Commonwealth Grants Commission
2020 Methodology Review
– Draft Report

NSW Treasury Response

October 2019

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1 Executive summary

Introduction

1.1 NSW Treasury welcomes the opportunity to respond to the Commonwealth Grants Commission (CGC) 2020 Review, *Report on GST Sharing Relativities* (the Draft Report).

1.2 The NSW Government believes Australia's system of horizontal fiscal equalisation (HFE) penalises states and territories (states) that are fiscally responsible and pursue reform to increase productivity and economic growth. Australia's system is also one of the most complex systems of equalisation in the world. The issue of complexity is exacerbated by arrangements that are neither transparent nor accountable.

1.3 Accordingly, the NSW Government continues to support the distribution of GST revenues between states, untied, in full, and on an equal per capita (EPC) basis. An EPC distribution is consistent with the objective of horizontal fiscal equalisation (HFE) as GST revenues are transferred from fiscally stronger to weaker states. It is administratively simple, transparent and more predictable. It is more contemporaneous and stable over time. An EPC distribution has minimal data requirements and avoids potential inconsistency associated with the application of judgment and discounting.

1.4 Importantly, an EPC distribution of GST revenues between states is policy neutral and disincentives for economic reform are removed. Fairness is enhanced as it means those states that undertake challenging economic reform retain a greater share of these benefits.

1.5 Notwithstanding the NSW Government's position, methodological changes proposed by the CGC in the Draft Report, on balance, appear to better capture and account for differences in revenue raising capacities and underlying drivers of cost in the provision of public services by state governments. Further, proposed methodological changes across a range of expenditure assessments appear to better reflect 'what states do' and average policy.

1.6 NSW Treasury welcomes and supports the adoption of a new methodological approach to assess urban transport costs. This approach better reflects what states do and the underlying cost drivers relating to the provision of urban transport services, including population density, passenger numbers by transport mode, and topography.

1.7 Continued use of urban centre populations as the basis for assessing 25 per cent of the cost of each state's urban transport task is flawed and unjustified. The CGC should wholly (100 per cent) rely on the new urban transport assessment methodology developed as part of the 2020 Review. This is the only approach open to the CGC to give effect to its principle of assessing what states actually do.

1.8 The CGC must adopt a consistent approach to urban density in relation to its expenditure and revenue assessments, otherwise perverse, contradictory and extremely unfair outcomes will result. If the CGC were to determine that urban density is a policy choice, it would need to re-evaluate its entire approach to the effect of this policy on key revenue assessments relating to land taxes, stamp duties on conveyances, and payroll taxes.

1.9 NSW Treasury supports the CGC's decision to offset the Fire and Emergency Services Levies (FESL) against Other expenses. The FESL is, in all important respects, a user

charge designed to cover the cost of a specific government service, rather than a tax linked to the value of land, insurance or motor vehicles. In particular, the revenue raised by the FESL is hypothecated to the provision of the service and the rate is determined each year so as to raise sufficient revenue to meet funding needs.

1.10 The proposed reduction in the discount applied to the Land tax assessment is not appropriate or justified. The existing discount of 25 per cent should be continued.

1.11 The CGC must include backdated royalty recovery revenue as part of each state's royalty tax base. This is because enforcement activity is average state policy and can be material. It is inconsistent with the HFE principle that such revenues should be excluded from assessment and materially benefit the affected state.

1.12 Non-royalty based mining revenue should be assessed as part of states' royalty tax base. This approach is essential to avoid adverse impacts.

1.13 In general, the CGC assesses regional costs directly as part of a broad range of categories. However, the reliance on a mixed approach using an average of the regional cost gradients for Admitted Patients and Schools education appears to rely on judgment. The use of these two cost measures appears to be based on the availability of data, rather than on an assessment of the appropriateness of applying these cost gradients for other expenditure assessments.

- The general regional cost gradient is used for child protection and family services, Services to Communities (excluding water and electricity subsidies), rural roads, Services to industry (relating to regulation), and Other Expenses.

1.14 Accordingly, where a general regional cost gradient is used, a discount of 12.5 per cent is warranted.

1.15 Changes to the structure of some assessments (such as Justice – Police) help eliminate unnecessary complexity and, more importantly, ensure that these assessments better reflect key principles relating to what states do and average policy. However, there remain a number of assessments that are unnecessarily complex, fail to reflect what states do and, in some instances, do not accurately reflect underlying cost drivers of service provision. For example:

- the structure of the health assessment, including the artificial division between Community Health and Non-Admitted Patients does not correspond with the delivery of public health services in New South Wales.

- the omission of Students with a Disability from the Schools education assessment is inconsistent with the recognition of this same cost driver (and reliance on the same data) in the School Resourcing Standard which determines the allocation of public funding under the National Education Reform Agreement and the *Australian Education Act 2013* (Cth).

1.16 The Draft Report foreshadows a greater emphasis on more consistent, comparable and reliable data across individual assessments. Prima facie, this suggests that going forward the CGC will place less reliance on judgment. The use of discounting is also reduced. In general, these appear as welcome developments.

1.17 However, the approach adopted by the CGC appears inconsistent in places, for example Transport and Land taxes. At the same time, the availability of more robust, consistent and reliable data sets is united with a greater use of econometrics which presents a new source of risk. Now, instead, judgment is being made with respect to the underlying assumptions made in the specification of econometric regressions and the robustness and reliability of some outcomes as a basis for determining drivers of cost. This appears questionable.

1.18 Administrative scale continues to present a real and significant concern to NSW Treasury. The conceptual case is not demonstrated, and the assessment is profoundly flawed.

1.19 The aggregate allowance for Administrative scale would increase to $2.8 billion based on the 2017-18 indicative data and preliminary calculations. This appears to be a highly implausible outcome predicated upon judgment. The revised methodology continues to wholly ignore many of the opportunities presented by technology, including greater harmonisation and information sharing between and across states in areas such as education (for example, in curriculum development and teaching standards) and health for small states to reduce costs and achieve cost savings. The risk of double-counting costs linked to Service Delivery Scale, remoteness and Socio-Demographic Composition appears overwhelming and remains unaddressed by the CGC.

Overview

1.20 This submission comprises four sections:

- **Part one:** Executive summary and overview
- **Part two:** NSW Treasury positions and recommendations
- **Part three:** Revenue assessments
- **Part four:** Expenditure assessments

1.21 In accordance with CGC guidance, this submission is narrowly targeted to specific issues and questions relating to individual revenue and expenditure assessments. Arguments and evidence provided by NSW Treasury in our previous Submission are not re-stated below but NSW Treasury continues to maintain these positions throughout the 2020 Methodology Review (unless otherwise raised).

1.22 This submission to the 2020 Review sets out the views of NSW Treasury and not the NSW Government.

1.23 NSW Treasury reserves an ongoing right to raise additional issues, new arguments or new data as the 2020 Review progresses and new or changed methodological approaches, data and other issues are raised by the CGC or other states.

1.24 Further information and questions regarding any aspect of this submission may be directed to: Ms Andrée Wheeler, Director, Federal Financial Relations, NSW Treasury (e. ffr@treasury.nsw.gov.au).

2 NSW Treasury positions

2.1 The following is a summary table of NSW Treasury recommendations and positions in response to the Draft Report.

Payroll tax	• Noted.
Land taxes	• The proposed reduction in the discount level from 25 to 12.5 per cent is not appropriate or justified • The proposed treatment of the Fire and Emergency Service Levy as a user charge is supported. • Other land-based tax base revenues should be moved from the Land tax assessment to Other Revenues to improve clarity.
Stamp duties on conveyances	• The proposed treatment of concessional rates of duty for first home owners as a reduction in states' effective tax rates is supported. • The continued adjustment to the transfer duty tax base in relation to trusts is unwarranted and should be removed through the 2020 Review. • Land rich transactions by listed companies should be treated as a separate part of the tax base to better reflect average state policy. Alternatively, the CGC should include only 10 per cent of the transaction value in the stamp duty tax base. • Consistent with the CGC's own principle of policy neutrality the CGC should apply an elasticity adjustment to stamp duty on conveyances, as well as those other revenue assessments where elasticity effects are found to be statistically significant (including Insurance taxes) and the effect of the adjustment is material.
Insurance taxes	• The proposed treatment of the Fire and Emergency Service Levies as a user charge is supported. • An elasticity adjustment should be applied to the assessment of Insurance taxes as the measured elasticity is statistically significant and the effect of the adjustment is material. This revenue base should be divided into two (or more) components where the elasticity effects are more uniform to improve the robustness of assessment outcomes.
Motor taxes	• Noted.
Mining revenues	• Backdated royalty recovery revenues should be assessed as part of each state's royalty tax base.
Other revenues	• Noted.
Commonwealth payments	• An improved and better guided process is needed to improve clarity and consistency of treatment of sign-on, reward and facilitation payments as having an 'impact' or 'no impact', and the exercise of CGC discretion. • The sign-on bonus payment of $36.6 million under the National Partnership on the Skilling Australians Fund should have 'no

	impact' on the assessment of NSW' GST requirement going forward.
	• A 'no impact' treatment is appropriate for the following:
	  o Western Sydney City Deal Project Agreement – Western Parkland City Liveability Program component
	  o the World Heritage Management Project Agreement.

Schools education	• A cost weight for Students with a Disability should be assessed by the CGC, consistent with the Commonwealth's reliance on the Nationally Consistent Collection of Data on School Students with a Disability, to determine the Schools Resourcing Standard. • The regression analysis of Service Delivery Scale overestimates the cost per student of smaller schools and should be revised.
Post-secondary education	• Noted.
Health	• The Community Health (CH) and Non-Admitted Patients (NAP) assessment should be combined. • An additional adjustment for Block Funded hospitals for Service Delivery Scale is unsupported. It risks overstating remoteness costs and risks double-counting. • NSW Treasury notes further analysis on NAP will be undertaken as new data is received in advance of the Final Report and requests to be kept updated on progress. • The 25 per cent discount should be maintained for CH due to the lack of a reliable and robust data set. • A reduction in substitutability from 70 to 60 per cent for CH is supported but does not go far enough or adequately reflect what states do. • A lower level of substitutability (currently 15 per cent) should be adopted for emergency departments to better reflect what states do.
Welfare	• Noted.
Housing	• The development of a national cost gradient for social housing maintenance expenses is supported as these costs are currently overstated.
Services to community	• Changes to the assessment of electricity and water subsidies, including the definition of remote communities and cost weights for the regional cost assessment, are supported.
Justice	• The removal of the split between community and specialised policing expenses is supported. • The CGC should re-specify the cost weightings for very remote offenders to more accurately reflect the cost of providing policing services in very remote areas. • In future this assessment must adapt to better reflect the evolution of policing which is increasingly focused on prevention, disruption and community engagement. • No conceptual or empirical case exists for the inclusion of remoteness or Service Delivery Scale to assess prison costs.

Roads	• Overall, changes proposed will improve the reliability of this assessment. • The use of a regional cost weight as a proxy for rural roads is poor and overstates disabilities in this area. • The CGC should rely wholly upon National Transport Commission (NTC) data as the basis for the allocation of investment between urban and rural roads. • An adjustment should made to road length for mining road connections to reflect the financial contribution provided by mining companies.
Transport	• The formulation of a new approach to assess urban transport costs is supported. This better reflects what states do and the underlying cost drivers of urban transport provision for states. • Continued reliance on urban centre populations to assess 25 per cent of urban transport costs is flawed and unjustified.
Services to industry	• The CGC should take into account the number of firms in each sector to determine regulatory costs.
Other expenses	• Noted.
Investment	• Noted.
Net borrowing	• Noted.
Administrative scale	• The conceptual and empirical case for Administrative scale is not demonstrated and is profoundly flawed.
Wage costs	• The 12.5 per cent discount should be removed.
Geography	• A 12.5 per cent discount should apply where the general regional cost gradient is applied.
National capital	• Noted.
Cross-border	• Proposed changes are noted and supported.
Native title	• The use of actual per capita is the appropriate method to assess land rights expenses for all states.

3 Revenue assessments

Payroll tax

3.1 Noted.

Land taxes

Discounting

3.2 The proposed reduction in the discount applied to the Land tax assessment is not appropriate or justified. The existing discount of 25 per cent should be continued.

3.3 The CGC contemplates no changes of sufficient materiality to Land tax assessment to improve the reliability of this assessment since the 2015 Methodology Review.

3.4 Major difficulties remain in relation to the policy stance of individual states. Notably:

- the Northern Territory continues to impose no land tax.
- the Australian Capital Territory (ACT) imposes land tax based on an individual property basis.
- Queensland does not assess land tax on jointly-owned land but splits the value of jointly owned land between the individual owners. It also provides an exemption for properties held in trust that are used as a principal place of residence by all beneficiaries of the trust.
- Western Australia, South Australia and Tasmania tax joint owners of land and separately tax individual landowners on the aggregate value of their landholdings, excluding any interest in jointly owned land.
- New South Wales and Victoria tax joint owners of land and tax individuals on the aggregate value of their land, including their interest in jointly owned land. Tax paid by the joint ownership provides a tax credit for the individual interests to prevent double taxation.

3.5 Furthermore, the lack of comparability between states is compounded by complexities associated with the differences in the value of land for land tax purposes.

- New South Wales, Queensland and the ACT base their taxable values on a rolling average of the unimproved land value as at 1 July in each of the three years preceding the tax year.
- In Queensland, where the value in the previous year is less than the three-year average, the lower value is instead used.
- Victoria bases its taxable value on the unimproved land value as at 1 January of the previous calendar year.
- Western Australia, South Australia and Tasmania base the taxable value of land on the unimproved value as at the commencement of the land tax year.

3.6 These differences create practical difficulties in determining what states do and what represents average policy.

3.7 The CGC proposes to use the approach adopted by Western Australia, South Australia and Tasmania as the basis for the Land tax assessment. New South Wales, Victoria and Queensland are requested to make adjustments to their data. This requires the latter three states to estimate the proportions of their revenue that would be generated in each tax value band if they applied a different tax policy – estimates which are necessarily based on assumptions.

3.8 At the same time, adjustments to ACT data is also required to provide a comparable land tax base that removes some allowance for municipal rates while the CGC must calculate an estimated land tax base value for the Northern Territory.

3.9 The CGC applied a 25 per cent discount to the Land tax assessment in the 2015 Methodology Review due to real concerns relating to the extensive data adjustments made with respect to New South Wales, Victoria and Queensland, and the likelihood that state revenue office data is affected by state policy.

3.10 There have been no material or significant changes since 2015. This means changes to the discount applied to the land tax assessment are unwarranted and the 25 per cent level discount should continue to apply through the 2020 Methodology Review.

Fire and Emergency Services Levies

3.11 The proposed treatment of Fire and Emergency Services Levies (FESL) as an offset against Other expenses will ensure these user charges are correctly assessed in a manner consistent with their defining features or characteristics.

3.12 FESL are, in all important respects, a user charge designed to cover the cost of a specific government service, rather than a tax linked to the value of land. In particular, the funds raised by FESL are hypothecated to the provision of the service and the rate is determined each year so as to raise sufficient revenue to meet funding needs.

Other land-based taxes revenue

3.13 The CGC's proposed approach to include revenue from other land-based taxes in the Other Revenue assessment rather than in the Land tax assessment is supported. This change will aid clarity.

Stamp duties on conveyances

First home owners

3.14 The CGC's proposal to treat concessional rates of duty for first home owners as a reduction in states' effective tax rates is supported.

3.15 This change will remove an anomaly and is preferable to treating such assistance as a 'grant equivalent' expense.

3.16 The CGC proposes that those states providing both concessional rates of duty and grants to first homebuyers consider these as different forms of assistance. This approach is consistent with that adopted by New South Wales.

- In New South Wales, a duty reduction is provided for first homebuyers purchasing land or a new or established dwelling as a first home (subject to restrictions on the value of the property) while First Home Owner Grants are provided for new dwellings only. This includes new dwellings purchased or built by the owner.

Unit trust adjustment

3.17 The assessment for stamp duty removes transactions caught by Queensland, Western Australia and South Australia's provisions covering unit trusts. This is in accordance with the findings of a report prepared for the CGC over a decade ago by Blake Dawson[1].

3.18 This methodological adjustment is inappropriate as significant legislative changes have occurred since the Blake Dawson report was prepared. This is demonstrated in the following comparison of current unit trust and landholder duty legislation in New South Wales, Queensland, Western Australia and South Australia.

Private trusts

3.19 Only Queensland continues to impose transfer duty on the transfer of units in private unit trusts. In comparison, other states impose landholder duty[2] (at the normal transfer duty rate[3]) on the transfer of units in a private trust, but only where the purchaser has, or obtains with the purchase, a significant interest in the trust (50 per cent or more).

3.20 A key reason for the imposition of landholder duty on private trusts is to discourage tax avoidance. This is coupled (except in Queensland) with other anti-avoidance measures such as the disallowance of a principal place of residence (PPR) exemption from land tax for land owned by a trust. However, Queensland has chosen to allow a PPR exemption for land held by trusts and to impose duty on the transfer of units in private trusts as if the unitholders owned the land directly.

3.21 The policy choices of the Queensland Government directly influence the form of land ownership across that state (through trusts rather than direct ownership) without any material impact on the total value of property transferred (that is, on the aggregate tax base for conveyance duty). This means there is no justification or basis for an adjustment to Queensland's assessment with respect to private trusts.

Public trusts

3.22 All four states impose landholder duty on the transfer of units in publicly listed and widely-held unit trusts (collectively known as public trusts) where the purchaser has or acquires

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[1] Blake Dawson, Commonwealth Grants Commission: Conveyance duty differences between States and Territories, September 2008.

[2] A trust is classified as a 'landholder' if it owns land within the relevant state, and that land: in New South Wales, has an unimproved value of $2 million or more; in Queensland or Western Australia, has an unencumbered value of $2 million or more; and, in South Australia, is residential land of any value.

[3] The duty is calculated on the value of the interest in the land and certain goods, held by the trust, that is transferred in the transaction (amalgamated, where appropriate, with previous transactions below the significant interest threshold). There are some minor differences between the states in the goods included.

a significant interest. This means no case exists for an adjustment to the tax base for public trusts.

- A significant interest for a public trust is defined in all states as 90 per cent or more.

3.23 There have been material and significant changes to state policy in the taxation of unit trust transfers since the Blake Dawson report. This means the continued adjustment to the transfer duty tax base in relation to trusts is unwarranted and should be removed through the 2020 Methodology Review.

Transactions in listed companies

3.24 The CGC proposes to differentially assess duty on in transactions in land rich listed companies. The CGC should assess transactions in land rich listed entities (companies and trusts) as a separate part of the tax base to ensure this assessment reflects average state policy. This is because New South Wales, Victoria, Queensland, South Australia and Tasmania now apply 'landholder duty' to significant acquisitions of an interest in listed entities at a rate which is 10 per cent of the general transfer duty rate.

3.25 Alternatively, only 10 per cent of the transaction value could be included in the transfer duty base if the CGC is unwilling to apply a separate assessment for duty on transactions in land rich listed entities. This approach would be relatively straightforward to apply and does not add significant complexity to the assessment methodology. It also would minimise potential distortions to the average rate of duty applicable to each tax band.

3.26 Further, it would reflect the policy of a majority of the states, while allowing states like Western Australia, which charges the full transfer duty rate on these transactions, to be captured as applying a higher taxing effort.

Elasticity effects

3.27 The CGC engaged the Tax and Transfer Policy Institution in the Crawford School of Public Policy to provide estimates of the size of elasticity effects for each revenue base[4]. Significant effects were found in insurance tax, motor vehicle taxes, stamp duty and land tax. However, the CGC does not propose to implement elasticity adjustments in the 2020 Review because:

'it is not clear that equalisation is improved by applying single adjustments to often significantly divergent tax rates, in some parts of assessments but not others'.[5]

3.28 The CGC also considered that the policy of one state, the ACT, to progressively replace stamp duty with higher municipal rates could not be easily accommodated.

[4] Steinhauser, Sinning and Sobeck, State tax elasticities of revenue bases, Tax and Transfer Policy Institute, Crawford School of Public Policy, Australian National University, 2019.

[5] CGC 2020 Review, *Report on GST Sharing Relativities*, Draft Main Report, paragraph 3.8.

3.29 NSW Treasury disagrees strongly with this conclusion. Failing to apply an elasticity adjustment where elasticity effects are found to be significant violates the CGC's own principal of policy neutrality.

3.30 Where material and practically feasible, the CGC removes differences in scope and policy-induced differences in states' revenue bases before determining a (weighted) average policy on which its assessments of states' revenue capacities are based. However, applying a weighted average to observed revenue bases does not strip away the policy influence caused by states' application of different tax rates.

3.31 To illustrate, a state may increase a particular tax rate to generate additional revenue. This will generally have the effect of reducing its tax base, and hence its relative revenue-raising capacity, as currently measured. This entitles the state to a higher share of GST revenue.

3.32 The CGC's approach violates its principle of policy neutrality and is also difficult to reconcile with any sense of fairness or principle of economic efficiency. Simply applying a weighted average tax rate to a state's observed tax base does not determine the revenue the state would raise if it applied average policy. This is because it ignores the effect of the state's own tax rate policies on the size of its tax base. An elasticity adjustment overcomes this problem by adjusting the size of the tax base to reflect what it would be if the state did apply average policy.

3.33 In the case of stamp duty, the Tax and Transfer Policy Institute found that a 10 per cent increase in the tax rate reduces the overall value of sold properties by three per cent to four percent. Given its size and possible impact on the assessment, and the ease of making the adjustment, this elasticity effect should be included in the assessment.

Elasticity effects and other revenue assessments

3.34 The CGC should closely consider applying elasticity adjustments to other revenue categories where the measured elasticity is found to be statistically significant and the effect of the adjustment is material.

3.35 In some cases, materiality may be improved by subdividing the revenue category into components where the elasticity effects are more uniform. For example, in the case of insurance duties, the measured elasticity of the tax base varies widely according to the type of insurance, with compulsory insurances showing very low elasticity (as would be expected) but other discretionary insurance types exhibiting high elasticities. Division of the insurance into two (or more) types could reasonably be considered to provide improved outcomes.

Insurance taxes

3.36 The CGC's decision in the Draft Report to treat FESL as user charges and offset these against emergence services expenses in Other expenses is supported. The level of FESL revenues is dependent on the costs borne by states to provide emergency services. FESL are user charges and are not linked to taxable insurance tax capacities. This is demonstrated by the methodological approach adopted by states to set FESL rates based on a pre-determined level of revenue.

3.37 The exclusion of Workers' Compensation, Third Party, and Home Warranty Insurance from the premium tax base is supported. However, revenue from these individual components should be assessed EPC in the Other revenue assessment.

3.38 See paragraphs 3.34 and 3.35 above regarding elasticity adjustment and the Insurance tax revenue assessment.

Motor taxes

3.39 Noted.

Mining revenues

3.40 The CGC must include backdated royalty recovery revenue as part of each state's royalty tax base. This is because enforcement activity is average state policy and can be material. It is also inconsistent with the HFE principle that such revenues should be excluded from assessment and materially benefit the affected state.

3.41 The settlement of $250 million between BHP and Western Australia for the back payment of royalty revenues falls within the assessment period for the 2020 Review and must be assessed to ensure consistent treatment of royalty revenues, as well as to ensure such states do not derive an unfair windfall.[6]

3.42 The amount to be assessed is material. The sum involved is approximately $40 million per annum based on media reports. If included, this would lead to a redistribution of approximately $30 million per annum, or $12 per capita for Western Australia based on 2017-18 population figures. This is above the CGC's own materiality threshold for data changes. The payment of this settlement is the result of regular enforcement activity by the WA Department of Mines, Industry, Regulation and Safety.

3.43 Non-royalty based mining revenue should be assessed as part of states' royalty tax base. This approach is essential to avoid adverse impacts on mining revenue arrangements.

Other revenues

3.44 Noted.

Commonwealth payments

3.45 The CGC relies upon guidelines and its Terms of Reference[7] as the basis for determining whether various Commonwealth payments are assessed as having an 'impact' or 'no impact' on each state's fiscal capacities.

[6] ABC News, *Disputed BHP royalties to help fund new King Edward Memorial Hospital in Perth*, 28 June 2019: https://www.abc.net.au/news/2019-06-28/bhp-royalties-to-fund-king-edwards-memorial-hospital-replacement/11259878 (accessed on 30 September 2019).

[7] CGC 2020 Review, *Report on GST Sharing Relativities,* Draft Main Report, 2019, p. vi.

3.46 NSW Treasury supports those principles set out in the guidelines. However, there is scope to improve them. Clarifying the CGC's discretion and how it is exercised, and how that interacts with the CGC's approach to relying solely on Commonwealth Treasury's advice for certain payments, is required. Current practices are characterised by a lack of consistency and transparency, which is an area of deep concern for NSW Treasury.

3.47 For example, under the Terms of Reference providing guidance to the CGC on the treatment of certain Commonwealth payments, clauses 8 (a to c) outline that specific payments, including reward and facilitation payments, are to be treated as not affecting state fiscal capacities. At the same time, clause 8 (d) gives the CGC some discretion regarding treatment based on the nature of the specific payment and the role of state governments in providing a particular service.

Sign-on bonuses, reward and facilitation payments

3.48 NSW Treasury has previously made representations regarding the treatment of the National Partnership on the Skilling Australians Fund (SAF).

3.49 The 2017-18 sign-on bonus should be treated as a reward payment and be treated as 'no impact' on state fiscal capacities going forward.

3.50 NSW Treasury continues to dispute advice provided by the Commonwealth Treasury that there are no reward payments under the SAF agreement.

3.51 The SAF 2017-18 advance payment is in the nature of a reward payment. Under the SAF, signatory states received an in-advance payment where the agreement was signed on or before 7 June 2018. In the case of New South Wales, this payment amounted to $36.567 million in 2017-18. This amount was calculated on a per capita basis allocated between the two/three signatories to the agreement.

3.52 The payment also has some features consistent with a facilitation payment. Schedule E of *Intergovernmental Agreement on Federal Financial Relations 2008* (IGA FFR) indicates that facilitation payments may be paid in advance of the states implementing a reform.

3.53 Classifying these payments as 'impact' negates the intent of the IGA FFR to facilitate and/or reward states entering into the agreement in advance of a specified date.

3.54 Other payments provided to New South Wales through the Health Innovation Fund associated with signing the National Health Reform Agreement Heads of Agreement were treated as 'no impact' and not affecting states fiscal capacities.

3.55 The CGC's discretion as per clause 8(d) of the ToR should allow this treatment to be extended to the SAF payment due to the nature of the payment being consistent with the intent and scope of reward and facilitation payments as described in the IGA FFR.

Commonwealth funding agreements – no impact assessment

3.56 The following project agreements should be assessed as having no impact. These agreements commenced in 2018-19 and are set out in the Commonwealth's 2018-19 Final Budget Outcome.

Project Agreement for Western Sydney City Deal Project (WSCD)

3.57 The Western Parkland City Liveability Program component of the WSCD comprises payments for local governments that are party to the City Deal to deliver improved community facilities, urban amenity, and to enable and complement new housing supply in that area.

3.58 The Commonwealth and NSW Government each provide $60 million under the WSCD with $30 million provided through matched contributions to projects by local governments.

3.59 Grants of over $50 million will be passed on to selected local governments from a total of $60 million contributed by the Commonwealth to New South Wales. These payments should be assessed as per other local government grants where the needs for local government are not assessed. Similarly, payments to New South Wales which are passed on as grants to local government should be assessed as 'no impact'.

World Heritage Management Project Agreement

3.60 The output of this project is to ensure Australia continues to meet its obligations under the World Heritage Convention to protect, conserve and present our World Heritage properties. This payment should be treated as 'no impact' as needs regarding heritage are not assessed.

4 Expenditure assessments

Schools education

4.1 The CGC proposes significant revisions to the regression model underpinning the Schools education assessment. Under this revised approach:

- separate indices for Indigenous and non-Indigenous low Socio-Economic Status (SES) are replaced by one index for SES.
- Indigeneity is separately assessed rather than combined with SES.
- remoteness categories have been consolidated and reduced to outer regional and remote (including very remote).

4.2 The above changes are a meaningful improvement to this assessment. However, there is still scope for improvement and refinement to better account for actual costs associated with the provision of Schools education services, exists.

Students with a disability

4.3 NSW Treasury and NSW Department of Education have jointly presented detailed data demonstrating how the presence and prevalence of Students with a Disability drives the allocation of funding based on student age and degree of support required.

4.4 The Commonwealth relies upon the Nationally Consistent Collection of Data on School Students with a Disability (NCCD) as the basis for determining funding needs under its School Resourcing Standard (SRS). Under the SRS those students with a disability who are counted in the top three levels of the NCCD receive additional funding linked to age and need.

4.5 The Commonwealth estimates that loadings for Students with a Disability will account for 9.3 per cent of Commonwealth recurrent school funding nationally in 2019.[8] It is anomalous that the CGC elects to exclude these loadings from its specification of the Schools education regression based on its own assessment that NCCD lacks sufficient reliability to be used for this purpose.

4.6 Moreover, the CGC's approach contradicts the 2015 Methodology Review Terms of Reference directing the CGC not to unwind the measures of educational disadvantage embedded in the National Education Reform Agreement (NERA) payments to states.

4.7 Consistent with the NERA, the CGC must take into account cost weights associated with Students with a disability in its Schools education assessment to ensure underlying cost drivers are taken into account in determining each state's relative GST requirement.

[8] https://www.education.gov.au/what-schooling-resource-standard-and-how-does-it-work

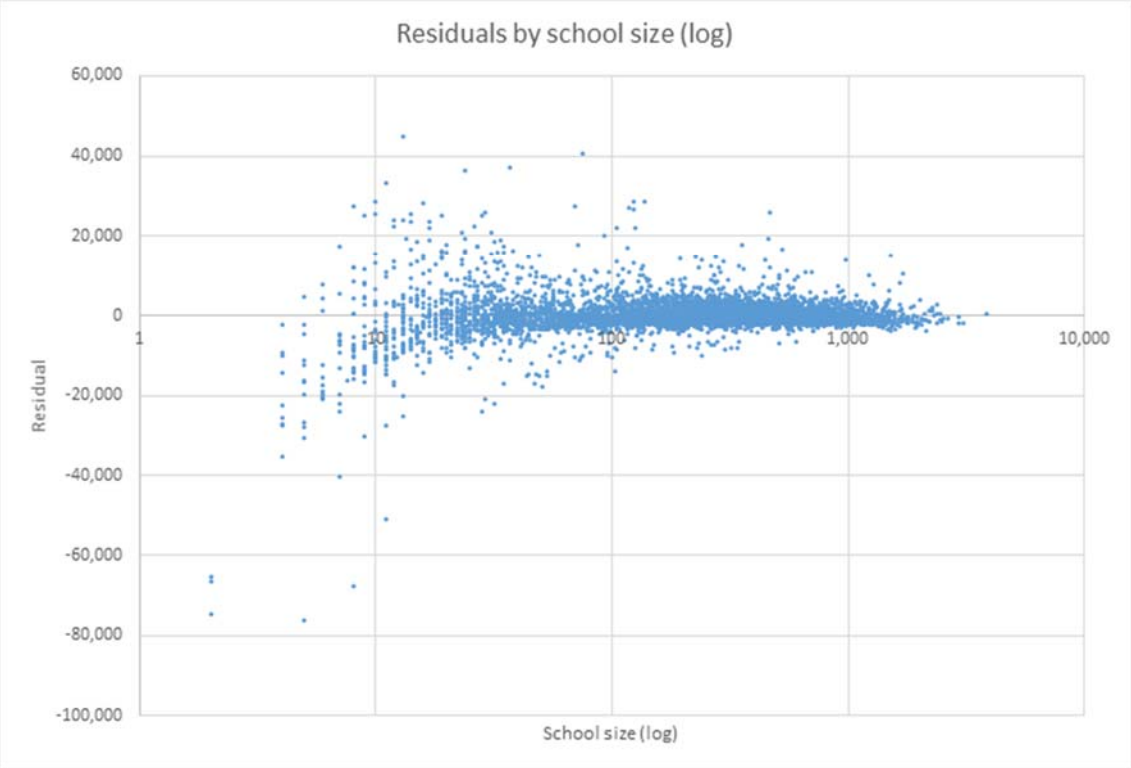
Service Delivery Scale

4.8 The CGC has developed a new regression to determine the impact of Service Delivery Scale on the cost of delivering Schools education. The results from this equation are used by the CGC in its Draft Report to determine the additional costs associated with delivering Schools education services in regional areas and Service Delivery Scale.

4.9 Reliance on this equation means the cost of Service Delivery Scale in small schools is overstated. The CGC's preferred regression has an adjusted R-squared of 0.4778. Of itself, this relatively low level of explanatory power need not negate the estimated average relationship. However, examination of residuals between the estimated and actual costs of individual schools indicates that the results are biased in the case of small schools.

4.10 The following chart is a scatter plot developed by the CGC and provided to NSW Treasury which shows actual less estimated costs for individual schools.

Chart 1: Actual less estimated school costs[9]



4.11 Errors in the equation for school costs and school size are heteroscedastic, (that is, costs of smaller schools are subject to greater variability than larger schools). This implies potentially biased standard errors. In order to resolve this issue, the CGC could respecify

[9] CGC, September 2019

the equation to include a variable that accounts for this problem in order to resolve this issue

4.12 Further, the residuals are negatively skewed for small schools. This suggests that the fixed cost component is overstated for smaller schools. That is, the model developed by the CGC over-estimates the cost per student for smaller schools.

4.13 To illustrate, the estimated equation indicates the fixed cost per school is $192,901, and that the annual recurrent cost for a school located in an inner regional area with five students (non-Indigenous and higher SES) would be $231,096. This is clearly an over-estimate of the operating costs of a one-teacher school. To the extent that some states have higher than average shares of small schools, the estimated equation will over-estimate the costs of schools in these states.

4.14 It is also unclear from this analysis to what extent the prevalence of small schools in some states may be a policy choice.

4.15 The CGC should revise its regression model to include variables that properly capture these impacts and thus improve the robustness of this assessment. Alternatively, the CGC could use a weighted least squares approach in the absence of an appropriate variable.

4.16 Less desirably, the CGC should otherwise discount the results of this regression and the treatment of regional and Service Delivery Scale costs therein.

Post-secondary education

4.17 Noted.

Health

Disaggregation of the assessment

4.18 The CGC continues to disaggregate Health into Admitted Patients (AP), Non-Admitted Patients (NAP), Emergency Departments (ED), and Community Health (CH). This is an arbitrary and artificial categorisation that is inconsistent with what states do.

4.19 The CGC should combine CH and NAP to:

- improve the degree of consistency with available Health data
- more accurately reflect what states do and improve the conceptual basis for this assessment.

Admitted Patients

4.20 Proposed changes to the treatment of block funded (BF) hospitals, including an additional adjustment for Service Delivery Scale for smaller BF hospitals, overstates these costs and risks double-counting. Evidence to justify this treatment is not provided by the CGC.

4.21 Under this category, the costs of delivering health services to admitted patients in public hospitals is assessed. This includes large, activity-base funded (ABF) hospitals, along with smaller, BF hospitals primarily located in regional and remote areas.

4.22 The CGC uses revised National Weighted Average Unit (NWAU) data provided by the Independent Health Pricing Authority (IHPA) to capture cost drivers associated with remoteness for ABF hospitals. This includes two separate remoteness loadings for the location of the patient as well as the location of the hospital.

4.23 In comparison, the CGC applies an additional Service Delivery Scale adjustment for smaller BF hospitals because it considers that BF hospital NWAU data does not adequately capture the effects of regional and Service Delivery Scale for these hospitals.

4.24 Further, the CGC calculates an estimate of additional costs it claims would be borne by BF hospitals if they were funded on an ABF basis. The CGC then applies this ratio to all BF hospital NWAU data used in the health assessments, affecting AP, ED and CH components.

4.25 BF hospital funding is based on the national efficient cost (NEC). These funding levels are not related to activity levels and the national efficient price. Additional costs for regional and remote hospitals are captured within the NEC.

4.26 This is a significant assumption with distributional impacts across each category – AP, ED and CH. This assumption is not supported by available evidence, leads to double counting of costs, and should be removed from the assessment.

4.27 Prima facie, the risk of double counting appears compounded taking into account the interaction between the Health assessment and Administrative scale.

Non-Admitted Patients

4.28 The CGC continues to significantly overstate the level of substitutability between the provision of public and private NAP services although the reduction in substitutability between these services from 40 to 35 per cent is welcomed.

4.29 It appears that the proposed revision would lead to a further move away from an EPC distribution for New South Wales. Given NSW has higher than average levels of non-state sector provision of health services, and the level of substitutability has been reduced, this appears a non-intuitive and somewhat surprising result.

4.30 NSW Treasury understands that outcomes contained in the Draft Report are preliminary and subject to change as new data is provided from Medicare and other sources. This calculation, and its outcomes, should be reviewed when new data is received. NSW Treasury requests to be kept updated on the progress of this assessment in advance of the CGC's Final Report.

Community Health

4.31 Community Health remains a highly disparate category with a broad range of health services captured. NSW Treasury continues to have deep concerns about this category, including continued reliance on ED Triage Categories 4 and 5. The health services included within these two NWAU categories have no relationship to the type of health services provided through different delivery channels and formats (including both CH and NAP).

4.32 The CGC continues to acknowledge that in the absence of a comprehensive national dataset on the use and cost of community and public health services, costs associated

with Socio-Demographic Composition within this category need to rely on an imperfect dataset that poorly reflects the type and nature of services delivered or costs imposed. Previously, the CGC has implicitly recognised the inadequate nature of this data through the use of a 25 per cent discount.

4.33 The CGC proposes removing the discount. However, no rationale or justification is provided. The CGC should continue to apply the discount given the lack of a reliable and robust data set that better reflects the type of services provided and actual service delivery costs.

4.34 NSW Treasury and NSW Ministry of Health have provided detailed evidence challenging the level of substitutability between public and private CH services. A reduction in the level of substitutability from 70 to 60 per cent represents a welcome adjustment but fails to accurately reflect the imperfect nature of substitutability between public and private health services, and therefore fails to reflect what states do.

Emergency Departments

4.35 The current level of substitutability for the provision of ED services continues to be overstated, especially when time of presentation is taken into account. A lower level of substitutability (currently set at 15 per cent) should be adopted to better reflect what states do.

Welfare

Noted.

Housing

4.36 The development of a national cost gradient specifically for social housing maintenance expenses will result in a more robust and accurate assessment of the costs associated with the provision of social housing services in remote regions. As demonstrated by NSW Stronger Communities data, the CGC's existing cost gradient overstates these costs. NSW Treasury anticipates that a re-estimation of this cost gradient will flatten the slope for these costs.

4.37 The CGC proposes to use state-provided data for public housing and State Owned and Managed Indigenous Housing, by remoteness. NSW Treasury understands that a re-estimated cost gradient relying on this data will better reflect the actual costs associated with delivering other social housing services in remote regions and better reflect what states do.

4.38 The CGC should continue to reject arguments put forward by Queensland and the Northern Territory that rent collection levels amongst Indigenous households are lower than non-Indigenous households. This is not supported over the long-run, as demonstrated by Productivity Commission analysis of social housing. Moreover, Queensland's data shows this is immaterial. Similarly, Indigenous cost weights for social housing appear consistent with what states do and the costs incurred therein.

Services to Communities

4.39 Changes to the assessment of electricity and water subsidies, including the definition of remote communities and cost weights for the regional cost assessment, are supported.

Justice

Police services – community and specialised

4.40 The removal of the split between community and specialised policing expenses is supported as it removes an arbitrary and artificial distinction that does not reflect the nature of the policing task. Changes proposed to Police services will mean the assessment will, at least broadly, better approximate what states do.

4.41 However, the nature of the police category within the Justice assessment fails to account for rapid changes in the nature of policing, which are increasingly focused on prevention, disruption and community engagement. The costs associated with these activities, as well as changing patterns of criminal behaviour and increased complexity, are poorly reflected in offender numbers and the SES of these offenders.

4.42 Looking forward, the nature of this assessment must change to ensure that this assessment continues to align with, and reflect, what states do and represent average policy as these shifts in policing trends become more prevalent.

Police services – regional cost weights

4.43 Cost weightings developed by the CGC heavily overstate the cost of remote offenders. The following table compares CGC cost weights with population weights developed by NSW Police.

Table 1: Comparison of CGC and NSW Police cost weights

Region	CGC cost index *(at national offender rate)*	NSW Police – per capita cost[10]	NSW Police – cost per offence[11]	Overtime cost per offence
Metropolitan	1.0	1.0	1.0	2.03
Inner regional	1.32	1.19	1.11	3.9
Outer regional	1.35	1.19	1.11	3.9
Remote	2.29	2.02	1.08	3.15
Very remote	6.13	4.70	1.21	3.54

4.44 The CGC should re-specify the cost weightings for very remote offenders to more accurately reflect the cost of providing policing services in very remote areas.

[10] NSW Police, August 2019

[11] NSW Police, August 2019

Prisons – Remoteness and Service Delivery Scale

4.45 There is no conceptual or empirical case for including remoteness or Service Delivery Scale in the assessment of prison costs.

4.46 Regional location is not a strong determinant of cost variation. Prison costs relate more to – and are more influenced by – size, design and function.

4.47 While it is arguable that some extra travel costs are associated with remotely located prisons, such facilities tend to be small in size, with limited accommodation capacity and a small contingent of staff.

4.48 The cost differential specific to regional and remote locations would include extra travel costs when travel is required (noting increased reliance on technology in prisons to lower the cost and avoid security risks associated with prison transport), increased supply costs and some additional award allowances. However, on balance these are not a strong determinant of overall cost differentials between metropolitan, regional and remotely located prisons.

4.49 In the Draft Report, the CGC calculates regional cost and Service Delivery Scale by estimating an econometric equation that separates prisoners into normal (the intercept) and maximum-security prisoners, remoteness and the inverse of prison size to represent the fixed costs of running a prison facility.

4.50 There are a number of problems with this equation:

- The equation specification assumes the ratio of maximum security to total prisoner numbers is the same in all locations (that is, remote and non-remote). This assumption is not supported by available data. Maximum security prisoners are more likely held in regional and metropolitan prison facilities and should not be included in assessing regional costs.
- The equation assumes that the fixed costs of operating a prison are invariant with prison size. This is not supported by available evidence. While there may be a fixed cost attributed to the operation of a prison facility that is independent of the number of inmates at the facility, these costs vary according to the size, design, function and security level of the prison.

4.51 It is because of these problems that the estimated equation has very low explanatory power – an adjusted R-squared of 0.1451. Further, the coefficients for remoteness and inverse size are insignificant.

4.52 Nonetheless the CGC relies on this regression analysis to take into account a number of costs based on these variables.

4.53 It is not open to the CGC to conclude on the basis of the estimated equation that prisoners in remotely located prisons are more expensive than prisoners resident in regional and metropolitan prisons.

4.54 If the CGC can identify reliable data demonstrating additional costs directly linked to remoteness, these should only apply to the prison location. The resident location of a prisoner is irrelevant to assessing prison costs borne by states. On this basis, the CGC should not rely on this analysis as part of the Justice assessment.

Roads

4.55 The re-estimation of rural road length, the inclusion of bridges and tunnels based on the actual length of bridge and tunnel infrastructure under state management, and removal of an adjustment for unsealed roads will together improve the reliability of this assessment.

4.56 However, there remain a number of areas where scope for further adjustment exists. These changes are needed to ensure that the costs incurred by states in maintaining their road networks are better, more accurately, reflected and the robustness of this assessment improved.

Regional cost gradient – rural roads

4.57 The CGC proposes to apply the general regional cost gradient to rural road length. The reliance on a proxy cost weight that averages the costs for admitted patients and schools is unmerited and unjustified. This is a poor proxy that significantly overstates any disabilities in this area.

4.58 Normal business practice by NSW Roads and Maritime Services (RMS) is to base much of the everyday road maintenance equipment (such as graders, compactors and road sealers) in maintenance depots (including road authority and council depots) regionally distributed across the state. It is only more specialised, costly, equipment that is deployed from metropolitan and regional centres.

4.59 RMS also advise that the cost of deploying this equipment in regional and rural areas is similar to that of urban areas where additional costs are incurred due to congestion.

Regional cost gradient – bridges and tunnels

4.60 A revision of the regional cost gradient for bridges and tunnels will mean that the actual location of this infrastructure is better captured in this assessment.

Estimated investment in rural and urban roads

4.61 The CGC should rely wholly upon National Transport Commission (NTC) data as the basis for allocation of investment between urban and rural roads.

4.62 At present the CGC estimates the relative shares of urban and rural road investment costs by applying a 33 per cent weight to NTC-provided data (rural roads account for 43 per cent of costs) and a 67 per cent weight to state-provided data (rural roads account for 54 per cent of costs).[12] The outcome is anomalous and represents a departure from what states do.

4.63 This approach should be revisited. In addition, any departure from the urban and rural road investment allocation shown in NTC data requires clearer, and more persuasive evidence-based justification.

[12] CGC 2020 Review, *Report on GST Sharing Relativities,* Draft Main Report, Attachment 17, Table 6 and Table 20.

Rural road length

4.64 The CGC has adjusted its estimate of rural road length to take into account road connections to mines, ports and national parks. However, the role of user pays (especially with respect to the mining sector) is not reflected in this assessment, although the CGC acknowledges that the private sector contributes to the cost of maintaining a number of mining roads (whether in kind or through direct payment).

4.65 The CGC should make an adjustment to road length for those mining road connections to reflect the financial contribution provided by these mining companies.

4.66 Alternatively, and to ensure a consistent approach across all CGC assessments, the CGC should take into account contributions from the mining sector in the mining revenue assessment.

Transport

4.67 NSW Treasury welcomes and supports the adoption of a new methodological approach to assess urban transport costs. This approach better reflects what states do and the underlying cost drivers relating to the provision of urban transport services, including population density, passenger numbers by transport mode, and topography.

4.68 The new methodological approach is robust and highly reliable. It is supported by extensive econometric analysis and different methodological approaches separately and independently developed by Jacobs on behalf of the CGC, and Veitch Lister Consulting on behalf of NSW Treasury in consultation with Transport for NSW.

4.69 In comparison, the urban centre population-based methodological approach adopted by the CGC in the 2015 Review has much less explanatory power and is not supported by a comparable level and quality of analysis or related data. The outcomes of the Transport assessment over the last five years remains highly problematic. It resulted in counterintuitive outcomes that overstated the perceived policy choice in public transport provision. The approach ignored compelling evidence that urban population density and terrain increase the intrinsic level of congestion within a city, which results in the need for higher per capita levels of public transport provision to enable a city to function.

4.70 Continued use of urban centre populations as the basis for assessing 25 per cent of the cost of each state's urban transport task is flawed and unjustified. The CGC should wholly (100 per cent) rely on the new urban transport assessment methodology developed as part of the 2020 Review. This is the only approach open to the CGC to give effect to its principle of assessing what states actually do.

4.71 The new methodological approach, like in other areas of CGC endeavour, adopts an econometric approach to determine assessed urban transport net expenditure by state. This approach reflects what states do by modelling 70 Significant Urban Areas (SUAs) across Australia to establish what is average policy. By implication, this helps the CGC to look past policy-contaminated cost drivers.

4.72 The CGC proposes to rely on modelled passenger numbers rather than actual patronage to derive assessed expenditure. This helps further reduce the risk of policy contamination for this assessment.

4.73 The results of the modified Jacobs model produce the most accurate assessment of the need for state government-level expenditure on urban transport since the CGC began conducting the all-states review in the late 1970s. This outcome and proposed approach recognises in a more robust and reliable way, the expenditure needs for New South Wales' urban transport task. This has been greatly underestimated for many years, meaning New South Wales has foregone a significant proportion of its GST revenue share.

4.74 The mixed assessment approach proposed by the CGC in its Draft Report is highly problematic. In effect, it works as a 25 per cent discount to the new urban transport disability assessment. It is very concerning that the CGC has discounted a methodology that has a greater empirical foundation than some other areas of its analysis.

4.75 Formerly, the CGC used assessed (or 'standardised') expenditure derived using a modified budget approach. Under this methodology, states' actual expenditures were modified for policy differences to derive assessed expenditure.

4.76 The CGC should closely consider the differences between actual and assessed expenditure under both undiscounted and discounted urban transport methodologies as set out in the following table.

Table 2: Comparison of actual, undiscounted and discounted assessed expenses

		A		B	
	Actual net expenses	Undiscounted assessed net expenses	Variation to actual expenses	Discounted assessed net expenses	Variation to actual expenses
	($m)	($m)	($m)	($m)	($m)
NSW	6,757	6,361	396	6,052	705
VIC	4,745	4,549	196	4,462	283
QLD	2,525	2,457	68	2,611	-86
WA	1,094	1,447	-353	1,508	-414
SA	552	844	-292	896	-344
TAS	92	82	10	126	-34
ACT	91	145	-54	190	-99
NT	56	49	7	68	-12
Total	**15,911**	**15,911**	**0**	**15,911**	**0**

4.77 Even under an undiscounted methodology (column A in above table), there is a clear pattern in the variances between actual and assessed expenditure by city size. Melbourne and Sydney's city influences stand out consistent with their greater than average urban transport needs.

4.78 The above analysis presents significant questions whether sufficient policy differences exist between states which explain these results. A clear answer to this question, and a persuasive explanation of the reasons for this pattern is needed before the CGC can reasonably contemplate an effective discount on its new methodology.

4.79 The CGC justifies a 25 per cent discount to the modified Jacobs methodology based on its use of proxy variables. However, the Jacobs report provides no evidence of bias that would support the use of these proxy variables for determining urban transport need.

Accordingly, there is no statistical or analytical basis upon which to apply a de facto discount to Jacobs' modified methodology.

4.80 The application of an effective discount of 25 per cent leads to problematic outcomes that need to be addressed by the CGC before it can reasonably adopt its mixed assessment approach to urban transport. As per column B of Table 2 above, with the CGC applying the proposed, de facto discount, the differences between actual and net assessed expenses widens even further. The CGC needs to justify how this outcome is caused by significant policy differences between states.

4.81 The following sections (4.82 to 4.117) demonstrates how public transport systems have developed across Australia's capital cities in very similar ways due to key demand drivers (population growth and economic centres) and constraints (topography and other geographic features), rather than a policy choice. This includes consideration of:

- the historical development of Sydney's heavy rail network.
- the existence of heavy rail networks in global cities and relationship with economic activity and higher land values.
- the impact of road congestion on modal choice, including a comparison of the role of buses and heavy rail.
- how Sydney's unique topographic features drive population density.
- the prevalence of heavy rail as the most efficient means of mass distance transport in densely populated urban areas.

Modal share and policy choice – rail

4.82 The CGC's new approach to assessing an urban transport disability has been subject to some criticism that it is not policy neutral and, further, that Sydney's rail modal share is a policy choice of the NSW Government that results in higher costs that should be discounted by the CGC.

4.83 Reliance on heavy rail represents average policy across states and is what states do. Accordingly, this argument is invalid. Further, it is impossible to ignore or discount the effect of the historical development of metropolitan rail services in Australia. It is also naïve to impose a greenfield approach to the provision of an urban transport system in a long-settled, and highly developed, capital city such as Sydney.

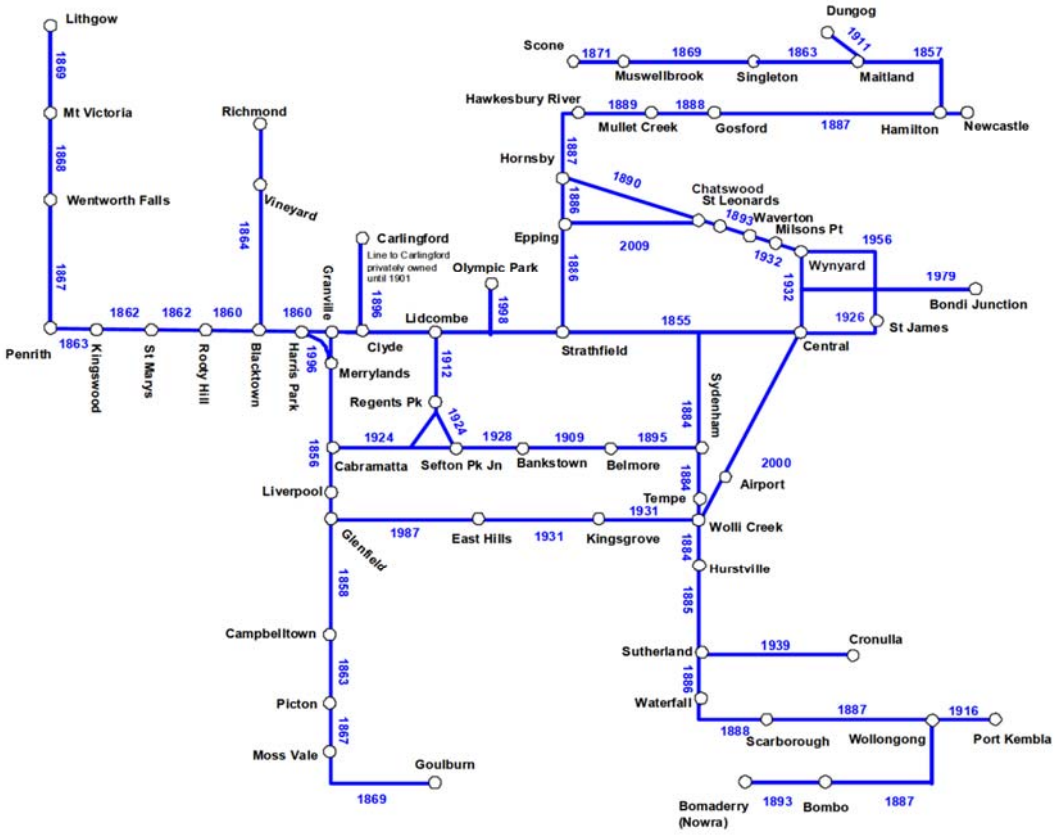
4.84 Rail and tram mass transit systems predate the emergence of motorised transport as the basis for moving large numbers of people across a city. These systems provided the only means of facilitating travel within and across cities and to support urban growth in the surrounding suburbs.

4.85 The emergence of private motorised transport modes and widespread uptake led to a temporary hiatus in the development and expansion of rail passenger services. However, this changed with rising congestion costs associated with population densification and increased travel distances across major metropolitan areas.

4.86 The following table shows the breadth and reach of Sydney's heavy rail network and its progressive expansion resulting from growing and expanding population and settlement

patterns and trends over time. It also shows the vast bulk of the network was established prior to the Second World War. The network, and its consequences for urban development, can in no way be considered a policy choice of current or recent governments.

Figure 1: Sydney historical rail network map, 1855 – 2019[13]

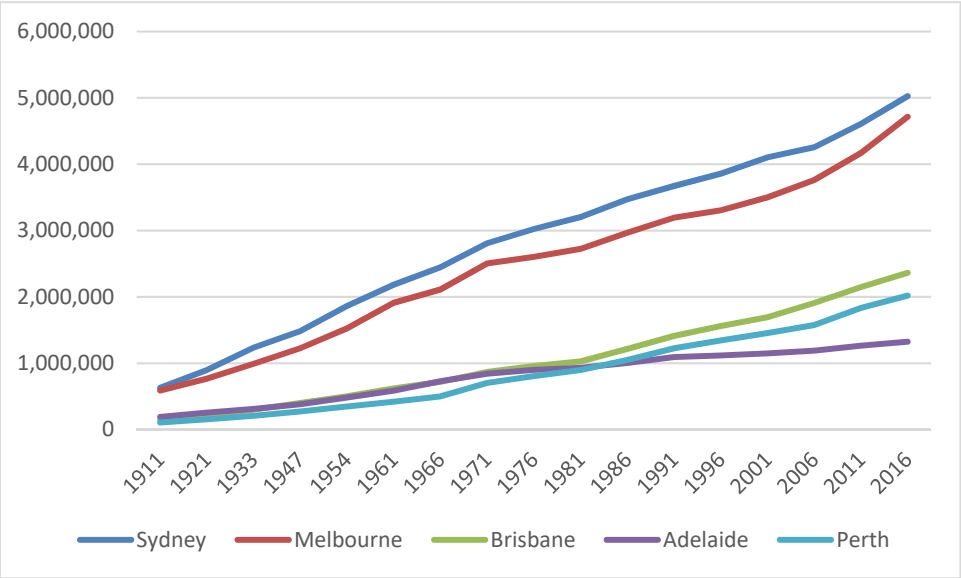


4.87 Over time, other Australian capital cities have invested in the development and expansion of their rail networks in direct response to population growth, including Brisbane, Perth and Adelaide. Reliance on heavy rail is average state policy.

4.88 Similarly, a greater reliance, in relative terms, on the use of rail networks and services in Sydney and Melbourne is directly attributable to the level of population growth that has occurred in these cities. Over time, the same pressures will likely emerge in other Australian capital cities that will, in future, make the same investments in rail as the New South Wales and Victorian governments.

[13] Train Statistics 2014: Everything you need to know about Sydney Trains and NSW TrainLink, Figure 5, Page 13

Chart 2: Population for major capital cities – 1911 to 2016[14]



Modal share and policy choice – rail and global cities

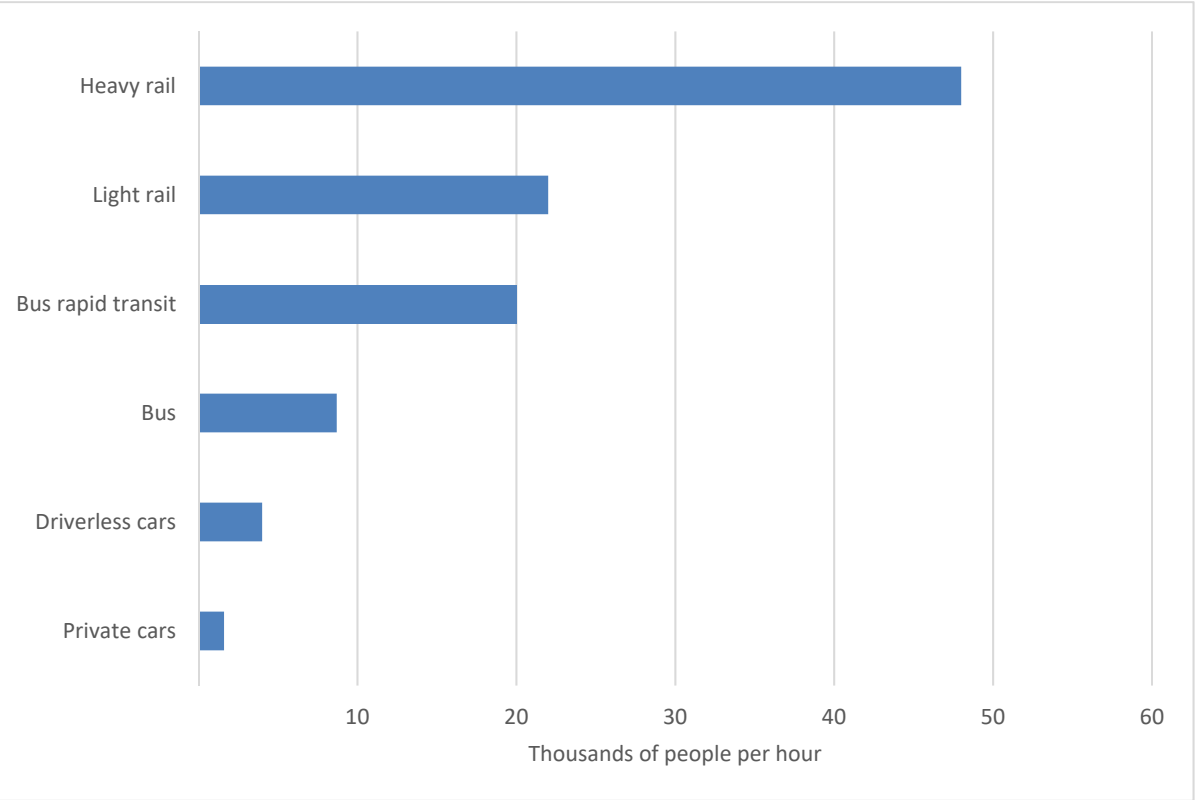
4.89 Rail systems are the favoured public transport solution for many global cities, such as New York, London and Tokyo. Sydney is not unique. The systems found in these cities are long established and successful, carrying millions of passengers every day. These cities could not exist in their current form without an extensive rail network.

4.90 Once urban land costs are considered, heavy rail is the most cost-effective form of mass transport, shifting vastly more passengers per square metre of occupied land than other mass transport modes.

4.91 The following chart shows how efficient heavy rail is compared to other forms of mass transit regarding its theoretical capacity of a protected 3.5 metre lane. Heavy rail has more than twice the capacity of light rail and bus rapid transit systems and over five times the capacity of standard bus systems for the same corridor.

[14] ABS Cat. No. 3105.0.65.001 - Australian Historical Population Statistics, 2016

Chart 3: Capacity by mode of a protected 3.5 metre lane, thousands of people per hour[15]



4.92 A 2008 study by the Curtin University Sustainability Policy Institute classified 60 international cities into 24 stronger rail cities, 28 weaker rail cities and eight no rail cities. Stronger rail cities use rail for more than 50 per cent of their overall public transport passenger kilometres travelled. Conversely, weaker or negligible rail cities use rail for less than 50 per cent of the overall public transport task.

Table 3: Major cities by rail modal share[16]

Stronger rail mode share cities	Weaker rail mode share cities	Cities with no (negligible) rail modal share
New York	Toronto	Los Angeles
London	San Francisco	Houston
Sydney	Perth	Ottawa

[15] Bus rapid transit and light rail figures from Hickman et al (2011, p. 55). Driverless car figures from Shladover et al (2012. Private car figures from NACTO (2019). Bus and heavy rail figures from Transportation Research Board (2013, pp. 3-8 and 6-21).

[16] Kenworthy, J., An International Review of the Significance of Rail in Developing More Sustainable Urban Transport Systems in Higher Income Cities, 2008, Table 1

4.93 These findings indicate there is a strong positive correlation between the strength of a city's passenger rail task, density levels and economic productivity, which result from agglomeration economies associated with population densification when combined with an efficient transport network.

Chart 4: Relationship between rail mode share and urban density levels – 1995 – 1996[17]

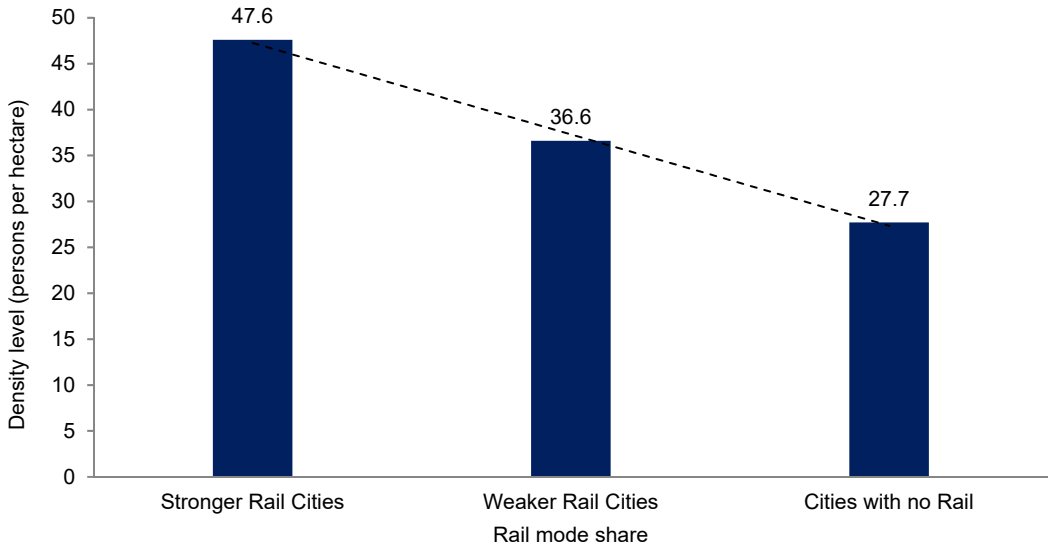
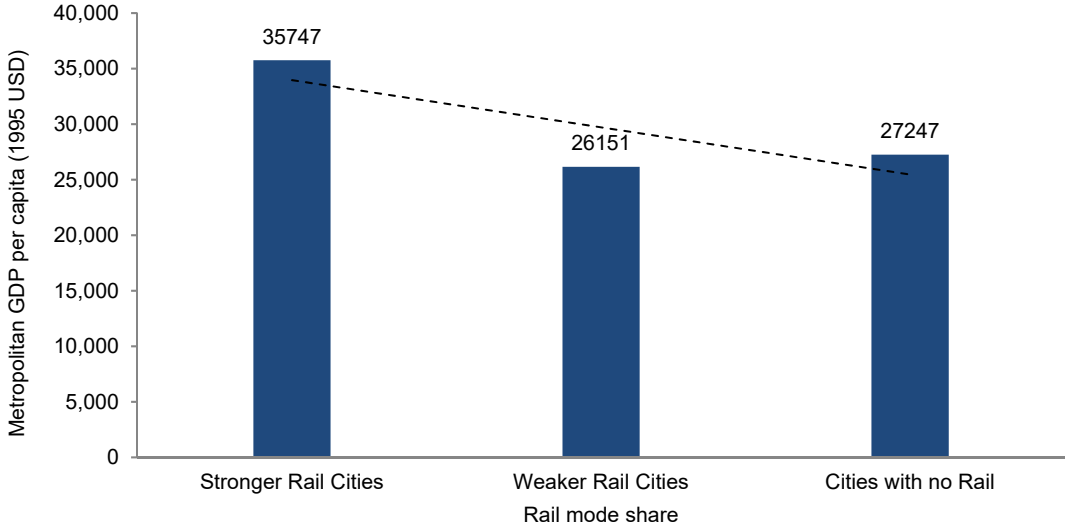


Chart 5: Relationship between rail mode share and metropolitan Gross Domestic Product –1995 – 96[18]



[17] Kenworthy, J., An International Review of the Significance of Rail in Developing More Sustainable Urban Transport Systems in Higher Income Cities, 2008, Table 2.

[18] Kenworthy, J., An International Review of the Significance of Rail in Developing More Sustainable Urban Transport Systems in Higher Income Cities, 2008, Table 2.

Modal share and policy choice – congestion

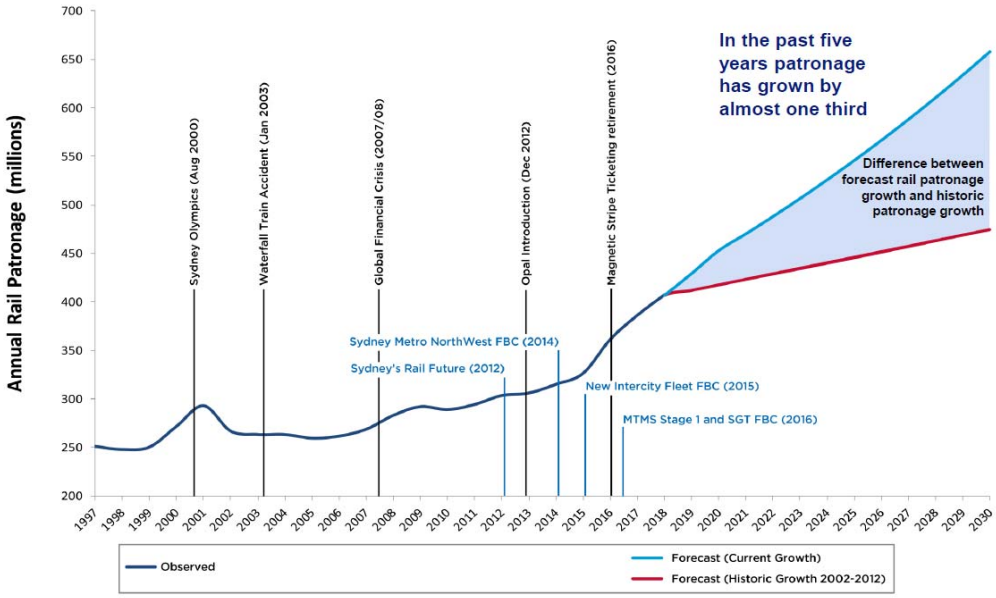
4.94 Sydney has the greatest congestion costs of any Australian city. According to Infrastructure Australia, this trend looks set to worsen by 2031. At the same time, Sydney has eight of the 10 worst-performing roads nationally in terms of lost economic activity. Commute times in Sydney greatly exceed those of any other Australian city. This is largely due to increases in road congestion.

4.95 Together, these factors mean Sydney is the most rail-dependent city in Australia. It also means Sydney faces an unprecedented level of forecast growth in demand for rail services. Over the last five years, train patronage across the Sydney rail network has risen by 30 per cent. This is forecast to grow at record levels into the 2020s.

Table 4: Australian road corridors by greatest congestion cost – 2016 and 2031[19]

Rank	Area	State	Road congestion costs (2016)	Road congestion costs (2031)
1	Sydney, the Hunter and Illawarra	NSW	$8.0 billion	$15.7 billion
2	Melbourne and Geelong	VIC	$5.4 billion	$10.3 billion
3	Brisbane, the Gold Coast and Sunshine Coast	QLD	$2.0 billion	$6.0 billion
4	Greater Perth	WA	$1.5 billion	$3.6 billion
5	Greater Adelaide	SA	$1.4 billion	$2.6 billion

Chart 6: Sydney annual rail patronage, 1997-2018 and forecast to 2030[20]

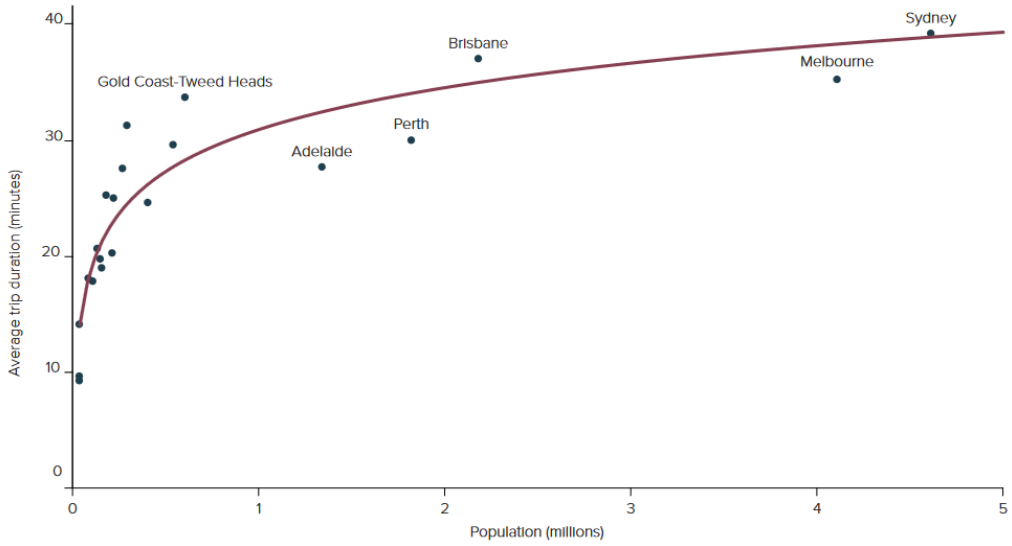


[19] Infrastructure Australia, *Australian Infrastructure Audit*, 2019

[20] Transport for NSW, Rail Delivery, 2017

4.96 The extent of road congestion across Sydney's road network, and the economic costs of delays in travel time, place practical limits on the capacity for public transport users to reach major metropolitan centres by bus. This means it is not feasible to shift future rail patronage onto a road-based bus network and severely limits the scope for policy choice between rail and bus networks as a means of mass transit

Chart 7: Commuting times for all modes in Sydney exceed other cities in Australia – 2019[21]



4.97 As a result, rail travel to Sydney's CBD and Parramatta CBD will overtake cars and buses combined as the fastest transport mode available during the weekday morning peak (see Attachment A).

4.98 As Sydney's population and density continue to rise, rail travel will become more attractive than any other mode during peak periods and will be essential for the city to function effectively as an economic centre.

Modal share and policy choice – buses

4.99 Buses serving CBD corridors are at most risk of decline in performance. The worst performing bus corridors in Sydney are those heading into Sydney CBD in the weekday morning peak.

[21] Infrastructure Australia, *Australian Infrastructure Audit*, 2019

Table 5: Sydney bus corridors by slowest in-vehicle travel time – Inbound travel speed, weekdays from 7am to 9am[22]

Rank	Bus corridor	Travel speed[23]
1	New South Head Road – Craigend Street – William Street	14 km/h
2	Bondi Road – Sid Enfield Drive – Oxford Street	13 km/h
3	Miller Street – Strathallan Avenue – Sailors Bay Road – Eastern Valley Way – Clive Street	17 km/h
4	Pacific Highway	13 km/h
5	Manly Road – Spit Road – Military Road	15 km/h

4.100 More than 1,000 buses converge in the Sydney CBD in the morning peak (within an hour period). This creates an accumulation of negative impacts on bus punctuality and reliability. Sydney Metro is a partial response to this problem, removing some 160 buses out of the Sydney CBD in the morning peak to relieve congestion. Similarly, Sydney Light Rail is expected to take some 220 buses out of the Sydney CBD once fully operational by end-2019.

4.101 If buses were to replace trains, some extra 2,000 buses would converge on Sydney CBD in the weekday morning peak (within an hour period). This represents a tripling of Sydney CBD's current bus transport task, compounding the punctuality of bus services overall and reliability of the road network. The Sydney CBD road network does not have the capacity to support 2,000 additional buses in the weekday morning peak.

4.102 A large proportion of rail commuters travel more than 15 kilometres to the Sydney CBD. The current road network could not support the same number of additional commuters using buses. The structure and urban form of the Sydney CBD has evolved over decades reliant on the role of a large heavy rail network to sustain that level of density and economic activity.

4.103 Even adopting the same public transport modal shares as the Perth or Adelaide urban transport system would have significant implications.

4.104 Approximately 1.1 million passengers move around and use Sydney's metropolitan heavy rail network on a typical weekday. The same network has the highest mode share of journeys to work (JTW) by train in Australia, at 19 per cent[24]. By comparison, the number of people Sydney moves on its bus network is around 950,000 on a typical weekday.

4.105 If Sydney had a JTW rail mode share similar to that of Perth (7 per cent) or Adelaide (3 per cent), some 700,000 to 920,000 passengers would be displaced from the rail network on a typical weekday. These passengers would be shifted onto Sydney's road network, resulting in a much higher level of private vehicle use. This would result in further

[22] Transport for NSW, *PTIPS, 2019*

[23] Refers to in-vehicle normalised travel speed – weekdays, 7am to 9am, inbound

[24] ABS, Census of Population and Housing 2016

deterioration in the performance of Sydney's road network, which already experiences the highest congestion levels and delay costs in Australia.

Urban density, policy choice and topography

4.106 The inclusion of a population density variable for urban transport is essential to ensure costs are fully captured and taken into account in determining each state's urban public transport task.

4.107 Population density is not policy affected. While some states argue that population density is a result of variation in policy between states, such arguments should not be accepted by the CGC. Governments across Australia have pursued a similar policy approach to urban consolidation when planning for the requirements of a growing population.

4.108 The topography (hills and enclaves) and natural geography of Sydney – mountains to the west, harbour and coastline to the east, national parks to the north and south, and the Parramatta River through the west – naturally shoe-horns development into catchments and precincts formed by natural perimeters, creating barriers and restrictions on where transport corridors can locate or expand with most ease[25].

4.109 These natural barriers also mean that, for Sydney, the driving forces of urban consolidation in the 1990s had to be balanced against the need to ensure the protection of the various water catchments. Furthermore, reducing air pollution and exposure to air pollution in the western suburbs of Sydney was a guiding principle for consolidation in alternate locations[26].

4.110 This unique topography also adds an additional layer of complexity to the delivery of transport infrastructure across the city, as each hill or turn along a transport corridor creates a new connection node. The more complex the interconnections of a transport grid, the more expensive it can be to deliver each additional unit of transport infrastructure.

4.111 In summary, Sydney's topography is such that enclaves have and will continue to exist, which drive density predominantly around existing established corridors[27].

4.112 Attachment B sets out a comparative analysis of planning documents across Sydney, Melbourne, Brisbane and Perth demonstrating a consistent planning approach to urban density and consolidation across cities.

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[25] Price Waterhouse Cooper (2010) *Sydney: Australia's Global City*
https://www.pwc.com.au/industry/government/assets/sydney-emerging-global-city-jun10.pdf

[26] Smith, NSW Parliament 'Urban Consolidation: Current developments', 1997

[27] The long-term average of density infill as a proportion of total development between 1981-2010 was 70 per cent.

Randolph, Barriers to Development in Sydney: A realistic role for infill, 2011

City Futures Research Centre, University of New South Wales
https://www.be.unsw.edu.au/sites/default/files/upload/research/centres/cf/seminarsandconferences/HIA_Summit_May_2011.pdf

Urban density, policy choice and revenue assessments

4.113 The CGC must adopt a consistent approach to urban density in relation to its expenditure and revenue assessments, otherwise perverse, contradictory and extremely unfair outcomes will result.

4.114 If the CGC were to determine that urban density is a policy choice, it would need to re-evaluate its entire approach to key revenue assessments relating to land taxes, stamp duties on conveyances and payroll taxes.

4.115 This is because the CGC's approach to these revenue assessments is based on an assumption that population density (when united with an efficient public transport network) leads to agglomeration economies, resulting in higher incomes and higher land values, which currently work to lower New South Wales' GST requirement.

Services to industry

4.116 Methodological changes that help simplify complex assessments are supported when consistent with what states do, and outcomes appear intuitively logical and consistent with reasonable expectations.

4.117 Changes proposed by the CGC to the assessment of an economic environment disability do not, however, appear to reflect underlying cost drivers for the regulatory burden faced by states under the Services to Industry assessment.

4.118 The CGC appears to have prioritised simplification over a more robust methodological approach that takes better account of the factors that determine the size of the regulatory task states undertake with respect to their respective agricultural and mining sectors.

4.119 In its 2015 Methodology Review, the CGC relied on a mix of factors – value of production, number of businesses, private construction activity and population to assess an economic environment disability.

4.120 The CGC proposes a departure from this approach in the 2020 Methodology Review Draft Report. Accordingly, the CGC proposes to assess an economic environmental disability for regulation of:

- the Agriculture and Mining sectors based solely on the value of production, and
- for Other Industries based on the value of production (75 per cent) and population (25 per cent).

4.121 This approach is based on an assumption by the CGC that "business counts tend to be proportionate to the size of the economy". However, the CGC also observes: "Generally, the larger an economy, the greater the number of firms and the higher the proportion of larger firms."[28]

[28] CGC 2020 Review, *Report on GST Sharing Relativities*, Draft Main Report, Attachment 19, paragraph 79.

4.122 The number of businesses in a state has a key bearing on the size and complexity, and therefore the cost, of the regulatory task for states. For example, the cost associated with regulating 100 firms each with an individual turnover of $1 million is generally significantly higher than the cost of regulating one business with a turnover of $100 million.

4.123 Available data indicates there are significant differences in the level of economic output per firm between states which, intuitively, suggests that the size and complexity of the regulatory task varies with it and will have a direct bearing on the costs incurred by states.

4.124 For example, in the mining sector, in 2017-18, 81 firms in the Northern Territory produced the same value of economic output as 862 firms in Victoria. Similarly, for the agriculture, forestry and fishing sector, the level of economic output in New South Wales in 2017-18 was lower than in Queensland, despite New South Wales having 30 per cent more firms.

4.125 In assessing an economic environment disability, the CGC should continue to take into account the number of firms in each sector to determine the regulatory costs borne by each state under the Services to industry assessment. The following table sets out the relevant data supporting this argument.

Table 6: Interstate comparison of average firm size for selected industries[29]

	Agriculture, Forestry and Fishing			Mining		
	No. of firms	Output $mil	Output per firm	No. of firms	Output $mill	Output per firm
NSW	53,286	10,816	0.20	1,534	20,487	13.4
VIC	39,484	10,256	0.26	862	4,140	4.8
QLD	41,137	11,078	0.27	1,841	37,494	20.4
WA	16,488	6,244	0.38	2,875	78,451	27.3
SA	17,435	5,019	0.29	501	3,853	7.7
TAS	5,583	2,673	0.48	124	1,333	10.8
ACT	361	19	0.05	27	48	1.8
NT	923	741	0.80	81	4,125	50.9
Total	**174,697**	**46,846**	**0.27**	**7,845**	**149,9311**	**19.1**

[29] Office of the Chief Economist, Department of Industry, Innovation and Science, *The Business Size Distribution in Australia*, Research Paper 5/2015, September 2015, p. 2

Business development expenses

4.126 The CGC is requested to review the proportion and allocation of expenses for business development. Information provided in the Draft Report[30] indicates that some data outliers are included, and further, appears inconsistent with the stated claims made by some states of the extensive efforts and costs borne by their states to develop the level of economic output within their states. This is most notable with respect to the mining sector.

Other expenses

4.127 Noted.

Investment

4.128 Noted.

Net borrowing

4.129 Noted.

Administrative scale

4.130 The assessment of Administrative scale by the CGC continues to present a real and significant concern to NSW Treasury. The conceptual case is not demonstrated and the assessment is profoundly flawed.

4.131 The aggregate allowance for Administrative scale would increase to $2.8 billion based on the 2017-18 indicative data and preliminary calculations. This appears a highly implausible outcome evidenced by the estimated allowances for various functions.

4.132 Accordingly, NSW Treasury has estimated the expense share of Administrative scale for each governmental function based on gross, rather than net-expenses (that is, after deducting revenues assessed within each relevant expense category). This approach is consistent with the methodology adopted by the CGC to derive Administrative scale estimates using a bottom-up approach.

4.133 The results of this analysis are shown in the following table which sets out, for Tasmania, the ACT and the Northern Territory, the share of expenses for each function attributed to Administrative scale.

[30] CGC 2020 Review, *Report on GST Sharing Relativities,* Draft Main Report, Attachment 19, Table 11

Table 7: Assessed Administrative scale as a proportion of total assessed gross expenditure – 2017-18[31]

	TAS (%)	ACT (%)	NT (%)
Schools education	2.3	3.6	2.8
Post-secondary education	6.5	8.3	8.4
Health	2.0	3.7	2.7
Welfare	2.6	4.6	3.0
Housing	8.9	16.1	7.8
Services to communities	16.2	22.0	8.0
Justice	9.1	14.7	7.3
Roads	7.0	17.1	6.3
Transport	6.1	3.7	10.6
Services to industry	17.5	18.6	25.1
Other expenses	15.6	18.7	25.3

4.134 Some of the above results highlight real flaws in the nature of the CGC's approach to assessing Administrative scale as it gives rise to some extremely unlikely and highly questionable results.

4.135 For example, it is implausible to ascribe 22 per cent of the ACT's expenses on Services to communities as a fixed cost – many of the costs associated with this assessment are readily scalable, such as electricity and water subsidies and Indigenous development expenses.

4.136 A similar question arises with respect to the assumption that 25 per cent of the Northern Territory's Services to industry expenses are fixed. If such estimates were in fact true, average policy across states would be to put in place mechanisms between agencies, or across state borders, to address such high levels of fixed costs.

4.137 In addition, the CGC's approach to Administrative scale continues to wholly ignore many of the opportunities presented by technology, greater harmonisation and information sharing between and across states in areas such as education (such as in curriculum development and teaching standards) and health for small states to reduce costs and achieve cost savings. Indeed, noting the increase in costs associated with health and other assessments, the CGC has adopted the reverse assumption that technology is increasing the cost of delivering government services across the board.

[31] CGC 2020 Review, *Report on GST Sharing Relativities*, Draft Main Report, Attachment 17, Table 1 and Attachments 10 to 20, various tables

4.138 Finally, the risk of double counting costs linked to Service Delivery Scale, remoteness and Socio-Demographic Composition appears overwhelming and remains unaddressed by the CGC.

Wage costs

4.139 The CGC's proposed Wage costs assessment does not differ from that adopted in the 2016 Update and finalised in the 2017 Update. The methodology for assessing Wage costs is well developed, and the data robust. On this basis, the application of a 12.5 per discount is unwarranted, does not conform with CGC guidance on the use of discounts, and should be removed.

Geography

4.140 In general, the CGC assesses regional costs directly as part of a broad range of categories. However, the reliance on a mixed approach using an average of the regional cost gradients for Admitted Patients and Schools education appears to rely on judgment. The use of these two cost measures appears based on the availability of data, rather than any assessment of the appropriateness of applying these cost gradients for other expenditure assessments. Accordingly, where a general regional cost gradient is used, a discount of 12.5 per cent is warranted.

- The general regional cost gradient is used for child protection and family services, Services to communities (excluding water and electricity subsidies), rural roads, Services to industry (relating to regulation), and Other expenses.

4.141 The CGC also notes allowance is made, where possible, for differences between where a service is delivered and where recipients reside. The widespread application of this assumption for all state-like services is questionable.

4.142 On the one hand, SES can act as a proxy for remoteness, resulting in double counting. Alternatively, there are also a number of instances where the location of recipients is not relevant to the cost of delivering the relevant services, such as a number of justice-related services (Justice – Prisons and Criminal courts) and Health. NSW Treasury has also previously provided evidence to the CGC, in the Welfare assessment (Out of Home Care, Child Protection and Housing), where the concentration of these services in regional centres does result in lower unit costs, thus helping counter Service Delivery Scale effects.

National capital

4.143 Noted.

Cross-border

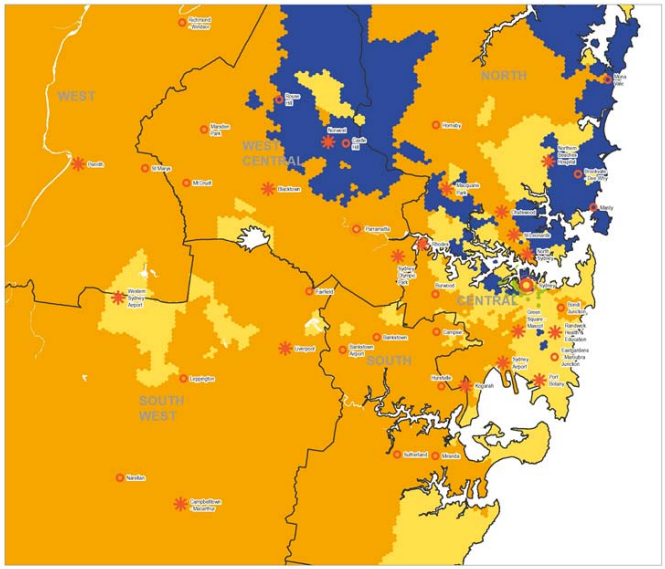
4.144 Proposed changes to this assessment are noted and supported.

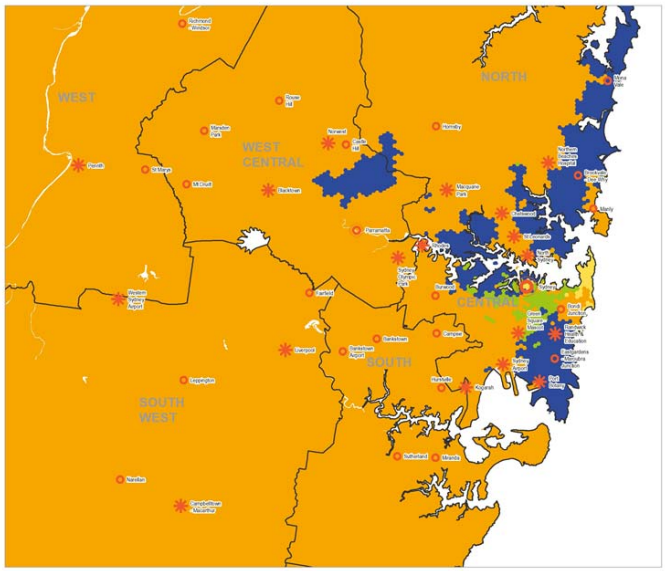
Native title

4.145 NSW Treasury supports the use of actual per capita as the appropriate method to assess land rights expenses for all states.

ATTACHMENT A – Fastest mode to Sydney CBD and Parramatta CBD

Fastest mode to Sydney CBD – 2016 and 2056[32]

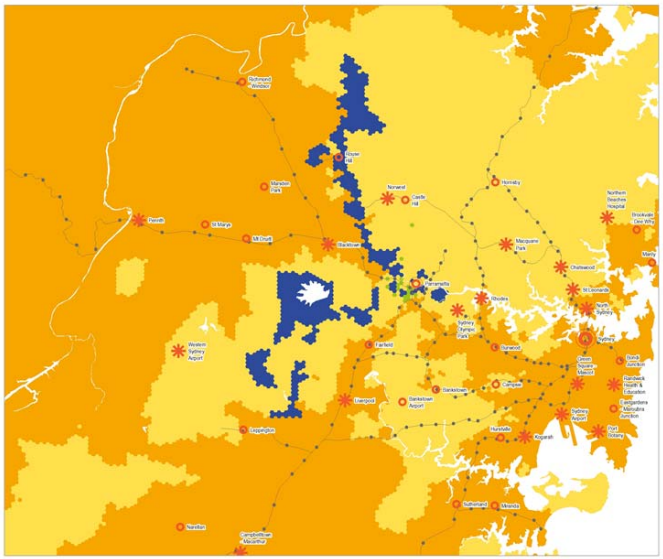


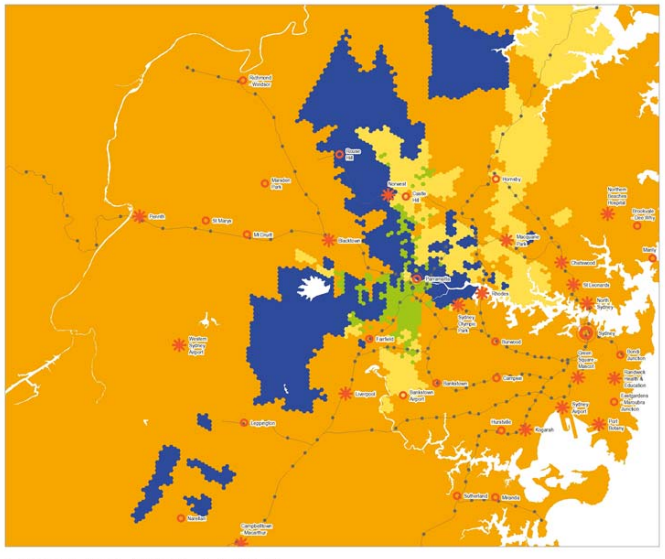


[32] Transport for NSW, *Transport Planning*, 2016

ATTACHMENT A

Fastest mode to Parramatta CBD – 2016 and 2056[33]





[33] Transport for NSW, *Transport Planning*, 2016

ATTACHMENT B – Urban consolidation

Urban consolidation

Urban consolidation policy is not a unique policy response of the NSW Government and, in fact, is widespread policy across both Australia and other developed nations, as noted in a 2018 review of urban consolidation in Australia:

> *The desire to manage growth and curtail urban sprawl is neither new nor endemic to Australia. Growth management strategies have formed a key aspect of planning policy in the UK, US, New Zealand, Australia and parts of Western Europe since World War II.*[34]

Urban consolidation has been and continues to be both an implicit and explicit policy directive of the governments of the five main metropolitan areas of Australia – Sydney, Melbourne, Brisbane, Adelaide and Perth – when faced with challenges around servicing a growing population.

Various urban planning reviews cited in this Report, and the relevant planning policies across states, provide ample evidence to support the claim that all states have attempted to shoe-horn development into manageable pockets – "compacts" – along existing or soon to be provided transport nodes and corridors, and close to employment and amenities across the major metropolitan areas/cities across Australia.

Ruming states:

> *Australian cities are facing a number of challenges including significant growth in population, a growing housing affordability crisis, greater concern for environmental issues and shortfalls in transport and other urban infrastructure. In response to these challenges the promotion of a higher-density built form has come to represent an urban planning orthodoxy promoted via metropolitan strategies across the country.*[35]

Further, Forster noted in 2006 that the strategic plans of Melbourne, Adelaide and Perth incorporated formal urban growth boundaries, which set limits to further development at the urban fringe. The plans all envisaged that new housing developments on the fringe would make up less than half the needed net growth in dwelling numbers, with infill development making up the majority of new dwellings. [36]

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[34] Raynor, K; Mayere, S; Matthews, T, (2018) Do "city shapers" really support urban consolidation? The case of Brisbane, Australia. Urban Studies 55 (5), pp. 1056 - 1075

[35] Ruming, K (2014), Urban Consolidation, Strategic Planning and Community Opposition in Sydney, Australia: Unpacking policy knowledge and public perception, Land Use Policy (Journal) Vol 39

[36] Forster, C (2006), The Challenge of Change: Australian Cities and Urban Planning in the New Millennium, Geographic Research 44(2):173-182.

The rationale for urban consolidation is threefold:

- **Economic:** Providing for additional development around existing transport nodes, utility lines and closer to employment reduces the marginal cost of an additional unit of capital.
- **Environmental:** The larger the urban sprawl, the more reliance on car trips per person per year.[37] Moreover, if left unmitigated, urban sprawl has the potential to place residential developments closer to either undesirable industrial activity – exposing residents to health risks – or close to ecologically protected habitats which could threaten natural ecosystems.
- **Social:** A greater mix of people in existing suburbs reduces social enclaves and gives more people access to better services and amenities.[38]

Indeed, urban consolidation has been a central policy of comparable governments in dealing with population growth since the latter half of the twentieth century, including the United Kingdom, United States, New Zealand, Australia and parts of Western Europe.[39]

These policies have generally fallen under the three principles of: containment (reducing urban sprawl), consolidation (building on existing infrastructure) and centres (designating growth in particular locations, usually around existing transport, utility and employment districts).[40]

The ultimate goals of improving liveability, ensuring equitable access to utility, transport, education and social services, and reducing the cost of delivering those services via leveraging existing capital (land or infrastructure) assets have been pursued by metropolitan jurisdictions in successive strategic planning documents.

Forster notes that while the approaches taken are by no means identical, they are similar enough across the five metropolitan areas to suggest a consensus view on planning policy.[41] Indeed, this view is supported by the successive strategic planning documents of Brisbane, Melbourne, Perth and Sydney.

[37] This was a key driver behind the push for urban consolidation in Perth specifically (see the Perth and Peel Strategic Plan. In 2014, *The West Australian* called Perth's urban sprawl 'the biggest economic problem it had.'

[38] NSW Parliamentary Library Research Service (1997), *Urban Consolidation: Current Developments*, Briefing Paper No 23/97.

[39] Raynor, K; Mayere, S; Matthews, T, (2018), Do "city shapers" really support urban consolidation? The case of Brisbane, Australia, Urban Studies 55 (5), pp. 1056 - 1075

[40] Forster, C (2006), The Challenge of Change: Australian Cities and Urban Planning in the New Millennium, Geographic Research 44(2):173-182

[41] Forster, C (2006), The Challenge of Change: Australian Cities and Urban Planning in the New Millennium, Geographic Research 44(2):173-182

For example, SEQ 2009 outlines that to manage growth within South East Queensland, the South East Queensland Regional Plan 2005-2026 included[42]:

- promoting a compact urban form, and
- identifying an Urban Footprint as a means to control unplanned urban expansion.

Successive plans for Melbourne have generally included an urban growth boundary for Melbourne, dictating how far urban sprawl can spread. As Plan Melbourne outlines, it is a vision for a 'more consolidated, sustainable city.' [43] These plans have set a vision of Melbourne as a 20-minute city, based on shoehorning density around transport nodes – Transport Oriented Development (TOD).

In the case of Sydney, City of Cities and a metropolitan plan for Sydney 2036 have focused on a hierarchy of activity centres and more recently a vision of a Metropolis of three Cities[44].

The various strategic planning frameworks across the country have included a range of policy directives which target urban consolidation, such as:

- Transport Oriented Development – targeting development near existing or future transport nodes. Examples include the Monash employment precinct in Victoria or Fremantle in Perth.
- Activity Centres and Precincts/"Place-based Planning". Examples include Freemantle and Subiaco in Perth,[45] Dandenong, Footscray and Epping in Victoria,[46] Greater Parramatta in Sydney,[47] and Brisbane City in Brisbane.[48]
- Infill and Urban Renewal Strategies and Targets – generally outlined in the overarching strategic planning documents and targeting brownfield or greyfield sites. Examples include renewable precincts such as Docklands in Melbourne, Redfern in Sydney, East Perth, and Queens Wharf in Brisbane.

The specifics of these strategic plans and urban consolidation strategies are outlined in Table 8.

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[42] South East Queensland Regional Plan 2009 http://www.dlgrma.qld.gov.au/resources/plan/seq/regional-plan-2009/seq-regional-plan-2009.pdf

[43] Plan Melbourne 2017-2050 https://www.planmelbourne.vic.gov.au/__data/assets/pdf_file/0009/377127/Plan_Melbourne_2017-2050_Summary.pdf

[44] Metropolis of Sydney 2036 https://apo.org.au/sites/default/files/resource-files/2010/12/apo-nid93911-1190141.pdf ; City of Cities https://apo.org.au/sites/default/files/resource-files/2005/01/apo-nid93871-1178911.pdf ; Metropolis of three Cities

[45] Central Sub-regional Planning Framework, Perth and Peel https://www.dplh.wa.gov.au/getmedia/f19bb69d-e250-4674-9313-3ca70a7db7c3/FUT_PP-Central_Sub_Region_March2018_v2_part1

[46] Plan Melbourne 2017-2050 https://www.planning.vic.gov.au/__data/assets/image/0017/110591/Plan-Melbourne-Map-14-Metropolitan-and-maajor-activity-centres.jpg

[47] Sydney Metropolitan Strategy 2010: City of Cities https://apo.org.au/sites/default/files/resource-files/2005/01/apo-nid93871-1178911.pdf

[48] Shaping South East Queensland 2016-2041 https://dilgpprd.blob.core.windows.net/general/shapingseq.pdf

Table 8: Urban consolidation policies within jurisdictions' strategic plans

City	Strategic plan and commentary
Melbourne[49]	**Melbourne 2030 (2002)** • 50 per cent infill targets • Hierarchy of centres **Melbourne 2030: a planning update - Melbourne at 5 million (2008)** • Hierarchy of activity centres • Designated growth areas • Greenfield target of 15 dwellings per hectare • Urban growth boundary
Brisbane[50]	**South East Queensland Regional Plan (2009)** • Infill target of 95 per cent (Brisbane City) **Shaping South East Queensland 2017 (2014)** • Implementation of Cross River Rail highlighted as catalytic to achieving consolidation development
Sydney[51]	**City of Cities (2005)** • Infill target of 60-70 per cent • Hierarchy of Centres **Metropolis of Sydney 2036 (2010)** • Hierarchy of Centres • Higher density corridors
Perth[52]	**Network City (2003)** • 55 per cent infill target • Employment into a hierarchical structure of activity centres • Reduce car dependency

[49] Melbourne 2030: a planning update – Melbourne at 5 million https://www.planning.vic.gov.au/policy-and-strategy/planning-for-melbourne/melbournes-strategic-planning-history/melbourne-2030-a-planning-update-melbourne-@-5-million/docs/DPC051_M5M_A4Bro_FA_WEB-1.pdf

[50] South East Queensland Regional Plan 2009 http://www.dlgrma.qld.gov.au/resources/plan/seq/regional-plan-2009/seq-regional-plan-2009.pdf

[51] [51] Metropolis of Sydney 2036 https://apo.org.au/sites/default/files/resource-files/2010/12/apo-nid93911-1190141.pdf ; City of Cities https://apo.org.au/sites/default/files/resource-files/2005/01/apo-nid93871-1178911.pdf

[52] Committee for Perth https://www.committeeforperth.com.au/assets/documents/FACTBase-Bulletin-50-Examining-60-Years-of-Strategic-Planning-in-Metropolitan-Perth-and-Peel-June-2016.pdf

- Connected network of activity centres

Directions 2031 (2010)

- 47 per cent infill target
- Employment into a hierarchical structure of activity centres
- Reduce car dependency
- Connected network of activity centres