that 'the goal of policy neutrality is subsidiary to the requirement to achieve HFE' (page 63, paragraph 7) is puzzling to us, as it appears to directly contradict the requirements of the HFE principle, relating to 'same effort to raise revenue', 'services and the associated infrastructure at the same standard' and 'same level of efficiency'.

Our view is that policy neutrality is central to:

- the definition of HFE;
- the long run efficiency of HFE; and
- the long run fairness of HFE.

As noted in the introduction, Commonwealth infrastructure funding cannot be relied on to fix flaws in HFE.

The importance of the four supporting pillars of HFE is that they provide guidance on whether a proposed methodology works as a total proposition.

What States Do

The draft report says that the CGC is not generally attracted to our proposal that it should analyse the intent of State policies. (page 16, paragraph 27)

We note that the fiscal equalisation principle requires equalisation to the same standard of services.

To determine the standard of services, the CGC needs to know what service the States are providing. For example, is the intent to provide a hospital or is it to make people well?

As another example, what is the intent of public transport? If the sole point is that States provide public transport, then the CGC should equalise to the same standard of public transport, rather than to provide a higher standard (trains) in larger capital cities.

- It seems from this example, that the CGC is actually prepared to make an assessment based on an underlying policy intent – but it is not clear what the CGC considers the policy intent of public transport to be.

Similar comments apply to the requirement that revenue capacity be based on the same effort to raise revenue.

We acknowledge that intent is often not practically observable at the level of detail that the CGC makes its assessments. However, the solution is not to ignore intent but to broaden the assessments to a level where intent is more clearly discernible.

3. Implementing Equalisation

Key Points

- The CGC should be consistent in the use of discounting to address uncertainty.
  - The CGC should be using average policy revenue bases, but instead uses observed revenue bases as an indicator. There is uncertainty in the extent to which the observed revenue bases reflect average policy revenue bases.
  - The CGC should deal with this through discounting, just as it does elsewhere. The discount should be larger for revenue bases that are more susceptible to State policies, such as mining production and land values.
- The CGC needs to actually implement its contemporaneity principle.
  - The current time lags are making Western Australia's budget management very difficult, and other States should share in the volatility costs as well as revenue benefits from Western Australia's royalties.
  - The only way to remove time lags is to use projections of the grant-year circumstances (i.e. cease lagged three-year averaging), with a correction for actual data in the following year.
- Point 8 of the proposed assessment guidelines ('The disability may not be assessed in a category, if the amount redistributed in that category is small') should be deleted, as it:
  - is inconsistent with the CGC's proposed use of materiality thresholds; and
  - makes the total impact of disabilities dependent upon the category structure.

Discounting

Chapter 3 of the draft report states:

> We consider discounting is an appropriate means of dealing with uncertainty in assessments. Assessments might have a level of uncertainty attached to them because the indicator we are using may not be a good proxy of what we are trying to measure or because data are of poor quality, either not fully comparable across States or not representative of the situation in all States. (page 33, paragraph 67)

We have previously criticised the use of discounting for data problems when it is not clear that the appropriate HFE outcome is to move the assessment closer to an equal per capita assessment – for example, where the relationship is not clear and discounting could give a biased estimate. In response to this argument, the CGC has responded:

> Some States oppose discounting on the grounds that it introduces bias, and leads to a 'conservatively biased estimate of HFE rather than the best available estimate' or because it enables the development of unreliable assessments. However, we consider that discounting is an important tool in achieving HFE. We do not use it to introduce conservative bias or to allow unreliable assessments, but to achieve our best estimate of HFE where we have uncertainty. We agree with the ACT view that 'the use of discounting is consistent with the CGC's starting assumption that, in the absence of reliable data, no disabilities should be assessed…'. The logical extension of this assumption is that, when data do exist but their quality is in question, a partial discount is a valid approach. (page 33, paragraph 69)

Effectively, the CGC is saying that if there is uncertainty in the accuracy of the data, there is an a priori assumption that an equal per capita assessment is reasonable. We therefore ask the CGC to apply this decision consistently in response to uncertainty.

The fiscal equalisation principle requires the CGC to assess the revenues that each State would raise if it had "average effort". This must include not just average tax rates, but average policies in developing the revenue base.

This is recognised by the draft report:

> In principle, we would prefer to measure the tax base that each State would have if it had the average industry policy, the average level of infrastructure for industry, the average tax rate etc. We consider that there are probably differences between States in these policies. (page 85, paragraph 22)

Currently, the CGC uses observed revenue bases as an indicator of average policy revenue bases. However, the CGC does not know the extent to which the observed revenue bases are an accurate indicator of the average policy revenue bases. The draft report says:

> It is not clear the Commission can adjust for such policy differences in an equitable, reliable and comparable way across States. (page 30, paragraph 50)

The CGC should therefore use its standard method of dealing with uncertainty, which is to discount.

This is supported by the initial quote above from the draft report (square brackets inserted by Western Australia):

> We consider discounting is an appropriate means of dealing with uncertainty in assessments. Assessments might have a level of uncertainty attached to them because the indicator we are using [observed revenue bases] may not be a good proxy of what we are trying to measure [average policy revenue bases] ... (page 33, paragraph 67)

The CGC has so far rejected our arguments for discounting revenue bases including the mining revenue assessment. The draft report says:

> We do not accept that applying a general discount is an appropriate response to concerns about policy neutrality. The scale of mining in each State does not necessarily reflect the relative policy of each State. For example, the ACT's lack of mining is not due to its below average effort and it should not lose from an adjustment. Any adjustment for policy impacts would need to redistribute GST between mining States. A discount will not do this. (page 30, paragraph 48)

This is exactly the sort of argument (i.e. a discount will not necessarily move each State's assessment in the correct direction) that the CGC rejected when it endorsed discounting for uncertainty. By its nature, discounting will create collateral damage (we believe that Western Australia has received substantial collateral damage from a variety of instances of discounting[1]). However, as discussed earlier, the CGC has rejected this argument on the basis of an a priori assumption that an equal per capita assessment is reasonable (page 33, paragraph 69).[2]

Hence, we support discounting of all of the revenue bases to reflect the uncertainty in how well the observed revenue bases reflect the average policy revenue bases. This discounting should be larger for revenue bases that are more susceptible to State policies, such as mining production and land values.

Contemporaneity

The draft report describes the contemporaneity principle as follows:

> This principle means equalisation should reflect State circumstances in the year the funds are used, as far as possible. (page 35, paragraph 73)

Western Australia has previously accepted that only lagged equalisation is actually achievable. However, Western Australia's recent budget experiences (with iron ore prices dropping substantially, but relativities being largely unaffected until late in the forward estimates period) have placed a heightened focus on this principle.

We have re-examined the practicalities of implementing HFE with no lags and are now of the view that the CGC can and should implement its contemporaneity principle.

- Western Australia's revenues are very volatile and have proven to be unpredictable. Since our budget forecasts, iron ore prices have fallen significantly.

[1] For example, in relation to discounting in the 2010 Review of the interstate wages factor, the regional costs factor, the infrastructure stock factors and the Net Lending assessment.

[2] On this basis, the CGC would not need to discount the ACT mining revenue base towards equal per capita, if it believes there is no uncertainty in the ACT's observed zero mining revenue base.

- The conservatism of HFE for Western Australia (e.g. insufficient recognition of: high costs in the Pilbara; infrastructure needs to meet future demand; and developing sustainable communities to support growth) also means that it has not been feasible for Western Australia to 'bank' the temporary time lag benefits we have gained in the past, and cannot now draw on reserves for the coming time lag losses.

In principle, HFE without lags could substantially improve State budgeting by spreading revenue volatility across all States.

- At present, States (like Western Australia) can face the situation where, when they pass a peak in their own source revenues, their GST grants are still decreasing at the same time as their own source revenues are decreasing.
- We project that the CGC's proposed mining revenue assessment, with current time lags, will reduce Western Australia's 2015-16 GST grant by $5,886 million,[3] whereas we project that this reduction would be $5,235 million without time lags – a difference of $651 million or $239 per capita.
  - If we add real estate transfer duty into this calculation, the projected difference rises to $1,022 million or $376 per capita.

HFE without lags will also eliminate distortions in decision making caused by time lags.

- For example, decision making is currently affected by the fact that most of the GST impact of a change in policy (particularly royalty rates) currently lies outside the forward estimates period, and time lags can make State budgets seem better off or worse than they really are.

HFE without lags is also more equitable, ensuring that other States share in the volatility costs as well as revenue benefits from Western Australia's royalties. Likewise, other States (including Western Australia) would share the volatility in New South Wales' and Queensland's coal royalties, and the volatility in each State's conveyance duty base.

[3] Compared to an equal per capita assessment. Excludes the proposed iron ore fines phase-in.

Achieving contemporaneity would require the CGC to make projections of the circumstances in the grant year.[4] There would be a correction for actual data in the following year.

It would help if the Commonwealth Government were to ask the CGC to deliver up-to-date GST shares by reporting preliminary relativities in February each year and updated relativities in August each year. However, we acknowledge that this is beyond the CGC's current terms of reference.

Assessment Guidelines

Point 8 of the proposed assessment guidelines reads:

> The disability may not be assessed in a category, if the amount redistributed in that category is small. (page 41)

This is inconsistent with the CGC's proposed use of materiality thresholds:

> If a disability is material at its broadest level of disaggregation, across all categories it would be included in all assessments where there is a conceptual case to include it. (page 31, paragraph 58)

We believe that the CGC should remove point 8 from its assessment guidelines. Otherwise, the total impact of a disability will be dependent upon the category structure.

[4] We recognise that these projections would be uncertain. If the CGC is not comfortable with State projections of mining revenues and taxes, it could seek advice from Commonwealth Treasury and/or the Bureau of Resources and Energy on appropriate forecasting assumptions and then ask State Treasuries to rework their estimates according to the Commonwealth assumptions. Alternatively, the CGC could seek advice on the assumptions from a consulting firm. In any case, differences between the projections and actual outcomes would then be reflected in ex post adjustments made by the CGC to the relativities in following years when data are available. Under most circumstances, this would still give more contemporaneous equalisation than the current lagged three-year average.

4. National Interest

Key Points

- We believe that the CGC should have a consistent approach to national interest, encompassing other relevant Commonwealth grants and State expenditures, rather than selectively making an assessment for National Network Roads (NNRs).
- In the absence of such an approach, we believe that the CGC should cease assessing "national needs" based on half the National Network Road grants.
  - The conceptual case and empirical evidence for such needs, or whether those needs are correctly reflected by the distribution of Commonwealth NNR grants, have not been established.
- If needs can be deduced from Commonwealth grants, then there should be an assessment of Western Australia's effort in developing the North West Shelf project based on retaining an above population share of the grants in lieu of royalties.

The General Issue

The draft report rejects the concept of discounting Commonwealth grants on the basis of national interest, but proposes retaining an effective 50% discount for National Network Road (NNR) grants on the basis that this reflects "national needs".

We believe that the CGC should have a consistent approach to national interest, rather than selectively making an assessment for NNRs.

National needs do not just relate to Commonwealth grants. Much of the State's community development and infrastructure expenditures are for the national interest, by facilitating the efficient development of regions with high economic potential to improve national per capita income. The CGC should assess these needs, considering that:

- the bulk of the increase in revenue raising capacity that results from these expenditures accrues to the Commonwealth (and even more so for offshore developments); and
- fiscal equalisation shares the increase in State revenues across the nation.

National Network Road (NNR) Grants

We do not believe that this assessment is consistent with the assessment guidelines.

These guidelines require a sound conceptual basis for the disability and empirical evidence. (point 2, pages 39-40 of draft report)

However, the CGC has been unable to identify these national needs, and does not even know if they exist, or whether they are correctly reflected in the distribution of Commonwealth NNR grants:

> Since that investment is intended to improve the national road network as a whole, it **may** be driven by benefits or needs in States other than those where the investment is made. (page 375, paragraph 41, emphasis added)

The only empirical evidence that these needs exist is the NNR grants themselves. These grants will be influenced by numerous factors, including States reprioritising spending to roads not in the national network (as they know the Commonwealth will spend on NNRs) and the locations of marginal electorates.

Other Commonwealth Grants

The proposal to continue assessing half of the NNR grants as representing needs is also inconsistent with the CGC's reasoning in rejecting a general discount to infrastructure grants for national significance:

> We can see conceptually how identifying the 'interstate spill over benefits' of projects could form the basis of treating part of Commonwealth projects so that they have no effect on the GST distribution. However we doubt we would be able to quantify the size of such benefits or apportion project expenditure to that outcome. No State was able to propose a methodology which would solve this problem. (page 76, paragraph 71)

The CGC seeks to differentiate NNR projects from other infrastructure projects, but it is not clear how it considers itself able to identify national needs associated with NNR projects:

> On this basis, we propose to fully include the Commonwealth payments for rail and NNR projects in this review. We also consider there are national needs associated with NNR projects and in the absence of other information the roads investment assessment includes allowances which are measured by reference to the interstate distribution of half the NNR payments. We have not, however, made a similar allowance in the urban transport assessment because **we were unable to identify national needs** associated with rail projects. (page 77, paragraph 76, emphasis added)

Therefore, we believe that the CGC should cease assessing half of the NNR grants as reflecting expenditure needs, or apply its approach to NNR more broadly.

5. Revenue Assessments - the Broad Approach

Key Points

- We believe the CGC should measure revenue bases according to capacity to pay principles, rather than legal incidence.
  - This would reflect the fiscal equalisation requirement that revenue raising capacity be measured according to average effort.
  - We do not see how "the capacity of States to raise taxes" differs essentially from "the capacity of communities to pay taxes".
- We believe that the CGC should use a global revenue base measure to assess taxes and mining revenues, as it would be simpler and remove the extreme policy distortions in the mining revenue assessments.
  - Differences from the existing assessments are not of concern because the existing assessments are not reliable. Also, a global revenue base better reflects capacity to pay than legal incidence assessments.
- We believe that the CGC should have a preference for broad indicators of revenue raising capacity.
  - We do not accept the CGC's arguments that legal incidence revenue bases are preferable, as these also omit aspects of States' tax policy, and the CGC is inconsistent in its application of legal incidence.
- We believe that the CGC should discount all of the revenue bases, to reflect the uncertainty in how well the observed revenue bases (which the CGC uses) reflect the average policy revenue bases (which the CGC should use).
  - This discounting is required for consistency with the CGC's use of discounting as its standard response to uncertainty.
  - The discount should be larger for revenue bases that are more susceptible to State policies, such as mining production and land values.

We have a number of concerns with the CGC's discussion of revenue assessments in Attachment 1 of the draft report which are discussed below.[1]

Capacity to Pay vs Legal Incidence

We believe that the CGC should in principle measure revenue bases using capacity to pay measures, rather than legal incidence (although legal incidence might be considered a suitable proxy in some circumstances).

- In particular, the CGC should use a measure such as household income rather than land values for the Land Tax assessment.
- Also, under a capacity to pay approach, many adjustments such as thresholds and progressivity may no longer be relevant.

The draft report discusses why the CGC prefers legal incidence measures to global revenue assessments or broad indicators.

In this discussion, the draft report largely presumes that legal incidence is the best measure of revenue raising capacity. The only statement used to support this presumption appears to be:

> Equalisation is about the capacity of States to raise taxes rather than the capacity of communities to pay taxes. (page 83, paragraph 7)

However, States cannot raise more tax than communities (persons and firms) are capable of paying. Conversely, if the community can pay more, then the States can tax more.

As the two are essentially the same (barring constitutional constraints and some cross-border issues), it follows that average taxing effort can, and should, be measured by reference to the capacity of communities to pay taxes.

For example, if a tax is legally applied to businesses, but businesses are able to fully pass the tax on to their customers, then the State can continue raising the tax rate as long as the customers can bear the tax.

Legal incidence is merely a mechanism for collecting the tax - it does not genuinely reflect tax raising capacity.

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[1] In this chapter, wherever we use the term "taxes", it should be read as also encompassing mining revenues. We have used the term "taxes" for consistency with the CGC's terminology in Attachment 1 of the draft report.

Global Revenue Base

We believe that the CGC should replace the bulk of the revenue assessments with a global revenue base assessment.[2] In particular, a global revenue base assessment would:

- be simpler; and
- remove the extreme policy distortions in the mining revenue assessments.

The CGC raises various concerns about a global revenue assessment but does not balance them against concerns with the legal incidence approach, including:

- significant use of judgements to make revenue bases comparable;
- lack of focus on capacity to pay (States in practice consider the affordability of tax rates);
- placing importance on tax microstructures that vary a lot across States but may have no more than accidental significance to States (e.g. thresholds and progressivity rates); and
- lack of policy neutrality (e.g. State policy impacts on land values and the sensitivity of mining assessments to policy changes).

Broader Revenue Bases

We believe that the CGC should have a preference for broad indicators of revenue raising capacity.

The draft report argues against this on the following basis:

> Our concern with broader revenue assessments is they can omit aspects of States' tax policy that have a material impact on their GST distributions. Where intrinsic differences exist in the tax bases available to States and where States act on those differences (progressive rates of tax, for example), we believe we should examine them. (page 83, paragraph 11)

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2 In our July 2013 submission, we indicated that the CGC should still do an equal per capita assessment for revenues other than taxes and royalties (including user charges, revenues derived from asset holdings, and 'balancing items').

Firstly, we are concerned that the existing legal incidence assessments omit aspects of States' tax policy. For example, States have a policy of reducing land tax rates when land values grow too fast, which is not reflected in the CGC's assessments.

Secondly, the CGC is inconsistent in its application of legal incidence. For example, the CGC is proposing to use total land values as the revenue base for:

- metropolitan improvement levies – despite these only being levied in metropolitan regions and, in Western Australia, only on properties subject to land tax; and
- emergency services levies – despite the base for these generally being capital improved values, and the rate varying with location and the standard of fire fighting service provided.

Discounting

As discussed in the *Implementing Equalisation* chapter of this submission, we believe that the CGC should discount all of the revenue bases, to reflect the uncertainty in how well the observed revenue bases (which the CGC uses) reflect the average policy revenue bases (which the CGC should use).

This discounting is required for consistency with the CGC's use of discounting as its standard response to uncertainty.

The discount should be larger for revenue bases that are more susceptible to State policies, such as mining production and land values.

6. Payroll Tax

Key Points

- We still support removing the payroll tax threshold adjustment, because the adjustment:
  - adds to the complexity of the assessment process;
  - gives significance to what appear to be essentially random decisions by States;
  - is only a very broad approximation of average 'legal incidence' policy;
  - assumes that States target a threshold business size rather than a threshold proportion of the revenue base;
  - promotes inefficiency in the design of payroll tax regimes; and
  - introduces grant design inefficiencies.
- There are issues with how the payroll tax base is measured with regards to offshore and fly-in fly-out (FIFO) workers which require investigation by the CGC, and an adjustment to States' revenue bases.

Removing the Tax Free Threshold Adjustment

The issues presented in our February 2013 submission remain valid.

- Issues that are specifically relevant to HFE are as follows.
- While retaining a tax free threshold is representative of 'what States do', the large variations between jurisdictions (from $550,000 to $1,850,000) have not been reflected in the CGC's standard policy assessment (as discussed in our February 2013 submission).
- These large variations mean that any average will be representative of no one. Rather, it appears that the specific threshold has no particular relevance to States and States' choices reflect essentially random historical factors. It does not seem appropriate to redistribute money on the basis of such considerations.

- The CGC is assuming that the relevant policy is to target a threshold business size. However, this is not empirically verifiable and an alternative assumption is that States target a threshold proportion of the revenue base (in which case no redistribution is required for HFE purposes).

We recommend that the tax-free threshold adjustment be removed in the interests of simplicity.

Alternatively, payroll revenue capacity could be assessed as any revenue above the lowest tax-free threshold of any State. This would be consistent with the CGC's approach of considering any tax imposed by any State to be part of what States do collectively.

Offshore and FIFO workers

As we stated in our January 2014 submission, there is the potential for Western Australia's payroll tax base to be assessed as larger than it actually is due to how offshore and FIFO workers are measured by the ABS.

Western Australia has several reasons to believe that our payroll tax is being overstated by using the ABS' Compensation of Employees (CoE) data.

The CoE data is used as a proxy for the size of the payroll tax base in a State, but the data itself may not be suitable for measuring the employment of workers who are engaged in offshore work or working on FIFO arrangements.

The exact wording of the question regarding wages attributable to each State in the ABS' *Quarterly Business Indicators Survey – Quarter ending 30 June 2014*, is as follows:

> Report wages and salaries paid in each state/territory in which this business operates.

It is not unreasonable to see a situation where an offshore oil and gas contractor who operates exclusively in Western Australia, but employs staff on a FIFO arrangement from New South Wales, could report that their wages are paid in Western Australia, whilst the New South Wales State Revenue Office collects payroll tax on their behalf. The question that the ABS poses is not designed to determine what the size of the payroll tax base is in each jurisdiction, but rather the size of the workforce.

We don't know how many FIFO workers in Western Australia are contributing to payroll tax in other States. An indication that this is significant is shown by the fact that Western Australia has paid a number of payroll tax refunds totalling over $20 million over the past four years for the issue of FIFO workers being taxed incorrectly[1].

This issue was initially identified by Tasmania's State Revenue Office, but the majority of the revenue refunds are in relation to workers with residence in New South Wales. Payroll tax of $5 million per year equates to a payroll of just under $100 million, by which Western Australia's payroll tax base would be overstated.

Because of the uncertainty in how big an issue this can be, we recommend that Western Australia's payroll tax base be adjusted down by at least 1%, reflecting perhaps 10% of its FIFO workforce of around 65,000 persons.

[1] This information is from Western Australia's Office of State Revenue. For taxpayer confidentiality reasons, further details cannot be provided.

7. Land Tax

Key Points

All property component

- Using land value is not the correct way to assess this motley collection of taxes/charges in the ‘all property’ component.
- Western Australia’s Metropolitan Region Improvement Tax (MRIT), Victoria’s Metropolitan Parks Charge and emergency service levies (ESLs) each have a different revenue base, none of which match the general land tax base or the proposed land value base.
- Under its principles, the CGC should not assess any of these revenues if separate assessments of them would not be material.
- It is not at all clear what a suitable revenue base indicator would be for the ESLs alone, or the revenues in aggregate, that would reflect the legal incidence of these taxes. EPC is the appropriate assessment in this circumstance (notably, there is no assessment of emergency services costs).
- There are considerable problems with comparability of Valuer General data, so a discount would be appropriate for any assessment based on such data.

Income producing property component

- As noted in previous submissions, land values do not provide a good indicator of capacity to pay, whereas the relationship between land tax and economic activity is strong and stable.
  - Hence our continued preference for using household income as the land tax capacity indicator.
- If the use of land values is retained, the current 25% discount that is in place to ameliorate data problems should be retained, and a further 25% discount should be applied because land values are significantly affected by government policies.

All Property Component

Fire and Emergency Services Levies (ESLs)

Land value is not a suitable revenue base measure for ESLs, and it is not clear what a suitable practical measure would be.

- All the ESLs have a fixed charge component (Western Australia also has a maximum charge).
- The variable component is based on capital improved values.
- The relative importance of the fixed and variable components varies substantially from State to State.
- Charges usually also vary according to the location of property (five types of locations in Western Australia) and whether it is commercial or residential.
- ESL collections in total are constrained to no more than (usually less than) emergency services costs.

For example, the funding requirements for Western Australia's Department of Fire and Emergency Services are calculated during the State budget process (generally March to May), with estimates for how much each property would pay. Properties are split into five categories and have different ESL rates dependent on their area and level of service (with Perth metropolitan residents paying the most per dollar of property value, but also having the only fully professional service). After 1 July of each year the property values for the following year are finalised, and the final amount per property is calculated, prior to the notices being sent out with council rates (generally July to September). Changes in land values affect the relative weighting that each class of property has to pay, but the total funding requirement is unchanged.

Metropolitan Improvement Levies

Only two States impose a levy and they impose them in different ways.

In Western Australia, the MRIT is levied on a similar basis to land tax, with the following notable criteria.

- it is only levied on metropolitan properties.

- it is levied on the unimproved value of land.
- it is *not* levied on primary production land.
- it is levied on properties with an unimproved value of more than $300,000.
- it is *not* levied on principal places of residence.

This is in stark contrast to how Victoria's Metropolitan Parks Charge is levied. The main features of the Parks Charge are as follows.

- It is levied on metropolitan properties.
- It is levied on the capital improved value of land (fixed at 1990 values).
- It is *not* levied on primary production land.
- It is levied on (almost) *all* property in the Melbourne metropolitan area.
- There is a minimum charge ($70.62 in 2014-15), which increases periodically by CPI.

Conclusions

From the above, we conclude that ESLs, the Western Australian MRIT and the Victorian Metropolitan Parks Charge each has a different revenue base, none of which match the general land tax base or the proposed land value base.

Under the CGC's guidelines (draft report, page 26, paragraph 34), if a tax is not material when assessed differentially, then it will not be assessed as part of a broader whole either.

The CGC should therefore check the materiality of each of these revenues separately, before concluding that it should make an assessment (notably, there is no assessment of emergency services costs). However, in practice this will be difficult because of data availability and the difficulty of identifying any practical revenue base that reliably measures ESL legal incidence capacity.

It is even less clear what a suitable revenue base indicator for the aggregated revenues would be that would reflect the legal incidence of these taxes.

Western Australia recommends an EPC assessment for these revenues.

Valuer General Data

There are numerous problems with comparing data across States from Valuers' General, as valuation methods vary.

Therefore, a discount would be appropriate for any assessment based on such data.

Income Producing Property Component

A Broader Base for Assessing Land Tax

As we argued in our July 2013 and February 2014 Submissions, land values are a poor indicator of the underlying land tax base. Land tax collections are more reflective of the populace's ability to pay land tax. We recommend that a broad indicator of a State's ability to pay be used in the land tax assessment, with household income a superior indicator.

Policy Influence on Land Values

If the CGC continues to assess land tax on the value of land, the discount for uncertainty should be increased. As we argued in our July 2013 and February 2014 Submissions, the current 25% discount on land values for data issues does not take into account the policy influences of government on land values. These influences can have a large impact on the supply of land, by restricting development on urban fringes, imposing maximum densities, and through heritage listings, amongst other things. We recommend that the current 25% discount be increased to 50% to account for policy influences on land values.

8. Stamp Duty on Conveyances

Key Points

- We support adjusting revenue bases of States that do not levy duty on non-real business property, as levying this duty is consistent with what States do collectively.
- Nevertheless, we do not think a separate assessment of non-real transfer duty would be material, so it should be assessed equal per capita.

Treatment of States Not Levying Non-real Business Duty

We support the proposal to increase the revenue bases of States that do not levy duty on non-real business property. Five States currently levy duty on this base so this treatment is consistent with the CGC's approach of considering any tax imposed or service provided by any State to be part of what States do collectively.

Materiality of Non-real Duty

Under the CGC's guidelines (draft report, page 26, paragraph 34), if a tax is not material when assessed differentially, then it will not be assessed as part of a broader whole either.

The revenue base for non-real business conveyances is different from that of real property transfers. Therefore, the CGC's guidelines require that the CGC consider the materiality of a differential assessment of non-real duty.

If non-real business conveyances constitute around 6% of the transfer duty base, it seems that a differential assessment may not be material. Total non-real duty would be around $500 million, which is around $23 per capita (6% of $9 billion in total property transfer duty in 2012-13 excluding Victoria, Tasmania and the ACT). Needs on this amount would almost certainly fall below the CGC's materiality thresholds. Therefore, the revenue should be assessed equal per capita.

9. Mining Revenue

Key Points

- We support the proposed mineral by mineral assessment, as it best reflects revenue raising capacity.
- We support the proposed iron ore fines phase-in adjustment as it avoids redistributing more than 100% of the revenue from Western Australia's iron ore fines royalty rate increase in the 2012-13 data year.
- We believe that discounting the mining revenue assessments is essential for the following reasons.
  - The only other way to reduce policy distortions to an acceptable level would be to subsume the mining revenue assessment into a global revenue assessment.
  - There is uncertainty in the mining revenue assessments because the observed mining revenue bases are an imperfect indicator of the revenue bases that would exist under average policy. The CGC's policy for dealing with uncertainty is to discount, so consistency requires discounting in the mining revenue assessments.
  - The CGC is unlikely to be able to adequately assess mining related expenditures and the CGC should not equalise revenues that fund expenditures that it cannot equalise.
  - Only net revenues from the North West Shelf project should be equalised, as the CGC has not (contrary to the claim in the draft report) equalised the investment by Western Australia in developing this project (alternatively, none of the revenue should be equalised, as the project would not have proceeded in the absence of the State's investment).
- We believe that the CGC should source Western Australian values of production from our Department of Mines and Petroleum, rather than the Australian Bureau of Statistics, as our data better reflects the value of sales on which royalties are levied.

We support the CGC proposal to assess mining revenues on a mineral by mineral basis, as it best reflects revenue raising capacity. The proposed "other minerals" group is an acceptable grouping for practicality.

We also support the iron ore fines phase-in adjustment.

- Otherwise, the loss of GST revenue in the 2012-13 data year would exceed the additional royalty revenue from Western Australia's rate increase.[1] This extreme result would be a clearly unacceptable breach of policy neutrality.
- The draft report illustrated this adjustment by reducing Western Australia's assessed revenue (and increasing the other States' revenue bases) by two thirds of the estimated $500 million impact. In practice, we suggest that the CGC make the full $500 million impact to each of the 2011-12 and 2012-13 data years, and no adjustment to the 2013-14 years. If three-year averaging is retained, the adjustment would then phase out as the earlier data years drop out of the three-year average.

Our major concern with the draft report is that the CGC has rejected discounts to the mining revenue assessment, discussed below.

We also have some concerns with the Australian Bureau of Statistics mining value of production data for Western Australia, discussed at the end of this chapter.

Discounting Onshore Mining Revenue Assessments

Our submissions presented a number of reasons for discounting the onshore mining revenue assessments. In response to the draft report, the following comments further address three of these reasons.

Distortions to State Policies

Policy neutrality is a key supporting principle. It is undesirable for the GST distribution to alter State policies. Also, if this occurs, then it undermines the 'what States do' principle, as what States do would depend upon the assessments.

[1] We modelled Western Australia's 2012-13 needs under two scenarios:

- iron ore fines royalty rate of 5.625%, iron ore fines assessed as part of the existing 'low rate' group, lump iron ore assessed by itself; and
- iron ore fines royalty rate of 6.5%, an assessment of the existing 'low rate' group excluding iron ore fines, total iron ore assessed as one group.

This gave the impact of moving iron ore fines from the 'low rate' group to a separate iron ore assessment (while abstracting from the other changes that would be introduced under the proposed mineral by mineral assessment). The estimated loss in needs is $539 million, which substantially exceeds the additional $364 million in royalty revenue from increasing the iron ore fines royalty rate from 5.625% to 6.5%.

We accept that some policy neutrality is unavoidable. However, the impact on the mining revenue assessments of changes in State policies is very large. This would be the case under any mining revenue assessment, unless it were subsumed into a global revenue assessment.

We therefore consider that, if the CGC is not prepared to use a global revenue assessment, it must be prepared to discount the assessments to improve policy neutrality.

Uncertainty

The CGC persistently uses discounting to address uncertainty and should do so here. Uncertainty in the policy neutral value of the mining revenue bases has been evidenced in our February 2014 submission, and the conceptual case for discounting the mining revenue bases to reflect this uncertainty has been outlined in the *Implementing Equalisation* chapter of this submission.[2] [3]

An alternative would be to use a measure of revenue raising capacity that does not depend upon State policies. Known reserves are no better than value of production, as they depend upon exploration activity, and reserves and their valuations have a wide error margin. A broad non-policy influenced indicator of total mining revenue capacity could be based on State area (so small area States would be recognised as having low mining revenue capacity).[4] The CGC may wish to explore using an average of assessments based on State area and assessments based on the mineral by mineral assessment, so as to reduce the need for discounting.

2 The draft report has raised a technical issue about the quality of Queensland bauxite versus Western Australian bauxite. We understand that both are rated as having low levels of the particular (expensive to process) impurity and Western Australian production is low grade. Our Department of Mines and Petroleum Geological Survey Division has advised that the key reasons for Western Australia's high share of alumina production is due to the establishment of major infrastructure that underpinned the industry in the early formative years, and access to cheap power (crucially due to the State commissioning the Dampier to Bunbury Gas Pipeline).

3 As discussed in our *Implementing Equalisation* chapter, the CGC would not need to discount the ACT mining revenue base towards equal per capita, if it believes there is no uncertainty in the ACT's observed zero mining revenue base.

4 Possibly with a 'stage of development' discount for the Northern Territory.

Unassessed Expenditures

We continue to believe that a strong mining sector generates costs that are not captured by the CGC's assessments. It is unlikely that the CGC will be able to quantify these expenses, so we support an additional discount to the mining revenue assessments as a rough justice way of addressing this.

There is also a broader issue, in that in a number of cases the CGC is unable to assess expenditures, making the revenue assessments more comprehensive than the expenditure assessments. Our view is that the CGC should only equalise revenues to the extent that it can equalise the expenditures that those revenues fund. A general discount to the revenue assessments (including mining revenue) should be applied to exclude the revenues that fund unequalised expenditures.

Discounting Grants in Lieu of Royalties

We have argued that Western Australia undertook considerable investment to develop the North West Shelf project. Those expenditures have never been equalised. We therefore believe that the CGC should now only be equalising the net revenues from the North West Shelf project (which would be equivalent to discounting the revenues by the amount of expenditure, amortised over the life of the project).

The draft report rejects this argument on the following basis:

> The Commission has considered mining development expenditures in previous reviews but States were unable to identify expenses on mining or mining related activities which warranted a material assessment in addition to category specific assessments like infrastructure investment. As such we do not accept there have been previously unequalised expenditures. (page 68, paragraph 25)

The investment that Western Australia undertook for the North West Shelf project occurred (or was committed to) in the early-mid 1980s. We are not aware of the CGC ever considering mining development expenditures in the 1981 through to 1988 Reviews.

Alternatively, none of the revenue from the North West Shelf project should be equalised, as the project would not have proceeded in the absence of the State's investment[5].

Problems with ABS Data

To measure the revenue bases for the assessment of onshore mining revenues, the CGC uses ABS values of production, supplemented by State-provided data, which in our case comes from the Western Australian Department of Mines and Petroleum (DMP).

In particular, the ABS data are not available for the most recent data year, so the revenue bases for that year are taken solely from State-provided data. When the ABS data become available a year later, much of the State-provided data are replaced by the ABS data.

It has come to our attention that the ABS overestimates values for Western Australia, giving us higher revenue bases than are appropriate.

The following table compares the ABS and DMP values for the latest two years currently available from the ABS[6].

Table 1: Western Australian mining values of production Non-fuel minerals excluding iron ore and bauxite [(a)]

	2010-11			2011-12		
	ABS $m	DMP $m	ABS-DMP $m	ABS $m	DMP $m	ABS-DMP $m
Manganese	940	387	+553	846	370	+476
Nickel	4,812	4,650	+162	4,045	3,712	+333
Gold	8,454	8,186	+268	9,721	9,403	+318
Copper	1,343	1,290	+53	1,253	1,166	+87
Diamonds	240	303	-63	402	343	+59
Other	1,696	1,683	+13	2,132	2,125	+7
Total	17,485	16,499	+986	18,399	17,118	+1,281

Source: ABS 8415.0; Western Australian Department of Mines and Petroleum (DMP)

(a) The CGC does not use ABS values for fuel minerals (as it has to remove offshore petroleum and split coal into export and domestic) or iron ore (as it has to split this into lump and fines). Bauxite values are not available from DMP (which only values bauxite as alumina).

5 *Western Australia's Submission to the Commonwealth Grants Commission's 2015 Methodology Review – February 2014*, pages 45-47.

6 For simplicity, the table examines only two years. However, in six of the last eight years, the ABS has overstated Western Australia's mining value of production.

For all of the minerals separately identified in the above table, the ABS estimates values, rather than relying on actual sales data.

The biggest difference is for manganese. The ABS values this as a concentrate, whereas DMP values it as an ore (in the form of fines). Therefore, the ABS estimates include value added through additional processing.

Likewise, the ABS is valuing nickel, gold and copper using metal content, rather than taking the value of the ore.

It is not clear why the ABS estimate for diamonds differs from that of DMP. However, this is of less concern as the ABS estimates for diamonds are not consistently above the DMP values.

We believe that the CGC should use the DMP data, which better reflects "what States do" as States generally levy mineral royalties on minehead value rather than the processed value.

10. Health

Key Points

- We recommend that the CGC retain the subtraction model as it is conceptually simple and reliable, practical to implement, and we think that data problems with the method are limited and can be sufficiently resolved.

- It is a false claim that the proposed direct method is less complex. Its conceptual structure is more complex with correspondingly larger data requirements. Its implementation requires a high degree of judgement on many aspects of the assessment, with little or no data to support the decisions.

  - The proposed socio-demographic composition factor calculations are important to get right, as they should capture the standard non-State services impacts due to remoteness, but the factors are mostly guesses.

  - The levels of substitutability used in the assessments are not measures of substitutability. They measure the proportion of spending that relates to private sector-equivalent services done in the relevant public sector services, but are again mostly guesses.

  - Bulk billed benefits used in the economic environment factor calculations only provide a partial view of the private sector services that are substitutable with State services.

  - By splitting the assessment of public health into three separate components (EDs, outpatients and community health) which have significant substitutability, the CGC can produce only rough indicator economic environment factors for each component. Hence the overall impact of economic environment is not accurately accounted for.

  - The calculations assume, say, that a 20% economic environment disability translates into a 20% variation in the standard level of spending on private sector-equivalent public health services. However, the actual relationship will depend on the national level of the private sector outputs comprising the economic environment, compared to the national level of private sector-equivalent public health services.

  - The treatment of Indigenous health grants is based on an incorrect assumption that States have similar spending requirements on their respective Indigenous populations.

Subtraction Method

We believe the CGC should retain the subtraction method as it was a major simplification achievement in the 2010 Review, is conceptually sound and quantifiable.

The draft report acknowledges the conceptual merit of the subtraction method and that estimation on the level of substitutability is irrelevant as the approach works with any level of substitutability.

Reasons for moving away from the subtraction method appear to be largely data related problems. These data problems remain unclear and States need further CGC justification and details to understand the extent of these data issues.

Some cited data problems appear to be resolvable. For example there is concern with contemporaneity between data sets that are updated annually with those only updated infrequently. This is not of concern if the data and differences between States are fairly stable, and where this is not the case could be dealt with by smoothing the infrequently updated data. Another example relates to private health insurance, where premiums could be replaced with payouts.

Other problems cited by CGC staff do not seem to be problems. For example, the subtraction model has been criticised for producing significant and unexpected changes when one State received a significant Commonwealth Government funding boost for dental health services.

- We do not regard this to be a problem as broader health benefits of good dental health are well documented, and other States should have similar capacities to provide similar levels of service. If the CGC is not going to fund States to provide an average standard of dental care for their residents, then it must fund States with low dental care for the additional hospital services that will be required in future.

Proposed method

The CGC claims its proposed direct assessment method is less complex as it uses only data from two sources. However, conceptual complexity is much greater, and due to lack of **relevant** data the assessment is based heavily on judgement with little evidence.

Socio-Demographic Composition (SDC) Factors

The SDC factors play an important role in the CGC's proposed method, as they need to capture the effects of economic environment (i.e. lack of accessible or affordable private sector services) that are related to the degree of remoteness.

The SDC factor for Emergency Departments (EDs) is based on heavily imputed data outside the major cities[1], and hence is unreliable. The SDC factors for outpatients and community health are essentially guesses, using the SDC factor for admitted patients and some categories of ED patients respectively (presumably with imputation for unrecorded demographics). Consequently, it is unlikely that SDC factors are capturing the standard remoteness aspect of non-State service provision.

- As a hypothetical example of the danger of this process, it is quite possible that if demands related to lack of private sector services do not impact greatly on ED services, that they could disproportionately impact on community health services.

The use of a medium discount of 25% for the community health factor makes it even less able to pick up the standard remoteness aspect of non-state service provision.

Economic Environment Factors

The private/public substitutabilities presented in the draft for EDs, outpatient services and community health services do not appear to measure substitutabilities at all, but rather the proportion of services that are considered private sector-equivalent services (e.g. GP-type services provided by EDs).

Substitutability is reflected, for example, in the different proportions of ED services comprising GP-type services across hospitals in regions with different economic environment characteristics. For example, as the CGC noted, the proportion of ED work comprised of GP-type services is low (10-12%) in some of Perth's major hospitals (e.g. with a GP clinic next to them). This is an indication of high substitutability, not low substitutability as some have argued.

[1] 10% of demographics is not recorded in major cities, rising to 30% in inner regional areas and 86% in very remote areas.

In considering the issue of substitutability, it is relevant that States are providers of last resort when private sector services are unavailable or unaffordable. While States may not always everywhere respond to consequent demands for State services, the consequences of shortfalls in State primary care services (e.g. dental care) will be more serious health outcomes later, which will be reflected in increased State expenditures (e.g. on heart disease). As the CGC cannot practically allow for such issues in its assessments, for equalisation purposes an assumption of full substitutability of private sector services across the private and public sector appears appropriate.

With regard to the CGC's measurement of the average proportions of private sector-equivalent services in public sector facilities across Australia, only the proportion for EDs is based on data, but this is highly suspect. An ABS patient experiences survey cited by the CGC could well suffer from response bias.

The CGC also cites an AIHW[2] study of what they considered to be GP-type presentations (but at larger hospitals only). However, the AIHW definition of GP-type patients is set to change in 2015 to include 'relevant' triage category 3 patients (as well as 'relevant' categories 4 and 5 patients used previously), and to change the relevance criterion. This could result in a significant change to the proportion of ED patients who are considered GP-type, without any change to the underlying use/demand for these services. We conclude that there is substantial subjectivity in the measurement of the ED proportion.

The proportions chosen by the CGC for outpatients and community health are essentially guesses.

In calculating the economic environment factors, the CGC uses only bulk billed services. This provides only a partial view of the private sector services that are substitutable with State services. The CGC should instead include all relevant private spending in the sector.

2 Australian Institute of Health and Welfare.

By taking a micro approach to the assessment of public health (through separate assessments for EDs, outpatients and community health which have significant substitutability) the CGC can produce only rough indicator economic environment factors for each component. Unlike the global assessment in the subtraction model, the indicative micro assessments mean that there is no surety that the individual assessments will add up to the correct total impact, without gaps or double-counting.

There is also a logical flaw in the economic environment factors. For example, the CGC is assuming that if ED-substitutable GP services are 20% above the national average in a State,[3] then GP-type services in EDs will be 20% below the national average in that State – but this would only follow if the standard (i.e. national) output of ED-substitutable GP services and standard (i.e. national) output of GP-type services in EDs were the same.

Indigenous and Rural Health Division (IRHD) Grants

For the treatment of these grants the CGC assumes "If a State's share of the total IRHD grants is higher than its share of the national Indigenous population, then it would be assessed as needing less GST compared to other States", however this is a mistaken assumption. This incorrectly assumes that all Indigenous people require the same level of funding.

We consider that a State such as Western Australia requires higher levels of funding for its Indigenous populations as they are more disadvantaged. Table 6 on page 515 of the draft report supports this by showing that Western Australia has large shares of the more disadvantaged Indigenous populations (i.e. significantly higher than the State's population share).

[3] The CGC assumes that substitutability relates only to bulk billed services, but we consider it relates to all GP services.

11. Welfare

Key Points

- We support the proposed assessment, including the assessment of disability services.

We consider the assessment of disability services to be a major improvement, including the replacement of Disability Support Pension numbers with the NDIS eligible population.

The CGC has correctly noted that the share of disability service users who are Disability Support Pensioners varies significantly across States.

We would also note that, even if this share did not vary across States, it would not mean that Disability Support Pensioners have similar propensities to use disability services (on a policy neutral basis). In fact we believe this is not the case, reflecting differences across States in the relative importance of economic factors as drivers of Disability Support Pension numbers.

12. Housing

Key Points

- The proposed indigenous cost weight is overly conservative, as it does not reflect Western Australian and Northern Territory experience.
- There should be a higher indigenous cost weight for States such as Western Australia that have a larger indigenous household size.
- The CGC should check that the use of equivalised income-based definitions of low income status does not create distortions in the calculation of housing revenue capacity.
- The CGC should ensure that it assesses needs for improving indigenous housing, if it is to redistribute the Remote Indigenous Housing grants funding those needs.
- We support assessing first home owner assistance on the basis of population growth in relevant age groups.

Indigenous Cost Weights

The Commission has used an Indigenous cost weight of 40% when assessing the socio-demographic composition (SDC) disability for this expenditure category. Western Australia believes that this weight is overly conservative.

In this regard, we are concerned that the average 43% cost differential between operating expenses for Indigenous households and operating expenses for non-Indigenous households (see Table 7 on page 246 of the Commission's draft report) is based on the experience of only four States. The experience of Western Australia and the Northern Territory has not been taken into account as neither has State-owned and managed Indigenous housing (SOMIH), on which the Commission's analysis is based.

The likely effect of excluding the experience of Western Australia and the Northern Territory is a significant downward skewing of the national average cost differential.

The average Indigenous cost weight of 64% calculated in Table 8 on page 247 of the Commission's draft report, which is based on comparisons of State maintenance and tenancy management expenses, suggests that a cost weight of 60% would be more appropriate than the 40% weight used by the Commission in its draft report.

This is supported by data relating to annual average maintenance costs for Western Australian public housing tenancies, shown in Table 1.

Table 1: Annual average maintenance cost of Western Australian public housing tenancies [(a)]

	Single Adult with Children ($pa)	Couple with Children ($pa)	Multiple Family Groups ($pa)	No Children ($pa)	Total ($pa)
Indigenous	5,333	5,243	5,881	3,533	4,812
Small (1-3)	5,170	4,854	5,693	3,495	4,416
Medium (4-5)	5,262	5,776	5,277	4,547	5,358
Large (6-8)	6,820	4,749	7,980	4,236	6,123
Very Large (9+)	6,051	3,833	4,581		4,624
Non-Indigenous	3,450	3,702	2,362	1,651	2,211
Small (1-3)	2,985	2,794	2,128	1,615	1,907
Medium (4-5)	4,534	4,229	2,488	6,738	4,311
Large (6-8)	5,864	3,451	4,138		4,371
Very Large (9+)		4,025			3,734

Source: Western Australian Department of Housing

(a) End February 2014.

On average, the annual average maintenance cost for a Western Australian Indigenous public housing tenancy is 118% higher than the corresponding cost for a non-Indigenous public housing tenancy.

Indigenous Household Size

As Table 2 shows, Census data for all households that have Indigenous persons suggest that Western Australian households are larger than for the nation as a whole.

On the reasonable assumption that this would hold true for public housing, this would suggest that Western Australia is required to provide, on average, larger dwellings for Indigenous households than is the case nationally.

Table 2: Indigenous household composition by number of persons usually resident

	Number of Persons Usually Resident						
	One	Two	Three	Four	Five	Six +	Total
Western Australian Households							
Number	3,027	5,177	4,018	3,874	2,589	3,447	22,132
Share	13.7%	23.4%	18.2%	17.5%	11.7%	15.6%	100.0%
Australian Households							
Number	29,532	54,878	40,746	36,777	22,831	24,284	209,048
Share	14.1%	26.3%	19.5%	17.6%	10.9%	11.6%	100.0%

Source: 2011 Census

As larger dwellings are associated with higher maintenance costs, this would suggest that the Commission should assess a higher cost weight for States such as Western Australia when determining the SDC disability for this expenditure category. Alternatively, it should assume a larger number of public dwellings in Western Australia, to achieve policy neutrality.

Revenue

Western Australia notes that while public housing rents are tied to actual household income, the Commission has distinguished between low-income and high-income households on the basis of equivalised income. We believe that this is a significant inconsistency, as Indigenous households are on average larger than non-Indigenous households, and it is possible that equivalised income may place households paying relatively large amounts of rent in the low-income classification.

To remove this potential distortion, the Commission should consider recalculating its revenue assessment using an income classification based on non-equivalised income.

Remote Indigenous Housing Grants

We understand why the CGC is proposing that the relativities reflect the Remote Indigenous Housing grants. However, these grants are to improve the housing available to remote Indigenous persons. It is not clear to us that the CGC's housing infrastructure assessments will reflect capital improvement needs for Indigenous housing. The CGC should ensure that these needs are reflected if it is to redistribute the grants funding those needs.

First Home Owner Concessions

We support assessing all first home owner assistance together and recommend that it be assessed according to population growth in the relevant age categories.

13. Services to Communities

Key Points

- The utilities assessments should be based on populations living in remote and very remote regions.
- We still believe that there is a water pipeline cost disability. As a practical solution, the CGC could assess Kalgoorlie (with its long expensive water pipeline supply) as 'remote' for the purposes of the water subsidy assessment.
- The CGC should consider the amounts of *Royalties for Regions* funding that are directed to communities in remote and very remote areas, regardless of Indigeneity, and often in response to rapidly increasing regional populations due to mining activity.
  - An assessment could be based on standard spending in remote/very remote areas, with a weighting for population growth. A more detailed assessment proposal was presented in our July 2013 submission.
- The CGC should assess the regulatory costs of development, possibly using an economic growth factor.

In general, we consider the Services to Communities assessment to be too complex and support the CGC in finding a more simple approach.

Utilities

As a first step to simplicity, we support the CGC aggregating the water, sanitation and electricity assessments into a single utilities assessment.

We understand the reason, in moving to a single utilities assessment, for assessing remote areas in a similar fashion for water and electricity.

- However, in applying the water methodology to the electricity assessment, the CGC has made that assessment more complex and based on greater judgement.
- A better (less complex) combined assessment would have seen the water component assessed as per the electricity component; according to populations living in remote and very remote areas.

As proposed, the number of towns differentially assessed has increased from populations of 200–1,000 to 50–1,000, but this has increased complexity through the CGC having to estimate the population in towns of 50–200 persons (using densities in excess of 100 persons per square kilometre).

The CGC has defended the exclusion of people living in isolated farms and stations on the basis that they provide their own water and electricity services. Services to communities in excess of 1,000 persons are assumed to cost the same per capita as capital cities and other large communities on inter-connected networks.

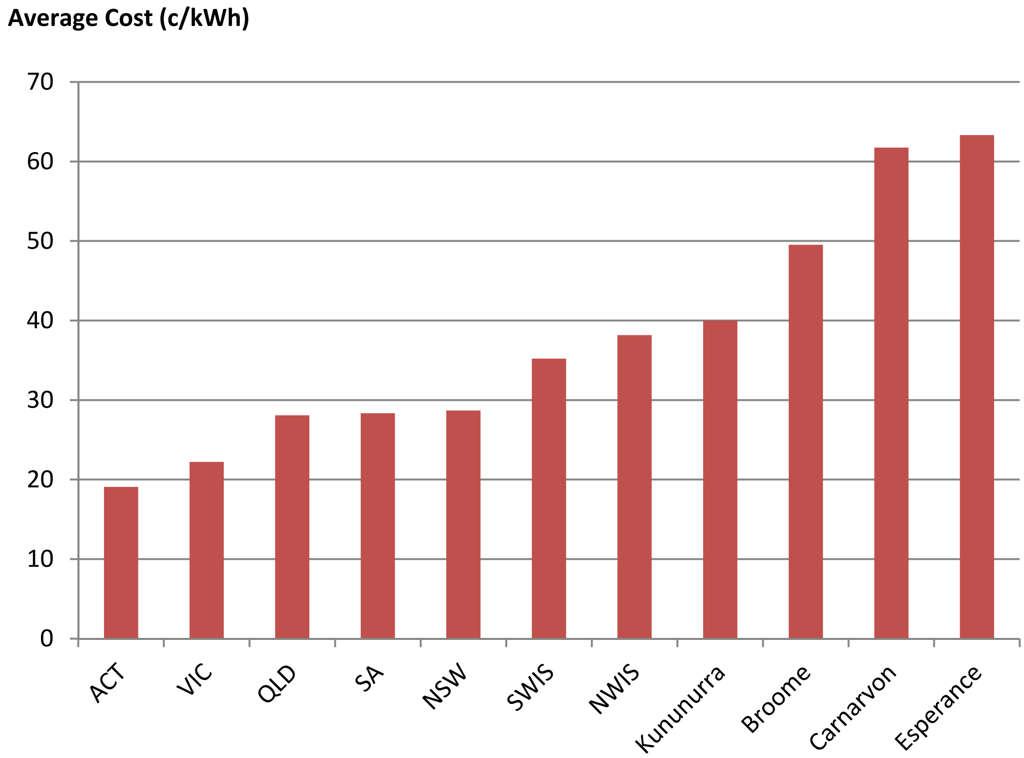
- We suggest that controlling for isolated farms and stations would not be material and argue that many towns above 1,000 persons show large per capita cost differences to those on interconnected grids (and similarly show high water costs).
- For these reasons, assessing according to populations living in remote and very remote areas is a less complex and more accurate reflection of cost differentials.

The CGC's tripartite assessment assumes that communities less than 50 persons impose no costs on the State, small communities of 50-1,000 persons consume 40% of costs, and communities of more than 1,000 persons consume the remaining 60%.

- For electricity costs, on a per capita basis, this also assumes that a person living in Canberra or Melbourne imposes the same cost to the State as a person living in Kalgoorlie or Port Hedland, because they are all part of an interconnected network.
- However, the per-capita costs of an inter-connected network in the eastern States (the National Electricity Market) are substantially lower than those in the Perth-Kalgoorlie lower south west of Western Australia (the SWIS), which are in turn lower than those of the Karratha-Port Hedland network (the NWIS). See Figure 1.
  - For more information see the WA Public Utilities Office's *Electricity Market Review Discussion Paper*.[1]

[1] Available from: http://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utilities_Office/Electricity_Market_Review/electricity-market-review-discussion-paper.pdf

Figure 1: Average cost of power generation in selected areas



Average costs for New South Wales and Victoria are non-weighted averages of the providers in each State. Average costs for ACT, Queensland and South Australia relate to single providers.

ACT, Victoria, Queensland, South Australia and New South Wales are all part of the National Electricity Market Interconnected System.

The South West Interconnected System (SWIS) services Perth and regions in the south west of Western Australia and the Kalgoorlie area.

The North West Interconnected System (NWIS) services Karratha, Port Hedland and smaller towns in the region, a population of about 40,000.

Populations in the non-interconnected areas are: Kununurra 8,000; Broome 14,000; Carnarvon 5,500; and Esperance 16,000.

Water Pipelines

Although the regional analysis of our data on economic costs to provide water at different distances from water sources was mixed, we consider that a cost disability exists.

- While our data is comprehensive and of good quality, costs are affected by the age of facilities (newer assets are to a higher standard and have higher opportunity costs due to lower depreciation). We will continue to work on trying to extract the effect an asset's age has on the data.

- However, as we are presently unsure about the practicality of this analysis, we propose as a practical alternative that the CGC recognise Kalgoorlie in Western Australia (with its long expensive water pipeline supply) as a special case and classify it as 'remote' for the purposes of the water subsidy assessment.[2]

Community Development

The Community Development assessment proposed by the CGC focuses only on Indigenous communities, providing a cost weighting with respect to other communities.

However, through Western Australia's *Royalties for Regions* funding, considerable amounts of funding are directed to communities in remote and very remote areas, regardless of Indigeneity, and often with the aim of providing more liveable communities and low cost housing in areas of rapid economic growth due to mining activity.

- This expenditure should be assessed. An assessment could be based on standard spending in remote/very remote areas, with a weighting for trend population growth. A more detailed assessment proposal was presented in our July 2013 submission.
- A significant challenge is identifying community development spending in State budgets, much of which has not been classified to the appropriate government purpose classification categories.

Regulation Costs of Development

We consider that Western Australia's data on development-related regulation costs shows the high costs consequent on high economic growth. Using data from all States, the CGC can implement a growth-based assessment of these costs.

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[2] The main conduit running from Mundaring to Kalgoorlie is 552.3km long. There is also a significant extension from Coolgardie to Norseman of over 100km.

14. Justice

Key Points

- We remain uneasy with the 50% discount to the police socio-demographic factors, as it lacks a credible conceptual base, and it seems plausible that the variances between the socio-demographic factors and police to population staffing ratios across States reflect a mix of issues (above/below standard resourcing, differences in average working hours per person and difficulties in fully capturing socio-demographic influences).
- We consider that a majority of what the CGC terms 'community policing' should be subject to the socio-demographic factors applied to what the CGC terms 'specialised policing'
  - At the very least, 75% of police expenditures should be subject to the socio-demographic factors.

We understand why the CGC proposes a 50% discount to the police socio-demographic factors when comparing to actual police to population staffing ratios across States.

However, we remain uneasy with the 50% discount to the police socio-demographic factors, as it lacks a credible conceptual base, and it seems plausible that the variances between the socio-demographic factors and police to population staffing ratios across States reflect a mix of issues (above/below standard resourcing, differences in average working hours per person and difficulties in fully capturing socio-demographic influences).

The conceptual issues have been comprehensively documented in our February 2014 submission. In our view, there is a convincing conceptual case that the great majority of police resourcing (including for crime prevention and community safety and support) is driven by crime propensity rather than a fixed population access requirement. We consider that the CGC could seek independent expert advice on this issue.

We suspect that this whole issue is driven by a misconception, namely, that police resourcing on a crime propensity basis is incompatible with reasonable access to police services by the population. Reasonable access is always necessary, but the exact level of access can be attenuated a little in cities where crime propensity is lower. The socio-demographic factor differences between States are not usually large enough that such attenuation would be noticeable.

We are concerned that the CGC is treading on unsteady ground by using cross-State analysis of actual police to population ratios to overrule a disability factor. Such analysis is prone to policy contamination.

A better approach would be to look at relationships within States (or the average of such relationships across States), but there is insufficient data to perform such analysis.

Overall, we consider that the population component of the police disability factor should be reduced from 50% to 25%.

15. Transport

Key Points

- We do not believe that the conceptual case has been made for the urban transport assessment.
- The proposed relationship between per capita net operating expense and city size is problematic, as:
  - it is not clear that the CGC has chosen the correct functional form (which substantially drives the assessment);
  - the data points are policy influenced; and
  - the relationship depends upon a few data points.

Conceptual Case

In our February submission[1], we raised concerns with the conceptual case underpinning the proposed recurrent urban transport assessment.

- The proposed assessment is a purely empirical relationship between recurrent transport subsidies and population size. It is not based on any causal disability analysis of operating expenses and revenues.
- The assumed positive relationship between population size and per capita recurrent transport subsidies (on a standard policy basis) is not intuitively plausible for large cities, given the advantages they should be able to derive from high passenger demand and high revenue raising capacity due to congestion.
- It is simplistic to assume that only city population size affects per capita subsidies, as population density and urban form also have an impact.

These concerns have not been addressed in the draft report.

[1] *Western Australia's Submission to the Commonwealth Grants Commission's 2015 Methodology Review, February 2014.*

Regression Analysis

There are significant issues with the regression analysis of Australian urban centre populations versus per capita net operating expenses.

- We have not been able to see the data underlying the analysis.
- The choice of functional form substantially drives the assessment outcomes, yet there is not enough data to properly test different functional forms.
- The few data points available for larger cities may reflect different policy settings. For example, if Western Australia's light rail and airport link projects were included in the analysis, these could significantly increase the transport operating deficit for Western Australia.
  - On page 331, paragraph 21, the CGC states that it does "not regard Sydney as an outlier" as they "have no reference point to say whether Sydney's per capita spending is unusual for a city in Australia of this size". However, it is the fact that there is uncertainty about which data points are not representative, and by how much, that drives concern about the curve fitting.

Data from the United States previously considered by the CGC did not appear to show evidence of any systematic relationship between per capita deficits and city size.

Way Forward

Overall, we consider that there is a lack of evidence, conceptual or empirical, to support the view that, for cities of significant size, per capita deficits continue to grow.

We consider that the assessment options are:

- EPC assessment; or
- a step-function assessment – i.e. an assessment of a per capita subsidy that increases with population size only for small cities (say up to 1,000,000 population) and a flat relationship thereafter. Such an assessment could be modelled to see how well it compares to the logarithmic fit that the CGC has assumed; or
- discounting towards EPC the regression relationship derived by the CGC.

16. Services to Industry

Key Points

- We believe that differential capacities to raise agriculture levies should be recognised.
- There should be a differential assessment for business development expenses at least for mining, as the current equal per capita assessment does not pass a reasonableness test.

User Charges

User charges are proposed to be netted off mining industry expenses because the CGC has determined they are affected by the same factors as mining related expenses. User charges (mainly levies) are not proposed to be netted off agriculture expenses as they are deemed to relate to expenses that are assessed equal per capita (EPC).

- However, one would expect levies to be driven by the size of the industry, not population. Where they are similar, this would not be a problem. But Table 6 on page 345 of the draft report shows marked differences from population shares.

Table 1: Ratio of agriculture establishments and sector size to population, 2012-13

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Population	32.1%	24.8%	20.1%	10.8%	7.3%	2.2%	1.0%	1.7%
Establishments	32.4%	24.0%	20.8%	9.2%	10.2%	3.0%	0.1%	0.4%
Sector Size	21.6%	24.3%	23.2%	9.3%	15.0%	5.5%	0.0%	1.1%
Ratio to population:								
Establishments	1.01	0.97	1.03	0.85	1.41	1.34	0.10	0.24
Sector Size	0.67	0.98	1.15	0.86	2.07	2.46	0.00	0.66

States with larger agricultural industries have higher capacity to contribute to their development through the levies. Accordingly, we consider that agriculture levies should be assessed differentially, based on industry size. In this regard, we understand that the CGC in principle assesses all revenues within the general government sector.

Business Development Expenses

The CGC's EPC assessment for business development expenses raises some reasonableness concerns.

Table 5 on page 343 of the draft report attributes 33% of mining expenditure to business development and 67% to regulation. Of the latter, 45% is attributed to population and the remaining 55% to sector size and number of businesses. The result is that 63% of all mining expenditure is assessed EPC, implying it is driven by population.

- This does not appear to be a plausible assumption when one considers that:
  - Western Australia, with less than 11% of the population, has 46% of the mines and 55% of the sector size; and
  - Victoria has 25% of the population, but only 4% of the mines and 1% of the sector size.
- This assessment method culminates in Victoria having assessed expenses at 37% of those for Western Australia, whereas actual expenditure was only 22%. This does not pass any reasonableness test.
  - An assessment could be accomplished through measuring a State's business development expenditure as a ratio of the size of that industry. An average ratio could serve as average policy, and determine needs (discounted if necessary).

17. Infrastructure

Key Points

- We support the continued use of the direct assessment approach, which captures the impact of population growth (including continuing the Net Borrowing assessment).
- We believe that the CGC should heavily discount the assessment of differential per capita urban transport infrastructure stock, as:
  - the shape of the relationship is probably non-linear (with declining slope) rather than linear, and its quantification depends heavily upon a few data points, which will be distorted by differences from average policy;
  - the relationship may not have the same functional form for smaller urban centres and capital cities;
  - there will be an offsetting impact on the requirement for urban road lane-kilometres which is not assessed by the CGC; and
  - the CGC has not provided the States with the data points, reducing the capacity for meaningful analysis.
- We believe that the CGC should not discount capital cost factors derived from Rawlinsons cost indices, as these factors are superior to using recurrent cost factors, which have not been discounted.
  - If the CGC persists with discounting, it should discount back to the recurrent cost factors, rather than to equal costs.
- We support the CGC proposal to not assess physical environment, as the consultant's report did not comprehensively assess all influences.
- We believe that an assessment is required to reflect that infrastructure built to address population/economic growth will initially be relatively underutilised and faces the risk of growth not occurring as projected.
  - This applies to both social and economic infrastructure, and is an important element of costs associated with growth economies.

This chapter covers issues raised in the draft report in the *Infrastructure Assessments* attachment and the *Impact of Population Growth on Fiscal Capacities* attachment. However, we have discussed National Network Roads in the *National Interests* chapter of this submission.

Population Growth

We support the continued use of the direct assessment approach, which captures the impact of population growth.

We support the proposal to continue the Net Borrowing assessment, as this forms an integral part of the population growth assessment.

Urban Transport Quantity of Stock Disabilities

The CGC proposes assessing a linear relationship between per capita urban transport infrastructure value and urban centre population, based on a regression analysis of observed infrastructure values.

CGC staff have noted that, as long as the fitted line runs close to the origin, the slope of the line has little impact on the assessment.

The draft report includes a placeholder 50% discount, pending a consultant's report on this regression analysis, which the CGC has since received.[1] We believe that this discount should be retained, reflecting the issues discussed below.

Shape of Curve

The shape of the curve is important for assessing capital growth needs. For example, a curve with declining slope will result in growth increasing the capital intensity of public transport more for smaller population centres than larger population centres.

The draft report says that a linear curve was chosen to minimise the possibility of one State influencing the relationship too much. However, the shape of the curve should depend upon the underlying logic of the relationship, as there are few data points at the higher ranges, which reflect unknown policy settings.

We expect that there is rising, but less than linear, relationship between per capita urban transport infrastructure value and urban centre population. A linear relationship cannot ultimately be sustained as population increases, and asset requirements should be reduced by increasing density.

[1] *Report on econometric work conducted by CGC*, Xiaodong Gong, IGPA, University of Canberra

It is important to note that the appropriate shape of the curve will be very dependent upon the values for the larger cities. The consultant noted that the result could depend upon a couple of data points.

- An issue that does not appear to have been referred to the consultant is that the data points are based on actual policies, but what the CGC requires is a relationship reflecting average policy. CGC staff have suggested that the use of regression analysis averages out the policies, but this will not be the case when the curve is very affected by a few data points.

The consultant also notes that the sample size for the regression analysis is quite small.

In addition, we note that the relationship need not be uniform throughout the data set. For example, there may be a different functional form for smaller urban centres compared to capital cities.

All of this means that there will remain considerable uncertainty in any regression result, so that at a minimum a large discount will remain relevant. Potentially, the CGC may not be able to justify any differential assessment.

Interaction with Roads

Cities with more rail infrastructure will transport a greater proportion of their population by rail, rather than by road. Even the use of buses reduces the pressure for additional road lanes.

However, the CGC does not assess any reduced need for road lane-kilometres corresponding to additional use of urban public transport.

This is another reason to discount the urban transport infrastructure assessment.

Transparency

At the time of writing, the CGC has not provided States with the data points underlying its regression analysis. As the shape of the curve is important to this assessment, the States' capacity to meaningfully review the assessment has been reduced.

Capital Cost Disabilities

To measure capital cost disabilities, the CGC proposes replacing recurrent cost factors with factors calculated from Rawlinsons construction cost indices, but discounted to varying extents.

In this respect, the draft report concludes:

> We consider the use of a construction cost index in the infrastructure assessments is conceptually superior to the use of recurrent cost disabilities and the Rawlinsons indices are reliable and comprehensive indicators of relative construction costs. However, there are concerns about whether they are sufficiently reliable and suitable for our purposes, including concerns about the extent to which the indices accurately capture differentials in the costs of road construction materials and plant and equipment. These concerns indicate disabilities measured using the indices should be discounted. (pages 386-387, paragraph 97)

We note that, in the 2010 Review, the CGC saw no need to discount the recurrent cost factors. If (as the draft report says, and we agree) the Rawlinsons indices are superior to the recurrent cost factors, then they should have less need for discounting than the recurrent cost factors.

- However, not only does the CGC propose discounting factors derived from Rawlinsons, but it proposes relatively high discounts of 25% or 50% (depending on the category of assets).

We also note that the CGC's use of discounting is based on an a priori presumption of zero needs. However, in this case, the CGC is starting with an assumption of the recurrent cost factors, which it is seeking to improve. Therefore, if the CGC wishes to discount, it should discount back towards the recurrent cost factors, rather than to equal costs.

We support the CGC's proposal to not assess physical environment, as the consultant's report did not comprehensively assess all physical environment influences.

Allowing for Future Growth

We believe that an assessment is required to reflect that infrastructure built to address population/economic growth (both in frontier areas and more broadly) will initially be relatively underutilised and faces the risk of growth not occurring as projected. These costs apply to both social and economic infrastructure, and are an important element of costs associated with growth economies.

The draft report rejects our argument that the infrastructure assessments should reflect the under utilisation of infrastructure built to cater for population growth:

> This proposal stands or falls on the proposition that there is significant excess infrastructure in each year. There is no way of ascertaining if that is true, in part because there is no way of accurately measuring the utilisation of infrastructure to decide if there is over or under utilisation. Anecdotal evidence suggests backlogs exist in some areas and in some States, while excess capacity might exist in other areas. While, it appears conceptually reasonable to assume that when infrastructure is built it provides for future growth, it is also possible the decision to build is deferred until existing infrastructure is over utilised. Where the balance lies in any year is unclear. (page 478, paragraph 18)

What this fails to recognise is that, regardless of how long States choose to wait before building growth infrastructure, if additional infrastructure is only built periodically, then across all areas it must be relatively less utilised when it is first built.

For example, consider prisons. Due to economies of scale, a State will only build an additional prison once every several (say 14) years. As the State's population (and hence number of prisoners) grows, this prison will become more heavily utilised. No judgement about the 'desired' level of utilisation is needed. The prison may start off 'fully occupied' (if infrastructure is built 'in arrears'), but it will become more overcrowded before a new prison is built.

A State with no population growth would not face this issue. It would use its existing prisons until they are fully depreciated, then build new prisons which would be just as utilised as the prison which it replaces.

The State with growth has a choice – (1) build new prison capacity incrementally (with a substantial cost disability due to diseconomies of small scale in construction), or (2) build in advance and operate prisons at a below average level of utilisation, or (3) delay building and operate prisons part of the time at above average utilisation and part of the time below average utilisation.

The first two options involve higher cost for the growth State. Option (2) eliminates the diseconomies of small scale, but leaves the growth State holding extra service delivery capacity that it does not value much (and incurs a depreciation cost). That is, the State is holding extra capacity that it would not choose to hold if infrastructure could be built efficiently in small increments. However, the State chooses to do this because the opportunity cost of the extra capacity (26% of the new capital cost in present value terms plus a risk premium from building in advance of realised demand) is a lot less than the cost of building capacity annually (93% of the new capital cost).[2]

The third option leaves the growth State half the time with excessive overcrowding compared to other States (with the attendant problems that this causes), and half the time with extra service delivery capacity that (as in option (2)) it does not value much.

The first two options are consistent with providing a standard level of service. The third option involves a below standard level of service (and additional management costs besides). From an equalisation perspective, the choice is between option (1) and option (2). Either the CGC needs to recognise that a lower level of utilisation in a growth State is not a policy choice, or it needs to assess the cost disability of building additional capacity incrementally.

These technical arguments should not obscure the most important reason why State governments provide social and economic infrastructure in advance of full utilisation, which is to ensure that economic development opportunities are realised efficiently.

- This is particularly important in frontier areas, where Western Australia's growth opportunities lie. Infrastructure such as power transmission lines cannot be built in small increments as activity grows, and if not built the activity will be held back or distorted.

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[2] See our July 2013 submission, page 35. Assumes that, on average, a 1% increase in the scale of construction results in only a 0.75% increase in costs (reflecting scale economies).

- For example, companies that can afford it may build infrastructure to service their own needs, but activity will be biased toward big players and particular types of projects, creating a patchwork of incrementally generated infrastructure. The broadening of competition and economic activity generally in these areas (key to low costs and full utilisation of development opportunities) will be held back.

The draft report has also quoted the view of the GST Distribution Review (page 479, paragraph 20), but there is no evidence that the argument was ever understood.

18. Wages Costs

Key Points

- We support the CGC's conclusion that no change to the assessment should be made, pending release and subsequent analysis of the new ABS Characteristics of Employment (COE) data. However:
  - the CGC should consider rethinking the model entirely at this time, rather than just minor technical simplifications to the model;
  - the CGC should abandon its proposal to base the model on capital city wages rather than whole of State wages; and
  - a fixed discount should apply to the assessment, not one that is determined subjectively on a year by year basis.

The CGC has concluded that there will be no method changes in this assessment, but that the assessment methodology will be reviewed when the new COE data become available (expected prior to the 2016 Update). In particular, the CGC has flagged several potential changes:

- simplifying the regression model by reducing the number of variables;
- assessing interstate wage differences using private sector capital city wages for public sector wages (rather than whole of State private sector wages); and
- varying the discount rate in each year of the review period.

Simplification of Existing Model

In April, the CGC circulated a discussion paper[1] identifying minor simplifications that could be made to the existing model. As per our response to this paper, we have no objections to the proposed simplifications. It is our belief that the existing Interstate Wages Regression model is effectively a black box and hence we welcome any review of the model or proposals for simplification.

We consider that the proposed simplifications do not adequately address the existing complexity of the model, nor the lack of transparency. As noted in our April response to the Discussion Paper:

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1 CGC 2014-01-S *Simplifying the Interstate Wages Regression Model.*

- even after removing the suggested variables, the number of remaining variables (in excess of 100) is still far too high;
- it is not clear that any standardisation for qualifications is required – given there is a limit on higher paying jobs, better qualifications and higher earning capacity will not necessarily translate into higher income;
- it is not clear that so much standardisation for industry is required, given workers can transfer between industries; and
- the model does not consistently give reasonable results, for example Western Australia's (apparently) low public sector wages and only modestly high private sector wages compared to other yardsticks.

In addition, the proposed analysis of private sector wages does not properly standardise for labour quality due to issues such as the non-equilibrium state of the Australian economy, government policies that restrict labour market flexibility and the tendency for private employers to standardise pay across the regions that they operate in. The impact of these factors will vary across States. For example, in States with relative labour shortages (e.g. Western Australia during the peak of mining construction) employers can be expected to accept some quality/wage trade-off. In principle, these private sector variations in pay per standard quality employee need to be taken into account in the HFE analysis of the cost of providing a standard quality of services.

Accordingly, we support the CGC's proposal to further consider whether the regression model can be simplified when the more timely COE data become available. However, we would recommend that the CGC consider rethinking the model entirely at this time, rather than just the minor technical simplifications proposed.

Capital City or Whole of State

The CGC has stated that they remain "attracted to the use of capital city wage levels on a conceptual basis, because it seems more consistent with what States do". (page 412, paragraph 43)

We have strong concerns with basing the model on capital city rather than whole of State wages – these were outlined in our February submission. However, the CGC has only acknowledged one of our arguments (that the proposed assessment compounds the unreliability already prevalent in the model) and has not addressed any of our concerns.

We seek a response from the CGC to the following concerns we have with the proposed use of capital city wages.

- At the conceptual level, the proposed assessment is fundamentally inconsistent with the HFE objective of ensuring capacity to provide the same standard of services in all jurisdictions, as it removes the nexus between wages and the standard of services. In effect, the proposed loading for States with low private sector regional wages will allow those States to employ more staff at regional wage rates, or higher quality staff at capital city wage rates.
  - While the CGC justifies the proposal on the basis of 'what States do' in setting wages (an input measure), it should rather be interpreting 'what States do' in terms of service standards (an output measure), as this is what the HFE principle requires. Even if there is a looser relationship between pay and productivity in the public sector than the private sector, it is the cost per unit of productivity that is important in considering the standard of services.
- The approach depends on the assumption that States with lower regional wage pressures (compared with their capital city) will choose to set wages at the capital city level rather than, say, at a State-wide average level, and accept the wage/productivity trade-off in the capital city.
- Given the differences between capital cities and regional areas, how confident can we be that the analysis will reflect a like-for-like comparison of employees? For example, the SET standardisation for industry, occupation, qualifications and skills is unlikely to fully account for differences in work complexity and type of work. Possibly the lower capital city/regional wage differentials observed for the State public sectors simply reflect the greater comparability of capital city and regional public sector activities compared with private sector activities.

- The lack of standardisation for labour quality also becomes more of an issue, as labour supply imbalances in both the capital cities and regional areas have to be considered. Again, this is an important issue for Western Australia.

- The lack of transparency of a capital city/rest-of-State distinction in the SET model is a major issue. It is possible to do a 'reality check' for the SET whole-of-State analysis using alternative data sources on employee earnings, but there is very little alternative data to perform a 'reality check' on the capital city and rest-of-State wage differentials calculated from the SET data.

  - One reality check is that the SET regional weights (that generally show lower wage pressures in regional areas) are not easy to reconcile with the locality allowances and accommodation support provided by States.

For all these reasons we believe that whole-of-State wages data should continue to be used for the wages assessment. This is more consistent with the HFE principle, limits the degree of subjectiveness, includes regional wage variations and does not require further increasing the complexity of the assessment via the introduction of regional loadings.

Discounting of Assessment

The CGC has stated that "the nature of the relationship between public and private sectors wages may also change (and) therefore, as more data become available, we will decide the appropriate discount in each year of the review period" (page 414, paragraph 54). We have some concerns with this approach:

- it adds to uncertainty in the assessment and will inject volatility if the discount were to change;

- it compounds the complexity of the process; and

- it is unclear how an objective distinction would be made between why different discount rates would be used, adding to the lack of transparency in the assessment.

Our preference would be for a fixed discount to be applied to provide States with some degree of certainty in the assessment, as well as minimising the subjectivity and complexity involved in the assessment.

19. Regional Costs

Key Points

- We are concerned that ARIA[1] arbitrarily reduces the very remote proportion of Western Australia's population and truncates distances.
- We are concerned that the CGC is not picking up the high accommodation costs of the Pilbara region, which are due to economic activity. We believe these are not significantly reflected in the SET[2] survey.
- We agree with the draft report that there is unlikely to be any significant double counting between the regional costs and the interstate wages assessment.
- We believe that the proposal to assess interstate non-wage costs for Tasmania and the Northern Territory, but not Western Australia, is not even-handed.
- Even if the schools regional cost gradient is more accurate (for schools), this does not mean that it is more representative. We believe that the CGC should continue to use an average of the schools and police gradients.
- We are reviewing the CGC's application of wage and regional cost factors to individual categories.

Switch from SARIA to ARIA

We have some concerns with the proposed change to the measure of remoteness from SARIA[3] to ARIA.

- The proportion of Western Australia's population classified as very remote under ARIA declines substantially (which is a double hit, as not only do these very remote areas incur higher costs, but Western Australia's very remote areas are even more costly than most very remote areas).
- Under ARIA, distances from a large city are truncated, effectively assuming that costs don't increase beyond a certain distance away from a large city.

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1 Accessibility/Remoteness Index of Australia.

2 ABS Survey of Education and Training.

3 State Accessibility and Remoteness Index for Australia.

- Interstate non-wage costs are now presumed for Tasmania and the Northern Territory, but no longer assessed for Western Australia (discussed further below).

High Costs in Remote Regional Areas

We are concerned that the CGC's measurement of regional costs only measures the selected feature of remoteness (distance from larger urban centres), while ignoring the influence of economic conditions which can be much more important.

For example, the highest rents in the nation are in inner-Sydney and Western Australia's Pilbara region. This is not addressed by the interstate wages costs assessment, as SET does not cover provision of housing (the private sector often provides housing, as it can be exempt from fringe benefits tax).

Double-count Between Wages and Regional Costs Assessments

We agree that there is unlikely to be any significant double counting between the regional costs and the interstate wages assessment.

The SET survey has no coverage of very remote areas and only limited coverage of remote areas (e.g. in Western Australia, only 152 people in remote areas were surveyed).

Income data reported in the SET survey is likely to include regional allowances paid as part of a regular weekly/fortnightly salary. Based on our discussions with the ABS, it is unlikely to include any regional allowances paid as lump sums or subsidies for housing or utility costs.

The most significant regional allowances paid to Western Australian State Government employees (in approximate order of magnitude) include rental subsidies (usually paid directly by the employer), fortnightly regional allowances (e.g. district allowances), retention payments (which can be regular payments or lumps sums), additional annual leave (5 days if stationed north of 26 degrees latitude), annual leave travel concessions (paid either as lump sum, reimbursement or directly by employer) and utility subsidies.

Commonwealth agencies with regional employees pay a variety of allowances, as illustrated by Tables 1 and 2 below. These show that remote areas in Western Australia receive among the highest allowances in the nation.

Table 1: Examples of allowances in the Australian Customs and Border Protections Service Enterprise Agreement 2011-2014

Location	District Office Composite Allowance (no dependents)	Leave Allowance (annual lump sum)	Housing rent per week	Extra leave
Weipa, Gove, Thursday Island, Christmas Island	$11,481	$7,300	$0	7 days
Dampier, Broome, Port Hedland, Carnarvon	$7,613	$2,475	$0	5 days
Darwin	$6,800	$2,192	$0	5 days
Townsville, Esperance, Bowen, Mackay	$3,614	$1,015	$40	3 days
Cairns	$3,600	$689	$40	3 days
Albany, Bundaberg, Bunbury, Burnie, Coffs Harbour, Eden, Geraldton, Gladstone, Launceston, Portland, Port Lincoln, Port Pirie	$2,530	$0	$75	1 day

Table 2: Examples of locality allowances in the Department of Immigration and Citizenship Enterprise Agreement 2011-2014

Location	Remote locality payment without Dependents	Remote locality payment with Dependents
Thursday Island, Christmas Island and Torres Strait	$9,581	$19,162
Dampier, Port Hedland and Port Augusta	$7,664	$12,774
Darwin	$5,110	$10,220
Cairns	$2,555	$5,110

Interstate Non-wages

The CGC has proposed that interstate non-wage costs be assessed through the switch to ARIA (which classifies Hobart and Darwin as inner regional and outer regional areas respectively).

Under this proposal, there is no burden of proof (which is usually required under the assessment guidelines) for Tasmania and the Northern Territory, which receive an arbitrary allowance, based on an essentially arbitrary change to the remoteness classification.

On the other hand, Western Australia's arguments for an interstate non-wage assessment are rejected out of hand.

Western Australia (including Perth) faces numerous higher non-wage costs, including:

- freight;
- air travel;
- office rents; and
- electricity costs (elaborated further in the Services to Communities chapter of this submission).

The CGC has suggested that there are other unassessed costs that might not move in the same direction. However, it has not provided any examples of where this would be the case for Western Australia (the State where unassessed interstate non-wage costs would be greatest).

We consider that Western Australia's higher non-wage costs are highly material in aggregate, based on the existing freight and air travel assessments, the accommodation cost analysis presented in our July 2013 submission, and the relative electricity costs shown in the *Services to Communities* chapter of this submission.

Use of Schools Gradient

For functions other than education and justice, the CGC is proposing to replace an average of the schools and police gradients with just the schools gradient (discounted).

The reason for this is that the CGC considers the schools gradient to be more accurate. However, just because it is more accurate (for schools), does not mean it is more representative.

Usually, the CGC justifies discounting on an a priori assumption of an equal per capita assessment. However, in this case, there is an alternative data set (police) that can be used as evidence of the disability. If the schools gradient is not clearly representative, then a better HFE outcome would be achieved by averaging it with the police gradient.

Application of Wage and Regional Cost Factors to Individual Categories

The impact of the wage and cost factors varies across categories depending on the proportion of affected costs and the location of service demands.

We are reviewing the CGC's current application of these factors to individual categories.

20. Service Delivery Scale

Key Points

- The definition for service delivery scale (SDS) affected areas should be extended to include all areas with populations less than 5,000 people

In its Discussion Paper[1], the CGC staff hypothesised that “funding variations due to [service delivery scale] were best explained by a variable defined by the distance from towns of a certain size”. Working under this hypothesis, the CGC staff performed a regression analysis to determine the combination of town size and distance to town with the highest R-squared value. From this, the CGC determined that the best predictor of SDS was using a variable a certain distance from a town of 5,000 people.

In its draft report[2], the CGC has provided (Figure 1) the results of a regression predicting total school funding, plotting the R-squared values calculated for different distances from an urban centre of 5,000 people or more. From this chart, it is clear that the distance variable provides no explanatory power whatsoever, with the R-squared value of the regression remaining virtually unchanged regardless of the distance used.

The CGC has concluded that the existing definition used in the 2010 Review (more than 50km from a town of 5,000 people) is a reasonable definition as it is included in the range of highest R-squared values. However, a consultant engaged to examine the CGC’s econometric modelling has reported that this method is not appropriate[3]. We agree with the consultant. As the distance variable makes little to no difference to the accuracy of the regression, it should be ignored altogether, rather than making an arbitrary choice of which distance to use.

In effect, the definition of SDS should be extended to include all areas with populations less than 5,000 people.

1 CGC 2013-07-S *Proposed Assessments*, Chapter 31.

2 Attachment 24, Service Delivery Scale.

3 *Report on econometric work conducted by CGC*, Xiaodong Gong, IGPA, University of Canberra.

21. Indigeneity

Key Points

- We are pleased that the CGC has adopted the NISEIFA/IRSEO[1] method to better identify Indigenous disadvantage.
- We acknowledge the difficulty in applying the full method in some assessments and appreciate that the CGC has tried to find workarounds.

[1] NISEIFA – Non-Indigenous Socio-Economic Indexes for Areas; IRSEO – Indigenous Relative Socio-Economic Outcomes (Index).

22. Cultural and Linguistic Diversity

Key Points

- We support the CGC proposal to cease assessing cultural and linguistic diversity (CALD), as low use of services by the CALD population offsets the higher service costs for these persons.