



Australian Government
Productivity Commission

Horizontal Fiscal Equalisation

Productivity Commission
Inquiry Report

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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).



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15 May 2018

The Hon Scott Morrison MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

In accordance with section 11 of the *Productivity Commission Act 1998*, we have pleasure in submitting to you the Commission's final report into *Horizontal Fiscal Equalisation*.

Yours sincerely

Two handwritten signatures in black ink. The first signature is 'Karen Chester' and the second is 'Jonathan Coppel'.

Karen Chester
Deputy Chair

Jonathan Coppel
Commissioner

Terms of reference

I, Scott Morrison, Treasurer, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998*, hereby request that the Productivity Commission undertake an inquiry into Australia's system of horizontal fiscal equalisation (HFE) which underpins the distribution of GST revenue to the States and Territories (States). The inquiry should consider the influence the current system has on productivity, efficiency and economic growth, including the movement of capital and labour across state borders; the incentives for the States to undertake fiscal (expense and revenue) reforms that improve the operation of their own jurisdictions, and on the States' abilities to prepare and deliver annual budgets.

Background

HFE has been a feature of Commonwealth-State financial relations since Federation and is Commonwealth Government policy. HFE involves the distribution of Commonwealth financial support to the States so that each State has the capacity to provide its citizens with a comparable level of Government services. Under the current approach to HFE, the GST is distributed to the States on the basis of relativities recommended by the independent Commonwealth Grants Commission (CGC). In calculating the relativities, the CGC assesses each State's fiscal capacity, including its capacity to raise revenue and its costs of providing government services.

In recent years, some States and commentators have suggested Australia's approach to HFE does not sufficiently recognise the differences between States' individual circumstances nor States' efforts to manage those circumstances thereby creating disincentives for reform, including reforms to enhance revenue raising capacities or drive efficiencies in spending. In commissioning this inquiry, the Government seeks an examination of the issues underlying these claims and concerns that any gains from reform are effectively redistributed to other States.

Scope of the inquiry

The Commission should consider the effect of Australia's system of HFE on productivity, economic growth and budget management for the States and for Australia as a whole. In doing so, the Commission should, in particular, consider:

- Whether the present adoption by the CGC of a HFE formula to equalise states' revenue raising and service delivery capacities is in the best interests of national productivity; or whether there may be preferable alternatives. On this matter the Productivity

Commission should enquire as to whether this aspect of the CGC formula or any other aspect of it may restrict the appropriate movement of capital and labour across State borders to more productive regions during times of high labour demand;

- Policies affecting energy and resources, noting the uneven distribution of natural resources across the nation; whether sufficient consideration is given to the different underlying and structural characteristics of different revenue bases;
- State laws and policies restricting the development of energy resources;
- Whether the present use by the CGC in its HFE formula of rolling three year averages provides the most appropriate estimate of real state revenue raising abilities, particularly for those States heavily reliant on large and volatile revenue streams. Particular analysis should be given to whether the lagged fiscal impacts that result from averaging and non-contemporary data leads to GST relativities which accentuate rather than moderate peaks and troughs in state economic cycles;
- Whether the present HFE formula, may have the effect of producing a disincentive for a State to develop a potential industry or raise a royalty rate for an existing industry at an appropriate time; and
- Whether the present HFE formula in its stated aim of comprehensively equalising States' fiscal capacities places too great a reliance on broad indicators and insufficient relevance on specific indicators which recognise States' different circumstances.

The Commission should take into account previous reviews of the HFE process, including the 2012 GST Distribution Review report as well as international approaches to fiscal equalisation within federations.

The Commission should also consider implications for equity across jurisdictions, efficiency and simplicity.

Process

The Commission should undertake appropriate public consultation, including holding hearings, inviting public submissions and releasing a draft report to the public. It should consult widely, including with State and Territory governments.

The Commission should provide a final report to the Government by 31 January 2018.

SCOTT MORRISON

Treasurer

[Received 5 May 2017]

Inquiry timeline

The Treasurer agreed to revised timing for the inquiry into Horizontal Fiscal Equalisation (HFE) following advice from the Commission that the submission date for the final report should preferably be moved to 15 May 2018. This was to allow time for additional consultation and analysis of transition issues associated with a revised system of HFE, as well as further analysis of the effect the current HFE system has on the incentives for State and Territory Governments to undertake reform.

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Acknowledgments

The Commission is grateful to the many individuals and organisations who have taken time to contribute to this inquiry, including those who participated in visits, public hearings, and provided submissions.

In particular, the Commission wishes to thank the staff of the Commonwealth Grants Commission, who reviewed many of the Productivity Commission's calculations included in this report, and provided data and answers to questions raised during the course of the inquiry.

During the course of consultations, the Commission met with the panel members of the 2012 GST Distribution Review — Bruce Carter, the Hon. John Brumby, and the Hon. Nick Greiner — and extends its thanks to these individuals.

The Commission also wishes to thank the Commonwealth Treasury and State and Territory Treasuries for providing data used in this report, as well as the Organisation for Economic Cooperation and Development.

The conclusions and views reached by the Commission on the basis of these data and feedback are those of the Productivity Commission. They should not be attributed to other organisations.

Abbreviations and explanations

Abbreviations

ABS	Australian Bureau of Statistics
ATO	Australian Taxation Office
CGC	Commonwealth Grants Commission
COAG	Council of Australian Governments
ETA	Equalisation to the average of all States
EPC	Equal per capita
ESSS	Equalisation to the Second Strongest State
GDI	Gross disposable income
GDP	Gross domestic product
GSP	Gross state product
GST	Goods and services tax
HFE	Horizontal fiscal equalisation
IGAFFR	Intergovernmental Agreement on Federal Financial Relations
MYEFO	Mid-Year Economic and Fiscal Outlook
NCOA	National Commission of Audit
OECD	Organisation for Economic Cooperation and Development
PBO	Parliamentary Budget Office
PC	Productivity Commission
RBA	Reserve Bank of Australia
SPP	Specific Purpose Payment
VFI	Vertical fiscal imbalance

Explanations

Billion	The convention used for a billion is a thousand million (10 ⁹).
States	Unless otherwise specified, this refers to the six States and two Territories of Australia

Glossary

Note: the terms in this glossary are defined with respect to their application to an Australian context, and hence may differ from international usage.

Disability	An influence beyond the control of a State that results in it having to either: spend more per capita than average to provide the average level of service (cost disability); provide certain services to a higher proportion of its citizens than average (use disability); or make a greater effort than average to raise the average amount of revenue per capita (revenue disability).
Discounting	A reduction in the value of a revenue or expenditure item for the purpose of a fiscal capacity assessment (for example, where the Commonwealth Grants Commission only includes 50 per cent of the actual value of a Commonwealth payment in a State's assessed total revenue). A discount factor will most often be applied where a conceptual case has been established for including a disability or revenue stream in a category, but measurement is affected by imperfect data or methods, or the measurement may not be policy neutral.
Equal per capita distribution	A GST distribution in which all States receive an equal amount of GST revenue per person.
Fiscal capacity	The ability of a State to fund public services and infrastructure for its residents (that is, whether its revenues are adequate to finance its necessary expenses), assuming it makes the average effort to raise revenue and operates at the average level of efficiency when differences in revenue streams, demographics, and costs are adjusted for.
General revenue assistance	Financial assistance provided by the Commonwealth to the States which is not tied to any specific service area or conditional upon any specific benchmarks. GST payments make up the majority of general revenue assistance.

Goods and services tax (GST)	A value-added tax of 10 per cent on most goods and services sold or consumed in Australia. The tax is collected by the Commonwealth Government and remitted to the States as general revenue assistance, subject to HFE.
Horizontal fiscal equalisation (HFE)	The process whereby the Australian Government distributes goods and services tax revenues so that each state and territory has the fiscal capacity to provide services and infrastructure to the same standard (assuming they each make the same effort to raise revenue and operate at the same level of efficiency).
Materiality	A threshold test used by the Commonwealth Grants Commission to assist determinations on whether a separate assessment of disabilities should be made or when data should be adjusted, based on the effect that change would have on the amount of GST redistributed per capita for any State.
Payments for specific purposes	Payments made by the Commonwealth to the States that must be used for specified types of expenditure in policy areas where the States have primary responsibility. These ‘tied’ payments often carry specific reporting requirements or are conditional upon particular benchmarks.
Quarantine	The treatment of a Commonwealth payment such that it has no effect on the GST relativities calculated by the Commonwealth Grants Commission, because it is excluded from assessments of a State’s revenue-raising capacity.
Relativity	The ratio of a State’s per capita GST allocation to the national average per capita GST distributed for a given year.
Vertical fiscal imbalance (VFI)	The situation where the Commonwealth raises more revenue than it requires for its own direct expenditure responsibilities, whereas States raise less revenue than they require for their expenditure responsibilities.
Zero-sum game	A situation in which the gain or loss experienced by one participant is exactly offset by gains or losses to the other participant(s).

OVERVIEW

Key points

- The basic premise of Horizontal Fiscal Equalisation — fiscal equality in the Australian federation — has broad support from all levels of government.
- The current practice of HFE seeks to give all States the same fiscal capacity to deliver public services. To do this, all States are brought up to the fiscal capacity of the fiscally strongest State (currently, as assessed by the Commonwealth Grants Commission, Western Australia).
- This approach to HFE is under intense scrutiny at present as Western Australia's share of the GST has fallen to a record low. Even so, the current system of HFE has strengths.
 - It compensates States for their structural disadvantages and achieves an almost complete degree of fiscal equalisation — unique among OECD countries.
 - The independent and expert CGC is well placed to recommend GST relativities. It has well-established processes that involve consultation and regular methodology reviews.
- But the current approach also has significant weaknesses. Reform and development opportunities are likely being missed at the expense of community wellbeing over time.
 - There is much scope for the system to discourage State policy for major tax reform and desirable mineral and energy policies (royalties and development).
 - Full fiscal equalisation does not systematically allow States to retain the dividends of their policy efforts. This raises concerns about the fairness of equalisation outcomes and corrodes public confidence in the system.
 - The system is very poorly understood by the public and indeed by most within government — lending itself to a myriad of myths and confused accountability.
- While equity should remain at the heart of HFE, there is a need for a better balance between equity and efficiency.
 - The Commonwealth Government should set a revised objective for HFE to provide States with the fiscal capacity to deliver a **reasonable standard** of services. Changing the objective is an essential precursor to further improvements to the HFE system.
- Governance reforms are also needed. This includes the CGC playing a more prominent communication role to inform the public discourse on HFE.
- The CGC should be directed (without delay) to pursue more simple and policy-neutral assessments, and increase its materiality thresholds, in line with achieving a reasonable standard of equalisation. Other 'in-system' changes proposed by others, such as mining discounts, do not resolve HFE's deficiencies and pose too much of a risk to fiscal equality.
- In-system and governance changes will improve HFE but can only go so far. Additional efficiency gains are only in prospect from an alternative equalisation benchmark, which many would regard as a fairer outcome.
 - Amongst a number of options designed to equalise to a **reasonable standard**, equalisation to the average of all States (rather than to the strongest State) is judged to provide a better balance between fiscal equality, fairness and efficiency.
- Changing the benchmark in the current fiscal environment will lead to a material redistribution of the GST. This change is likely to prove manageable for all States if phased. Transition should be funded by the beneficiary States and by hastening slowly, such that no State sees a reduction in its GST from one year to the next of more than 2 per cent of its overall revenue.
- The transition paths outlined in this report would soften any year-on-year impact, to less than 1 per cent of State revenue.
- Improving HFE will deliver benefits to the Australian community. But ultimately, greater benefits will only come from more fundamental reforms to Australia's federal financial relations: namely, to spending and revenue raising responsibilities and ensuing accountabilities.

Overview

Australia's system of horizontal fiscal equalisation (HFE) transfers GST between the States and Territories (hereafter States) with the aim of equalising States' fiscal capacities to deliver public services. HFE has often been a point of contention with the States, as each has vied for a larger share of the funding pool.

There is nothing new about these arguments between the States. This has been going on since 1933. (Peter Costello 2006)

But this contention has elevated markedly in recent times as the extent of redistribution has risen to an unprecedented high — embodied in Western Australia's share of the GST falling to a record low (figure 1). This 'new low' has been anticipated since 2011, but arguably was not at the time the GST distribution deal was struck more than a decade earlier in 1999.

A key factor behind this has been the recent mining investment and construction boom, which had a particularly strong and lasting impact on Western Australia's fiscal capacity. Although the mining boom is fading and Western Australia's economy (and revenue-raising capacity) has significantly weakened, it still remains the fiscally strongest State — as assessed by the Commonwealth Grants Commission (CGC) — and is expected to remain so for much of the foreseeable future.

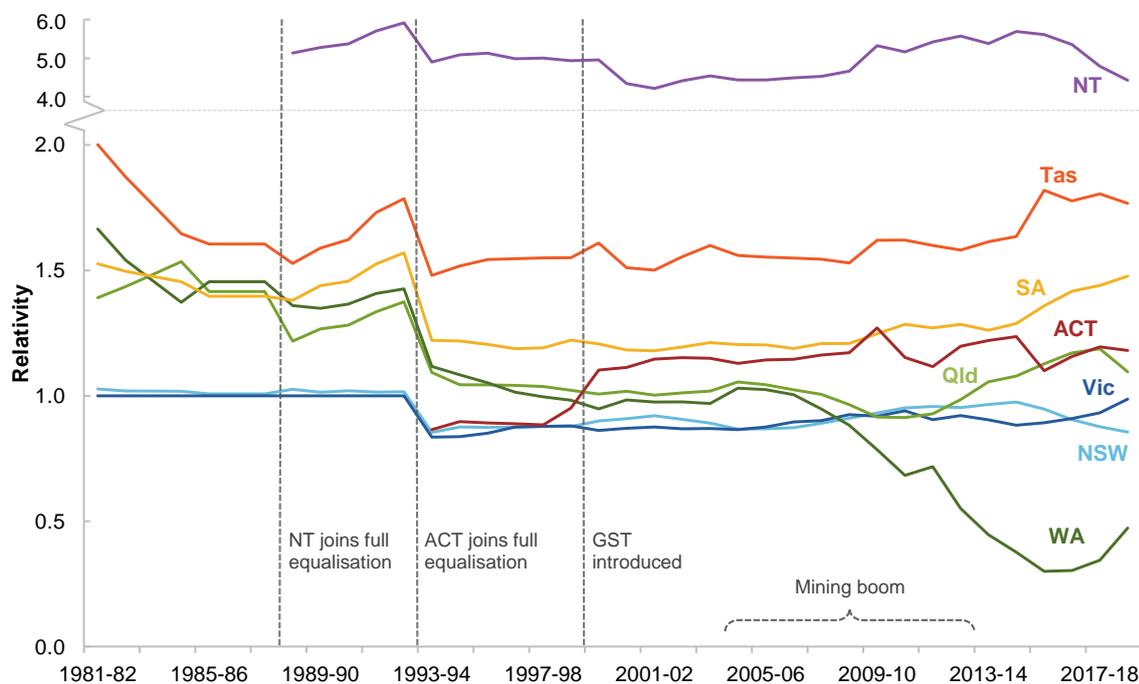
Since its inception, the way any State views the operation of HFE at any point in time is largely subject to Miles' law — 'where you stand depends on where you sit'.

Many in Western Australia have expressed extreme dissatisfaction with that State's low share of the GST. This discontent reflects perceptions about fairness and the extent of equalisation away from Western Australia, although some of this is driven by the misconception that States are 'entitled' to their population share of the GST revenue pool.

Some participants have also argued that the HFE system impedes economic growth by acting as a disincentive for State Governments to reform their tax system or to develop particular industries or projects, or by cross-subsidising States that ban mineral or energy extraction. Some of these concerns have become heightened in recent times due to the mining boom and debate about the domestic availability of natural gas.

Other parties, particularly from the smaller and fiscally weaker States, have spoken out against many of these views, emphasising HFE's role in promoting fiscal equality across the Australian federation, especially given the inherent disadvantages some States face in raising revenue or delivering services.

Figure 1 Divergence in State per capita GST relativities



Views about Australia’s HFE system are strongly held but some of these are underpinned by misconceptions or are encumbered by a dearth of evidence on the effects of the system on the Australian economy and community. Over the years there have been numerous calls for substantial change to HFE, including in several major independent reviews — such as the review of Commonwealth-State Funding in 2002 (Garnaut and FitzGerald 2002b), the GST Distribution Review in 2012 (Brumby, Carter and Greiner 2012a), and the National Commission of Audit in 2014 (NCOA 2014). And while there have been modest improvements to the system, deficiencies remain.

It is against this backdrop that the Commission has been asked to undertake an inquiry into Australia’s system of HFE. The inquiry provides an opportunity to examine whether there are sustainable ways to address long-running concerns about the HFE system. And while the outcomes for Western Australia have exposed weaknesses in the HFE system, the Commission’s recommendations in this report are not designed to ‘repair’ the current fiscal circumstances of any single State. The proposed changes are aimed at improving the HFE system for the benefit of the Australian community as a whole.

The Commission’s task and approach

The terms of reference for this inquiry essentially task the Productivity Commission to ask and answer two broad questions. The first is how the current HFE system impacts on the Australian community, economy and State Governments, specifically with respect to:

- productivity, efficiency and economic growth, including the movement of capital and labour across State borders
- the incentives for the States to undertake fiscal (expenditure and revenue) reforms that improve the operation of their own jurisdictions
- States’ abilities to prepare and deliver annual budgets.

The second is whether there are preferable alternatives to the current system of HFE.

With that in mind, the Commission has assessed the current HFE system and proposed alternatives against a framework built on the criteria of equity, efficiency, and transparency and accountability. The Commission’s framework has evolved from that used in the draft report and takes a broad interpretation of equity for HFE — one that incorporates both fiscal equality and fairness (or reward for policy effort) in the distribution of the GST (box 1). Balancing fiscal equality and fairness through this broader equity lens means that States’ fiscal capacities do not necessarily have to be equal.

Box 1 **‘Fairness’ — a broader interpretation of equity for HFE**

The basic premise of HFE — fiscal equality in the Australian federation — has broad support. Even so, views on ‘equity’, ‘equality’ and ‘fairness’ of the system differ. The current HFE objective presents equity as full equalisation of fiscal capacities between States. Many participants agreed with this, while others saw equity as equal *treatment* of States — with the GST distributed equally per capita, regardless of State demographics or circumstances. Yet others viewed equity as equality of *opportunity* — where funding compensates States for unequal starting points, but also allows them to reap some fiscal benefits from their policy efforts.

The notion of ‘fairness’ of the HFE system was also raised. Although interpretations differ, it was often viewed as reward for hard work or skill — or keeping a share of the financial benefits of that work. The dilemma in designing an HFE system is that it is not easy to distinguish between fiscal gains that reflect a State Government’s policy effort from those that are merely ‘the luck of the draw’. In many cases, it will be a combination of the two. For instance, although some States are endowed with an abundance of valuable natural resources, such as minerals, they must exert some effort in facilitating extraction and development of their resources, such as licensing and approvals. Such effort can be considerable, especially for contentious mining activities.

The Commission considers it important to take account of concerns about fairness, especially where such concerns relate to disincentives for good policy (efficiency). And thus, our assessment of how the HFE system achieves equity takes account of whether it can address inherent advantages and disadvantages in the fiscal capacities of the States (fiscal equality) *and* reflect some fiscal reward for effort and policy reform (fairness).

The Commission’s framework also acknowledges that it is not possible to completely avoid adverse efficiency effects arising from any system of HFE. This is because systems of redistribution, such as HFE, are based on measures of fiscal capacities that can be influenced by governments, and thus adverse incentive effects are, in principle, inescapable. The key goal is to ensure that the HFE system does not *unduly* discourage efficiency-enhancing reforms, productivity improvements, or growth.

In carrying out our assessment, the Commission has constructed a set of ‘cameos’ to illustrate the efficiency effects of the system. This was done by looking at how potential State policy changes can impact on States’ GST shares and the influence this might have on States’ incentives. Since the draft report, the Commission has developed additional cameos to test these ideas further. Work has also been undertaken to assess the relative efficiency effects of alternative equalisation benchmarks. Finally, the Commission has developed a set of principles to guide the transition to any new equalisation approach and has assessed what the transitional impacts might be. The latter benefited from further (post draft report) consultation with the Commonwealth and the States, to inform projections of State relativities and the GST pool for the transition period.

What is HFE and why does it exist?

HFE involves the transfer of funds to or between States to offset differences in revenue-raising capacities and/or the use and costs of providing services and infrastructure.

The primary rationale for HFE is fiscal equality, or the equal treatment of equals — as people in different regions might expect to be treated under a unitary government. This is an unrealistic expectation in a federation, where the States have significant policy autonomy. So in practice HFE seeks equal fiscal treatment of jurisdictions, not interpersonal equity.

There is also an efficiency aspect to HFE. The theory argues that, in the absence of HFE, people could move interstate solely due to differences in States’ abilities to offer lower taxes or a greater level of services, instead of underlying economic drivers like employment opportunities. HFE is sometimes also seen as a mechanism to insure against adverse economic shocks, by acting to offset lower revenues in a single jurisdiction. The relevance of these other rationales for HFE is more contested.

HFE is one part of a broader system of federal financial relations in Australia, which is characterised by both *horizontal* and *vertical* fiscal inequities (gaps). The latter refers to the fact that the Commonwealth Government raises revenues in excess of its spending responsibilities, while State Governments have insufficient revenue from their own sources to finance their spending responsibilities. For the States, some of this ‘gap’ is of their own volition, due to how they choose to use their tax bases. The distribution of GST revenues in Australia aims to correct both for the imbalance in taxing and spending powers between the Commonwealth and the States (vertical), and between the States (horizontal).

The current practice of HFE in Australia

The HFE system has evolved over time, primarily as a result of the work of the CGC. The objective has also evolved from partial to full and comprehensive equalisation by the early 1980s. Since the introduction of the GST in 2000, there has been limited input from the Commonwealth Government, which has provided only implicit approval of GST relativities and developments in the HFE methodology through yearly updates and the five-yearly methodology review terms of reference (box 2). Australia is recognised internationally as unique in almost completely eliminating disparities in fiscal capacity between States.

Presently, the CGC recommends a distribution of GST revenue according to the following:

State governments should receive funding from the pool of goods and services tax revenue such that, after allowing for material factors affecting revenues and expenditures, each would have the fiscal capacity to provide services and the associated infrastructure at the same standard, if each made the same effort to raise revenue from its own sources and operated at the same level of efficiency.

The CGC also applies a set of four supporting principles to guide its methodology. These are: reflect what States collectively do (rather than what they could or should do), policy neutrality (avoid individual State policy decisions directly affecting their GST shares), practicality and contemporaneity. These supporting principles, however, are generally subsidiary to the primary objective of achieving full and comprehensive equalisation.

The process used by the CGC to calculate the GST relativities is complex and comprehensive. It covers all State general government activities across seven revenue categories plus Commonwealth payments and 13 expense categories (plus net borrowing). The CGC's 2015 methodology review comprised two volumes that totalled over 800 pages.

This comprehensive scope does not mean that all activities are differentially assessed (that is, have 'disabilities' that reflect a State's structural disadvantages applied to them) or that HFE achieves perfect equalisation. Some disabilities cannot be reliably measured or have an immaterial impact and are either discounted or assessed on an equal per capita (EPC) basis. Due to this, in 2016-17, nearly 40 per cent of revenues, and about 20 per cent of expenditures were assessed on an EPC basis, or near EPC basis.

Conceptually, the CGC's formula does the following (figure 2):

1. States with relatively low fiscal capacities are raised to the average (pre-GST) fiscal capacity of all States
2. all States are then raised to the capacity of the fiscally strongest State (currently Western Australia)
3. any remaining revenue from the GST pool is distributed to all States on an EPC basis.

Box 2 **The evolution of HFE in Australia**

Horizontal fiscal equalisation has a long history in Australia. Upon federating, the six colonies of Australia ceded the right to impose and collect customs and excise duties (the dominant source of public revenue at the time) in favour of the Commonwealth. This created a vertical fiscal imbalance (VFI) and led to various general revenue-sharing schemes with the States. In addition, special grants were made to the fiscally weaker States — Western Australia, Tasmania and South Australia — largely on an ad hoc basis.

In 1933, following the threat of Western Australia's secession, the Commonwealth Grants Commission (CGC) was established to make recommendations on these special grants. This was done on the basis of making it possible for a claimant State 'by reasonable effort to function at a standard not appreciably below that of other States'. The CGC also imposed a 'penalty for claimancy' until 1945.

During the Second World War, the Commonwealth assumed sole responsibility for collecting income tax. This significantly exacerbated VFI and necessitated a greater level of general revenue sharing with the States. In the postwar period, specific purpose payments also became more important as a means of providing financial assistance and influencing the delivery of services and infrastructure within States. In contrast, the significance of horizontal equalisation achieved by way of special grants recommended by the CGC gradually declined. South Australia, Western Australia, Tasmania and Queensland entered and withdrew from claimancy at various times between 1960 and 1975.

A major change occurred in the mid to late 1970s. Financial assistance grants (to address VFI) were replaced by income tax sharing arrangements, and the Premiers' Conference of April 1977 decided that revenue under this arrangement was to be distributed on the basis of relativities based on equalisation principles. This meant that the same funding source was being used to address vertical and horizontal fiscal imbalance, and the CGC's recommendations affected the finances of all States, not just the claimant States. By 1985, the allocation to the States had become a zero-sum game, albeit initially from a much smaller pool of grants than today (\$10 billion in 1985-86, or about \$28 billion in current dollars).

The full equalisation principle, as embodied in the *States (Personal Income Tax Sharing) Amendment Act 1978* (Cwlth), referred to '... standards not appreciably different from the standards of government services provided by the other States'. Since then, there have been further revisions by the CGC to the equalisation principle, which now refers to States being able to function at the 'same standard'. Essentially, the CGC has been recommending relativities based on full equalisation since 1981.

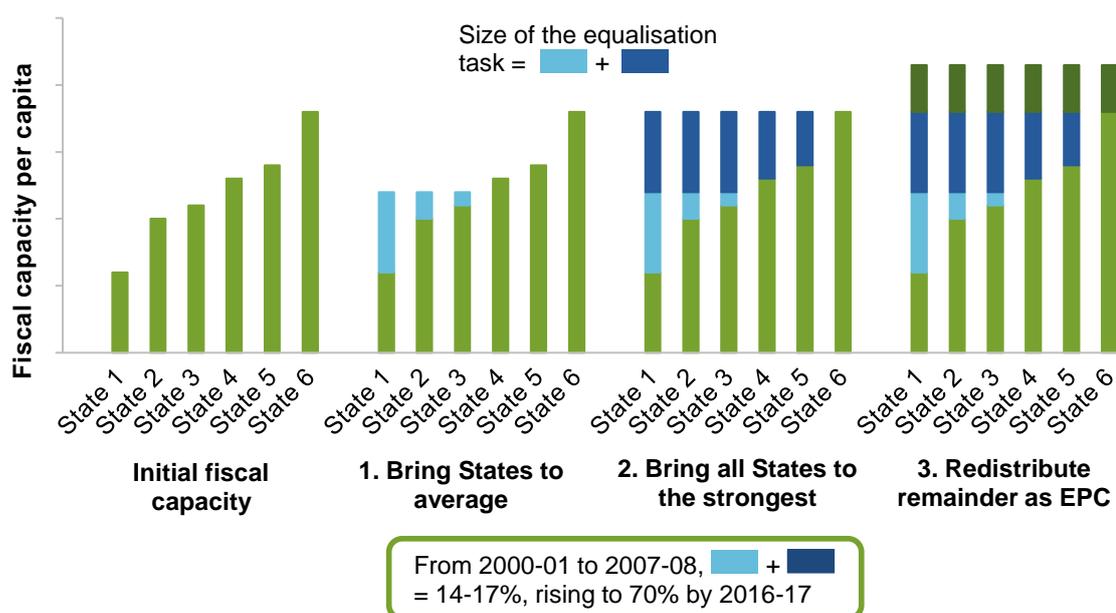
Another significant change occurred with the introduction of the GST in 2000. The GST replaced financial assistance grants and various state taxes, and the GST pool was to be returned to the States according to the principle of HFE. It meant that the Commonwealth no longer had any substantive role in determining the total level of general revenue grants to the States:

... [T]he terms were agreed between the States. This is a very important point. Now, New South Wales will come in here and say it needs more money. That is an argument it is having with Queensland and Western Australia. Not an argument with me. (Peter Costello 2006)

After these equalisation steps, all States are provided with the fiscal capacity to provide the national average level of services. And due to a vertical fiscal imbalance (VFI) between the State and Commonwealth Governments, even the fiscally strongest State requires an EPC component 'top up' (step three) to be able to provide the average level of services.

The size of the equalisation task — that is, the share of the GST pool required to bring all States up to the fiscal capacity of the strongest State — fluctuated between 14 per cent and 17 per cent of GST revenue from 2000-01 to 2007-08, before rising to 70 per cent of the pool in 2016-17 and falling to just over 50 per cent in 2018-19. This equalisation task reflects the increased disparity in the fiscal capacities of the States during this period (as also revealed in the unprecedented dispersion in GST relativities).

Figure 2 **Schema of the conceptual stages of the HFE process**



Another way to think about the size of the equalisation task is to first distribute the GST on an EPC basis and then redistribute — from States with above-average fiscal capacity to those with below-average fiscal capacity — to achieve equalisation. This measure of the equalisation task has increased from about 8 per cent to 12-13 per cent, and back down to 10-11 per cent, over the same period (figure 3).

Some of the key factors affecting the redistribution of the GST (away from a per capita distribution) are mining, remoteness and regional costs, and Indigenous status (figure 4).

Figure 3 Share of GST pool not distributed on a per capita basis

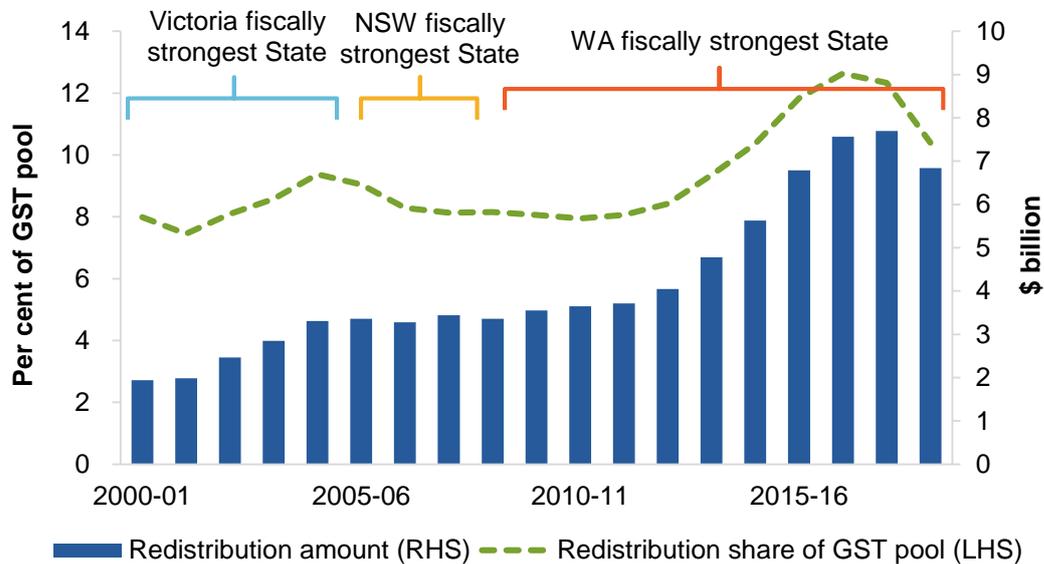
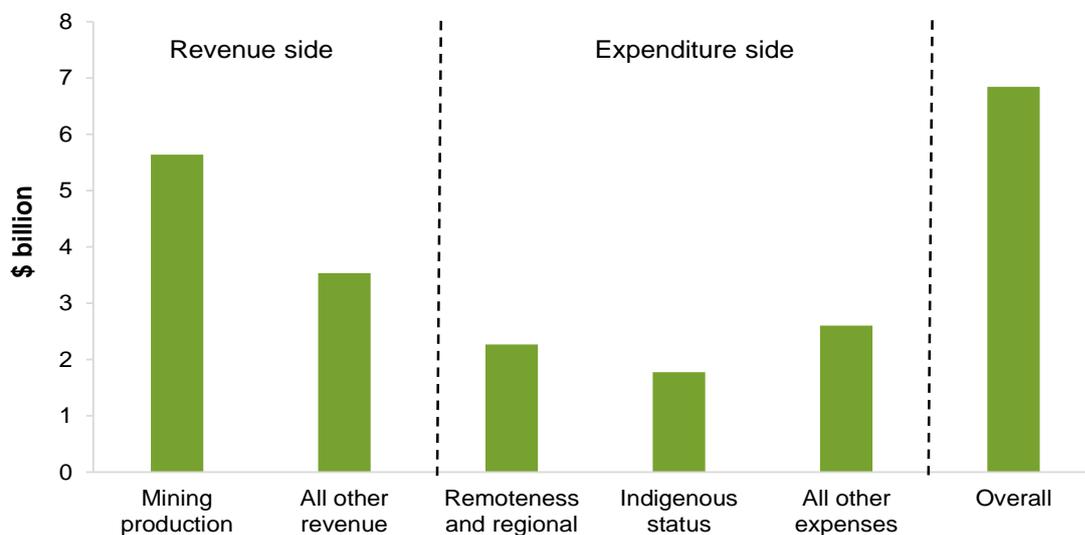


Figure 4 GST redistribution from equal per capita, 2018-19



Our assessment of the current HFE system

How does HFE affect State budget management?

GST payments provide most States with a substantial share of their overall revenue (table 1). As a result, HFE has considerable scope to influence States' budget outcomes and management.

Table 1 GST payments and State budgets, 2017-18

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Total grants revenue (\$b)	31.59	30.22	27.95	9.04	10.74	3.69	2.24	4.26
Total revenue (\$b)	79.84	64.39	56.46	28.19	19.17	5.93	5.42	5.88
GST payments (\$b)	17.51	14.99	14.85	2.26	6.28	2.38	1.24	2.89
% total grants revenue	55	50	53	25	58	64	55	68
% total revenue	22	23	26	8	33	40	23	49

Several features of Australia’s HFE system promote predictable and stable GST payments. This stability is primarily achieved by applying a three-year moving average to relativity calculations, plus a two-year data lag (to ensure robust data are available). A consequence of this emphasis on stability is that equalisation is less contemporaneous.

Less contemporaneous equalisation can exacerbate the budget cycle where State fiscal situations change abruptly — as happened to Western Australia during the mining boom. In this instance, the three-year assessment period and two-year lag in the system resulted in declining GST relativities coinciding with falls in royalty revenue, thereby intensifying the effects of the economic cycle on Western Australia’s budget (box 3).

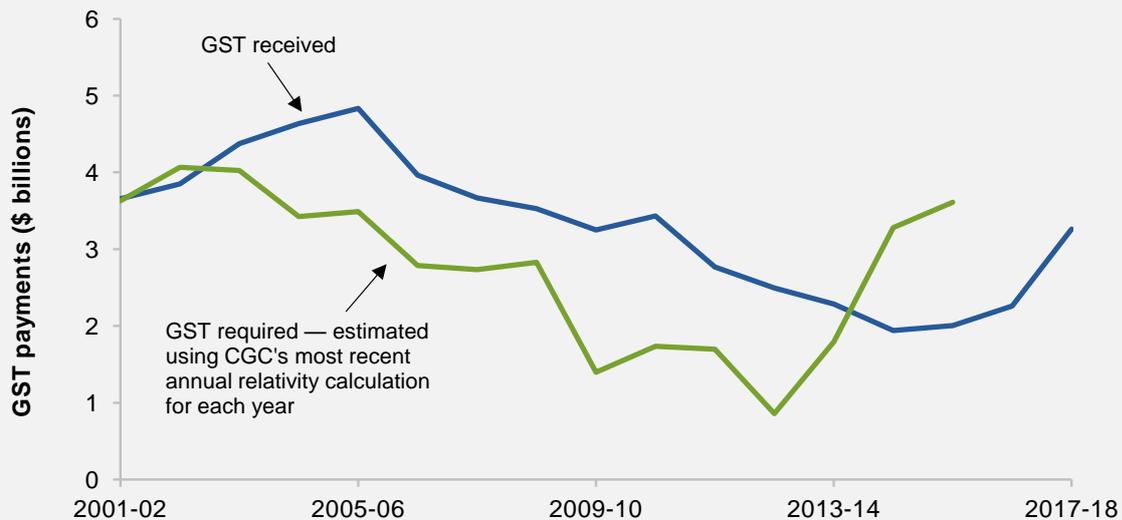
That said, Western Australia still remains the fiscally strongest State — its mining royalties are about three and a half times higher now than they were before the mining boom. Indeed, the higher level of mining production in Western Australia is expected to continue for the foreseeable future, indicating a more enduring change, rather than a transitory change, in its revenue fortunes. This is an important factor when it comes to assessing the case for change. It strongly suggests that ad hoc top-ups are not an enduring solution.

Western Australia’s experience has been unprecedented, exacerbated by earlier budget decisions of the WA Government. For States with less extreme changes in fiscal capacity, limited contemporaneity has been less problematic, and indeed most other States prefer an emphasis on stability (particularly as GST payments are on average less volatile than other State revenue sources).

Trying to increase the contemporaneity of the assessment could introduce additional complexity and volatility. The most effective response to a lack of contemporaneity lies with the States themselves. States have a range of methods, including borrowing and saving, by which they can manage gaps between their GST needs and actual payments, as they already use for other sources of budget volatility.

Box 3 Western Australia's fiscal position

The mining construction boom has driven large shifts in Western Australia's fiscal capacity. Its revenue-raising capacity increased by about 90 per cent from 2007-08 to its peak in 2013-14. Royalty income alone over this period increased from about \$1.7 billion to about \$6 billion, but declined in the following years. The three-year assessment period and two-year lag have complicated budget management by slowing the change in Western Australia's relativity to these changes in its fiscal capacity.



In practice this meant that while Western Australia's royalties were increasing, it received larger GST payments than it would have received under a fully contemporaneous HFE system. The CGC has estimated that growth in iron ore royalties resulted in Western Australia retaining an extra \$7 billion in the six years to 2015-16. Similarly, as Western Australia's royalty income has declined, it has received lower GST payments than its assessed needs. This has contributed to a deteriorating fiscal position.

However, the lower GST payments were forecast by the WA State Treasury. The 2011-12 budget projected a fall in WA's relativity from 0.72 to 0.33 by 2014-15. But the WA Government had expectations of HFE reform (following the 2012 GST Review). The then WA Treasurer stated in his 2011-12 budget speech:

What we reasonably anticipate is that in 2013-14 the CGC will have brought in a new GST system. We expect it will produce a floor of about 75 per cent of our population share of the GST. Therefore we expect extra revenue of \$1.8 billion in 2013-14 and \$2.5 billion in 2014-15. These amounts will allow for reduced borrowings and will be used to progressively reduce existing debt to less than \$18 billion while maintaining strong infrastructure investment ... If that change does not occur in that year, the State Government will then have no choice but to wind back infrastructure investment to decrease debt. (Porter 2011, p. 3)

This suggests the State was on a higher course of spending than would be the case if there were no expectation of a floor. A recent inquiry into WA Government expenditure (Langoulant 2018) reached a similar conclusion, stating that 'if the warnings Treasury provided that the policy settings of the day would cause major difficulties in the future had been heeded, it is highly likely that the State's current budget and debt positions would have been mitigated, and in a material manner' (p. 55). Several inquiry participants made similar points.

Does HFE affect State incentives for reform?

The CGC's methods for calculating GST shares to the States are intended to be policy neutral — that is, GST shares should not be affected by an individual State's policy decisions. But because average State policy is determined by what States collectively do, there is some inevitable tension with the principle of policy neutrality.

The CGC calculates GST shares by reference to average policy. On the revenue side, this means calculating how much tax a State could raise if it applied the national average tax rate. GST is then used to balance out differences between States with stronger or weaker tax bases (revenue disabilities). On the expenditure side, calculations tend to be more complex but in essence the CGC calculates how much it would cost to provide a service if every State spent in line with the national average. States' assessed expenses are then adjusted up or down depending on structural factors (expenditure disabilities) that bear on the use and/or cost of providing services, such as the age profile or level of dispersion of their population.

The tension between what States do and policy neutrality is inherent to *any* system of HFE, in that any increase in a State's fiscal capacity relative to others will see it receive less in equalisation payments. In practice, most of the concerns about potential incentives for inefficient policy outcomes are on the revenue side, with some very large potential effects in relation to major State tax reform and the taxation of minerals and energy.

There can be disincentives for State tax reform

When a State changes its tax *rate* or tax *base*, this policy change can lead to a change in that State's share of the GST — by virtue of how the GST formula works. The direction and size of the effect is not straightforward and depends on where the State sits relative to the average.

In general, where a State changes its tax rate, the subsequent effect on the GST distribution will be small (except for the case of mining royalties). It will be larger for the larger States, as they have a bigger impact on the national average tax rate.

However, policy changes that affect the base — for example, approving new mining activity or increasing stamp duty compliance — can have a significant effect on the GST distribution. This is because changes to the base mean changes to assessed revenue raising capacity (vis-à-vis other States). For example, if a State like Victoria (with 25 per cent of Australia's population), increased its tax base and therefore increased tax revenue by \$100, it would see \$75 (\$100 less its population share) of the additional revenue redistributed to other States.

The potential to lose GST payments could discourage States from pursuing efficiency-enhancing reforms that are in the national interest. States could also be discouraged from pursuing reforms due to uncertainty about how the CGC will assess their revenues. These concerns would be significant in the event of a State undertaking major reforms to its tax mix. These incentive effects are illustrated by way of cameos in box 4.

Box 4 Impact on GST payments of hypothetical reform ‘cameos’

The Commission has analysed three reform ‘cameos’ to illustrate how GST payments can be affected by changes in State policy. The cameos are hypothetical and show the GST impact for a single year for each State if it was to undertake the reform while the other States made no change. The impacts highlight how sensitive GST shares can be to individual State policies.

In the first cameo, a State unilaterally cuts its rate of stamp duty on property in half. The lost revenue is replaced by introducing a new broad-based land tax that applies to all residential land. While the direct impact is revenue neutral, any State that does this would likely end up losing GST payments, with New South Wales, Victoria and Queensland potentially losing about \$1 billion — and Queensland and the ACT facing the biggest per-capita losses.

In the second cameo, a State unilaterally abolishes its insurance taxes. Any State that does this would lose because spending on insurance (and consequently the measured tax base) would increase and because the State would still be assessed as having the capacity to raise revenue through insurance taxes. The GST impacts are lower than the first cameo since the insurance tax base is small relative to other tax bases.

In the third cameo, a State unilaterally introduces a new congestion tax in its capital city. This raises revenue equivalent to \$200 per capita, which is then hypothecated to public transport. The GST impacts are also modest in this case, though in practice there would be considerable uncertainty about how the CGC might treat the new tax and hypothecated spending.

Impacts on GST payments, unilateral reform, 2016-17

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Cameo 1: Stamp duty halved with revenue replaced by new land tax								
<i>Lower-bound</i>								
Change in GST payments (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
Change in GST payments (\$pc)	-43	-56	-63	-51	-48	-45	-82	-39
New GST relativity	0.82	0.99	1.00	0.55	1.51	1.70	1.18	4.17
<i>Upper-bound</i>								
Change in GST payments (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
Change in GST payments (\$pc)	-164	-189	-201	-143	-146	-152	-283	-132
New GST relativity	0.77	0.93	0.95	0.52	1.47	1.66	1.10	4.13
Cameo 2: Insurance taxes abolished								
Loss in own-source revenue (\$m)	1 985	1 218	828	661	479	104	20	43
GST (\$m)	-16	-87	-61	-37	-30	-8	-4	-3
GST (\$pc)	-2	-14	-12	-14	-17	-15	-9	-11
New GST relativity	0.84	1.01	1.03	0.57	1.52	1.71	1.21	4.18
Cameo 3: New congestion tax introduced and hypothecated to public transport								
Congestion tax revenue (\$m)	1 560	1 249	977	514	343	104	81	49
Change in GST payments (\$m)	73	19	-36	2	-3	-2	0	0
Change in GST payments (\$pc)	9	3	-7	1	-2	-3	-1	-2
New GST relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19

Where the tax reform involves modifying existing taxes (cameos 1 and 2), there can be a distinct first-mover disadvantage. In the somewhat unlikely case of multilateral reform (by all States), there would still be effects on the GST distribution, but of a smaller magnitude. If a State were to unilaterally abolish a tax (cameo 2) it would lose GST because it would still be assessed as having the capacity to raise revenue in that area (and the tax base would increase due to the removal of the tax and the consequential increase in demand). In the case of a new tax (cameo 3), the results are more ambiguous, and sometimes multilateral reform can have bigger GST effects.

There is no doubt that policy reform disincentives exist, and no-one disputes the principle. To some extent, the presence of such policy disincentives is an inescapable consequence of pursuing full fiscal equalisation — whereby the tax bases of fiscally stronger States are ‘shared’ (through equalisation) with fiscally weaker States. Whether such effects actually influence policy decisions is naturally harder to discern, given closed-door decision making.

There is widespread disagreement on the occurrence and magnitude of disincentive effects and, unsurprisingly, conclusive evidence is scarce. Some inquiry participants argued that the GST effects of tax reform have no influence at all on State behaviour; others suggested that the effects can be pervasive and accumulate over time. Some States also said that they do not even consider the GST consequences of their tax changes, even when contemplating major reforms, such as replacing stamp duties with land tax. This implies that important policy decisions are being taken without consideration of the total fiscal impacts on the State. As noted by one participant to this inquiry, ‘it would appear to us quite reasonable that any state Treasury would consider and model the impact on GST receipts of any tax reform — it would be negligent not to’.

Overall, while there is limited direct evidence, absence of evidence is not equivalent to evidence of absence. Indeed, decisions not to pursue reforms are impossible to directly observe when there are strong first-mover disincentives for policy reform. The potential for large impacts on GST (as illustrated in cameo 1) — combined with VFI and an arguably limited range of efficient State revenue sources — means that States may not even consider major reforms, even where the benefits to the community would be considerable.

Mining poses particularly large problems for policy neutrality

The potential for HFE to distort State policy is pronounced for mineral and energy resources, as these are very unevenly distributed across States. For example, over 98 per cent of all iron ore production is in Western Australia. In such extreme situations, Western Australia’s policy *is* average State policy — and thus the mining assessment is not policy-neutral because that State’s own choices directly influence the level of GST payments it receives. If Western Australia raised royalties on iron ore, it would lose close to 90 per cent of the additional revenues to other States.

Due to these outsized effects, some have argued that States have an incentive to under-tax mineral rents or extract rents through other means — an example pointed to by participants

was Western Australia abandoning its proposal to raise royalty rates on gold. Several participants also strongly criticised the HFE system as a major disincentive to States developing their mineral and energy resources. Any State that developed contentious mining activity would bear the full social and political cost of the development, but only retain its population share of the royalties (due to the tax base effects discussed earlier). And there are perennial concerns that the equalisation process does not fully account for industry development expenses, though this inquiry has not been presented with new or convincing evidence that changes are required.

Similarly, several participants argued that the HFE system effectively rewards States for restricting resource extraction. For example, New South Wales and Victoria, which have restricted coal-seam gas exploration, benefit from the equalisation of Queensland's gas royalties — because where a State has restricted resource extraction it is assessed as having zero capacity to raise royalty revenue. Essentially, policy decisions to *restrict* extraction are not treated symmetrically with policy decisions to *facilitate* extraction. This is often contrasted with the assessment of gambling revenue, which has no effect on the GST distribution because each State is assumed to have the same per capita capacity to raise revenue from gambling.

In sum, there is a large potential for the HFE system to discourage efficient taxation and extraction of (some) minerals. Indeed, the mining assessment has always thrown up problems, due to the dominance of select minerals and particular States, and has been subject to significant change in methodology over the years. Over time, the disincentives for major tax reform and the efficient taxation of minerals could have a material cumulative impact on the economy and wellbeing.

Efficiency concerns about expenditure-side equalisation are less prevalent

When the CGC assesses State expenditure needs, it considers the *cost* of providing a service and the levels of service *use*. These are equivalent to the rate and base effects on the tax side, and lead to similar incentive effects. Where a State reduces or increases its average costs, it has very little impact on the GST distribution, and as such, the current HFE system is unlikely to materially distort State incentives to provide public services cost effectively.

However, where a State addresses its structural disadvantage and therefore affects the use of its services and infrastructure, its GST share would move in line with the structural change, meaning the State would only receive its population share of the fiscal benefits. This could create disincentives for States to address their structural disadvantages, particularly if they would incur high costs to do so. More generally, there are long-running concerns that HFE leads to grant dependency in the smaller States and a failure to pursue economic development. Again, these in-principle incentive effects are hard to substantiate with direct evidence.

A related concern is that the HFE process redistributes significant funds due to Indigeneity, but that some States are not spending that money on Indigenous services nor delivering better

outcomes. Such concerns are often accompanied by the suggestion to take Indigeneity out of HFE. However, Indigeneity is a genuine and significant driver of jurisdictional spending, and absent some fundamental reform to Commonwealth-State roles and responsibilities — and thus accountabilities (discussed later) — it remains open to question what taking Indigeneity out of HFE would achieve.

Overall, the potential for HFE to distort State policy is much lower on the expenditure side than it is on the revenue side. The greater driver of expenditure effort is accountability for the way funds are allocated. Such accountability is systematically absent due to VFI and blurred funding responsibilities in many areas.

Does HFE affect interstate migration?

There are longstanding academic debates about the effect of HFE on interstate migration and thus productivity and economic growth. Some researchers contend that HFE improves economic efficiency by reducing incentives for labour and capital to move because of different levels of taxes and services between States. Others argue that HFE can harm economic growth by dulling the incentives for labour and capital to move where they would be most productive.

In practice, it is hard to demonstrate that Australia's HFE system has had a material influence on migration. People move interstate for a range of reasons (often for work or family), though the evidence shows they do not respond to the full extent of work opportunities available in other States. Fiscal differences by jurisdiction are unlikely to play a significant role. And the magnitude of fiscal redistribution that arises from HFE is small relative to total government revenue (just over 1 per cent). Either way, HFE is unlikely to have a significant effect on interstate fiscal differences, and hence on incentives to relocate.

In summary, how is the current system performing?

Our overall assessment is that the current HFE system is functioning reasonably well in regard to:

- *a high degree of fiscal equality*: the principle of fiscal equalisation is strongly supported and Australia's HFE system achieves a high degree of equalisation. It enables all States to provide the average national level of services and mostly adjusts for material structural disadvantages that are out of States' control
- *an independent process*: the CGC, as an expert agency independent from governments, is well placed to conduct the HFE distribution process. It has well-established processes that involve consultation and regular methodology reviews. This helps to remove some (although not all) of the political melee around the distribution of GST
- *stability for State budgets*: HFE responds reasonably well to State circumstances and supports budget stability, with predictability of GST payments for (most) States.

However, there are deficiencies in a number of areas, which have become particularly pronounced recently. These include:

- *the system is not policy neutral*: the potential for States to lose significant GST payments in some instances can deter them from the politically difficult task of improving the efficiency of their tax mixes or expanding their tax bases. Distortions are particularly pronounced for major tax reform exercises and in relation to mineral and energy resources (including royalty policies and restrictions on extraction)
- *too little weight is afforded to the importance of fairly rewarding effort*: the current HFE system does not systematically provide for States to retain a reasonable share of the fiscal dividends of their policy efforts without them being ‘equalised away’ through lower GST payments. This can result in outcomes considered to be ‘unfair’
- *lack of transparency and accountability*: the complexity of the HFE system has increased over time. And while this may not be a problem in itself — indeed, there are many aspects of public policy that are highly complex — it can lead to misinformation and undermine accountability for decisions and public confidence in the system. There are also concerns from some State Governments and others that the CGC at times makes judgments about policy matters that should be the domain of elected governments.

A revised objective and better governance for HFE

The need for a revised objective

To some degree, the problems with HFE arise because the objective is almost singularly focused on achieving full equalisation of fiscal capacities. In doing so, it does not afford a meaningful trade-off (if any) between equity, efficiency, transparency and accountability. Although efficiency is partially considered by way of the supporting principle of policy neutrality, it has typically (until recently with respect to the mining assessment) taken a ‘back seat’ to fiscal equality.

In striving for full fiscal equalisation, it is likely that opportunities are being missed to achieve broader equity outcomes (that incorporate fairness by rewarding States for their policy efforts) and to improve efficiency for the benefit of the Australian community.

A revision to the objective of HFE would be in the best interests of national productivity and wellbeing, and is an essential precursor to achieving other improvements to the HFE system. The primary objective of the HFE system should be to provide the States with the fiscal capacity to supply services and associated infrastructure of a reasonable (rather than the same) standard. A similar objective has been adopted in several other countries, including Canada, where equalisation is intended to achieve ‘reasonably comparable’ levels of public services at reasonably comparable levels of taxation across provinces.

Like the current approach to HFE, this proposed objective puts fiscal equality at the heart of HFE. However, the revised objective acknowledges the trade-off between full and

comprehensive equalisation on the one hand, and fairness and efficiency on the other. It is also more flexible than the way the HFE objective is currently framed and would give the Treasurer greater scope (via the terms of reference) to direct the CGC to achieve less equalisation where this can deliver greater fairness and efficiency.

The Commonwealth Government should take on a greater leadership role in specifying the objective. The Treasurer should present the revised objective to the Council on Federal Financial Relations (the COAG council that oversees the financial relationship between the Commonwealth and the States, including the Intergovernmental Agreement on Federal Financial Relations). The objective should then be reflected in the terms of reference issued by the Treasurer to the CGC.

What governance reforms are needed?

Reforms to improve governance and accountability are needed, especially with the revision of the HFE objective to allow scope for a better balance between efficiency and equity.

There is a dearth of public (and even government) understanding of how HFE works, and this is compounded by the lack of a strong neutral voice in public discussion. The CGC should take on a stronger communication role to facilitate a more informed public discourse on HFE, much like the RBA and Parliamentary Budget Office do today.

The CGC should also engage better with the States, by building on its extensive consultation practices to provide, when requested by a State, provisional ‘draft rulings’ on the possible GST implications of a change in State policy (for example, a major tax reform). This would help to reduce some of the fiscal uncertainty that States face when considering reforms, and provide greater transparency about the CGC’s deliberations on such decisions.

A strengthened decision-making framework will also be necessary for the CGC to make better-informed decisions and for the States and the public to understand the CGC’s judgments. The Commonwealth Treasury (drawing upon its community-wide perspective) should provide input to the CGC’s consultation processes, including by making public submissions. The Treasurer should also nominate specific areas of focus for the CGC in the terms of reference for the five yearly methodology reviews.

There is also scope to improve accountability, by the CGC systematically making the data provided by the States publicly available. This will create greater transparency of how HFE is applied in practice and make the system less of a ‘black box’. There are also broader national interest benefits (for example, to researchers) from making data available. It will ultimately improve government decision making and the efficiency of service delivery. And it will help to hold States accountable for their own policies and spending.

Accountability is already blurred by the patchwork of payments from the Commonwealth to the States. While the general principles applied to Commonwealth payments in the HFE formula appear sound and internally consistent with the CGC’s overall approach to HFE,

they may not always be consistent with governments' other, more direct, objectives for those payments. Perhaps as a result of this, there has been a growing tendency to quarantine some Commonwealth payments purely on political grounds.

The ability of the Commonwealth Treasurer to quarantine payments from HFE would benefit from stricter, principled guidelines. This would ensure that quarantining does not compromise the objective of HFE and undermine the efficacy of the equalisation process. These guidelines should be determined in consultation with the States, and should seek a balance between enhancing accountability and transparency, while not unduly affecting the ability of the Commonwealth Treasurer to quarantine payments in exceptional circumstances (where quarantining is in the national interest).

The Commission's recommended governance changes to improve transparency and accountability are readily implementable and should commence promptly.

More broadly, there is clearly a need for an holistic assessment of how different kinds of payments interact with each other. The tapestry of payments is symptomatic of broader problems with federal financial relations, the roots of which lie in the very high degree of VFI and the unclear delineation of responsibilities for service provision across governments. Ultimately, reform to HFE will only go part of the way to improving the outcomes from Australia's federal financial arrangements.

There is a need and an appetite to renew endeavours to reform federal financial relations in the broad. This process should be led by the Council on Federal Financial Relations with input from, and prioritisation by, the recently formed Board of Treasurers. Such broader reform to federal financial relations was universally supported by participants to this inquiry, albeit none were able to clearly articulate just what this would look like.

In the first instance, governments should assess how Commonwealth payments to the States — both general revenue assistance and payments for specific purposes — interact with each other. Governments should also work to a better-delineated division of responsibilities. In particular, responsibilities and accountabilities for Indigenous policy — an area where there continues to be little improvement despite significant expenditure — should be given priority. Where responsibilities remain 'hybrid' in nature, as will inevitably be the case in some instances — especially where there is an intersection of national and State priorities and where State or local delivery of services may be more efficient (such as for transport) — then stronger up front 'belts and braces' are needed for governments to be held accountable to the community for the funding and provision of public services. Following this, and ultimately informed by the allocation of funding responsibilities and accountabilities, options to meaningfully address VFI in Australia should be considered and advanced.

Are there alternative approaches?

The Productivity Commission has been asked to consider whether there are preferable alternatives to the present approach to equalising States' fiscal capacities.

The Commission's proposed revised objective — equalisation to a reasonable standard — strongly suggests that alternatives to the present system are needed.

The Commission's consideration of alternative approaches covers two broad types.

- The first involves 'in system' changes to the way fiscal capacities are assessed, to achieve greater efficiency (policy neutrality), and transparency and accountability in the system.
- The second involves use of alternative equalisation benchmarks, which could more holistically address some of the problems identified and achieve broader efficiency and fairness benefits.

Both approaches, and the specific options within them, variously trade off equity, efficiency, and transparency and accountability. The trade-off between equity and efficiency is an inescapable consequence of HFE and of any move away from a 'precise' equalisation approach to a reasonable standard that injects greater fairness and efficiency into the system.

To be 'preferable' to current arrangements, alternative approaches would need to address the concerns identified above and still provide States with the fiscal capacity to deliver a reasonable standard of services to their communities (in line with the Productivity Commission's proposed objective for HFE).

Better 'in system' ways to assess State fiscal capacities

The Commission considered several ways of assessing States' fiscal capacities. These included, discounts for individual revenue categories, targeted discounts for specific policy decisions, and the use of broad indicators and category level indicators to assess State revenue raising capacities and expenditure needs.

At first pass, some of these options appear to offer prospective benefits, such as broad indicators and targeted discounts, but on balance are not workable or pose too great of a risk to fiscal equality (they may not achieve a 'reasonable' level of equalisation).

Use of simpler and more policy-neutral category-level indicators hold the most promise but can only go so far in addressing the problems with the HFE system.

Discounts for mining or other revenue categories are hard to justify

Discounting entire revenue categories, such as mining revenue or stamp duty, could be used to address policy non-neutrality concerns. This approach would guarantee that a State retains

at least the discounted proportion of the change in revenue (as the discounted revenue would essentially be quarantined from equalisation).

A common proposal among inquiry participants was to impose discounts of 25 per cent or 50 per cent to the mining revenue assessment. Canada applies a 50 per cent discount to mining revenues in its equalisation formula (although Canada's HFE approach is not full equalisation to begin with). Applying a mining discount would deliver significant benefits to Western Australia, and to a lesser extent, Queensland and the Northern Territory.

Proponents of this option argue that applying a discount would reflect the lack of policy neutrality inherent in the current mining assessment. However, a discount does not sit well with the main fiscal equality objective of HFE. Mining revenue, in particular, is a prime example of a source-based advantage — one a State benefits from by virtue of where its borders happen to be drawn — and should *prima facie* be included in the equalisation process. Further, there is a possibility that introduction of such a discount would herald calls for other carve outs. The proposal of a discount points to a legitimate problem in the HFE process, but provides a less than robust solution.

Targeted discounts for future policy changes

A more targeted approach would be to directly link the amount of GST a State retains after HFE to a specific policy decision that is expected to have a large impact on that State's GST payment. Such an approach would apply discounts to prospective policy changes and would therefore provide policy neutrality at a lower cost to fiscal equality than would discounts to entire revenue categories.

As part of its 2020 methodology review, the CGC has put forward an option for a State undertaking a tax or royalty rate change to retain at least 50 per cent of the additional revenue after equalisation. The CGC did not articulate a rationale for this proportion of retained revenue and in principle it could be higher or lower. The CGC's decision on the level is subject to consultation with the States and finalisation of the 2020 review. Unlike previous CGC-initiated changes to the mining assessment, this change represents a significant methodology change and departure from full equalisation.

The Commission's analysis of this proposal shows that in practice, and for the foreseeable future, it would apply only to Western Australia, and only to iron ore, nickel and gold (as these are the only instances where more than 50 per cent of the additional revenue could be 'equalised away' by HFE). As such, it would have no impact on State policy disincentives for other types of tax changes (such as replacing stamp duty with land tax). And it does not offer a systematic way of addressing policy non-neutrality arising from States expanding their tax bases.

Leaving the discount in place indefinitely for a given policy decision may not be desirable, and may have unintended consequences, for fiscal equality. Any revenue sources (such as minerals) that provide States with a material fiscal advantage should, in principle, be

included within HFE. Further, over time, multiple discounts would increase the complexity of the HFE system and reduce its transparency.

A broad indicator could achieve policy neutrality but remains elusive in practice

Another approach to achieving greater simplicity and policy neutrality is to use a single broad indicator (such as gross state product or household disposable income) to assess each State's fiscal capacity. Such an approach, in principle, offers a simple, transparent and genuinely policy-neutral measure of fiscal capacity — to the extent that changes in an individual State's taxes have very little influence on the broad indicator and thus would not influence the amount of GST the State receives. This approach has been used for some transfers in the United States but is otherwise not commonly used in equalisation schemes overseas.

But there are also a number of genuine concerns with a single broad indicator, including whether the indicator meaningfully reflects fiscal circumstances within States. A broad indicator would have significant costs in terms of material loss of accuracy, and may not achieve a 'reasonable' level of equalisation. The broader the indicator that is used, the more such risks may arise. And in practice, finding a single indicator that provides a reasonable reflection of States' fiscal capacities remains elusive and arguably does not exist.

Simpler and more policy-neutral category level indicators could improve efficiency

A better approach involves the use of simpler and more policy-neutral indicators at the revenue and expenditure category level. This offers a way of achieving simplicity (and hence transparency) in the system as well as improving efficiency, without unduly risking fiscal equity in the way that a single broad indicator does. This could be done in several ways, including using more general measures of tax bases (and removing adjustments and carve outs for tax free thresholds and exemptions), or by using a single measure for each revenue or expenditure category (rather than separate measures for each sub-category).

Greater use of simpler and policy-neutral indicators at the category level would more directly link GST shares to each State's underlying capacity to raise taxes or provide services. Thus, it is less prone to influence from an individual State's policy choices and designs, and therefore would have efficiency benefits.

During the time of this inquiry, the Commission has identified and assessed one prospective candidate. Use of a more policy-neutral measure of the underlying stamp duty tax base would mean that GST payments are less susceptible to change as a result of tax reforms to replace stamp duty with land tax (box 5). In this example, each of the alternative indicators would achieve better policy neutrality, but come at the potential cost of less accurately reflecting States' abilities to raise revenue. The key challenge in selecting an indicator is thus striking a balance between these two factors.

Ideally, the indicators should be beyond the direct influence of State policy (thus achieving policy neutrality), while also ensuring States are provided with the fiscal capacity to deliver a reasonable standard of services.

Box 5 Improving the policy neutrality of the stamp duty assessment

The CGC currently uses the total value of property transferred (adjusted for tax exemptions and progressive tax rates) to assess a State's ability to raise revenue from stamp duties on property — a tax base that, while reflecting 'what States do', can be highly sensitive to changes in policy. This can create strong disincentives to replace stamp duty with a more efficient broad-based land tax (box 4).

These undesirable GST impacts could be reduced if a more policy-neutral measure of the tax base was used in the CGC's assessment — one that is less sensitive to changes in State tax rates or other policy settings. Specifically, if the total value of the dwelling stock was used instead, reform disincentives could be reduced by up to 63 per cent. And if the unimproved value of land was used, disincentives could be eliminated — this is because the same indicator is used to estimate the GST distribution due to the new land tax, and because the size of the underlying tax base is not expected to change as a result of the tax reform.

Stamp duty halved with revenue replaced by new land tax, unilateral reform, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Change in GST payments (\$m)								
<i>Current approach</i>								
GST, lower bound (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
GST, upper bound (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
<i>Value of dwelling stock^a</i>								
GST, lower bound (\$m)	-404	-340	-329	-169	-105	-27	-33	-10
GST, upper bound (\$m)	-523	-449	-398	-215	-133	-35	-43	-13
<i>Unimproved value of land</i>								
GST (\$m)	0	0	0	0	0	0	0	0

^a The lower and upper bound calculations are based on estimates of the elasticity of the value of average house prices to a one percentage point change in stamp duty rates (-0.20 and -0.26 respectively).

Both of these alternative indicators trade-off accuracy in reflecting States' abilities to raise revenue with policy neutrality. Using the unimproved value of land performs better in terms of reducing disincentives to reform, but using the total value of the dwelling stock may better reflect States' underlying abilities to raise property tax (as it reflects the value of structures and improvements).

Further exploration of the application of simpler and more policy-neutral indicators (beginning with the prospective candidate identified by the Commission) is ideal fodder for the CGC's five-yearly methodology reviews. However, the CGC is unlikely to pursue and implement such an approach absent of direction to do so and while the HFE objective remains focused on achieving full equalisation. The HFE objective needs to be revised (as discussed above) to pave the way for a better balance between equity and efficiency in the CGC's assessments. The CGC also needs to be explicitly directed, via the terms of reference it receives from the Treasurer, to examine simpler and more policy-neutral indicators. This

should also include direction to adopt significant increases in materiality thresholds (to determine which revenues and expenditures are incorporated into the equalisation process), which would assist in determining and applying the indicators. For example, if the materiality threshold was to be quadrupled (as recommended in the 2012 GST Distribution Review) then insurance taxes and some expenditure disabilities would be removed from the assessment.

These changes have merit regardless of any changes to the equalisation benchmark itself, but would need to be implemented alongside the change to the HFE objective and governance reforms proposed above.

But without a benchmark change to give substance to ‘reasonable’ equalisation, it has to be acknowledged that these options are limited. Although they offer potential benefits, they do not resolve some of the other material problems of the system. In particular, there does not appear to be any obvious policy-neutral indicators, or any other workable methodology changes, that could be applied to the mining revenue assessment. Thus, without more fundamental changes to HFE, the largest source of policy non-neutrality — both now and into the foreseeable future — would remain untouched.

Further, use of more policy-neutral indicators cannot completely remove the scope for State policy changes (such as tax design and development approvals) to influence the size of tax bases — and thus GST payments — especially over the long term. These effects are inherent to equalisation itself and in many cases can only be reduced significantly by reducing the extent of equalisation.

Is there a preferred alternative benchmark for equalisation?

Changing the equalisation benchmark would be a simple way to help address the main policy non-neutrality issues that arise for mining, and more broadly, that relate to State’s developing their tax bases. But as with substantial ‘in system’ changes to the way fiscal capacities are assessed, it is a judgment as to what level of equalisation best balances fiscal equality, on the one hand, and efficiency and fairness, on the other.

The Commission has considered a range of alternative equalisation benchmarks, drawing on practices used overseas or proposed in submissions. Each approach is targeted at achieving less than full equalisation of State fiscal capacities.

An equal per capita approach to distributing GST

Under an EPC approach, each State would receive a share of the total pool of GST revenue equal to its share of the national population. Participants proposing the adoption of an EPC allocation argued that it would be a ‘fairer’ system of distributing GST revenues.

In the current environment, an EPC distribution would see more GST revenue flow to New South Wales, Victoria and Western Australia, and less to the remaining States, with the Northern Territory experiencing the largest reduction in per capita terms.

An EPC approach would be extremely simple and policy-neutral. It would have no adverse effect on States' incentives to pursue increased prosperity (and revenue) or improved efficiency in providing services, as it is determined solely by State populations. However, an EPC approach is inimical to the fundamental fiscal equality objective of HFE. It takes no account of State differences in revenue-raising capacities nor does it recognise that some States face higher costs in providing services to their communities. It is therefore an unviable option.

An equal per capita approach with 'top-up' funding

An extension of the EPC approach is to distribute the GST pool on an EPC basis but supplement these funds with 'top-up' funding from the Commonwealth to the fiscally weaker States. Such funding might, for example, be provided at a level that ensures no State is worse off than under current arrangements (or that all States are able to provide a minimum level of services). Had it been applied for 2018-19, Queensland, South Australia, Tasmania, the ACT and the Northern Territory would have required top-up funding.

The National Commission of Audit in 2014 considered and recommended a model in which the GST was distributed to the States on an EPC basis, with the Commonwealth providing top-up funding to the fiscally weaker States (with the amounts to be determined by the CGC). Importantly though, this recommendation was not designed to be adopted on its own. It was intended to be implemented as part of a broader suite of recommendations to reform federal financial relations, including to address VFI and to clarify roles and responsibilities between the States and the Commonwealth.

The key benefit of this approach is that it would break out of the zero-sum game. It would also highlight the scale of the transfers required to address horizontal fiscal inequity (the top-up component), which may improve transparency and accountability in the federation. The OECD has found that systems that mix both horizontal and vertical equalisation are less transparent and accountable because they blur responsibility between financing and funding.

Further, by making the big States' GST grants contingent only on their population, this model would have no adverse effect on their incentives to increase revenue or pursue improved efficiency in providing services. But, this model is reliant on additional funding from the Commonwealth Government, which has its own opportunity costs and is unlikely to be forthcoming in the current environment. Given the 'cost' of this approach, it should only be considered in the context of broader reform to federal financial relations that generate compensating benefits.

Relativity floors

A further commonly suggested change to HFE is to introduce a relativity floor. A State whose relativity fell below the floor would be lifted up to that floor. This could be achieved using funds from the GST pool (meaning it would come at the expense of the other States) or some external funding source. The additional infrastructure payments the Commonwealth has made to Western Australia are effectively already providing a *de facto* floor.

An HFE system with a relativity floor would result in partial equalisation for all States when one State's underlying relativity goes below this boundary, but full equalisation at other times. The most common proposal was for a relativity floor of 0.7, but there were also suggestions for hybrid approaches and the gradual introduction of a relativity floor over coming years. While Western Australia's relativity is forecast to increase over the next few years, it remains likely that a relativity floor of 0.7 would 'bite' in the future.

The concept of a floor has some initial attraction. It acknowledges that the current system works in a satisfactory way *on average*, and when jurisdictions are similar, but is seen to produce 'unfair' outcomes in circumstances where there are large disparities in the fiscal fortunes of States. At the margin, a floor may provide greater incentives to States to pursue further development. An *explicit* floor would also be more transparent than the *implicit* floor that has emerged through the additional infrastructure payments to Western Australia.

However, the introduction of a relativity floor is unlikely to provide a solution to the efficiency concerns identified earlier. It would only address policy non-neutrality for the State(s) for which the floor binds (Western Australia for the foreseeable future) and this depends on the level at which the floor is set. And adding a floor today creates a variant to the system that can be further varied — with inevitable pressure for funding beyond the GST pool. A floor is targeting a symptom, and ultimately, prevention is better than cure.

Benchmarks that deliver a reasonable standard of services

An alternative approach is to lift States up to some agreed reasonable standard of fiscal capacity — but not as far as to the level of the fiscally strongest State, as presently occurs — and then distribute the balance of the GST equally per capita. In principle, this approach could be used to bring States up to *any* level of fiscal capacity less than that of the strongest State.

The Productivity Commission has assessed five alternative equalisation benchmarks, including those raised in the draft report and some others that were raised by participants:

- equalising to the fiscal capacity of the second strongest State (ESSS)
- equalising to the average of the fiscally strongest (donor) States
- equalising to the average of all States (ETA)
- full equalisation for only the small States

-
- 90 per cent full equalisation (as mooted by the CGC).

The equalisation task under each of these approaches is shown in figure 5 for the past 17 years (to demonstrate what would have transpired) and over the forward estimates.

Changing the benchmark makes way for further consideration of efficiency issues. It offers a simple way to lessen the disincentives for significant State tax reform or mining development and royalties — and is consistent with the revised objective of HFE. However, this approach on its own is unlikely to deliver significant improvements to simplicity.

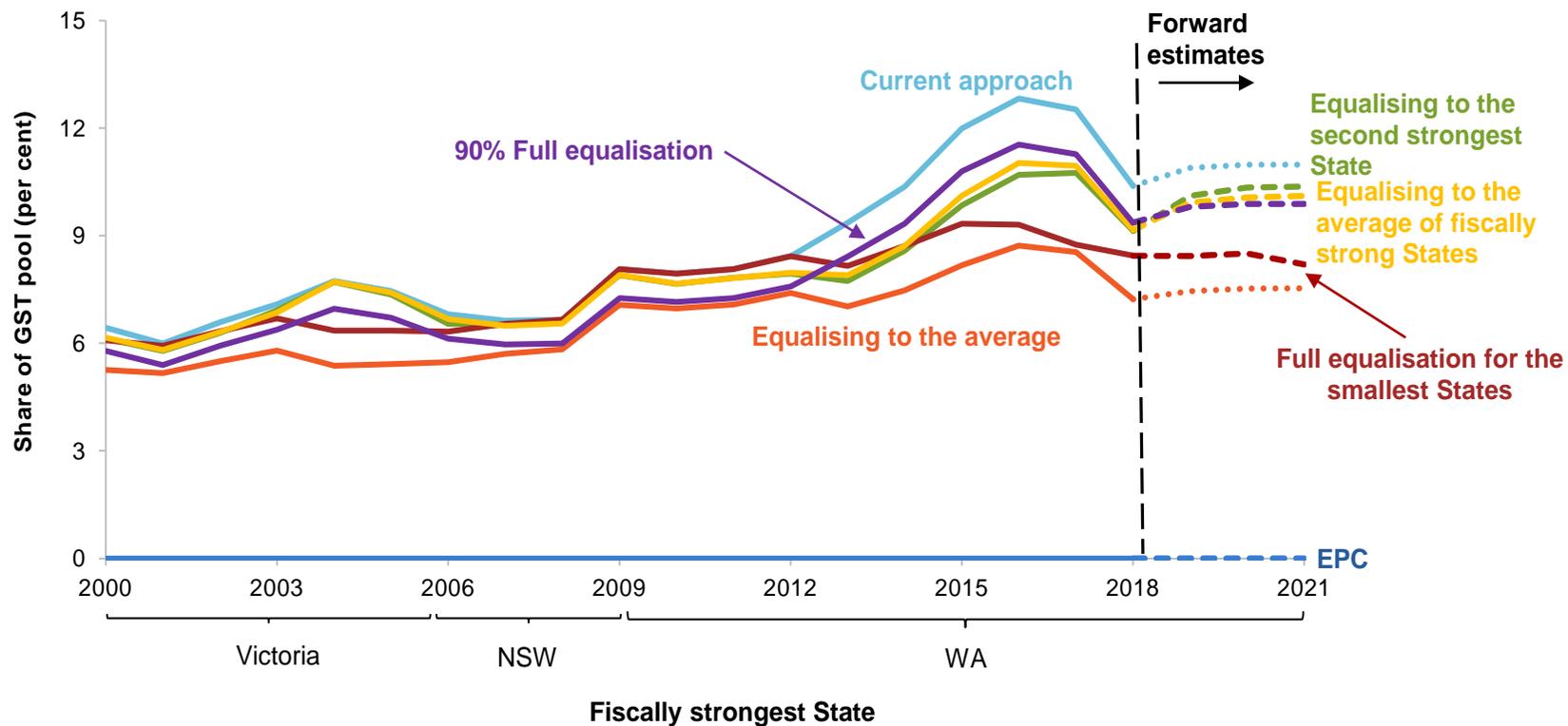
Importantly, from a policy neutrality (and efficiency) perspective, States that are above the relevant equalisation benchmark (such as the strongest State in the case of ESSS) have less of a disincentive to initiate policy effort (such as tax reform or controversial development activity) than States that are below the benchmark. This is because States above the benchmark only receive their EPC share of the residual GST pool (they are not ‘equalised’ as they are already above the equalisation benchmark). In other words, each State’s GST grant is largely invariant to its own policy choices (box 6).

Which benchmark provides a better balance between equity and efficiency?

None of these benchmarks is unambiguously superior and there is no ‘right’ balance. Each has advantages and disadvantages that are difficult to comprehensively identify, let alone quantify. The preferred option is the one with the greatest potential benefits (in terms of greater fairness and increased policy neutrality) relative to the potential costs (less fiscal equality).

Equalising to the average of the fiscally strong States and equalising to the second strongest State have the smallest fiscal equality impacts (table 2), but do not significantly reduce disincentives for reform other than for the fiscally strongest State, and perhaps the second strongest State (depending on the relative fiscal capacities of the strongest States). They also raise other potential problems. In particular, because the benchmark would be determined based on the fiscal capacity of only a few States, equalisation could continue to be driven by fiscal outliers, should the strongest and second strongest States attain a significantly stronger fiscal capacity than the other States.

Figure 5 The equalisation task under alternative benchmarks^a



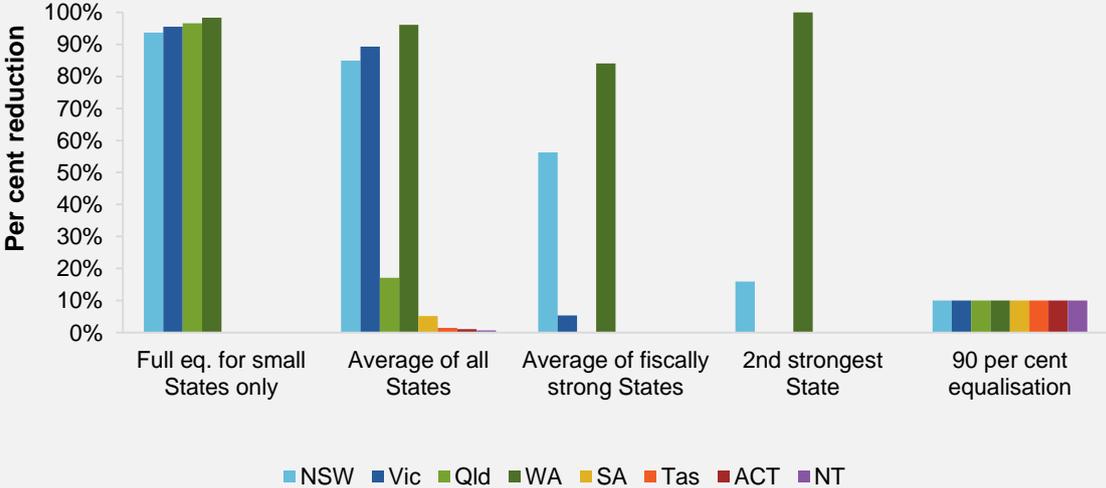
^a The pool includes Health Care Grants in estimates made before 2009. Dashed sections denote projections.

By contrast, although ETA has the largest fiscal equality impacts, it also offers the greatest scope for efficiency and fairness gains, as it mutes policy non-neutrality for a larger number of States, allowing more (albeit the large) States to retain a greater portion of the benefits of policy effort, including major tax reform. The Commission’s analysis suggests that disincentives would be reduced for New South Wales, Victoria and Western Australia by between 85 and 96 per cent.

Box 6 How do alternative equalisation benchmarks influence State reform incentives?

A general ‘in principle’ illustration of how alternative equalisation benchmarks could affect policy reform disincentives is to examine what happens when one State loses \$100 per capita of GST revenue. This loss could be from any reform that resulted in that State losing GST revenue — for example, due to a policy that encouraged the expansion of one of its tax bases — while all other States gain an equal per capita amount such that the total amount of GST distributed remains constant. Examining whether a State loses more or less than the original \$100 under each of the equalisation benchmarks provides an indication of how the alternative benchmarks affect disincentives. Compared to the current system (where disincentives are fully present for all States), the alternative equalisation benchmarks mute disincentives to varying degrees, with full equalisation for only the small States providing the greatest muting of disincentives for the large States, and 90 per cent equalisation providing the least muting of disincentives for the large States.

Reduction in the financial disincentive to undertake reform by equalisation standard



These generalised findings apply to the stamp duty and land tax reform cameo in box 4 — the analysis shows that ESSS would remove disincentives for this reform for the strongest State (currently Western Australia) and reduce them for the second strongest State (currently New South Wales). Under ETA, disincentives are substantially reduced for Western Australia, New South Wales and Victoria and by a small amount for Queensland. For the remaining States (South Australia, Tasmania, the ACT and the Northern Territory) disincentives are slightly reduced.

Under immediate implementation to ETA, with no transition, the reduction in GST payments would not (in 2018-19) have exceeded 2.5 per cent of total revenue for any State, and all States would have been able to meet at least 97 per cent of their assessed expenditure needs.

More generally, States can choose (as they already do) to prioritise and adjust the way they spend their GST payments to ensure that key services continue to be funded. There are instances where States choose to fund services to a higher or lower degree than the CGC assesses they need to in order to provide the national average level of services.

To the extent that there are major adverse budgetary impacts on States of a sudden move to ETA, a carefully designed transition can help to alleviate the impacts (discussed below).

Table 2 Fiscal impacts of immediate implementation (no transition) of the alternative equalisation benchmarks

Changes in GST payments relative to the current benchmark, 2018-19

<i>Change in GST payments</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
90 per cent full equalisation								
\$ million	302	20	-128	362	-219	-106	-20	-211
\$ per capita	38	3	-26	138	-126	-202	-48	-856
% of total revenue	0.4	0.0	-0.2	1.2	-1.1	-1.8	-0.4	-3.9
Equalisation to the average of the fiscally strong States								
\$ million	-823	-666	-515	2 303	-178	-54	-43	-25
\$ per capita	-102	-102	-102	879	-102	-102	-102	-102
% of total revenue	-1.0	-1.0	-0.9	7.8	-0.9	-0.9	-0.8	-0.5
Equalisation to the second strongest State								
\$ million	-842	-681	-526	2 357	-182	-55	-44	-26
\$ per capita	-105	-105	-105	899	-105	-105	-105	-105
% of total revenue	-1.0	-1.0	-0.9	8.0	-0.9	-0.9	-0.8	-0.5
Full equalisation for the smallest States								
\$ million	1 009	-1 427	-2 524	2 961	0	0	0	0
\$ per capita	126	-220	-506	1 129	0	0	0	0
% of total revenue	1.2	-2.1	-4.5	10.0	0.0	0.0	0.0	0.0
Equalisation to the average								
\$ million	833	-1 570	-1 368	2 903	-474	-143	-114	-67
\$ per capita	104	-242	-273	1 108	-273	-273	-273	-273
% of total revenue	1.0	-2.3	-2.4	9.8	-2.5	-2.4	-2.0	-1.2
Total GST payments under current system								
	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million	18 030	16 830	14 447	3 255	6 751	2 434	1 298	2 755
\$ per capita	2 246	2 591	2 878	1 242	3 879	4 640	3 100	11 181

Full equalisation for only the smallest States — another alternative benchmark — has the potential to deliver similar efficiency benefits as ETA. But it runs into the problem of whether the larger States should be eligible for full equalisation. For example, under this option, Queensland would not be equalised as it is a large State. Thus, any fiscal equalisation required to account for the fiscal cost of economic shocks in Queensland — for example, from a natural disaster — could require top-up funding. As with an EPC with top-up funding approach, this funding would likely always be hostage to Commonwealth fiscal vicissitudes.

The Commission has judged that, on balance, ETA is a preferable alternative to the current benchmark. ETA is expected to provide the best balance between equity and efficiency compared to the current approach and the alternative benchmarks considered. It would also be a more stable basis for deriving GST relativities. This is because the benchmark is determined using the fiscal capacities of all States, rather than only one State (as presently occurs) or a few States (as is the case under most of the other alternatives). It is thus the least susceptible to fiscal outliers.

A proposed way forward

The Productivity Commission has identified a package of changes that are expected to improve the equity, efficiency, and transparency and accountability of the HFE system (table 3).

Most of these improvements are highly desirable (and should be the source of few, if any, serious objections) and can be pursued now. First, there needs to be clear articulation of a revised objective for HFE. This is an essential precursor to implementing the Commission's proposed improvements to the way State fiscal capacities are assessed (namely, the use of simpler and more policy-neutral indicators and increases in materiality thresholds). Changes to HFE governance would be complementary to these changes and would help to establish the balance between equity and efficiency in practice, as well as increase accountability in the system.

Additional benefits, but more controversy, will come from also adjusting the equalisation benchmark to ETA. This would help to address some of the broader equity and efficiency problems of the HFE system, particularly with respect to policy distortions for mining and disincentives faced by some States to develop their tax bases.

Hastening slowly in the transition to the new equalisation benchmark

Any changes to the equalisation benchmark in the current fiscal environment will result in a smaller amount of GST redistributed away from EPC, and commensurately a material redistribution of GST payments to Western Australia and in some cases New South Wales at the expense of the other States. Any changes therefore need to be timed and implemented

carefully over a transition period, to give States sufficient time to adjust, and in particular, to avoid materially disadvantaging the fiscally weaker States.

Transition to ETA could be implemented in a number of ways, but any approach should be guided by a clear set of principles to help ensure that the transition:

- *is manageable for State budgets* — States should be able to manage their budgets during the current forward estimates period and plan for changes over the longer term. There is no hard and fast rule on what is manageable but as a rule of thumb, States could be expected to manage a reduction in their GST payments (relative to what they expected to receive) of about 2 per cent of their total revenue from one year to the next
- *is fiscally sustainable for all Governments* — the most sustainable approach is for the transition to be funded through the GST pool, rather than from sources outside the pool, such as other Commonwealth payments. Any funding outside the pool should only be contemplated as part of an agreement on broader federal financial reform, and even then it should be time limited and have clear limits set around its magnitude
- *delivers the benefits of reform in a timely manner* — although a lengthy transition path would benefit some States, there are potential costs involved from deferring full implementation of the new benchmark. The transition needs to strike a balance between assisting States to manage a change in their GST and capturing the benefits of reform.

Regardless of the transition approach taken there is inevitable uncertainty in the potential future impacts. The Commission has adopted a simple, illustrative analysis to assess two possible transition paths to ETA, both beginning in 2019-20 — a four year transition and an eight year transition. The effect of the transition is to gradually spread the GST impacts of the change to ETA over these years, giving States time to adjust (figure 6).

The key assumptions underpinning the transition analysis were informed by consultation with the Commonwealth and State Treasuries. The Commission's 'best estimate' uses Commonwealth Treasury MYEFO projections for growth in State populations and growth in the GST pool, and an average of the GST relativity forecasts provided by contributing State Treasuries.

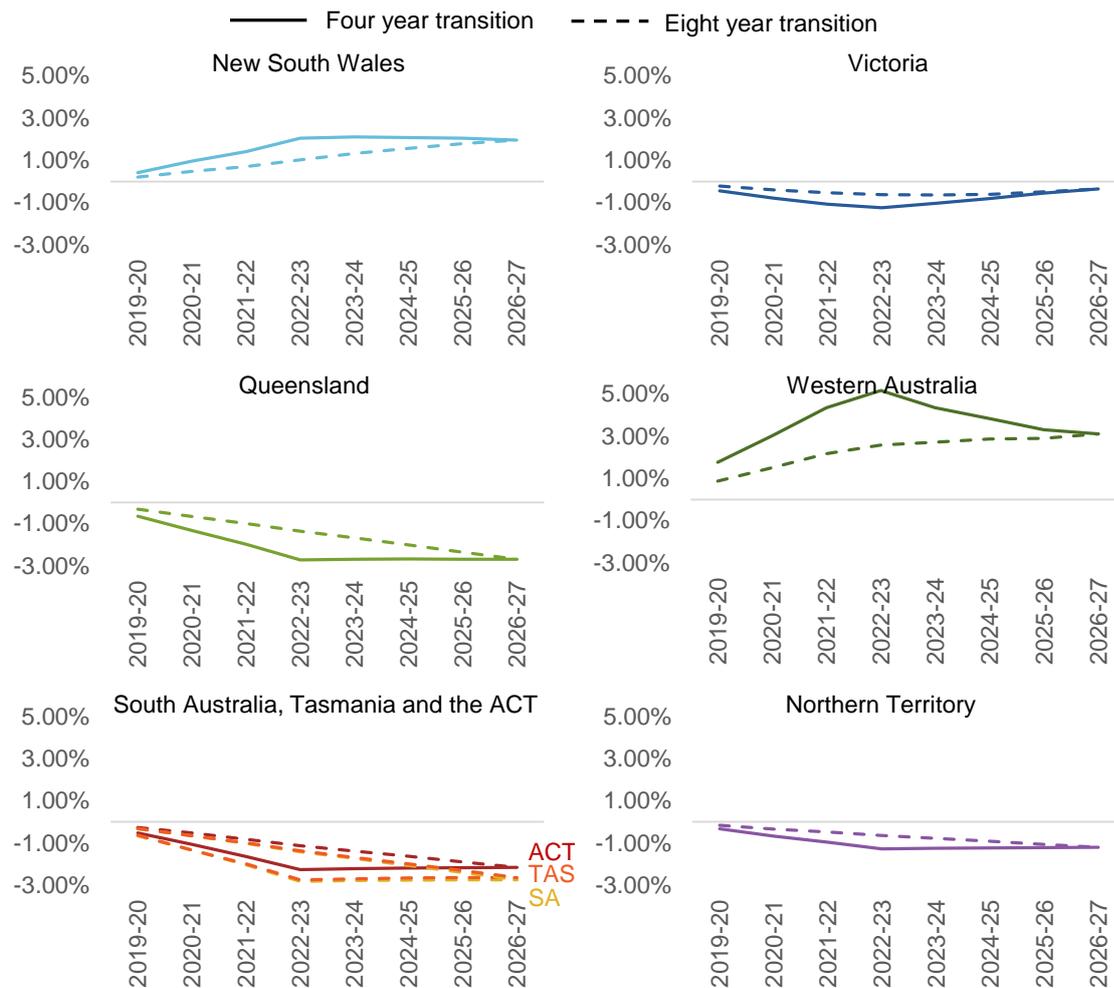
Based on the analysis, it is judged that transition to ETA would be manageable over either a four or eight year timeframe. The Commission's 'best estimate' (and alternative scenarios that take into account different GST relativities) show that between any two years, the amount by which any State will need to adjust its budget is less than 1 per cent of its total State revenue (figure 7).

However, there are a large number of factors that could affect GST payments and State revenues that are not captured in this analysis. Economic variables do not always evolve as expected and it is difficult to project how fiscal capacities will develop over time. Further, States may encounter unforeseen or exceptional events — for example, a large shock to a single State, such as a natural disaster, could result in its relative fiscal capacity being much

lower than currently expected. Such events could make the transition to ETA less (or indeed more, in the case of a positive shock) manageable than projected.

Figure 6 Two transition paths to ETA: phasing GST impacts over time

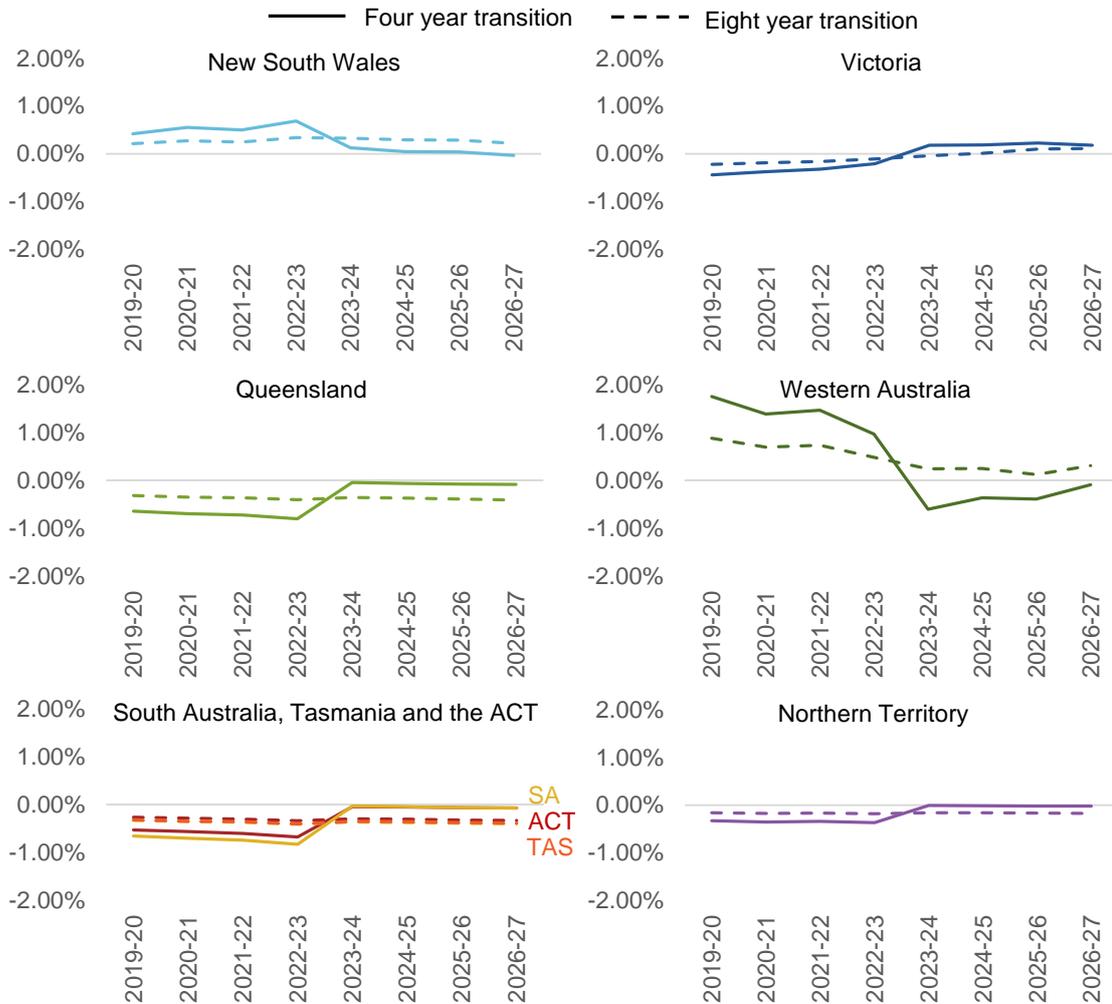
Change in GST payments (relative to the current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27



An eight year transition path gives States considerable time to adjust and provides latitude to deal with unexpected changes in States' fiscal capacities, although it would delay the potential benefits of the change compared to a four year transition. That said, the costs of delay would be largely borne by the State(s) that stand to benefit the most: Western Australia and to a lesser extent New South Wales. These States (especially Western Australia as the initial primary beneficiary) could essentially 'fund' the transition to ETA by a transition path that 'hastens slowly'. An eight year transition would also significantly reduce the potential need for funding to be provided to States from outside the GST pool.

Figure 7 Transitioning to ETA: the year-on-year impacts on State budgets are likely to prove manageable

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27



A longer transition path also provides a greater window for the States and the Commonwealth to substantively revisit broader reforms to federal financial relations, which could potentially alleviate any residual ongoing fiscal impacts on the States from the new benchmark. Indeed, during this inquiry all States were united on one single policy endeavour — the need for substantive reform to federal financial relations. The Productivity Commission views such policy endeavour as timely, benefitting from the input of the newly formed Board of Treasurers, with the prospect of larger ongoing economic benefits for all Australians.

Table 3 A package of changes to improve the HFE system

<i>Problem to be addressed</i>	<i>Proposed change</i>	<i>Main benefits of change</i>
Revising the objective for HFE — <i>refining the objective to allow for the HFE system to provide a better balance between fiscal equality and efficiency</i>		
A narrow interpretation of equity — fiscal equality is pursued above all else, at the expense of fairness and efficiency.	Reframe the objective of HFE to enable a ‘reasonable standard’ of services (rec. 6.1).	Provide a better balance of HFE objectives — fiscal equality, fairness and efficiency.
Leadership by the C’wlth Government on the objective is missing.	Clear articulation by the C’wlth Government of the objective (rec. 6.1).	Condition community and State expectations and improve confidence in the system.
Improving governance arrangements — <i>enhancing transparency and accountability through more robust decision-making frameworks and stronger communication</i>		
The system is not well understood by the public — myths and confused accountability.	The CGC should provide a strong neutral voice in the public debate (rec. 6.2).	Less misunderstanding and greater confidence in the system.
Uncertainty for States with respect to how tax changes will be assessed by the CGC.	Provisional and time limited ‘draft rulings’ on the implications of a policy change (rec. 6.3).	Better enable States to assess the implications of a policy change for their GST payments.
The approach to Treasurer quarantining C’wlth payments is ad hoc and undermines the objective of fiscal equalisation.	Develop guidelines for quarantining by the Treasurer (rec. 6.4).	Improve predictability and transparency, and the integrity of the HFE system.
The CGC at times makes policy judgments on trade-offs between equity and efficiency that are not transparent or well understood by the States.	The C’wlth Treasury should provide submissions to the CGC’s processes, and the C’wlth Treasurer should nominate areas of focus in the terms of reference (rec. 6.5).	Better inform decisions from the perspective of the broader Australian community.
Limited access to data and calculations of revenue and expenditure assessments.	Make the data and calculations from the CGC publicly available (rec. 6.6).	Greater accountability and replicability.
Improving the way fiscal capacities are assessed — <i>‘in-system’ changes to correct for some of the equity and efficiency problems with the HFE system</i>		
The HFE system is not policy-neutral, with disincentives for some major State tax reforms and economic development.	Simpler and more policy-neutral revenue and expenditure assessments. Increases in materiality thresholds (rec. 7.1).	Directly target some efficiency problems and simplify the system. Allow States to retain more from their policy effort. Increased public confidence.
Moving to a better equalisation benchmark — <i>additional equity and efficiency benefits could be captured by changing the equalisation benchmark</i>		
States do not systematically receive reward for policy effort — distortions are pronounced for mineral and energy resources.	Equalise to the average (pre-GST) fiscal capacity of the States (rec. 8.1). Phase in the new benchmark over a number of years.	Reduce major policy disincentives for some States. Improve fairness. Time for States to adjust.
Broader reform to federal financial relations — <i>greater gains are likely through broader reform to federal financial relations</i>		
Accountability is blurred, particularly for Indigenous outcomes. There is a complex web of C’wlth payments and VFI remains high.	Assess how C’wlth payments interact and develop a clear division of responsibilities, followed by consideration of options to reduce VFI (rec 9.1).	Improved accountability and transparency. Greater State autonomy. Paves the way for broader reform to VFI.

Findings and recommendations

States refers to States and Territories in the following findings and recommendations.

Australian and international equalisation

FINDING 2.1

Australia achieves a high degree of horizontal fiscal equalisation and to a much greater extent than other countries. It is the only OECD country with a federal government that seeks to fully eliminate disparities in fiscal capacity between sub-national governments.

HFE and State policies

FINDING 3.1

Most State tax reforms would have limited impacts on the GST distribution. However, there are circumstances where the GST effects can be material — such as for a State undertaking large scale tax reform — and act as a significant disincentive for States to implement efficient tax policy. These disincentives are likely to be exacerbated where the State is a first mover on reform or where there is uncertainty about how significant tax changes will be assessed by the CGC.

FINDING 3.2

Changes in State service delivery policies can impact on GST payments, but the impacts are mostly trivial. HFE is unlikely to directly discourage — nor encourage — States from improving the efficiency of service delivery or addressing their structural disadvantages, given the broader and more significant benefits of doing so to the community. Accountability for policy outcomes — which is lacking — is a much greater driver of expenditure choices.

FINDING 3.3

The potential for HFE to distort State policy is pronounced for mineral and energy resources. While there is limited direct evidence that GST effects have influenced specific policy decisions, the incentive effects for some States are palpable and have the potential to undermine State policy neutrality.

However, making adjustments to the HFE system specifically to add incentives (rather than remove disincentives) for desirable resource exploration policies, or to singularly remedy disincentives for mining taxation, would not advance policy neutrality, would be a source of additional complexity, and come at the expense of fiscal equality.

HFE and State budgets

FINDING 4.1

Features of Australia's HFE system can exacerbate the fiscal impact of economic cycles when States experience large economic shocks. Such a situation recently occurred in Western Australia.

However, offsetting cyclical influences on State budgets is not the primary objective of HFE, and options to improve contemporaneity do not offer unequivocal improvements.

- Reducing the length of the assessment period would have mixed impacts across States, and may ultimately have little effect on State budget fluctuations.
- The two-year data availability lag cannot be substantially reduced without introducing additional scope for volatility and dispute.

The most effective response to a lack of contemporaneity lies with the States themselves, and with the necessity for State Treasuries to factor the assessment period and GST lag into their budget management processes (which most do).

FINDING 4.2

Volatile State revenues can contribute to uncertainty in budgeting processes. Compared with other sources of State Government revenue, GST payments are relatively stable and in some cases may offset volatility from other revenue sources.

HFE and interstate migration

FINDING 5.1

Taken together, the available evidence suggests that fiscal factors (including those related to HFE) are unlikely to play a major part in interstate migration decisions. Other factors, such as differences in work opportunities between States and personal reasons, are bigger drivers of interstate migration.

The case for change to the current approach

FINDING 6.1

While Australia's HFE system has a number of strengths, it also has several deficiencies. In particular, it can provide disincentives for desirable tax and resource development policies, and, to the extent that States do not reap much of the rewards of their own policy efforts, can detract from fairness.

Many of these concerns are due to the pursuit, above all else, of comprehensive equalisation of fiscal capacities. It is likely that opportunities are being missed to more fairly reward States for their policy efforts, and to improve efficiency and enhance the wellbeing of the Australian community over time.

A revised objective for HFE

RECOMMENDATION 6.1

The objective of the HFE system should be refocused to provide the States with the fiscal capacity to provide services and associated infrastructure of a reasonable (rather than the same) standard.

The Commonwealth Government should set this revised objective of HFE.

- The Treasurer should present the revised objective to the Council on Federal Financial Relations.
- Following this, the Treasurer should reissue the terms of reference to the CGC for the 2020 methodology review to reflect the new objective.

The terms of reference for all future relativity updates and five-yearly methodology reviews should reflect this revised objective.

The Intergovernmental Agreement on Federal Financial Relations and the *Commonwealth Grants Commission Act 1973* (Cwlth) should also be amended to reflect the revised objective.

Governance changes to improve transparency and accountability

RECOMMENDATION 6.2

The CGC — through its Chairperson and Commission members — should provide a strong neutral voice, to facilitate a better informed public discourse on the HFE system.

RECOMMENDATION 6.3

The CGC should strengthen its formal interactions with the State and Commonwealth Governments. In particular, when requested by a State Government, it should provide provisional ‘draft rulings’ on the HFE implications of a policy change.

RECOMMENDATION 6.4

The Commonwealth Government, in consultation with the States, should develop clear guidelines detailing the basis on which Commonwealth payments are to be quarantined from HFE by the Commonwealth Treasurer (so that they do not unnecessarily erode the efficacy of the CGC’s relativities and compromise the objective of HFE).

The guidelines should strike a balance between enhancing accountability and transparency, while not unduly affecting the Treasurer’s ability to quarantine payments in exceptional circumstances that are in the national interest.

RECOMMENDATION 6.5

The Commonwealth Government should strengthen the CGC’s decision-making framework. In particular:

- the Commonwealth Treasury should provide input, including public submissions, to the CGC’s five-yearly methodology review process, drawing upon its community-wide perspective
- the Commonwealth Treasurer should nominate specific areas of focus for the CGC in the terms of reference for the five-yearly methodology reviews, following (as is currently the case) consultation with the States.

RECOMMENDATION 6.6

The CGC should immediately and systematically make the data provided by the States publicly available on its website, along with the CGC’s calculations on these data.

‘In system’ changes to better assess States’ fiscal capacities

FINDING 7.1

The use of externally defined benchmark costs in the HFE system to assess State expenditure on service delivery would encourage greater efficiency, but faces daunting practical difficulties and a high degree of scope for dispute.

FINDING 7.2

Using a single broad indicator to assess States’ fiscal capacities offers considerable potential to improve policy neutrality and simplify the HFE system. However, a single indicator that accurately reflects the underlying revenue-raising capacities and expenditure needs of each State remains elusive and arguably does not exist.

FINDING 7.3

The use of more policy-neutral revenue and expenditure indicators, along with significantly higher materiality thresholds, offers considerable scope to secure greater efficiency and simplify the HFE system (and therefore improve transparency and accountability), while also achieving a high degree of fiscal equality in overall State fiscal capacities.

The Commission has identified one prospective candidate — in the stamp duty tax base. But there is only limited scope to secure greater policy neutrality through this approach where it matters most — in the mining assessment.

FINDING 7.4

Discounting mining (or other revenue categories) in the HFE process — or removing it entirely — is not justified and would come at a high cost to fiscal equality.

FINDING 7.5

The CGC’s proposal to discount revenues such that a State retains at least 50 per cent of the own-source revenue impacts of a tax or royalty rate change (net of GST payments) is an incomplete approach to mitigate policy non-neutrality in HFE. It would only address policy influence on average tax rates, not on tax bases, and only for Western Australia for the foreseeable future.

RECOMMENDATION 7.1

The Commonwealth Treasurer should direct the CGC (in accordance with the refocused HFE objective) to:

- examine simpler and more aggregated revenue and expenditure assessments that use more policy-neutral indicators, consistent with achieving a reasonable standard of services
- adopt significant increases in materiality thresholds, which would assist in determining and applying more policy-neutral category level indicators.

This initial direction should be embedded in revised terms of reference for the CGC's 2020 methodology review.

Alternative equalisation benchmarks

FINDING 8.1

An equal per capita approach to the distribution of GST revenue is incapable of providing States with the fiscal capacities to deliver a reasonable standard of services. It is thus inimical to the fiscal equality rationale underpinning HFE.

FINDING 8.2

An equal per capita with top-up funding approach for distributing GST revenue could provide all States with the fiscal capacity to deliver a reasonable standard of services, depending on the level of top-up funding. While this would meet the fiscal equality rationale underpinning HFE, the top-up funding would always be subject to the vagaries of the Commonwealth budget. It should only be considered in the context of broader reform to federal financial relations that generate compensating benefits.

FINDING 8.3

The introduction of a relativity floor would blunt the equalisation task and introduce greater incentives for policy effort for the beneficiary State(s) — Western Australia for the foreseeable future. But a floor represents a band-aid solution, as it is not well targeted to broader efficiency and fairness problems.

FINDING 8.4

No alternative benchmark for equalisation is unambiguously superior to any other. All have costs and benefits that are difficult to comprehensively identify, let alone quantify. Determining which alternative benchmark is most likely to provide the greatest net benefit — the right balance — involves judgment about whether the benefits of greater policy neutrality (efficiency) and reward for policy effort and risk taking (fairness) outweigh the fiscal equality impacts.

Overall, equalising to the average (pre-GST) fiscal capacity of all States is judged to provide a better balance than the current benchmark and is thus a preferred alternative.

- It offers the greatest incentives for some States (but not all) to undertake efficiency-enhancing tax reform and broadly reduces policy non-neutrality with respect to the mining revenue assessment.
- It is less susceptible to fiscal outliers and therefore provides a more stable basis for deriving GST relativities.

The impacts on fiscal equality are expected to be modest and manageable, especially when implemented through a carefully designed transition.

RECOMMENDATION 8.1

The Commonwealth Government should transition Australia's system of HFE towards equalisation to the average (pre-GST) fiscal capacity of all States, with the remaining GST revenue distributed on a per capita basis.

Transition to an alternative equalisation benchmark

FINDING 9.1

There are many ways a new equalisation benchmark could be phased in. The most effective transition approach is one that:

- enables States to manage their budgets during the current forward estimates period and plan for changes over the longer term
- is fiscally sustainable for all governments, in that it is funded through the GST pool (in effect, by the States that benefit from the change) and not from outside the pool
- delivers the benefits of the new benchmark in a timely manner.

Either a four year or eight year transition path to ETA is judged to be manageable for the States. A four year transition would deliver the benefits of reform more quickly, but an eight year transition provides greater latitude to deal with unexpected changes in the future fiscal circumstances of the States. By delaying the full implementation of ETA, both approaches are effectively funded from within the GST pool by the States that stand to benefit the most.

An eight year transition would also provide more time for State and Commonwealth Governments to negotiate broader reforms to federal financial relations, which could potentially alleviate any residual ongoing adverse fiscal impacts on States from the new benchmark.

Broader reform to federal financial relations

RECOMMENDATION 9.1

Improvements to the HFE system can only go so far.

The Commonwealth and State Governments, through the Council on Federal Financial Relations and recently formed Board of Treasurers, should work towards meaningful reform to federal financial relations.

In the first instance, the process should:

- assess how Commonwealth payments to the States — both general revenue assistance and payments for specific purposes — interact with each other, given the significant reforms to payments for specific purposes that have occurred in recent years
- develop a better-delineated division of responsibilities between the States and the Commonwealth and establish clear lines and forms of accountability. Policies to address Indigenous disadvantage should be a priority.

Following this, options to address the vertical fiscal imbalance should be considered and advanced.

1 About this inquiry

Key points

- Australia's system of horizontal fiscal equalisation (HFE) acts to distribute revenue among the States — seeking to equalise States' fiscal capacities to deliver public services. HFE is achieved primarily through the Commonwealth's distribution of GST revenue to the States.
 - HFE broadly pursues 'horizontal equity', whereby people in similar circumstances, but in different States, should have access to similar levels of public services.
 - The HFE system coexists with a vertical fiscal imbalance (VFI) and a complex web of other payments from the Commonwealth to the States.
- Each year, the Commonwealth Grants Commission (CGC) calculates a relativity for each State, based on its assessed fiscal capacity. This assessment takes into account both the revenue and expenditure sides of State budgets.
- The specific practice of HFE has often been debated amongst the States. But in recent years, the divergence between some States' relativities has reached an unprecedented level, and contention around HFE has escalated.
 - A major factor is Western Australia's share of the GST, which has fallen to an unprecedented low as the impact of the mining investment and construction boom flows through the CGC's formula, even as the Western Australian economy is no longer at its peak.
- Critics have suggested that the HFE system impedes economic growth by acting as a disincentive for State Governments to pursue economic development, or to undertake efficiency-enhancing reforms. Others have argued that HFE is crucial to providing a level of equity in the public services used by all Australians.
- The Productivity Commission has been asked to examine how the current HFE system impacts the Australian community, economy and State and Territory Governments, and to identify desirable improvements or alternatives to the current system.
- The Commission has assessed the current HFE system, and a range of potential alternative approaches, against a framework built on the criteria of **equity, efficiency, and transparency and accountability**. In carrying out this assessment, the Commission has constructed a set of 'cameos' to illustrate the effects of possible State policy changes on GST shares (and to estimate the distributional impacts, and possible incentive effects, of the current HFE system).

The Commonwealth Government has tasked the Productivity Commission to undertake an inquiry into Australia's system of horizontal fiscal equalisation (HFE), which underpins the distribution of the Goods and Services Tax (GST) to the States and Territories (hereafter States).

1.1 Background to the inquiry

Australia's system of HFE acts to distribute revenue among the States with the aim of equalising States' fiscal capacities to deliver public services. In recent years, it has come under pressure, especially as the mining boom's investment phase led to significant growth in Western Australia's fiscal capacity and a corresponding reduction in its share of the GST pool. This share reached an historic low in 2015-16 when the State was allocated a 'relativity' (the State's share of the GST pool, relative to its share of the national population) of 0.30, while no other State's relativity fell below 0.89 at that time (CGC 2018g). Prior to the mining boom, Western Australia had consistently received more GST per capita than both Victoria and New South Wales.

Since the end of the mining boom's investment phase, Western Australia's economic situation has weakened, but its assessed fiscal capacity remains the strongest of any State. Accordingly, its GST share has remained by far the lowest in the country, though its current relativity (0.47 in 2018-19) still partially reflects the heights of the boom — a byproduct of how HFE relativities are calculated based on several years of past data and with a lag. This continued low relativity has generated dissatisfaction in Western Australia with the HFE system. Some stakeholders in New South Wales have also expressed frustrations with the system, and both States have called for substantial change. The remaining six States are broadly satisfied with the current arrangements, albeit the Queensland Government acknowledged that HFE has never (arguably) provided States with precisely the same fiscal capacities, and pointed to the benefits of a simpler and more pragmatic approach (sub. DR106, pp. 4, 12; trans., p. 589).

What is horizontal fiscal equalisation?

The aim of the HFE system

The primary *rationale* for HFE is fiscal equity, though what this means exactly is complex and contested. Broadly, it reflects the concept of horizontal equity, which refers to 'the equal treatment of equals' — that is, people in similar circumstances should be treated alike.¹ In the HFE context, horizontal equity would require that people in similar circumstances, but in different States, have access to similar levels of public services.

With regard to public services, the HFE rationale also reflects the way that residents of different regions might expect to be treated under a unitary government. However, in a federation such as Australia, where States have significant policy autonomy and taxing powers, this is an unrealistic expectation. As such, HFE seeks equity between jurisdictions — specifically, equity in the capacity of States to provide individuals with public services, if the State Government wishes to do so. Thus, HFE aims to avoid the situation where, based on different revenue-raising abilities, some States would either have

¹ Conversely, vertical equity refers to the redistribution of resources (such as income or wealth) from those with more to those with less — through, for example, a progressive tax structure and needs-based transfers.

to levy higher taxes to deliver the same services to their residents, or provide their residents with a lower standard of services.

In Australia, HFE is pursued primarily through the Commonwealth's distribution of GST revenue to the States. The formula for distributing GST revenue is applied annually by the Commonwealth Grants Commission (CGC), which calculates a relativity for each State. Frequently, and erroneously, these relativities are referred to as the share of GST 'returned' to a State compared to the amount that was 'collected' or 'generated' by, or in, that State. However, this is not a component of the GST distribution, and in many cases is not measurable (nor lends itself to ready measurement) given that the GST is a national tax (Dale 2014).

Relativities reflect differences between the States' fiscal capacities, and are dependent on both the revenue and expenditure sides of State budgets. The CGC's assessment of State fiscal capacity includes those factors outside the control of a State, or 'disabilities', that increase its costs of delivering services relative to the average (such as remoteness or a higher proportion of Indigenous residents), or that hinder its ability to raise revenue.

GST revenue is distributed in the form of general revenue assistance, meaning it is not tied to any specific purpose. This means that States can (and often do) choose to allocate their GST payments in ways that differ to what the CGC assesses their expenditure needs to be for each service (discussed further in box 2.6, chapter 2).

Some State Governments receive less GST from this process than they would if the GST pool was distributed purely on the basis of population, whereby each State would receive an equal amount of GST per resident ('equal per capita' or EPC). This reflects that the State in question is fiscally stronger than the national average. Other States receive *more* than they would with an EPC distribution, due to being fiscally weaker. The overall effect of HFE is to place States' fiscal capacities on a more level playing field.

HFE is one part of the broader system of federal financial relations

HFE is not the only system in which the Commonwealth distributes differential allocations of funding between the States. The Commonwealth also makes fiscal transfers to the States to support the provision of specific public services such as health, education, and infrastructure — in 2017-18 these are expected to constitute approximately \$56 billion of Commonwealth Government expenditure, while GST revenue is forecast to exceed \$62 billion (Commonwealth of Australia 2017b, p. 5). Some of these payments for specific purposes (or 'tied grants') also have an explicit equalising element.

Additionally, due to different patterns of individual or household needs and incomes between States, different total amounts of funding are transferred to the residents of each State through the social security and welfare system — which is expected to amount to \$164 billion in 2017-18, or more than one-third of the Commonwealth budget (Commonwealth of Australia 2017a, p. 150).

The HFE system coexists with a vertical fiscal imbalance (VFI), which refers to the Commonwealth Government having a much greater capacity to raise revenue than State Governments (currently all income taxes, company taxes, excises and sales taxes are federally collected). At the same time, State Governments are responsible for providing — and partially funding — a wide range of public services to their residents. The result is that the Commonwealth Government raises revenues in excess of its spending responsibilities, while State Governments have insufficient revenue from their own sources to finance their spending responsibilities (chapter 2). VFI is best reflected in the reality that equalising State fiscal capacities does not, in and of itself, render States able to meet their entire expenditure needs (even as assessed by the CGC).

The difference between the States' own-source revenues and spending responsibilities is mostly made up by fiscal transfers from the Commonwealth Government. The GST is one source of such funds, along with Commonwealth payments made for specific purposes. The complex assortment of federal transfers makes it difficult to distinguish the contribution that each individual transfer makes to addressing vertical and horizontal imbalances. Appendix B provides an overview of other Commonwealth payments and their interaction with HFE.

Viewing HFE in this broader context highlights that HFE is but one component of the much larger (and exceptionally complex) architecture of federal financial relations, which ultimately determines fiscal equity between the States.

The GST distribution has come under pressure

HFE, in one form or another, has been an aspect of Commonwealth–State funding arrangements for decades and predates the GST (chapter 2). Since the GST was introduced in 2000, two States — Western Australia and Queensland — have fluctuated between being fiscally stronger ('donor States') and weaker ('recipient States'), whereas all other States have consistently remained as either above average or below average fiscal capacity (figure 1.1). HFE has frequently been a point of contention among States, as each has vied for a larger share of the grant pool — though it has not always been a 'zero-sum game'.

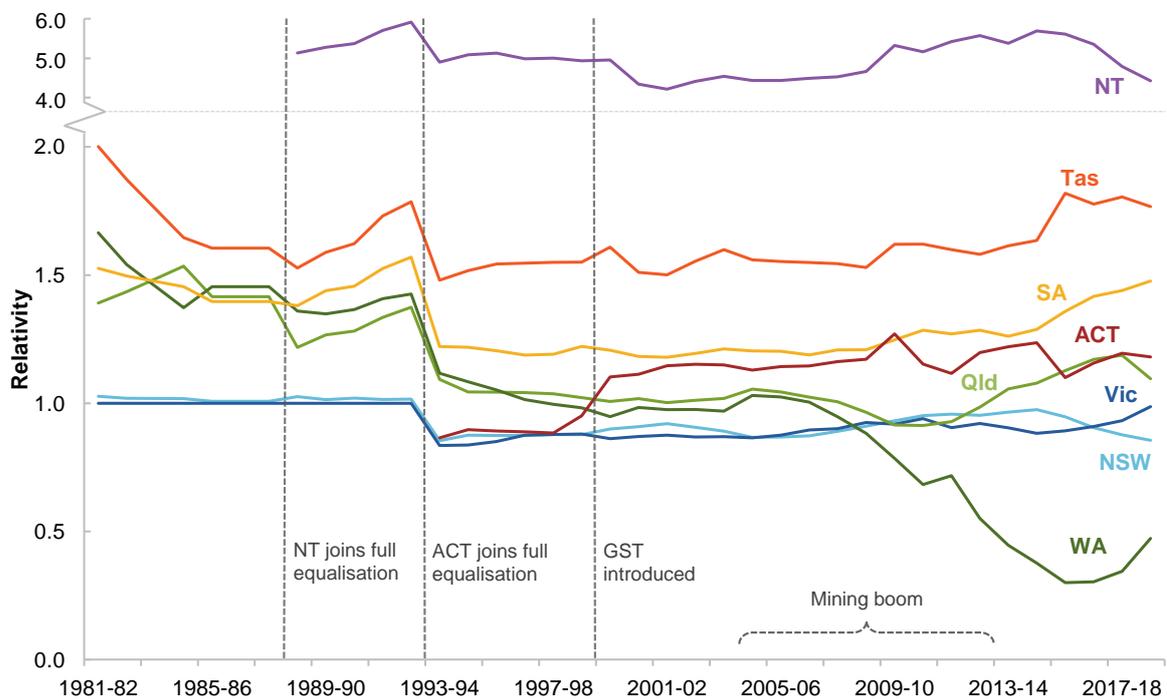
In recent years, the divergence in some States' relativities has reached an unprecedented level, and contention around HFE has risen markedly. The aforementioned mining investment and construction boom, which lasted from roughly 2004-05 to 2013-14, has been a key driver of this increased friction.

The mining boom had a particularly strong impact on Western Australia's economy, given that it is home to most of Australia's iron ore deposits. Mineral and energy royalty revenues alone increased from about \$1.7 billion in 2007-08 to about \$6 billion at their peak in 2013-14 (but declined in the following years, to just over \$4.1 billion in 2015-16 and \$5.3 billion in 2016-17) (WA Government 2008, 2014, 2017a). Combined with significant growth in payroll tax and stamp duty revenue, this saw Western Australia's assessed revenue-raising capacity increase sharply — by 90 per cent in nominal terms between 2007-08 and 2013-14 — and the State moved from being a 'recipient' (relativity greater than 1.0) to a 'donor' (relativity less

than 1.0) in 2007-08 (CGC 2018g). Accordingly, for the past decade, the CGC has assessed Western Australia to be significantly fiscally stronger than any other State, and the HFE system has seen a substantial increase in the redistribution task.

The winding down of the investment phase of the mining boom over the past few years has seen Western Australia's economy transition beyond the construction-driven growth stage, into the production phase. As capacity has expanded, higher levels of production in the State are likely to continue for the foreseeable future (CCIWA, sub. DR86, pp. 8-10; PC 2017b, pp. 96, 138); indicating a more enduring shift, rather than a transitory change, in Western Australia's revenue fortunes. Economic activity (and revenue-raising capacity) in Western Australia has weakened since the peak of the construction phase (with its real gross state income shrinking by about 12 per cent from 2013-14 to 2016-17: ABS 2017b). However, its assessed revenue-raising capacity is still strong relative to other States (about 30 per cent higher, per capita, than the national average in 2016-17: CGC 2018a), and will likely remain so over the foreseeable future. As a result, Western Australia's relativity is likely to stabilise at a lower level (compared to its average relativity during the period prior to the mining boom, as seen in figure 1.1).

Figure 1.1 Divergence in State per capita relativities^{a,b}



- a** A relativity is the ratio between a State's actual GST share and the share it would receive under an EPC distribution. It is derived by dividing the State's allocated share of GST by its share of the national population.
- b** For the 1993-94 update, the CGC stopped calculating State relativities according to Victoria's share of grants, and moved to a per capita basis. That is, before this update, a relativity of 1.0 represented the pool of funds allocated to Victoria. Afterwards, a relativity of 1.0 represented a share of the pool equal to a State's share of the Australian population.

Source: CGC (2018g).

However, partly as a consequence of the lagged assessment period used by the CGC to assess State revenues and expenditures, Western Australia’s current share of the GST pool remains historically low (in 2018-19, it was allocated a relativity of 0.47). In part this reflects residual high revenues from the peak of the boom, rather than the State’s current transitional circumstances.

Meanwhile, some States that experienced rates of growth well above the national average in 2017-18, such as New South Wales and Victoria, received much higher relativities than Western Australia (of 0.86 and 0.99, respectively, for 2018-19: table 1.1).

As States’ relativities have diverged from each other, the proportion of the GST pool transferred for equalisation purposes has increased markedly over time (as the differences between States’ fiscal capacities have widened), due to both the circumstances of individual States and variations in the total GST revenue raised in a given year (figure 2.9, chapter 2).

At the same time, total GST revenue has been declining as a share of both GDP and household consumption. This has largely been attributed to a decline in overall consumption relative to GDP (with a commensurate rise in savings), and to a shift in consumption patterns towards goods and services exempt from GST, such as healthcare and education (chapter 4, section 4.2; Daley et al. 2015, pp. 5–6; PBO 2014, pp. 38–40).

Table 1.1 2018-19 GST distribution

	<i>Relativities</i>	<i>Population share (per cent)</i>	<i>GST distribution^a (\$m)</i>	<i>GST share (per cent)</i>	<i>Equal per capita distribution (\$m)</i>	<i>Difference from equal per capita distribution (\$m)</i>
NSW	0.855	32.0	18 030	27.4	21 052	-3 022
Vic	0.987	25.9	16 830	25.6	17 031	-201
Qld	1.096	20.0	14 447	22.0	13 164	1 283
WA	0.473	10.4	3 255	4.9	6 873	-3 618
SA	1.477	6.9	6 751	10.3	4 563	2 188
Tas	1.767	2.1	2 434	3.7	1 375	1 059
ACT	1.181	1.7	1 298	2.0	1 098	200
NT	4.258	1.0	2 755	4.2	646	2 109
Total	1.000	100.0	65 800^b	100.0	65 800^b	..

^a Forecasts. A State’s GST distribution is calculated according to the equation: $AGSTR_i = G_S \times (P_i f_i / \sum P_i f_i)$ where $AGSTR_i$ denotes assessed GST revenue for State i , G_S is the total pool of GST revenue, P_i is the population of State i and f_i is the relativity for State i . ^b Forecast GST collections for 2018-19.

Sources: CGC (2017h, 2018h, pp. 2, 8–15).

Many Western Australians have expressed extreme dissatisfaction with their State’s low relativity, and have called for changes to the HFE system to ensure that individual States’ relativities will not fall below a certain point in the future. Since 2014-15, the Commonwealth Government has provided over \$1.2 billion in payments for infrastructure projects to Western Australia, which have been quarantined from the HFE process (table B.1) and which are generally perceived as compensation for that State’s low GST

relativity. Western Australia's effective relativity is, therefore, higher than the headline relativity provided by the GST pool alone (chapter 2).

Following the release of the 2018-19 relativities, the Commonwealth Government also announced 'top up' payments to Western Australia (of \$189 million) and the Northern Territory (of \$260 million). The payment to Western Australia effectively lifts its relativity to 0.50 for 2018-19 (Cormann, Turnbull and Morrison 2018); if the \$3 billion allocated to the State for further infrastructure projects in the 2018-19 Commonwealth budget (Turnbull and McGowan 2018) is also quarantined from future HFE processes, this effective relativity would be lifted further. The payment to the Northern Territory represents what it could have received from the increased GST pool had its relativity remained at 4.66, as it was in the 2017-18 financial year (Morrison, Manison and Scullion 2018).

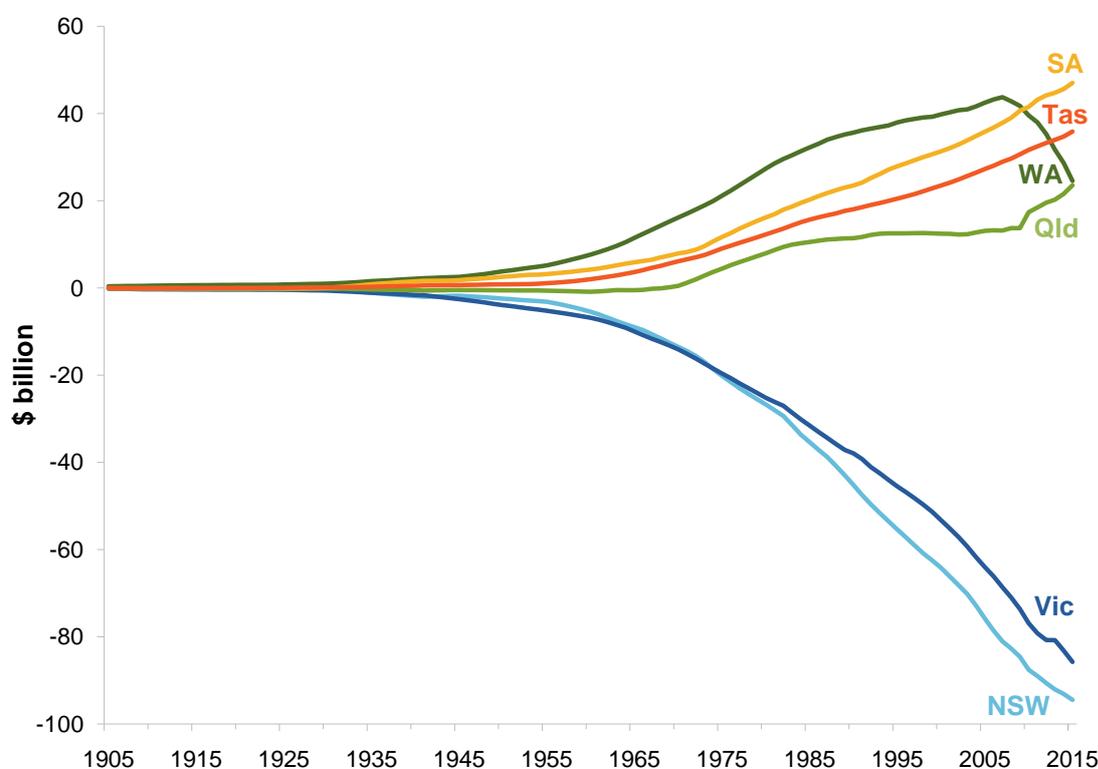
Much of the dissatisfaction around HFE in Western Australia is premised on the misconception that States are 'entitled' to EPC shares of the GST revenue pool. Others have countered these views by emphasising HFE's role in the equity of the Australian federation, given the inherent disadvantages some States face in raising revenue or delivering services (partly driven by the 'luck' of where Australia's State borders are drawn). For most of Australia's post-federation history, this included Western Australia (as a consequence of — among other factors — its vast geography and low, dispersed population). Figure 1.2 illustrates the cumulative effect of all Commonwealth grants on the States (minus the Territories), compared to EPC distributions, since federation.

Some stakeholders have also argued that the HFE system impedes economic growth by acting as a disincentive for State Governments to pursue economic development, in particular with respect to specific industries such as mining, or by subsidising States that ban mineral or energy extraction. This concern has heightened in light of recent uncertainties around the domestic availability of natural gas. There are also concerns that HFE presents a disincentive for States to undertake major efficiency-enhancing tax reforms (chapter 3), and that the three-year averaging period may exacerbate economic cycles instead of smoothing them (chapter 4).

Finally, concerns have also been raised around the institutional settings of the current system, particularly with regard to governance and oversight of the CGC's decision-making process. Some inquiry participants contended that the CGC's complex methodology hinders transparency and renders the HFE process a 'black box', reducing confidence within the community about the way the GST is distributed between States. It was also argued that the current arrangements result in a lack of accountability for HFE's operation and that the CGC is effectively making policy decisions (chapter 6).

This report assesses how the HFE system is handling these concerns and current circumstances. In doing so, the Commission will 'bust' a handful of myths that have emerged around HFE and the GST pool more broadly, while also being mindful that recent exceptional circumstances, coupled with heated public debate, can unintentionally undermine community acceptance of HFE itself.

Figure 1.2 **Cumulative distribution of all Commonwealth grants to States^{a,b}**
 Difference from EPC distribution of grants, excluding Territories; \$2015



^a 'Commonwealth grants' includes general revenue assistance (primarily equalisation payments), Specific Purpose Payments (SPPs), National Partnership (NP) payments, and capital grants. ^b The years 1994-95 and 1995-96 used estimates (not actual data) for NP and SPP data. No data were available for the 1996-97 SPP and NP components so the averages of past and future years were used.

Source: Victorian Government (sub. 53, p. 1); calculations by Department of Treasury and Finance (Vic) (pers. comm., 14 September 2017), based on Commonwealth Budget Papers.

1.2 What has the Commission been asked to do?

The terms of reference for this inquiry essentially present two broad issues for the Productivity Commission to address:

- First, how does the current HFE system impact the Australian community, economy and State and Territory governments?
 - What are the effects on economic activity, national productivity, incentives for State revenue and expenditure reforms, and on States' budgeting activities? Does HFE produce disincentives for States to develop a potential industry (particularly in energy or resources) or to alter tax arrangements for an existing industry?
 - Does HFE restrict the appropriate movement of capital and labour across State borders to more productive regions during times of high labour demand?
- Second, what preferable alternatives are there, if any, to the current HFE system? What improvements could be achieved by changing particular aspects of the existing system?

-
- How do other federations internationally approach fiscal equalisation, and how might those different approaches translate to the Australian context?

The terms of reference also ask the Commission to consider some specific aspects of the operation of the CGC's relativity formula, such as the lagged, rolling three-year average. And there is a heavy emphasis on mining and energy resources, reflecting the genesis of the inquiry in the aftermath of the mining investment boom and the current political climate around energy and resource extraction.

The terms of reference direct the Commission to take into account previous reviews of the HFE process, including the CGC's five-yearly Methodology Reviews and the 2012 GST Distribution Review (Brumby, Carter and Greiner 2012). Box 1.1 summarises the findings of these, and other, past reviews.

The 2012 GST Distribution Review was the most recent independent review of HFE. In the Final Report, the Review Panel found that, overall, the basic practice of HFE between States worked satisfactorily, but made several recommendations around improving simplicity, transparency, stability and governance arrangements (for which this inquiry has also produced draft recommendations).

The Commonwealth Government did not release a formal response to the Final Report, but nine of the Panel's 31 recommendations were incorporated into the terms of reference issued by the Commonwealth Treasurer for the CGC's 2015 Methodology Review, indicating in-practice acceptance for at least some of the recommendations. This process resulted in some methodological changes to the CGC's approach, most notably increased materiality thresholds and changes to the assessment of mining revenue, mining-related expenses and the Indigenous population. A number of other recommendations were also considered by the CGC pursuant to the terms of reference, but not implemented (such as rounding of relativities, discussed in chapter 2, and a simplified assessment method).

The Panel also expressed some concerns over the long-term future of HFE and of federal financial relations more generally (as did the Productivity Commission in the first Five-Year Productivity Review (PC 2017d)). However, the terms of reference for that Review were constrained by the current — CGC-established and -interpreted — objective of HFE, and gave the Panel less scope to consider and recommend alternative models. This inquiry thus has an opportunity to consider the HFE system holistically and through a broader lens.

1.3 The Productivity Commission's approach

Under the *Productivity Commission Act 1998* (Cwlth), the Commission must have regard to the living standards for all members of the Australian community (section 8(1)). This remit is a core tenet of the approach taken to this inquiry: our recommendations are designed to offer net benefits to the Australian community as a whole, and are not framed solely in the interests of any particular group or individual State jurisdiction.

Box 1.1 Findings from previous reviews

Review of Commonwealth–State Funding (Garnaut and FitzGerald 2002b)

This Review was commissioned by the Governments of New South Wales, Victoria and Western Australia. It concluded that Commonwealth–State funding arrangements rewarded inefficiencies and cost disabilities, encouraged gaming of the system, disincentivised growth, and otherwise distorted State policy decisions; and, further, that the system’s main objective should be interpersonal vertical equity (transferring funds, on average, from richer to poorer households), not equity of State fiscal capacity. It was also concluded that the CGC’s methods did not improve vertical equity, but rather may have worsened it slightly (relative to an EPC approach: p. 2). Accordingly, the Review recommended a move to a system where the GST was primarily distributed on an EPC basis and interpersonal equity was targeted with Specific Purpose Payments (p. 4).

GST Distribution Review (Brumby, Carter and Greiner 2012a)

The Commonwealth Government directed this Review to consider whether the HFE system would assist Australia in responding to pronounced, long-term structural change in the economy. While the Review found that the practice of HFE to be satisfactory overall (p. 9), the Panel also expressed concerns about the long-term sustainability of Commonwealth–State funding arrangements in the face of increasing social service demands and cost pressures (p. 165). It contemplated future tax reform as needing to bring about a fall in the size of the VFI and a corresponding reduction in the amount of redistribution through HFE. In this context, a GST distribution model of EPC, plus Commonwealth-funded top-ups for fiscally weaker States, was contemplated (p. 173).

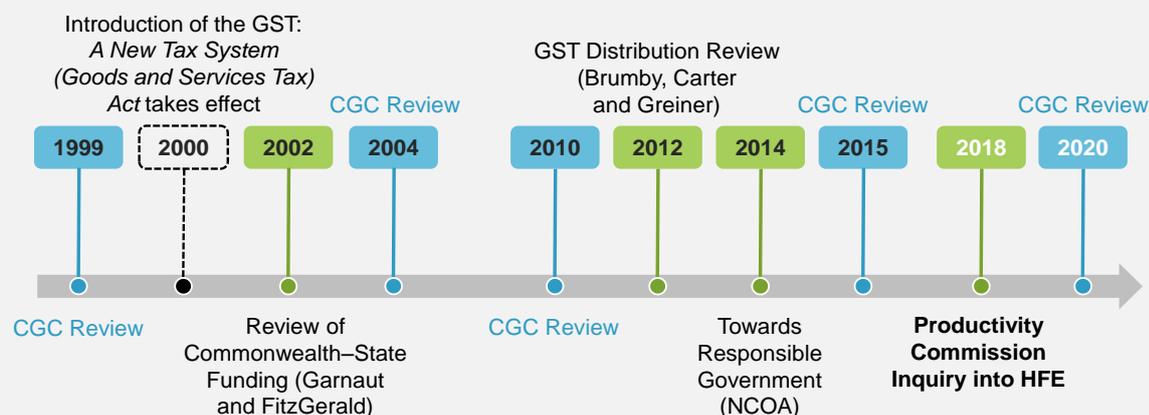
Towards Responsible Government: Phase One (National Commission of Audit (NCOA) 2014)

The NCOA was commissioned to examine Australia’s public sector expenditure, with a focus on ‘making spending sustainable’ by identifying opportunities for savings. It concluded that Australia’s federal system was ‘not working as it should’ (p. xiii) and reform was necessary — specifically, that the Commonwealth should withdraw from certain policy areas and in return, the States should access and control more (and bigger) tax bases, such as income tax. Similar to the GST Distribution Review, the NCOA (p. 74) recommended a GST distribution of EPC, plus Commonwealth-funded top-ups for the fiscally weaker States.

CGC Methodology Reviews (1999, 2004, 2010, 2015; 2020 in progress)

The CGC also periodically conducts Methodology Reviews (figure below) in which all components of the equalisation formula are open to modification. The Treasurer issues terms of reference, which normally direct the CGC to focus on particular aims for improvement, such as stability or simplicity. However, since the GST-specific formulation of the overarching HFE objective in the 1999 Review, the terms of reference have not directed the CGC to consider change to the objective itself. Consequently, the Methodology Reviews have chiefly recommended change related to specific assessment methods, data sources, or revenue and expenditure categories — mostly outside the scope of this inquiry.

Reviews and major events in HFE, 1999–present



The general objective of the HFE system has received strong support, both during the course of this inquiry and historically. However, the key goal of this inquiry is to ensure that the mechanisms used to reach this broad goal are able to achieve the best outcomes at the least cost. This requires a conceptual framework for assessing how the HFE system works and whether it can achieve its stated aims.

There are three components to this framework: **equity, efficiency, and transparency and accountability**. Though these criteria are ranked (from most to least important), they are not assigned specific weights and any trade-off between criteria will ultimately come down to the particular circumstances at hand. Further, in assessing trade-offs, for example between equity and efficiency, an element of judgment is necessarily involved, particularly given the differing interpretations of equity and what is equitable in the context of HFE.

Equity

Any framework for assessing the HFE system should have equity as its basis. Indeed, equity is intrinsically no less important for community wellbeing than is economic growth, efficiency or productivity (PC 2016, p. 517). Most participants in this inquiry agreed that equity should be the first priority for any system of HFE — and that the approach taken to implement HFE can potentially have a significant impact upon equity outcomes.

But determining precisely what equity means is a much more difficult proposition. The terms ‘equity’, ‘equality’ and ‘fairness’ are used interchangeably, and are frequently disputed in the context of HFE (as are, relatedly, the concepts of what States ‘need’ or ‘deserve’ — see, for example, NSW Government (sub. 52, p. 2); John Pitman (sub. 5, p. 1); WA Government (sub. 15, p. 10)).

For the purpose of this framework, equity is differentiated from these other concepts in the sense that it is an umbrella term, under which multiple contributing factors may sit. For example, equality (regardless of the specific interpretation) may translate to an equitable outcome in some circumstances, but not all equitable outcomes will be driven by equality.

A further complicating factor is that equity is generally regarded as an interpersonal concept (and as noted above, interpersonal horizontal equity is part of the underlying rationale for HFE). Equity of State fiscal capacities does not necessarily translate to equity of individuals’ access to public services. However, the importance of State autonomy in the Australian federation, along with the broader system of federal financial relations, means that State fiscal capacity has been adopted as a proxy for interpersonal equity (box 1.2). Given these factors, there is a need to set out a more explicit concept of equity for the purposes of HFE, retaining the reference point of State fiscal capacities and encompassing the elements of fiscal equality and fairness.

Box 1.2 The federal financial relations trilemma

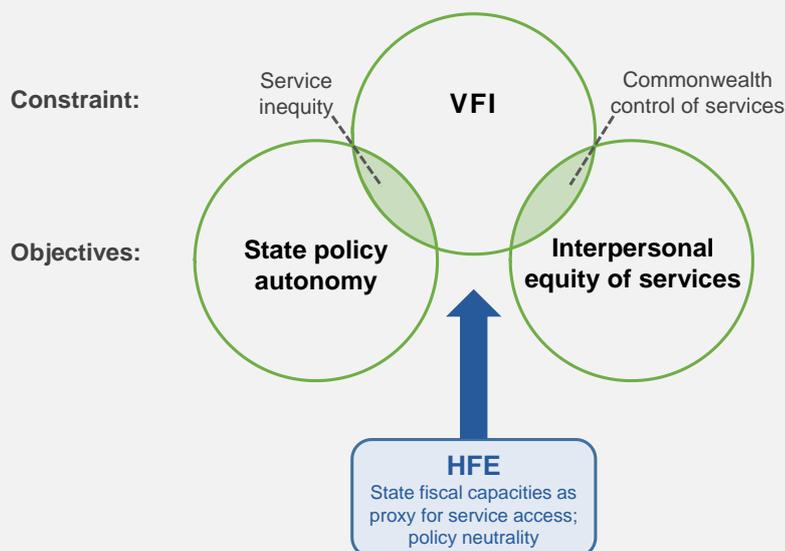
HFE does not guarantee interpersonal equity in access to services, given that States may spend GST revenue as they see fit. Garnaut and FitzGerald (2002b, p. 2) argue that this fact negates the rationale for HFE, as ‘... the concept of equity between States has no meaning; equity must relate to outcomes for individuals and households.’

This phenomenon results from the interaction of three major and longstanding aspects of Australian federal financial relations — policy autonomy, vertical fiscal imbalance and the goal of horizontal equity in service access.

As noted above, HFE is based on the rationale that the overall level of public services available to people should not materially differ on the basis of which jurisdiction they live in. However, the fact that most public services are delivered at the State level means that the Commonwealth Government cannot directly bring about horizontal equity in access to services nationwide — State Governments have, and value, a considerable degree of policy autonomy in these fields, which is underscored by the Constitution. Thus, the Commonwealth Government’s closest possible proximity to interpersonal equity in service access is reached by pursuing equity among State fiscal capacities.

However, a barrier to achieving fiscal equity between States is the large vertical fiscal imbalance (VFI). For States to provide an acceptable level of services to all their residents, more revenue is needed than State Governments can generate from their own sources. Funding from the Commonwealth Government is needed, but when it is tied to specific conditions this decreases State autonomy (since autonomy is not only a matter of the legal ability to make policy — it also depends on having the revenue to provide services according to that policy).

These three aspects of federal financial relations in Australia form something of an ‘impossible triangle’ — where only two of the three conditions can ever be adhered to without an additional exogenous factor (see figure below). The exogenous factor, which can link the two objectives together while adhering to the constraint of VFI, is HFE: untied Commonwealth grants making up the difference between State revenues and expenditure needs, ‘overriding’ the impact of VFI on State fiscal capacity. But State policy autonomy demands that the distribution of revenue for the purposes of HFE be made on a policy-neutral basis: otherwise, if States were required to make certain policies in order to receive HFE grants, they would not have substantive policy autonomy.



What do we mean by equality?

The concept of equality can be interpreted in several different ways, even in the specific context of State fiscal capacities.

Some participants considered that equality and equity should focus on *outcomes*, whereby all States end up with the same fiscal capacities, resulting from funding allocations based on States' circumstances or 'needs' (NT Government, sub. 51, pp. 1, 31; Tasmanian Greens, sub. 30, pp. 1-2; Victorian Government, sub. 53, pp. i, ii, 17). This is consistent with the CGC's current interpretation of *equity*.

Other participants agreed on the importance of bringing outcomes closer together, but considered that equality should also acknowledge States' efforts in achieving economic success, and should not pose significant disincentives to further efforts (CCIWA., sub. 11, pp. 2-3; APPEA, sub. DR73). This view essentially represents equality of *opportunity*. In the HFE context, equality of opportunity could be interpreted to mean that no State should be disadvantaged *through no fault of its own*: the distribution of funding should compensate for unequal starting points (inherent, or entrenched, advantages and disadvantages), but should also allow States to reap some fiscal benefits from their development efforts and (potentially risk-taking) policy reform.

In the context of *individuals*, equality of opportunity is highly valued (Queensland Government, sub. 32, p. 3; TasCOSS, sub. DR66, p. 1). Indeed, Australians largely believe that all citizens should have an equal opportunity to develop their capacities — the idea of a 'fair go' (Argy 2006, p. 77; SCARC 2014, p. 58). There are also broader positive implications for social cohesion — access to high quality services (including childcare, education, healthcare and housing) can reduce the incidence of some of the adverse consequences of income or wealth inequality, and can also foster upward mobility and create greater opportunities for success in the long run (Jenkins et al. 2017; OECD 2010, p. 184).

Finally, there were participants who interpreted equality as equal *treatment*, in which the GST would be distributed equally per capita, regardless of the demographics or circumstances of each State (Julie Matheson for Western Australia Party, sub. 4, p. 2; Parliamentary Liberal Party of WA, sub. 22, p. 5; NSW Government, sub. 52, pp. 2-3).

The results of the 2017 Australian Constitutional Values Survey (ACVS) suggest that the greater Australian public holds an equally wide range of views about what constitutes equality. Some may even view equality through more than one of the lenses discussed above — even though they could be interpreted as mutually exclusive. For example, while 72 per cent of online respondents to the 2017 ACVS agreed with the statement that 'money should be transferred from the richer parts of Australia to the poorer parts to ensure that everyone can have similar levels of public services', 52 per cent also agreed that 'money for public services should be distributed equally (by head of population) around Australia, irrespective of who needs the services more or less' (Brown and Hollander 2017, p. 11).

The Productivity Commission has focused on equality of fiscal outcomes between States ('fiscal equality'), which can be quantified by comparing States' fiscal capacities. The concept of 'reward for effort' is encapsulated by the fairness criterion.

What is fair?

Participants also expressed views on the 'fairness' of the HFE system. These views tended to bifurcate according to whether they were based in a fiscally stronger or weaker State (a case of 'Miles's Law'), as the Australian Chamber of Commerce and Industry (sub. 40, p. 2) noted:

At the heart of [the suggestions of some commentators] is the concern or dissatisfaction that some States have with their share of GST revenue, with some stating that it is no longer 'fair'. ... What is regarded as 'fair' for one party may not necessarily be regarded as fair for another.

Fairness was a particular concern of participants from Western Australia (Janine Harding, sub. 19; Senator Peter Georgiou, sub. 44, p. 1; Parliamentary National Party of WA, sub. DR76, p. 3; Roslyn Miles, brief sub. 5), who were of the firm view that their State's low GST relativities in recent years were 'unfair'.

Conversely, other participants (including Jim Hancock, sub. 54, p. 11; NT Government, sub. DR69, pp. 7, 10; SA Government, sub. DR89, pp. 1, 5) suggested that these low relativities merely reflected the reality of Western Australia's fiscal capacity being far higher than any other State:

Over the five years to 2014-15, Western Australia's per capita gross state product, which is a reasonable proxy for its revenue-raising capacity ... was, on average, more than 49% above Australia's per capita gross domestic product ... From this perspective, the relativity which the Grants Commission has determined for Western Australia in recent years should be seen as evidence that the HFE system is working as it should.

The mere fact that an overwhelming majority of Western Australians feel that the present HFE system is 'unfair' ... is no more evidence that there is 'something wrong' with that system than the fact that many people in the top personal income tax bracket think there is something 'unfair' about [the income tax structure] ... means that there is 'something wrong' with the personal income tax system. (Eslake, sub. DR71, pp. 1-2)

Some participants characterised fairness as meaning that every State should receive the funding it *deserves*² (based on the own-source revenue generated by each State, or the States' 'financial success': see, for example, John Pitman, sub. 5, p. 1), while others characterised fairness as every State being treated on the basis of *need*.³

² Some participants described 'the funding a State deserves' as depending on the amount of GST that is 'raised' in that State — but as noted earlier, the concept of derivation does not apply to a national tax such as the GST (NT Government, sub. DR69, p. 6; Dale 2014).

³ It is not unusual for funding allocations to be based on a defined level of need. For example, other Commonwealth payments to the States — including schools, disability and health funding — recognise that the needs of different

Most often, though, participants (Wealth Wisdom Pty Ltd, sub. 10, p. 4; AMEC, sub. 23, p. 2; NSW Business Chamber, sub. 27, p. 6; Minerals Council of Australia, sub. 34, pp. 5-6; NSW Government, sub. 52, p. 2; Put Western Australia First Party, sub. DR72, pp. 6-8) suggested that ‘fairness’ had to do with being rewarded for hard work or skill — or keeping a certain proportion of the financial benefits arising from that work or skill — and not being treated in a notably ‘better’ or ‘worse’ fashion than other States on the basis of similar actions or policies.

Relatedly, Argy (2006, p. 77) has found that Australians broadly value the concepts of self-reliance and individual responsibility — part of the idea that people should ‘have a go’. And recent analysis from the United States has found that humans naturally favour ‘fair distributions’ (which take into account variations in effort) rather than equal ones; when fairness and equality clash, people prefer ‘fair inequality’ over ‘unfair equality’ (Starmans, Sheskin and Bloom 2017, p. 1).

The concept of ‘fair inequality’ revolves around the presence of hard work or effort, and bears a close relationship to equality of opportunity, as noted by Martinez et al. (2017, p. 380):

Fair inequality emerges as a result of meritocratic societies rewarding people who are skilled and work harder while **unfair inequality** is driven by differences in the lottery of birth, where the choices available to people are already constrained by the circumstances that they were born into. [emphasis added]

In the context of HFE, therefore, there may exist both fair inequality and ‘unfair equality’ — where a State, rather than being *disadvantaged* through no *fault* of its own, is *advantaged* by no *merit* of its own (such as where considerable equalisation *beyond* equality of opportunity takes place). Keeping in mind that not all fiscal success is the result of State Government effort (some is ‘the luck of the draw’), there is a sound basis for this concept — some of the economic literature around equality of opportunity has specifically included an element of effort (see, for example, Brunori 2016, p. 3; Roemer 1998).

Assessing equity in the context of HFE

Policymakers have many good reasons to seek a level of equity — among them voter preferences, productivity and social cohesion. That said, a threshold question is to what extent should equity be addressed through the HFE system, compared to other mechanisms that governments have available to them, including the tax and transfer system. States’ choices should also be factored into the outcome to a certain degree, as they are for individuals. This aspect also feeds into the concept of efficiency, discussed below.

population groups differ significantly, and that the amount of funding required per person to deliver an equivalent outcome will vary. But assessments of need for the purposes of these payments are made at a more granular level than entire States. Participants also saw ‘need’ in different ways — for example, as the difference between States’ fiscal capacities, reflecting the existing CGC objective of full equalisation; or as an externally-determined level of an ‘acceptable’ or ‘minimum’ standard of State public services.

Ultimately, people's values differ around what constitutes 'merit' or 'effort' and what weights these warrant relative to alternative equity criteria such as 'need'. Some judgment on these matters is therefore unavoidable. The Productivity Commission proposes that any assessment of how the HFE system achieves equity should take into account whether it can address inherent advantages and disadvantages in the fiscal capacities of the States (fiscal equality), as well as reflect some fiscal reward for effort, risk-taking and policy reform (fairness).

This will enable the system to deliver equity in a way that does not detract from reward for effort (or incentives for economic growth and reform) to such an extent that it undermines community confidence in the system overall. This is important, given that concerns about what is fair in terms of GST distributions have appeared before, and will no doubt appear again.

In the context of HFE, this concept of equity would require that all States have the fiscal capacity to provide a standard of services to their residents that is reasonable to the Australian populace, but would not necessarily demand identical capacities. As such, *some* differences between the levels of public services available in different States (and by proxy, in those States' fiscal capacities) may be acceptable — in order to achieve fairness and to better integrate the principle of efficiency.

Equity and efficiency are often perceived as mutually exclusive, such that to increase one it is necessary to trade off a portion of the other (Okun 2015). However, this is not always the case. The concepts of fairness and efficiency are linked in circumstances where fair distributions, which take into account variations in effort, can help to encourage efficiency-enhancing policy changes. Further, even in an ostensibly zero-sum situation like HFE, efficiency improvements resulting in greater output can increase the resources available to all parties, while the potential mobility brought about by equality of opportunity (a component of equity) can itself boost productivity (Jenkins et al. 2017; OECD 2010, p. 184).

With this in mind, the Commission has focused its equity assessment on three questions:

- does HFE compensate States for their inherent disadvantages (i.e. any material cost and use disabilities that are out of States' control)?
- do all States have the fiscal capacity to provide a reasonable standard of public services?
- does HFE enable State Governments to retain some of the fiscal dividends of good policy reform or economic development?

Chapters 3, 4 and 5 consider a range of channels by which the current HFE system may affect equity, while chapter 6 presents a system-wide assessment against the Productivity Commission's framework, and chapters 7 and 8 assess options to improve the HFE system.

Efficiency

The second element of the Commission’s framework is efficiency. While it is paramount that HFE enables equity, it is also important that it not discourage efficiency-enhancing reforms, productivity improvements, or growth — key contributors to improvements in the future standard of living of Australians, and indeed the economic activity that ultimately funds public services.

Commentators have argued that Australia’s system of HFE both boosts and stifles efficiency. Buchanan (1950, p. 589), for example, argued that an HFE system would remove the incentives for people to migrate between jurisdictions based only on States’ capacities to provide services and infrastructure, or to offer lower tax rates. Instead, migration decisions could be based on other factors, such as employment opportunities. HFE is also sometimes seen as a mechanism to insure against economic shocks — redistributive grants can serve as insurance against the adverse (and possibly contagious) effects on income or employment of an exogenous shock (positive or negative) to a particular State (Blöchliger et al. 2007, p. 7).

Conversely, critics of HFE contend that equalisation creates perverse incentives for State Governments (by compensating them for failing to undertake efficiency- or output-boosting reforms) and for individuals (blunting migration decisions by counteracting the incentives for people to move where they could enjoy higher earnings or better public services). The OECD posited that this could ultimately run counter to the goals of equalisation:

Equalisation may in fact be self-defeating in that it slows down regional convergence. ... the more generous equalisation is, the less incentive there is for poor regions to catch up or for households and firms to migrate to more prosperous jurisdictions. As a result, disparities may widen rather than narrow. (OECD 2013, p. 111)

The CGC’s methodology currently incorporates the principle of policy neutrality (subsidiary to the main objective of fiscal equality). This seeks to avoid States’ policy decisions directly affecting the GST they receive (aiming, by extension, to prevent the GST distribution process from providing States with incentives to vary their policies: box 1.2). This principle is embodied in the CGC’s practice of assuming that each State follows the average policies in raising revenue and delivering services. But some participants to this inquiry (including APPEA, sub. 18, p. 2; Rio Tinto, sub. 37, pp. 2-3; WA Government, sub. DR83, pp. 7–11) have argued that the overriding objective of fiscal equality dampens the effect of the policy neutrality principle and means that HFE does affect State policy.

In any case, it is not possible to *completely* prevent adverse efficiency effects arising from any system of HFE; the key goal is rather to ensure that the HFE system does not *unduly* influence State policies, or hinder efficient allocation of resources between States. In this context, the report considers five major channels by which HFE can affect efficiency and thus has the potential to distort the decisions of State Governments and individuals:

- *State policy choices*: are States insulated from the full consequences of poor economic policy decisions (that is, are they compensated for poor decisions through the HFE system)? Conversely, does HFE mute incentives to make good economic policy decisions?

-
- *State service delivery*: does HFE, by compensating for expenditure-side disabilities, dull or remove the incentives for States to fully address those disabilities, or to pursue cost-reducing or efficiency-enhancing reforms in the relevant service areas?
 - *Government spending*: does HFE cause the public sectors in fiscally weaker States to be relatively larger than those in fiscally stronger States? Do these larger public sectors exceed the underlying needs and preferences of those States' residents?
 - *Budget management*: does the lagged HFE assessment cycle amplify State economic circumstances — and does this complicate budget management or encourage poor budgeting? Does HFE reduce State Governments' accountability for their budget outcomes?
 - *Location decisions*: does HFE reduce individuals' and business owners' incentives to relocate to higher-income regions in order to receive better services or lower taxes (funded through location-specific rents), rather than due to the possibility of higher wages or business profitability? Or does it encourage labour and capital to remain in relatively high-cost regions (such as remote communities) by blunting the incentives to relocate to areas where they will enjoy higher incomes or better public services?

Chapter 3 assesses the current HFE system against the first three efficiency channels, and chapters 4 and 5 respectively assess the system against the remaining two channels.

Transparency and accountability

The third element of the Commission's framework is transparency and accountability, two essential prerequisites for good public policy. Transparency and accountability are focused on ensuring robust governance arrangements and processes for the HFE system. Amongst others, they help to build trust and confidence in the system. This can have a flow-on effect for both equity (through people's perceptions of whether the system is fair) and efficiency (for example, whether States are willing to reach future agreements on efficiency-enhancing reform). They can also lead to greater scrutiny of the system, which can result in greater accountability for decisions and, ultimately, improve policy outcomes.

Transparency and accountability in the HFE system are assessed with respect to whether:

- there is public understanding of (and agreement on) what the system is trying to achieve, how its processes broadly work, and how well the HFE system meets its objectives. This is most important for State Governments, but an element of understanding from the community is also desirable — especially as the HFE debate is afflicted with misunderstanding and misconceptions
- there is a robust governance structure and accountability framework that enables the system to achieve its key objectives. Participants in this governance structure include the CGC, the Commonwealth Government and State Governments
- the CGC, State Governments and the Commonwealth Government understand what their roles and responsibilities are within the HFE system. In particular, where decisions are

made by the CGC, there should be a clear understanding of why that decision has been taken. Further, there should be a clear delineation of decision-making responsibilities in relation to policymaking and policy implementation, with policymaking being firmly in the realm of governments (through elected officials).

While simplicity per se is not a criterion against which the current system is assessed, it is relevant because complexity can impede transparency and accountability. An overly complex system can adversely affect both the understanding of the system more broadly and the way in which decisions are made. It is difficult to achieve transparency and accountability if the system is so complex that only a handful of people understand it.

Many of the concepts discussed in this framework section are already factored into the CGC's objective for HFE, albeit in a subsidiary fashion to the main goal of fiscal equality. Chapter 2 summarises the application of these concepts and discusses the history and practice of HFE in Australia, so as to provide an overview of the evolution of the current objective of HFE. The way in which the practice of HFE has evolved over eight decades reveals much about the broader context within which HFE operates — that is, the complex and ever-changing field of federal financial relations, and the supporting institutional arrangements.

1.4 What is the evidence base?

Claims about the effects of HFE on the incentives of individuals, firms and governments are often made in theoretical terms. However, there is sparse evidence of these incentives having actually impacted past behaviour. This is unsurprising for a number of reasons. It is partially due to HFE not existing in a vacuum, such that there are many other factors simultaneously contributing to a particular economic or policy decision. It is also a consequence of the zero-sum nature of HFE and the fact that, where there are strong first-mover disincentives for reform (chapter 3), decisions are not observable.

As a result, the Productivity Commission has placed weight on inquiry participants and submissions providing evidence of their claims. And as in any inquiry, the Commission's findings are also driven by economic principles and consideration of the incentives generated by HFE, especially where evidence has not been forthcoming or behavioural impacts are too difficult to reliably measure.

To support its analysis of these incentives, the Commission has constructed a set of quantitative 'cameos' (appendix C). These illustrate the effects of possible State policy changes on GST shares (for recent distributions; that is, they provide comparative statics, rather than modelling future effects) in order to identify and estimate the distributional impacts, and possible incentive effects, of the current system of HFE.

The Productivity Commission has not undertaken economy-wide modelling of the impacts of HFE (through, for example, the development of a computable general equilibrium model).

This is in part because extensive work has already been carried out in this field (Dixon, Picton and Rimmer 2005; Independent Economics 2012, 2015, Murphy 2015, 2017). It also reflects the reality that such a model is ill-suited to predict, on its own, whether HFE affects discrete decisions, such as interstate migration or State Government taxation and spending. Any modelling would therefore need to make a host of assumptions about these effects, which risks rendering the modelling assumption-driven and — particularly where evidence is sparse — of little predictive value (chapter 5). Appendix D elaborates on the challenges presented by modelling the effects of HFE, and summarises the major work undertaken in this field so far.

1.5 Scope of the inquiry

In line with a predominantly principles-based approach, the Productivity Commission has focused on the consequences of HFE for equity and efficiency, along with transparency and accountability in the system. There is also some discussion of the actual service delivery outcomes (and consequent interpersonal equity effects) across States; however, mindful of the policy autonomy of State Governments, this is not a key focus of the analysis.

The Commission has deliberately avoided replicating the CGC’s approach or delving into the minutiae of CGC practice and method, but has considered elements of the HFE methodology that could materially impact on policy neutrality (chapter 3; chapter 7). The CGC conducts an in-depth Methodology Review every five years; the next such Review, to be released in 2020, is underway. While this results in parallel consultation processes, this inquiry and the 2020 Review are complementary and co-operative — the Productivity Commission has drawn extensively on supporting material published by the CGC, and the CGC has made detailed submissions to this inquiry.

As such, this inquiry does not — *for the most part* — consider specific assessment methods, the use of particular data sources or data adjustments, or the treatment of individual revenue or expenditure categories. These issues are only addressed where they carry implications for State incentives. Where State Governments have raised other concerns about these issues, it is expected that the CGC will take account of these in the course of its 2020 Review.

The terms of reference, by explicitly inviting the consideration of the impacts of HFE, and whether alternative approaches may be preferable, allow this inquiry to take a broader approach to the subject. Accordingly, chapter 7 considers whether there are options available to improve the assessment of States’ fiscal capacities, while chapter 8 explores a range of possible alternative approaches to distributing GST revenue in Australia (and appendix E describes a selection of the different systems used to implement HFE across other OECD countries). The Productivity Commission’s recommended new benchmark for fiscal equalisation, and the pathway for transitioning to a new system, are outlined in chapter 9, while appendix F provides the quantitative details underlying this transition analysis.

1.6 Consultation in the course of the inquiry

The terms of reference for this inquiry were received on 5 May 2017. In response to its initial guidance note, the Commission received 56 submissions and 9 brief submissions. There were also a large number of (essentially identical) submissions expressing individuals' concerns about the link between HFE and State policies on gas exploration (more than 5600 in total). The large volume has made it impractical to list the names of individuals who made these submissions; however, the text of the submission is available on the inquiry webpage.

The draft report to this inquiry was released on 9 October 2017. Following the release of the draft report, the Productivity Commission held public hearings in Perth, Melbourne, Adelaide, Darwin, Hobart, and (later, in February 2018) in Brisbane (with some participants also teleconferencing in from other cities). Transcripts are available on the Commission's website.

A further 67 submissions were received in response to the draft report. A list of the individuals and organisations that made submissions is provided in appendix A, and all submissions are available on the Commission's website. As part of this inquiry, the Productivity Commission also commissioned a paper on *Accountability in the Australian Federation* (Gray 2017), which is available on the inquiry webpage.

In the course of preparing the draft and final reports for this inquiry, the Commission visited all State and Territory Governments for consultation, and also consulted with the CGC, the 2012 GST Distribution Review Panel members, several State grants commissions, a number of business groups, several past State Under-Treasurers, and a range of academics and others specialising in federalism and tax policy. The Commission also consulted with individuals who have worked on previous reviews of the HFE process. Appendix A provides details.

2 How does HFE work in Australia?

Key points

- Since Federation, the fiscal power of the Commonwealth relative to the States has increased. Key developments marking this shift were the Commonwealth's introduction of income tax, and the High Court's disallowance of State indirect taxes on goods.
- Some form of horizontal fiscal equalisation (HFE) has been in place in Australia since Federation, to address both the imbalance between revenue raising capabilities and expenditure responsibilities between the States and the Commonwealth, and differences in fiscal capacities across the States.
- The Commonwealth Grants Commission (CGC) plays a prominent role in HFE. It was established in 1933 following numerous ad hoc measures to provide assistance to financially weaker States and the threat of Western Australia's secession.
- The definition of equalisation adopted by the CGC and its methods have evolved over time. Many of the changes have been driven primarily by the CGC, in consultation with the States.
 - Up until 1981, the CGC's role in HFE was to recommend special grants to those States making claims for financial assistance — 'recipient' States.
 - In 1981, the CGC commenced full equalisation, in which a given pool of funds were to be distributed amongst the six States (later joined by the Northern Territory and the ACT), marking the beginning of the 'zero sum' distribution.
 - At this time, the definition of equalisation referred to payments to enable States to provide services 'not appreciably different', but by 1999, this had evolved to 'the same standard' at the behest of the CGC. Unsurprisingly, the current definition of equalisation is not reflected in the *Commonwealth Grants Commission Act 1973* (Cwlth).
 - Since 2000, the Commonwealth has not played a substantive role in determining the amount of revenue to be distributed amongst the States for the purposes of HFE, with it being solely funded by the GST pool (with the exception of Health Care Grants until 2009).
- Most of the GST pool is distributed on an equal per capita (EPC) basis, with only about 10 per cent redistributed away from EPC.
 - The pool has increased (in real terms) from about \$25 billion in 1981-82 to \$36 billion in 2000-01 (GST only), and is estimated to be over \$62 billion in 2017-18. However, the annual growth rate of the GST pool roughly halved between 2000–08 and 2009–17.
- Australia's system of HFE is aspirational — seeking to comprehensively and fully equalise fiscal capacities across the States. In reality it achieves proximate equalisation.
 - It does not equalise aspects such as living standards across States, regions, communities, or individuals — that is, it does not focus on interpersonal outcomes.
 - Data and conceptual considerations mean that in practice, much is either unassessed or discounted — over 35 per cent of revenues were assessed on an EPC basis in 2016-17.
- The key factors that currently lead to redistribution among the States are mining production, population growth, Indigeneity, remoteness and property sales.
- Australia achieves a higher degree of fiscal equalisation compared with other federations.

This chapter traces the evolution of Australia's system of HFE. This includes revenue sharing arrangements and special grants in the decades immediately following Federation, to the current system in which the CGC makes recommendations on the GST payments to be distributed to the States (figure 2.1). The chapter also outlines how the current HFE system works, its place within the broader framework of federal financial relations, and assesses the extent to which it succeeds in its aim of equalisation.

2.1 The evolution of HFE in Australia

Upon federating, the six Colonies of Australia ceded the right to impose and collect customs and excise duties (the dominant source of public revenue at the time) in favour of the Commonwealth. Granting the Commonwealth exclusive rights to impose customs and excise duties resulted in vertical fiscal imbalance (VFI) in which there was a surplus of revenue over expenditure at the Commonwealth level, and vice-versa at the State level. This necessitated a system for managing federal financial relations.

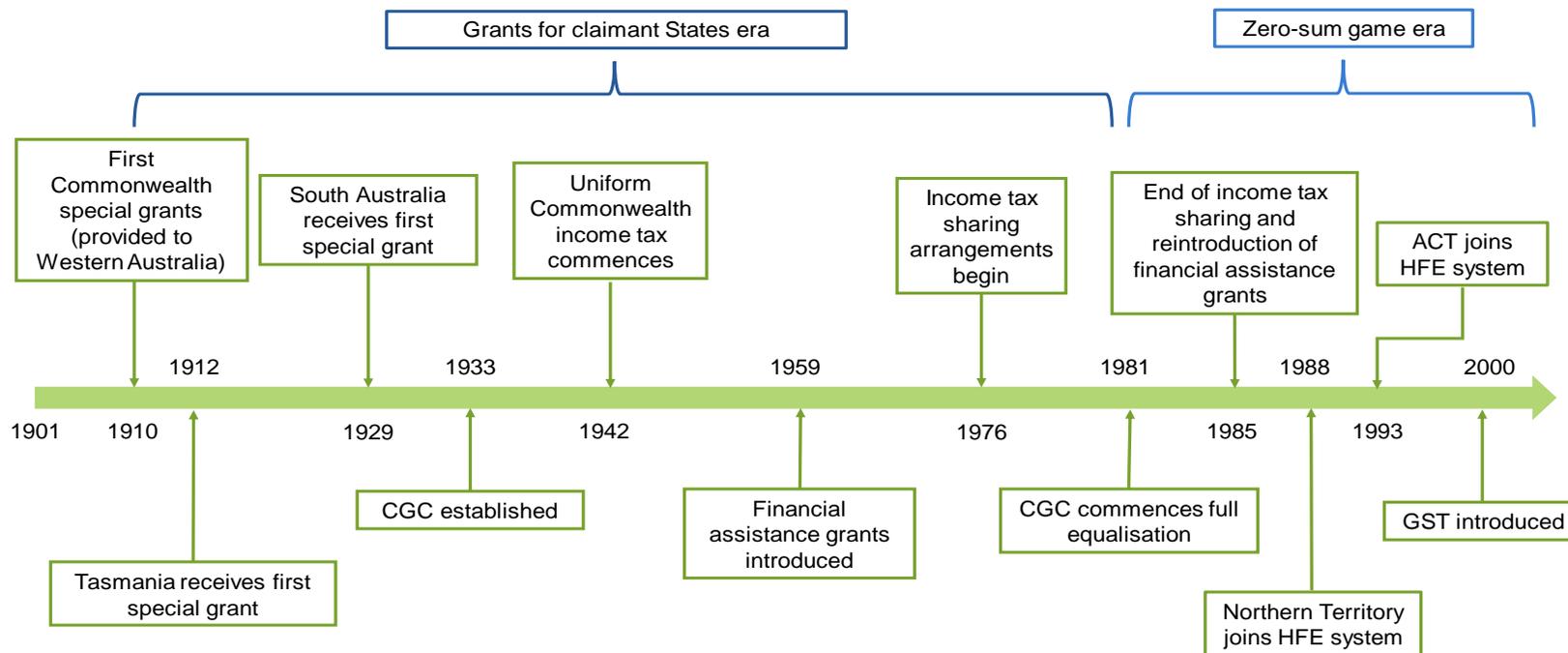
Early fiscal equalisation arrangements

In the early decades of Federation, Australia had no formally established framework for pursuing fiscal equalisation between the Commonwealth and the States (vertical), and across the States (horizontal). Although State economic development differed markedly at Federation, there was an expectation among those who framed the Constitution that economic conditions would converge towards those in the wealthier States (although some acknowledged that there was little evidence to support such an assumption). There was also a belief that the development of revenue bases would be concentrated at the State level (Gray 2017, pp. 4–5).

Various ad hoc schemes for sharing revenue were adopted during this time. Until 1910, at least three-quarters of customs and excise revenue was returned to the States, as required by the Constitution. This was replaced by equal per capita (EPC) grants in 1910, which were in turn replaced by arrangements for the Commonwealth takeover of State debts in 1927. In addition to general revenue sharing arrangements, special grants were made to the financially weaker States — Western Australia received its first special grant in 1910, followed by Tasmania from 1912 and South Australia from 1929 (Williams 2012, p. 146).

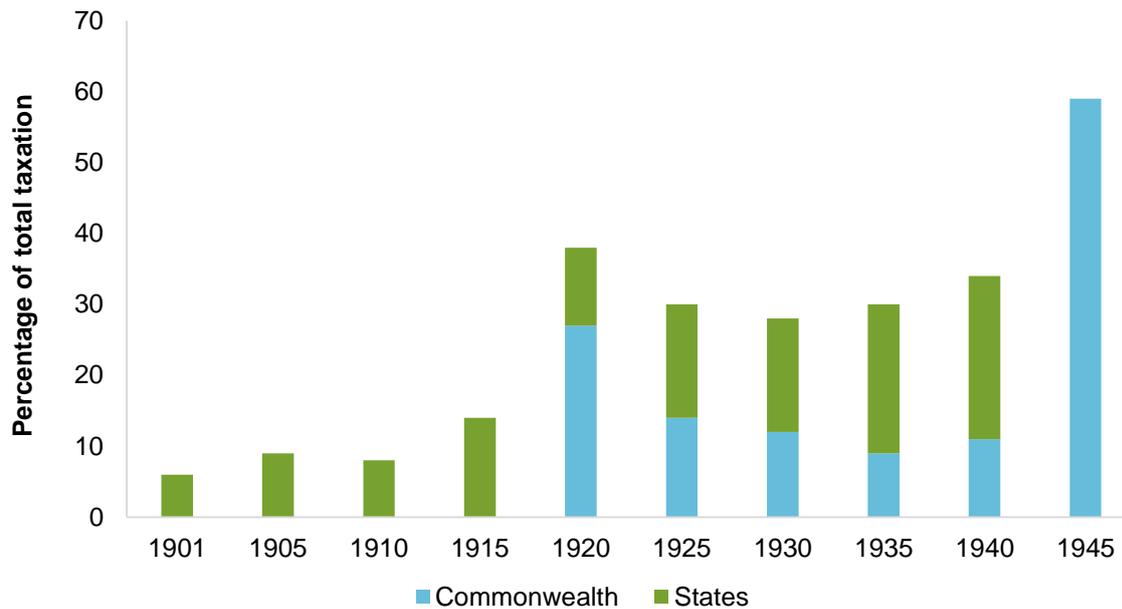
On the taxation side, the Commonwealth had begun encroaching on areas of taxation that had previously been the sole domain of the States. In 1910, the Commonwealth imposed a progressive federal land tax to discourage the acquisition of multiple parcels of land by landholders (Simpson and Figgis 1998, p. 4).

Figure 2.1 Evolution of HFE in Australia



In 1915, the Commonwealth introduced its own income tax (Reinhardt and Steel 2006, p. 2). Despite the highly progressive nature of the tax, the Commonwealth collected almost twice as much income tax revenue as the States (James 2001, p. 6). The Commonwealth began to reduce its taxation of incomes from 1922, at the same time as State income tax revenues began to expand (figure 2.2), enabling the latter to finance new social spending (Smith 2015, pp. 32–33).

Figure 2.2 **Share of income taxation by level of government, 1901–45**



Source: Smith (2015), derived from Barnard (1985).

With the onset of the Great Depression, Western Australia and Tasmania made more frequent claims for special grants, and the arbitrary nature of the special grants process became a larger political issue. This culminated in a referendum in Western Australia in 1933, in which approximately two-thirds of citizens voted for secession. The petition for secession was later rejected by a committee of the UK Parliament, which determined that the Australian Constitution could not be amended without the consent of the Commonwealth (Foley 2013).

Anti-federal feeling amongst the financially weaker States was also exacerbated by the offer of the Commonwealth to provide a special grant to South Australia in return for part of the State's railway system, and to Western Australia in exchange for the transfer of a northwest portion of the State to the Commonwealth (Hancock and Smith 2001, p. 31).

Efforts towards formal equalisation

The ad hoc nature of financial assistance provided to the States by the Commonwealth and ongoing discontent with the outcomes of Federation amongst Western Australia, Tasmania and South Australia created pressure for the development of a more formal and lasting solution. Consequently, the independent CGC was established in 1933, with the objective of inquiring into applications for financial assistance to the States and making recommendations to the Commonwealth on the level of grants to be paid (CGC, sub. 1, p. 3).

The CGC handed down its first report in its first year, and in determining grants, essentially followed a principle of financial need, calculating grants such that claimant States would be able ‘*with reasonable effort*, to put their finances in about as good a position as that of the other States’ [emphasis added] (CGC 1995, p. 30). Grants were not intended, however, to equalise the incomes or living standards of individuals in the States (CGC 2009, p. 31).

The CGC’s approach to determining grants was made clearer in its second and third reports (1935 and 1936 respectively). The second report argued that the only rationale for grants was the inability of a State to carry on without it, while the third report stated that:

Special grants are justified when a State through financial stress from any cause is unable to efficiently discharge its functions as a member of the federation and should be determined by the amount of help found necessary to make it possible for that State by reasonable effort to function at a standard not appreciably below that of other States. (CGC 2016b, p. 4)

The CGC’s second report also introduced the concept of a penalty for claimancy, reflecting the notion that claimant States would have to make a greater effort to raise revenue if they wished to be raised to financial equality with the ‘standard’ States, or achieve economies in the range and standard of government services. It also acted as a disincentive for making claims. The penalty for claimancy was expressed as a percentage of a State’s social services expenditure. During this time, penalties were also imposed for ‘past mistakes’ arising from what were deemed to be poor policy choices. These penalties were expressed as a percentage of State taxation. Both types of penalties were suspended in 1945, at the behest of claimant States, and were not revived (CGC 1995, p. 43).

Meanwhile, although the Commonwealth had begun to encroach on areas of taxation that had previously been the sole domain of the States from 1910, a major turning point in federal financial relations occurred in 1942, when the Commonwealth assumed sole responsibility for collecting income tax. Although initially instituted as a wartime measure, the Commonwealth continued to be the sole collector of income tax after the conclusion of the Second World War (Twomey 2014, p. 15).

Postwar taxation and spending arrangements

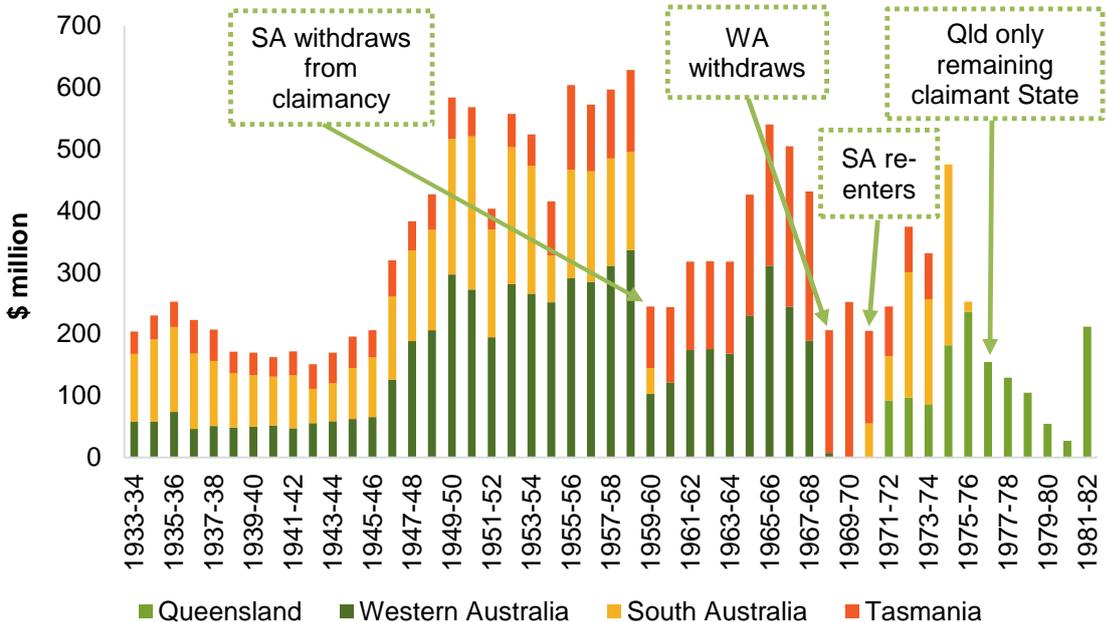
The introduction of uniform federal income taxation and the abolition of State income tax led to an increase in VFI. To address VFI, the Commonwealth paid tax reimbursement grants to all States (as distinct from special grants provided only to claimant States), until these

were replaced by financial assistance grants in 1959. During this era, the significance of horizontal equalisation achieved by way of special grants gradually declined, to a large extent because tax reimbursement grants and financial assistance grants provided by the Commonwealth included significant elements of HFE (Williams 2012, p. 145).

After 1959, South Australia withdrew from claimancy, leaving Western Australia and Tasmania as the only claimant States. In 1968, after reaching an agreement with the Commonwealth on increasing its financial assistance grants, Western Australia also withdrew from claimancy (CGC 1995, p. 68).

After a renegotiation of financial assistance grants in 1970, Queensland, South Australia and Tasmania all became free to apply for special grants, a right they chose to exercise. After receiving increases in their financial assistance grants, Tasmania and South Australia again withdrew from claimancy in 1974 and 1975 respectively, leaving Queensland as the only claimant State (which it remained until 1982) (CGC 1995, p. 68; figure 2.3). As Williams (2012) observed, the CGC had, by this stage, ‘become a relatively minor player in the allocation of general revenue grants to the States’ (p. 152) (table 2.1).

Figure 2.3 Special grants paid to claimant States^a
\$ 2016-17



^a Figure does not show special grants that were paid to Western Australia, South Australia and Tasmania prior to 1933-34.

Sources: Productivity Commission estimates based on CGC (2017c); RBA (2017b).

In conjunction with the fluctuating level of special grants provided on the recommendation of the CGC, specific purpose payments were also increasingly used by the Commonwealth

as a means of providing financial assistance to the States and influencing the delivery of services and infrastructure within States (table 2.2). Although the Commonwealth had used section 96 of the Constitution to make tied grants to the States as early as 1923 (for roads), the importance of specific purpose payments increased rapidly in the late 1960s and early 1970s, especially after the election of the Whitlam Government (Gray 2017, p. 6,11).

Table 2.1 Special grants as a share of State revenues

Per cent

	<i>Queensland</i>	<i>Western Australia</i>	<i>South Australia</i>	<i>Tasmania</i>
1910-11	0.0	6.5	0.0	0.0
1920-21	0.0	2.2	0.0	4.3
1930-31	0.0	3.5	10.9	9.6
1940-41	0.0	5.7	7.7	13.7
1950-51	0.0	20.2	17.2	12.8
1960-61	0.0	6.2	0.0	15.5
1970-71	0.0	0.0	1.3	8.4
1980-81	0.2	0.0	0.0	0.0

Sources: Productivity Commission estimated based on ABS (*Year Book Australia*, Cat. no. 1301.0, various editions); CGC (2017c).

This era also saw two tax bases return to the States that were shared with the Commonwealth. In 1952, the Commonwealth ceased collecting land tax, partly because the tax had been ineffective in its original aim of breaking up large estates, and its importance had been diminished by growth in other taxes, notably income tax (Simpson and Figgis 1998, p. 4). In addition, in 1971, the Commonwealth transferred the ability to impose payroll tax to the States in exchange for a reduction in financial assistance grants (Williams 2012, p. 152).

Table 2.2 All Commonwealth payments to States

Average annual payments, 2016-17 \$million

	<i>General revenue payments^a</i>	<i>Special grants</i>	<i>Specific purpose payments</i>	<i>Total</i>	<i>Specific purpose payments, per cent of total</i>
1934-35 to 1941-42	0.0	175	973	1 148	85
1942-43 to 1945-46	2 369	179	780	3 328	23
1946-47 to 1958-59	9 240	1 010	2 842	13 092	22
1959-60 to 1964-65	8 354	313	2 727	11 393	24
1965-66 to 1971-72	12 744	341	4 955	18 040	28
1972-73 to 1982-83	22 272	135	19 858	42 266	47

^a Excluding special grants.

Sources: Productivity Commission estimates based on CGC (2009); RBA (2017b).

Towards full equalisation and the zero-sum system

Since its establishment in 1933, the CGC had evaluated claims for special grants by the financially weaker States. Its decisions had no bearing on the financial capacities of the standard (or ‘non-claimant’) States.

In 1976, financial assistance grants, which had grown increasingly ad hoc in terms of both size and method of determination, were replaced by income tax sharing arrangements, as part of the Fraser Government’s ‘New Federalism’ policy. New Federalism also permitted each State to impose a surcharge on income tax collected within that State, or to provide a rebate at the State’s own expense, as embodied in the *Income Tax (Arrangements with the States) Act 1978* (Cwlth). No State enacted these arrangements, however, and the provisions were later repealed by the Hawke Government (Twomey 2014, p. 16).

The initial per capita relativities⁴ used to distribute revenue under this framework and agreed upon by the Commonwealth and States were obtained by dividing the per capita financial assistance grant received by each State in 1975-76 by the per capita grant received by Victoria (which received the smallest grant). Hence, Victoria’s relativity was set at 1.0, with those of the other States being above this amount. The relativities were used in conjunction with population data to determine the share of tax revenue received by each State. Provision was also made for the relativities to be reviewed, although the agreement between the Commonwealth and States did not specify the body that would carry out the review (CGC 1995, p. 137).

The April 1977 Premiers’ Conference saw the Commonwealth and States agree that:

The review should be on the basis of the principle that each State should be able to provide State Government services of a recurrent kind of the same standard as other States without imposing higher rates of taxes or charges; differences in revenue raising capacities and in the relative costs of providing comparable government services should be taken into account. (Commonwealth of Australia 1977, p. 17)

The CGC was ultimately given the task of reviewing the tax sharing relativities, under legislation that was approved in 1978. In 1979, the CGC conducted its review of relativities based on equalisation principles outlined in the *States (Personal Income Tax Sharing) Amendment Act 1978* (Cwlth), which specified:

... the respective payments to which the States are entitled ... should enable each State to provide, without imposing taxes and charges at levels appreciably different from the levels of the taxes and charges imposed by other States, government services at standards not appreciably different from the standards of government services provided by the other States;

(ii) taking account of:

- differences in the capacities of States to raise revenues; and

⁴ Under current methodology, a relativity is a number summarising a State’s need for revenue (typically from a given pool of funds), compared to the average. For example, a State with a relativity of 0.8 requires only 80 per cent of the average available revenue on a per capita basis.

-
- differences in the amounts required to be expended by the States in providing comparable government services ... (s. 5)

The task given to the CGC marked a significant departure from its previous work. From its inception, the CGC had assessed the additional funding needs required by claimant States to bring them up to a standard based on other States; as noted, grants recommended by the CGC had no direct bearing on the financial position of non-claimant States. In the case of distributing taxation revenue amongst the six States, however, an amount given to one State meant that the same amount was foregone for the other States — that is, allocation to the States had become a zero-sum game. In Williams' (2012, p. 147) view 'the CGC moved from being a peripheral to a major player in federal-state fiscal relations.'

The CGC reported in 1981, and the relativities it calculated suggested that the existing distribution of grants favoured Western Australia, South Australia, and Tasmania, at the expense of the remaining States. The CGC was asked to review its findings, and reported in 1982, with the revised relativities to be phased in over three years, subject to a guarantee that each State would receive a specified minimum increase in its grant each year. That guarantee prevented most of the adjustments to the recommended relativities from actually taking place (CGC 2009, p. 33).

The CGC produced a new set of relativities in 1985, and recommended a set of relativities closer to pre-existing ones than the reviews of 1981 and 1982, and hence, were less difficult for States to accept. This was the first time that a set of relativities from the CGC representing full equalisation had been accepted largely intact (Gray 2017, p. 14). In addition, the Hawke Government changed the pool of funds used for HFE from a share of income tax to financial assistance grants in 1985 (CGC 2009, p. 9).

Evolution of the equalisation objective

An aspect of equalisation that has evolved through subsequent CGC reviews is the definition of the objective of HFE itself. Debate during the 1993 review indicated that a more precise statement of the objectives of equalisation might improve understanding of the concept, and by 1999 the CGC revised its definition of equalisation to:

State governments should receive funding from the Commonwealth such that, if each made the same effort to raise revenue from its own sources and operated at the same level of efficiency, each would have the capacity to provide services at the same standard. (CGC 2009, p. 33)

In the 2010 review, the CGC again revised its definition of equalisation. The intention was to better reflect the scope of State activities examined (for example, by including infrastructure) and provide clarity that only material influences were measured in constructing relativities. The definition applied by the CGC for the 2010 review was:

State governments should receive funding from the pool of goods and services tax revenue such that, after allowing for material factors affecting revenues and expenditures, each would have the fiscal capacity to provide services and the associated infrastructure at the same standard, if each

made the same effort to raise revenue from its own sources and operated at the same level of efficiency. (CGC 2010, p. 34)

The definition of equalisation adopted in the 2010 review remains in use by the CGC. The CGC submitted that while the wording of the principle of equalisation has evolved over the years, ‘the principle has focused on the provision of financial support from the Commonwealth to ensure that each State has the same capacity to provide an equivalent standard of services to its residents’ (sub. 1, p. 3). The definition of equalisation among other OECD countries is discussed in appendix E.

The current expression of the objective differs from that articulated in the States (Personal Income Tax Sharing) Amendment Act (quoted above), in that the latter made reference to States providing services at standards ‘not appreciably different’ from each other, rather than the same standard. The implications of this are discussed in chapter 6.

1981 thus marks the beginning of the system of full equalisation in which all States were equalised to the same fiscal capacity (CGC 1995, p. 247), albeit the term ‘the same fiscal capacity’ was not precisely expressed in the definition of the objective by the CGC until much later, in 1999. Although presentational approaches have changed and methods have evolved over time, the CGC’s overall approach to calculating per capita relativities has remained largely unchanged since 1981.

Introduction of the GST

By the mid-1970s, the States had started to impose franchise taxes on alcohol, petroleum and tobacco products. But in 1997, the High Court ruled that business franchise taxes were an excise tax and therefore invalid as imposed by the States. Prior to the ruling, these taxes had collectively accounted for 16 per cent of all State revenue (James 1997), and therefore represented a significant loss of revenue for the States. The Commonwealth responded to the ruling by increasing its own taxes on the affected commodities and distributing the revenue directly to the States as a stop-gap measure.

The year after the High Court’s decision on State franchise taxes, the Commonwealth proposed the introduction of a GST, with all revenue from the tax to be delivered back to the States. In return, however, the States would have to abolish a number of existing taxes of their own, including wholesale sales tax, financial institutions taxes, and stamp duties on business, financial and capital transactions.

The Intergovernmental Agreement on Federal Financial Relations accompanied the reform of Australia’s taxation system in 1999–2000. This Agreement made provisions for all GST revenue (less administration costs) to be shared among the States on the principles of equalisation (box 2.1).⁵ States would be free to spend GST payments as they wished, thus

⁵ From 2000-01 to 2008-09, the CGC recommended relativities to distribute the pool of GST payments plus Health Care Grants. Since 2009-10, the pool has comprised GST only.

granting States financial autonomy for this stream of revenue. The GST therefore further cemented the zero-sum game as an element of HFE in Australia.

Box 2.1 The GST and HFE — a case of great expectations?

In a national address on 29 June 2000, two days before the GST and associated reforms were introduced, the then Prime Minister, John Howard, stated:

Every last cent of GST revenue will go to the States. Every State in Australia, over time, will have more money to fund the roads, police, schools, and hospitals so important to our daily lives. (quoted in ABC News 2015)

On the future distribution of GST payments, the New South Wales Treasurer stated in 1999:

... New South Wales will be contributing about 36 per cent of total Commonwealth tax revenues ... but will be getting back only about 30 per cent. That is also the case under existing arrangements. In other words, New South Wales taxpayers continue to subsidise the other States ... Those funds ... go to Queensland, South Australia, Western Australia and Tasmania. (Egan 1999, p. 77)

The Queensland Treasurer argued in May 1999 that:

Already under the coalition's proposed GST package Queensland stands to lose \$465 million in the first three years of the new tax. That is \$465 million of tax money raised in Queensland which will be siphoned off to fund the removal of State taxes in Victoria and New South Wales. (Hamill 1999, p. 98)

In April 2000, the Victorian Premier commented:

... the compromise with the Australian Democrats requiring exemptions from the GST meant that what was delivered by the federal Treasurer ... was a document that showed that the benefits of the GST would not accrue to the Victorian economy until the year 2007-08 — a disturbing prospect. They will accrue to Queensland in the next couple of years. (Bracks 2000, p. 690)

The Victorian Minister for Finance remarked in September 2000:

... all GST payments are being returned to the States, although in the case of Victoria GST payments are less than they should be because of adverse Commonwealth Grants Commission relativities. (Brumby 2000, p. 740)

The Western Australian budget overview for the 2000-01 State budget predicted:

... in the longer term Western Australia is expected to gain significantly from tax reform, as the growth in GST revenues is expected to exceed the growth in the revenues it replaces. (WA Government 2000, p. 12)

In 2006, the then Commonwealth Treasurer argued that the GST had:

... opened up rivers of gold to State governments, more money than they were ever promised. (Costello 2006b)

The WA Government, in its submission to this inquiry, quoted the former Prime Minister, John Howard, as saying:

I always knew that there would be fluctuations. I don't think anybody in 1998 or 2000 had in front of them projections as to how unequal the distribution would become. (quoted in Parker 2013, p. 6)

The WA Government also argued that:

It was never envisaged that GST relativities would fall so low when the 1999 GST agreement was negotiated with States and Western Australia may have never concurred to the agreement if perfect foresight had existed. (sub. 15, p. 11)

While this tax reform increased VFI in Australia, it was expected at the time to provide the States with a stable and more robust source of revenue:

Reflecting the strength of GST collections relative to the existing system of Commonwealth grants and narrowly based State indirect taxes, the Budgets of the States are projected to improve by \$1.25 billion in 2004-05, \$2.25 billion in 2005-06, and commensurately larger amounts in subsequent years. The enhanced revenue security of the States will ensure that they can provide a sustainable level of high quality services ... (Commonwealth of Australia 1998, p. 78)

Importantly, therefore, the tax reforms of 2000 shifted the emphasis from the amount of assistance made available to the States — which was previously a negotiated amount between the Commonwealth and States — to matters of interstate allocation. This reduced the role of the Commonwealth in HFE issues by curtailing its part in determining the overall size of the pool of funds to be redistributed among the States:

... introduction of the GST stabilised the process for determining the size of the pool. It also locked in the role of the CGC in determining the distribution of the pool among the States. At this point, the Commonwealth very clearly shed any responsibility for determining the distribution. (Gray 2017, p. 30)

Indeed, in 2006, the then-Commonwealth Treasurer emphasised the Commonwealth's lack of involvement in the HFE process, in response to disagreements amongst the States about the distribution of GST payments:

There is nothing new about these arguments between the States. This has been going on since 1933. The only difference is they now have more money to argue about and the terms were agreed between the States. This is a very important point. Now, New South Wales will come in here and say it needs more money. That is an argument it is having with Queensland and Western Australia. Not an argument with me. I am not going to be joining into an argument between New South Wales and Queensland and New South Wales and Western Australia and New South Wales and South Australia. (Costello 2006a)

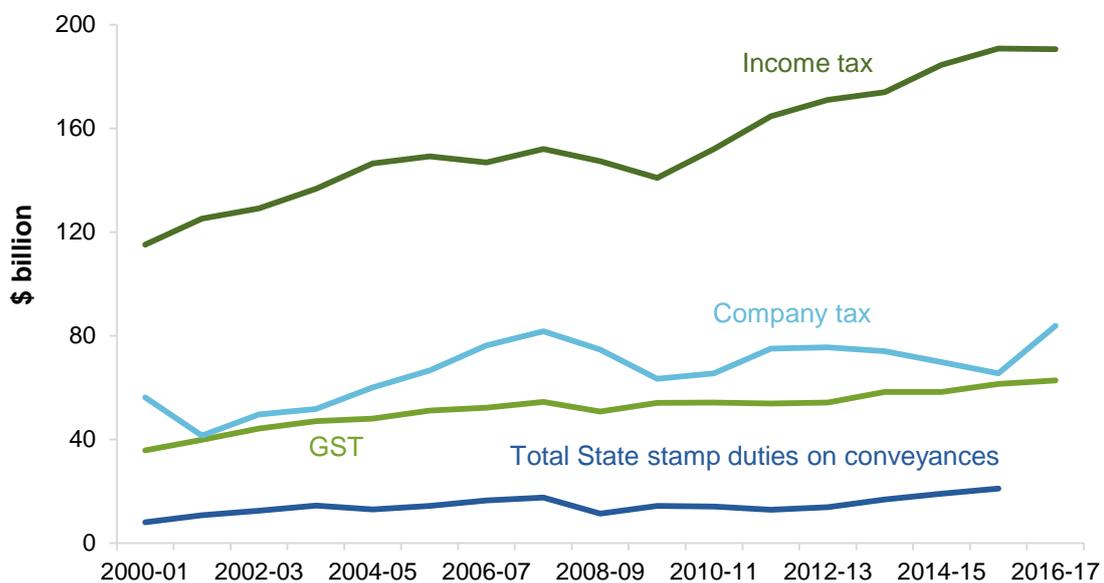
The real average annual growth rate of GST revenue⁶ over the period 2000-01 to 2016-17 was approximately 3.6 per cent, roughly the same growth rate as personal income tax, but less than that for stamp duties on conveyances, which grew at an annual rate of 6.6 per cent during the same period (figure 2.4). The GST pool has grown more slowly in recent years, and is arguably not the steady and growing source of revenue for the States that was first envisaged. Williams (2012, p. 153) observed:

Tying general revenue payments to the GST was seen by the States and Commonwealth as providing a growth tax to the States. In practice, the exemptions from the GST have meant that the revenue from it is now growing at a slower rate than personal consumption expenditure.

⁶ There is a difference between the total amount of GST revenue collected, and that which is distributed to States (the GST pool) due to the fact that some GST revenue accrued during a financial year is not remitted to the ATO by 30 June that year, because it is not due to be paid until Business Activity Statements are lodged the following financial year (this also applies to some GST collected by Commonwealth agencies) and because penalties owed to the ATO (other than general interest charge penalties) are not included in the GST to be paid to the States (Commonwealth of Australia 2017c, p. 59).

The size of the pool distributed to the States has grown considerably since 1981. In 1981-82, approximately \$25.4 billion (in 2016-17 terms) was distributed to States on the basis of HFE. In 1985-86, the amount had grown to nearly \$28 billion (in 2016-17 terms) compared with roughly \$62.4 billion in 2017-18 (Commonwealth of Australia 2017e). Nevertheless, the growth rate of GST revenue (in real terms) approximately halved between 2000–08 and 2009–17, from 4.5 per cent to 2.1 per cent.

Figure 2.4 **Selected Commonwealth and State tax revenues**
\$ 2016-17



Sources: Productivity Commission estimates based on ABS (*Consumer Price Index, Australia*, Cat. no. 6401.0 and *Taxation Revenue, Australia*, Cat. no. 6606.0) and Commonwealth of Australia (2017e).

2.2 Present day context for HFE in Australia

HFE today relates to the distribution of a pool of revenue (GST) among the States. The Intergovernmental Agreement on Federal Financial Relations of 2011 governs that GST is paid to the States on the basis of the principle of HFE. This pool is used for two purposes. First, it partially corrects for fiscal imbalances between the Commonwealth and the States (vertical equalisation). Second, it corrects for fiscal imbalances between the States (horizontal equalisation).

HFE sits within a broader landscape of federal financial relations characterised by:

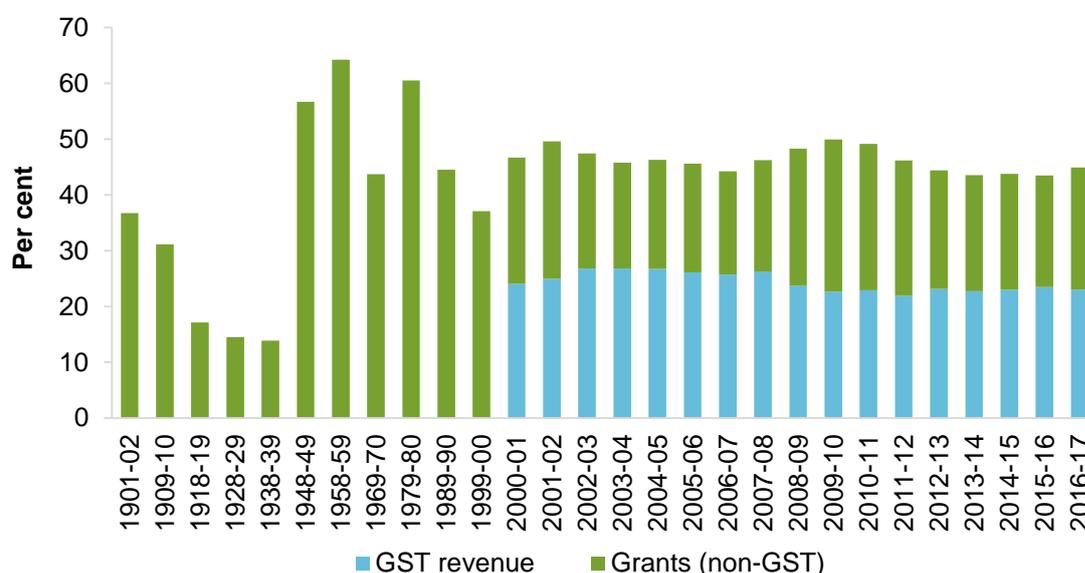
- *relatively strong concentration of power at the Commonwealth level* — the Commonwealth places conditions (albeit loosely) on grants provided to the States, sets

national priorities and has a significantly greater share of the tax base available to it (Robinson and Farrelly 2013, pp. 304–306)

- *comparatively lower taxing powers of the States* — the State taxing powers mainly consist of payroll taxes, mining royalties, stamp duty and land taxes. In addition, States elect to refrain from taxing certain activities and bases, even though they are not highly distortionary (for example, death duties). This partly reflects tax competition between the States, but also the choice of tax base utilisation (discussed below)
- *a co-operative approach to federalism* — there is widespread joint government involvement in many areas, such as in health and education (Gray 2017, p. 20).

Australia’s need for HFE is therefore partly (though not entirely) a function of the VFI that currently exists between the States and Commonwealth (figure 2.5). The imbalance is ‘corrected’ by transfers from the Commonwealth to the States which are either tied (payments for specific purposes — box 2.2) or untied general revenue assistance — almost exclusively GST payments.

Figure 2.5 Vertical fiscal imbalance
Commonwealth grants as a per cent of total State revenue



Source: Treasury (pers. comm., 8 September 2017).

When compared with other federations in the OECD, Australia features a relatively high VFI. Australia’s VFI is higher than Austria, Canada, Germany and the United States, but lower than Belgium and Mexico (Koutsogeorgopoulou and Tuske 2015, p. 10). There is potential for VFI to be lower, however, if the States were themselves to alter the utilisation of their own tax bases.

In particular, land taxes and payroll taxes have the potential to be imposed more efficiently, as observed by Walsh:

... the ostensible degree of fiscal dependence of the States on the Commonwealth is, at least to some degree, a choice the States have made ... the payroll tax base and the land tax base are potentially very broad.

Land tax is one of the most efficient forms of tax ... The States have chosen to apply it to a narrow base ... Payroll tax ... also has a potentially much broader base than it is effectively applied to now ... (2008, pp. 56–57)

Australia’s degree of VFI was also remarked upon by participants to this inquiry, who commented on the limitations of HFE in an environment of fiscal imbalance between the Commonwealth and States (chapter 9).

Box 2.2 Other redistributive mechanisms

Along with HFE, the Commonwealth makes a range of other payments to the States in the form of payments for specific purposes:

- *National Specific Purpose Payments* — ongoing payments that are required to be spent in a particular sector, distributed between the States on an equal per capita basis
- *National Health Reform funding* — ongoing payments for spending on hospitals and other public health activities managed by the States, provided on an activity basis
- *Quality Schools funding* — ongoing payments for spending on schooling, distributed according to the Schooling Resource Standard, which includes a per student base amount with loadings for factors including location, size, low socioeconomic status students, and Aboriginal and Torres Strait Islander students
- *National Partnership Payments* — payments to support the delivery of specified outputs or projects, to facilitate reforms or to reward those jurisdictions that deliver on nationally significant reforms.

Commonwealth transfers to the States

Estimated values, \$million

	2016-17	2017-18	Distribution basis
National Specific Purpose Payments	4 309	4 375	Equal per capita
National Health Reform funding	18 638	19 563	Activity
Quality Schools funding	17 091	18 324	Needs
National Partnership Payments	15 090	13 337	Negotiation
GST entitlement			HFE
Equal per capita component	52 283	54 705	
Redistributive component	7 562	7 695	
Other general revenue assistance	709	741	na
Total payments	115 682	118 740	

Sources: Appendix B, Commonwealth of Australia (2017b, 2017c); Productivity Commission estimates based on CGC (2017f, 2018g).

Horizontal equalisation between the States

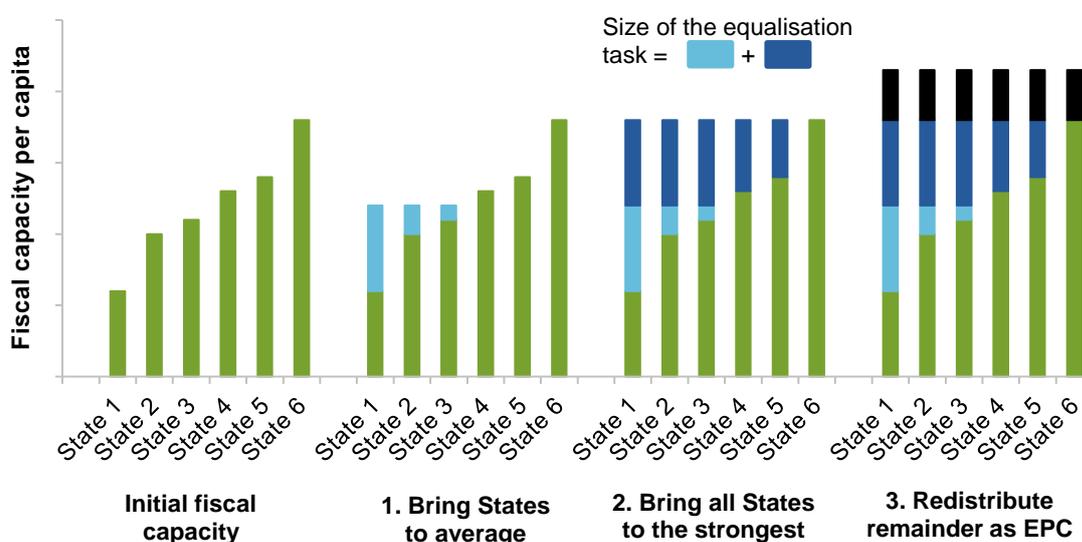
The CGC makes recommendations about the distribution of GST payments with the aim, after allowing for material factors affecting revenue and expenditure, of providing each State with a fiscal capacity to provide services and associated infrastructure at the same standard.

A State's 'fiscal capacity' is a measure of its ability to provide average services and infrastructure to its population if it raised revenue from its own revenue bases at average rates and received its actual Commonwealth payments (excluding the GST).

The 'material factors' referred to in the HFE principle are what the CGC has termed 'disabilities'. These are the different circumstances of a State that are perceived to be outside its control, and that affect a State's capacity to raise revenue and/or that result in differences in the costs of providing services and infrastructure (further discussed below).

The HFE system in Australia is complex and comprehensive, but can be broadly thought of as consisting of three steps (these steps are conceptually shown in figure 2.6).

Figure 2.6 **Schema of the conceptual stages of the HFE process**



1. Bring States to the average: States with relatively low fiscal capacities (most recently, the Northern Territory, Tasmania, South Australia, ACT and Queensland) are raised to the average (pre-GST) fiscal capacity of all States.
2. Bring all States to the strongest: all States are raised to the capacity of the fiscally strongest, currently Western Australia. It should be noted that even the fiscally strongest State would not have the fiscal capacity at this point to finance its assessed expenditures, due to VFI. That is, even the strongest State would not be able to provide the average (post-GST) level of services at this point.

-
3. Redistribute the remainder on an EPC basis: any remaining revenue from the GST pool is distributed to all states on an EPC basis (Chan and Petchey 2017, p. 5). At the end of this step, all States have the same fiscal capacity, and can therefore provide the same (that is, the average) level of services.

As discussed below, the CGC does not achieve perfect (full and comprehensive) equalisation. Lags in the system, and data and method problems (dealt with through reliability and materiality criteria), mean that ultimately, the equalisation process results in comparable, rather than the same, fiscal capacities across States.

The CGC has adopted four supporting principles to guide its methodology. These are:

- reflect what States collectively do
- policy neutrality
- practicality
- contemporaneity (box 2.3; CGC 2010, p. 35).

What role do other Commonwealth transfers play in HFE?

Two parallel developments greatly enhanced the financial power of the Commonwealth relative to the States since the early Federation period (Gray 2017, p. 24). These were the emergence of the Commonwealth as a major provider of revenue to the States, leading to a large increase in VFI (figure 2.5). The second is the increasing role the Commonwealth has sought to play via the provision of payments for specific purposes.

How payments for specific purposes interact with the HFE system depends on how they are treated by the Commonwealth, as well as the CGC. (This is covered in chapters 6 and 9, and the general principles applying to the treatment of Commonwealth payments are detailed in appendix B.) The CGC's broad approach is that payments which support State services or other Commonwealth activities that affect them, and for which expenditure needs are assessed, will have an effect on relativities (CGC 2015f, p. 49). The CGC has advised that:

We consider that in exercising our discretion we can be guided only by the objective of the GST distribution which is the principle of HFE. The appropriate treatment of a particular payment where we have discretion is that which improves the HFE outcome.

We are aware there are other policy objectives behind the distribution of Commonwealth payments ... We have no discretion other than that which improves the HFE outcome. (CGC 2015f, p. 36)

Box 2.3 **Supporting principles of HFE**

Reflect what States collectively do

As far as practically possible, assessments made by the CGC should reflect what the States do, on a collective basis. This, according to the CGC, results in the adoption of internal standards that remove the need for judgments about what States could do or should do.

This approach works well when all the States follow relatively similar policies, but can become problematic where States follow different policies. For example, the States have different approaches to regulating gambling activity — Western Australia prohibits gaming machines outside its sole casino, while in other States they are more common. The challenges with determining the gambling revenue assessment are discussed further in chapter 3.

Policy neutrality

The principle of policy neutrality seeks to avoid the actual policies of a State directly affecting the GST it receives. It also seeks to avoid the GST distribution process providing the States with incentives to vary their policies. This principle is embodied in the CGC's assessment practice of assuming that each State follows the average policies in raising revenue and delivering services. The CGC has itself stated that there is some 'overlap' between this principle and the 'what States do' principle (CGC 2010, p. 36).

Practicality

Practicality is an overarching principle directing the CGC to only consider factors where there is sufficient information and where they will actually have an effect on the GST distribution. It covers:

- simplicity — assessments should be as simple as possible while making sense conceptually
- reliability — methods for assessments should use reliable data, and make use of discounting where there are concerns
- materiality — factors are considered only where they have at least a minimum effect on the GST distribution (a materiality threshold)
- quality assurance — processes are in place to ensure that data and methods are robust and in accordance with the objective of HFE and its supporting principles (CGC 2017i, pp. 27–28).

Contemporaneity

The principle of contemporaneity means that, as far as reliable data will allow, the distribution of GST provided to the States in a year should reflect State circumstances in that year. The CGC currently uses data for three historical years as the basis for its assessments, and stated that it:

... has accepted that fiscal equalisation is achieved over a run of years with a lag. While imperfect, this approach recognises that State fiscal capacity in any one year must take account of the operation of the system over a run of years. (CGC 2016c, p. 2)

During the 2010 review, the CGC decided to shorten the averaging period for assessments from five years to three years, on the basis that this would better reflect current conditions. This was a decision not strongly opposed by the States at that time (CGC 2010, p. 54). The issue of contemporaneity is discussed in more detail in chapter 4.

The CGC has also stated that where Commonwealth payments are made on an equal per capita basis, it may in essence override that basis for distributing payments where the distribution is inconsistent with the CGC's assessment of needs:

The closer Commonwealth payments in total are to an EPC distribution, the more work the GST has to do in meeting State needs. A larger proportion of the GST will be required for equalisation purposes. If the payments are distributed in a manner consistent with the Commission's assessment of needs, this will reduce the extent to which GST is redistributed. State needs have already been met by the Commonwealth payments. (CGC 2015f, p. 47)

Only a small share of payments are quarantined from the relativity process. These tend to be payments supporting national priorities, reward payments for achieving specific reforms, and other payments quarantined at the discretion of the Commonwealth Treasurer. In 2016-17, approximately 5 per cent of Commonwealth payments for specific purposes were quarantined (by the Commonwealth Treasurer) based on terms of reference requirements (CGC, pers. comm., 5 April 2018). The larger the share of excluded Commonwealth payments, the greater is the movement to more partial equalisation.

Quarantined payments made to a State can raise that State's 'effective relativity', enabling it to receive additional Commonwealth funds without the consequence of a reduction in its relativity as calculated by the CGC. For example, controversy about Western Australia's declining relativity following the mining investment boom led to the State receiving quarantined Commonwealth payments for infrastructure, amounting to over \$1.2 billion from 2014-15 to 2016-17 (appendix B; table B.1) (appendix B, table B.1; CGC 2018i; Commonwealth of Australia 2015a, 2016a, 2017b). The Commonwealth explicitly indicated that the payments were made to affect Western Australia's relativity:

The Commonwealth will invest ... [in] Western Australian infrastructure in 2016-17, to ensure that Western Australia's share of the GST is effectively maintained at its 2014-15 levels. (Morrison, Turnbull and Cormann 2016)

The role of HFE in compensating for differences between States

The system of HFE also corrects for structural differences between States in the costs of supplying services. These differences are referred to as disability factors. The CGC defines a disability as:

An influence beyond a State's control that requires it:

- to spend more (or less) per capita than the average to provide the average level of service, or
- to make a greater (or lesser) effort than the average to raise the average amount of revenue per capita. (CGC 2015g, p. 663)

Each State has its own distinctive features, such as geography, natural endowments, industry mix and population characteristics. Thus, some States are affected by disability factors more than others, and therefore face a constrained ability to raise revenue, or incur higher expenditures due to geography and population factors.

For instance, the Northern Territory's fiscal capacity is affected by its remoteness and the Indigenous share of its population. These affect the Northern Territory's expenditure levels. By contrast, the concentration of federal public servants in Canberra means that the ACT has a limited ability to raise payroll tax (because government payrolls are exempt), and it also has relatively low revenue raising capacity from land values and stamp duty (CGC 2017f).

For the States where there are structural, as opposed to cyclical, factors affecting revenue and expenditure GST payments are a significant part of their budget (chapter 4; figure 4.1). For example, in the Northern Territory, revenue from the GST pool accounted for 47 per cent of its total revenue in 2017-18 (Northern Territory Government 2017, p. 2), and in Tasmania, funding from the GST pool accounted for 41 per cent of its total revenue in 2017-18 (Tasmanian Government 2017, p. 83).

HFE at the local government level

The principle of HFE is also applied within States, through Financial Assistance Grants provided from the Commonwealth to local governments (via State governments). However, HFE is not the only guiding principle that applies to these grants and each council is entitled to a minimum grant amount (box 2.4). The HFE aspect of grants provided to local governments seeks to ensure that 'each local governing body in the State or Territory is able to function, by reasonable effort, at a standard not lower than the average standard of other local governing bodies in the State or Territory' (DIRD 2017c).

2.3 Calculation of the GST distribution

The decision made in 2000 to distribute GST to the States on the principle of HFE means that States do not receive an equal per capita distribution of GST because State circumstances and fiscal capacities differ. Hence, the CGC calculates the GST payment a State would require to give it the fiscal capacity to provide services at the same standard as the other States. This is a complex process involving many calculations. It is comprehensively outlined in CGC documents and so is not detailed at length here.

The categories of State revenue and expenditure considered by the CGC are listed in figure 2.7. The 'other revenue' category is a residual category for those State revenues that are not assessed in other revenue categories. The revenues that appear in this category are those for which reliable data could not be found to make an assessment, an assessment method could not be developed, or where an assessment was not material. As such, this category has no influence on the relativities calculated by the CGC, and therefore no implications for the distribution of GST payments (CGC 2015f, p. 120).

Box 2.4 HFE and local government funding

The Commonwealth's Financial Assistance Grant Program provides funding to local governments across Australia. The Program consists of two components:

- a general purpose component, which is distributed to the States on a per capita basis
- a local road component, distributed amongst the States based on fixed percentages that have a historic basis (DIRD 2017a).

State Grants Commissions in each jurisdiction (except the ACT) make recommendations on the distribution of funding to local government bodies in accordance with the *Local Government (Financial Assistance) Act 1995* (Cwth) and the National Principles for the allocation of Financial Assistance Grants (DIRD 2017c).

The National Principles for the allocation of grants stipulate that general purpose grants are to be distributed on the basis of HFE, subject to a minimum grant based on a nominal per capita distribution of 30 per cent. The Principles state that:

General purpose grants will be allocated to local governing bodies, as far as practicable, on a full horizontal equalisation basis as defined by the Act. This is a basis that ensures that each local governing body in the State/Territory is able to function, by reasonable effort, at a standard not lower than the average standard of other local governing bodies in the State. (DIRD 2017b, p. 46)

One participant at the Productivity Commission's hearing in Adelaide remarked:

The reason we don't fully equalise in that area [local government] is first of all there's a severe limitation on the amount of money which is far insufficient to fully equalise. And the other aspect is that there is a requirement in Federal legislation for a minimum grant so that even the best off Councils get this minimum grant. (Peter Emery, trans., p. 255)

The Under Treasurer of the Northern Territory stated:

... in terms of distribution of funding within the Northern Territory ... we do have funding formulas which account for issues like remoteness and indigeneity, school funding formulas, formulas for funding allocation of police and health resources, so there is I guess attempts made to ensure that the factors that influence costs and demand of services within the Northern Territory are taken into account in the ... allocation of funding and resources. (trans., p. 409)

Local governments that receive the minimum grant entitlement are typically located in capital cities or urban areas and have a greater than average capacity to provide services. In 2014-15, just over 44 per cent of the population resided in 'minimum grant' councils (PC 2017c, p. 12).

The size of the other revenue category can hence be viewed as one source of divergence between the theoretical objective of perfect equalisation, and the actual outcome of less than perfect equalisation (discussed in section 2.4). The share of State revenues classified in the 'other revenue' category is significant, ranging in 2016-17 from about one-quarter of Western Australia's own-source revenues to over 45 per cent for Tasmania (CGC 2018c). Nevertheless, the share of the other revenue category has fallen for all States in the past decade (figure 2.8). In total in 2016-17, about 37 per cent of revenues were assessed on an EPC basis, or near EPC basis, while about 18 per cent of expenditure was assessed on an EPC basis, or near EPC basis (with limited disabilities) (CGC, pers. comm., 5 April 2018). As acknowledged by the CGC:

... while precise (or complete) equalisation is the aspirational goal, in reality the Commission achieves proximate equalisation. (2017i, p. 4)

Figure 2.7 Categories of State revenue and expenditure

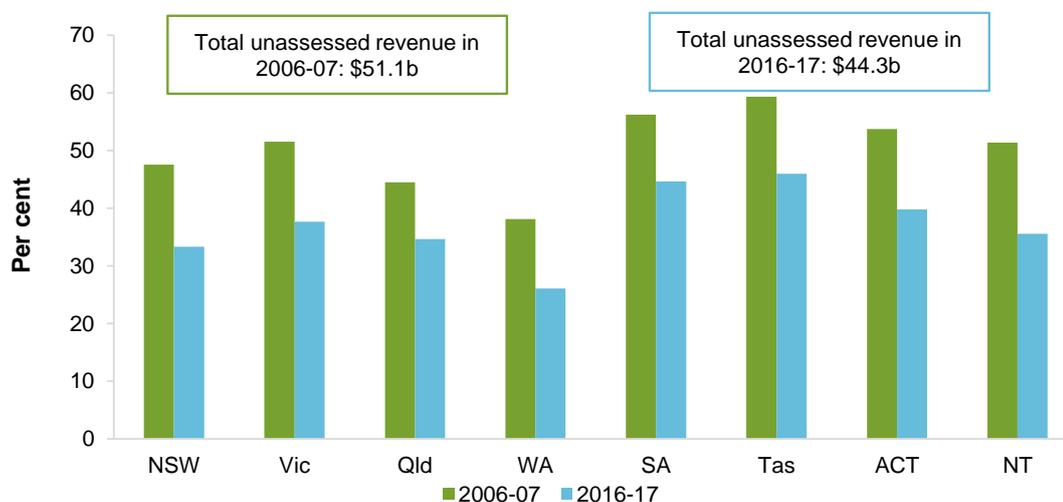
Revenue	Expenditure
Payroll tax	Schools education
Land tax	Post-secondary education
Stamp duty	Health
Insurance taxes	Welfare
Motor taxes	Housing
Mining revenue	Services to communities
Other revenue ^a	Justice services
Revenue from Commonwealth payments	Roads
	Transport services
	Services to industry
	Depreciation
	Investment ^b
	Other expenses ^c
	Net borrowing

^a Includes gambling taxes, user charges, fees and fines, interest and dividend income, contributions by trading enterprises, and other revenue, such as taxes to be abolished under the Intergovernmental Agreement on Federal Financial Relations. ^b Only refers to investment in new infrastructure and equipment. Replacement of existing assets is assumed to be funded by depreciation expense. ^c Includes expenses on general public services, natural disasters, and capital grants to local governments for community amenities, among other expenses.

Source: CGC (2015f).

Another illustration of the fact that equalisation is not precise in practice is the use of discounting by the CGC. In 2015, the discounting applied by the CGC (table 2.3) resulted in a total redistribution of \$503 million relative to a case where no discounting was applied (CGC 2015f, pp. 18–19).

Figure 2.8 State shares of unassessed revenue^{a,b}



^a Calculated as the amount of State revenue in the 'other revenue' category as a share of total State own-source revenue using the adjusted budget summaries published by the CGC. ^b Data for total revenue classified as 'other revenue' refers to 2016-17 dollar terms.

Sources: Productivity Commission estimates based on CGC (2013a, 2018c).

Table 2.3 Discounted assessments in the 2015 review

Assessment	Discount factor (per cent)
Police custody weights	12.5
Location — wage costs factor	12.5
Location — regional cost factors in police	12.5
Service delivery scale — factors in police	12.5
Net borrowing — assessed net borrowing	12.5
Land tax — differential land values	25
Health — proxy measures for community health socio-demographic composition and community health non-State sector adjustment	25
Location — regional costs assessment where the general regional costs gradient is extrapolated to other categories and the police gradient to other justice components	25
Service delivery scale — where factors are extrapolated	25

Source: CGC (2015f, p. 18).

Complexity and precision

Australia's system of HFE is comprehensive and complex, incorporating a large number of calculations, data, and judgements in constructing relativities. The complexity of the current system was an issue raised in several submissions to this inquiry (box 2.5).

Box 2.5 HFE complexity: what participants say

A number of submissions to this inquiry remarked upon the complexity of the HFE system. The Queensland Government:

Queensland recognises the current HFE system is complex and some parts can be difficult to comprehend. (trans, p. 587)

The ACT Government:

States and Territories themselves have often sought greater complexity in order to capture their special circumstances. Hence, simpler is not necessarily better. That said, the system has in many respects been simplified in recent years ... (sub. DR81, p. 9)

The NSW Government:

... the current system of HFE is complex and lacks transparency. (sub. 52, p. 1)

The WA Government (sub. 15, p. 82) alleged that with respect to assessments, there was great variance in approach and detail. They pointed out that while, for example, some assessments are based on population shares, others are highly detailed.

A contrary view was provided by the Tasmanian Government:

The distribution of the GST revenue will by its very nature invariably involve certain levels of complexity. However, the core concepts of the CGC methodology are straight-forward ... Tasmania does not believe the CGC methodologies to be unnecessarily complex ... (sub. 28, p. 37)

The Victorian Government considered that:

... the basic concept of the current HFE framework is not complex — it seeks to equalise the fiscal capacities of all jurisdictions through GST funds ... While the actual assessment of individual expense and revenue categories involve more complexity, this is not a level of detail that the public would ordinarily be expected to access without some background knowledge. Certainly, few members of the public would understand the complexities behind bilateral Commonwealth-state funding agreements and all the conditions that are often attached to such arrangements. (sub. DR87, p. 22)

The Northern Territory Government (sub. DR69, pp. 9, 23) stated that proposed alternatives to the current HFE system would result in more complexity and less administrative efficiency, instead proposing that an HFE advocate explain the intent of equalisation and the distribution methodology to the public. The SA Government (sub. DR89, p. 3, 16) remarked that many aspects of public policy are inevitably complex, and that the degree of complexity in the current system did not have any adverse consequences for stakeholders.

The NSW Business Chamber (sub. 27, p. 3) submitted that complexity was one of the criticisms that could be made about the current system, and contributed to the Chamber's previous support for moving to a simpler version of HFE underpinned by a per capita distribution of the GST pool. The Minerals Council of Australia (sub. 48, p. 6) also made reference to the complexity of assessment methods used by the CGC, as did the Association of Mining and Exploration Companies (sub. 23, p. 1), the Business Council of Australia (sub. 47, p. 2), and the Parliamentary Liberal Party of Western Australia (sub. 22, p. 2).

Some participants to this inquiry expressed a view that the methods and processes used by the CGC result in, or at least run the risk of, 'false precision' (Business Council of Australia, sub. 47, p. 6, NSW Government, sub. 52, p. 17). That is, despite finely detailed calculations, a number of assumptions and judgements are used in the process of making these calculations (such as discounting based on data reliability). Practices such as publishing relativities to five decimal places contribute to perceptions of false precision. Brumby, Carter

and Greiner (2012a) recommended an alteration to materiality thresholds and rounding relativities to two decimal places, but only the former was adopted, and only partially.

Against this, there are some areas where less precision is employed by the CGC — such as in the State revenues that are unassessed (illustrated in figure 2.8).

Nevertheless, a system of full and comprehensive equalisation will necessarily involve some degree of complexity. That said, a system that is overly complex risks undermining public confidence, if it is perceived as largely incomprehensible by all but a few.

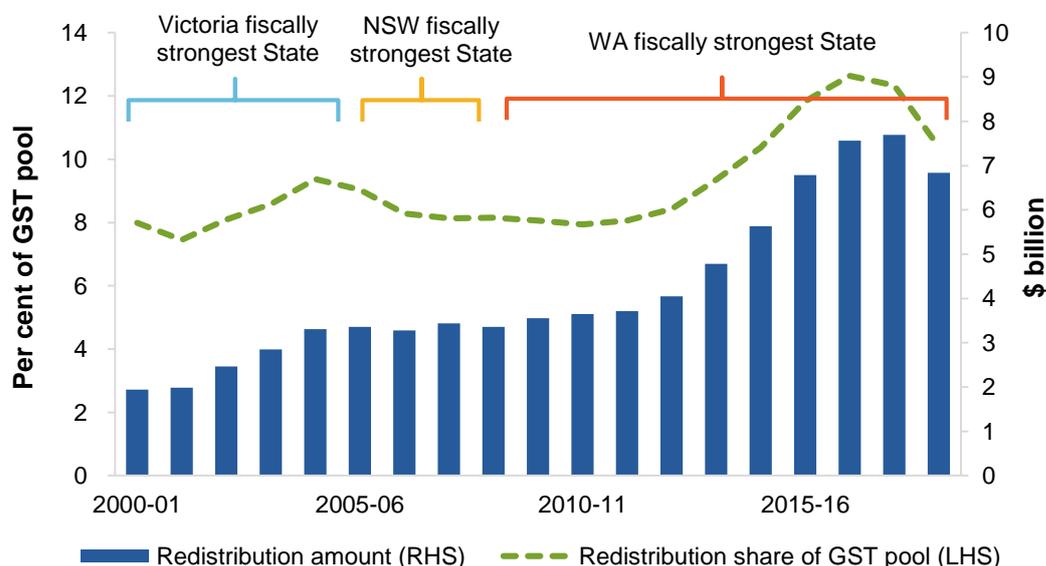
2.4 The size of the equalisation task

Measuring the equalisation task

The CGC has two ways of measuring the size of the equalisation task. The first is to identify the redistribution from States with above average fiscal capacity to those with below average fiscal capacity *after* GST has been distributed on an EPC basis. On this measure the redistribution task has increased from about 8 per cent of the GST pool in 2000-01 to about 10 per cent in 2018-19 (figure 2.9).

Alternatively and equivalently, the equalisation process can be thought of as distributing GST to bring the initial fiscal capacities of all States up to that of the strongest State (that is, the State with the smallest VFI), with the remaining GST distributed on an equal per capita basis in order to provide all States with the fiscal capacity to provide the same (average) level of services. The CGC started presenting this measure of the equalisation task in the 2011 update report, and this is depicted conceptually in figure 2.6 above. On this measure, the size of the equalisation task fluctuated between 14 per cent and 17 per cent of GST from 2000-01 to 2007-08, before rising to approximately 70 per cent of the pool in 2015-16 and 2016-17, and subsequently declining to 53 per cent in 2018-19 (figure 2.10) (CGC 2017f, p. 36, 2018h, p. 35).

Figure 2.9 **Share of GST pool not distributed on an equal per capita basis^{a,b}**



^a The share of the GST pool redistributed was calculated by taking the difference between actual GST distributions and equal per capita distributions for each State. Positive differences were summed, and then divided by the total GST pool for that year. ^b From 2000-01 to 2008-09, the CGC recommended relativities for distributing the pool of GST revenue plus Health Care Grants. Health Care Grants were not included in the calculations for this figure.

Sources: Productivity Commission estimated based on ABS (*Australian Demographic Statistics*, Dec 2016, Cat. no. 3101.0); Commonwealth of Australia (2017e); CGC (2017c, 2017f).

Drivers of the equalisation task

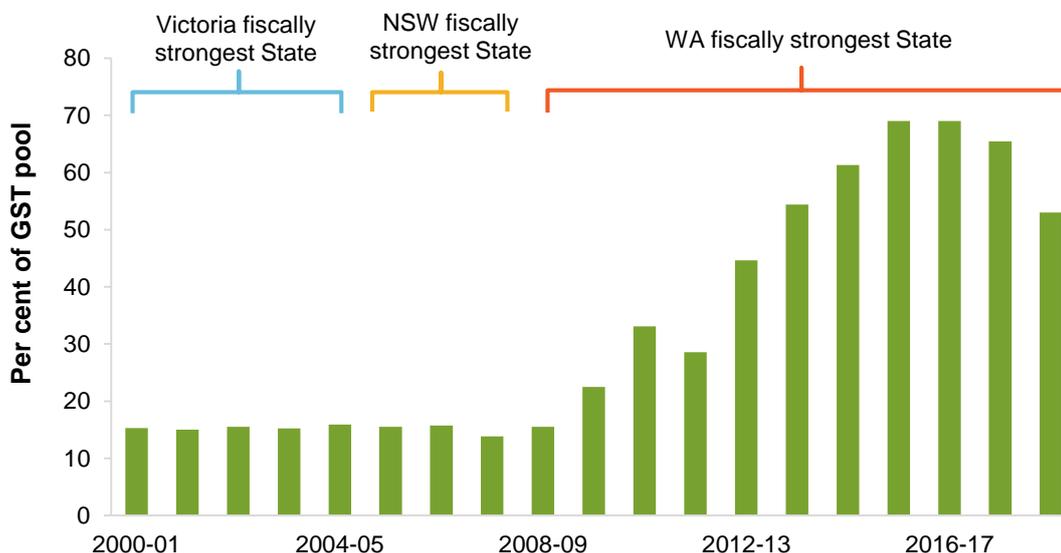
Changes in the financial circumstances and characteristics of States lead to changes in calculated relativities (as can changes in the methodology used to construct relativities). These changes may be driven by a mixture of structural and cyclical factors including demography, population dispersion, real estate markets and mineral endowments (table 2.4).

Some of the key factors affecting the redistribution of GST (away from an equal per capita distribution) most recently are mining production, remoteness and regional costs and Indigenous status. The Northern Territory, for instance, has been assessed to have a below average fiscal capacity since its entry into the HFE system in 1988-89.

Western Australia has historically had an expense disadvantage, caused by factors such as its above average shares of people living in remote areas and Indigenous population, as well as a below average share of non-State provision of health services (CGC 2016e, p. 21). Hence, disability factors have historically resulted in a higher relativity for Western Australia.

Figure 2.10 Size of the equalisation task

Share of GST pool required to give States the same fiscal capacity as the strongest State^a



^a From 2000-01 to 2008-09, the CGC recommended relativities for distributing the pool of GST revenue plus Health Care Grants. Health Care Grants were not included in the calculations for this figure.

Sources: CGC (2018h; pers. comm. 4 September 2017).

During the investment and construction phase of the mining boom, Western Australia’s relativity declined significantly, falling to the lowest of any State historically (chapter 1, figure 1.1). Due to recent falls in the value of iron ore production, Western Australia’s capacity to raise revenue from mining royalties has declined, leading to an increase in its relativity to reach 0.47 for 2018-19. Despite these recent developments, high levels of production are likely to continue for the foreseeable future, indicating that Western Australia’s relativity is likely to have structurally shifted to a lower level compared with the pre-mining boom era, reflecting its relatively stronger fiscal capacity (chapter 1).

Victoria, by contrast, has been experiencing strong competing fiscal capacity forces — population growth (one effect of which is to increase fiscal need) and corresponding activity in the property sector (resulting in increased revenue) (CGC 2018h, p. 9).

Table 2.4 Difference from an equal per capita distribution of GST
2018-19, \$million

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Redist^b</i>
<i>Revenue</i>									
Mining	1 977	2 810	-658	-4 927	486	178	188	-54	5 639
Property sales	-2 141	-242	442	793	760	240	38	109	2 383
Taxable payrolls	-536	423	478	-993	466	200	7	-46	1 575
Taxable land values	-449	-234	406	-173	266	95	64	25	857
Other revenue	193	124	-85	-231	-46	3	35	6	362
Total revenue	-956	2 882	583	-5 531	1 932	717	332	40	6 487
<i>Expenditure</i>									
Socio-demographic characteristics	-1 099	-3 393	1 853	478	509	599	-433	1 487	4 925
Wage costs	157	-390	-228	712	-242	-188	100	79	1 048
Urban centre size	258	700	-495	22	-112	-216	-50	-107	980
Administrative scale	-448	-301	-171	46	126	236	243	268	920
Small communities	-272	-249	88	160	62	22	-17	206	538
Population growth	-46	674	-79	-297	-172	-86	-29	35	710
Other expenses	-316	-640	87	468	-88	25	35	428	1 043
Total expenses^a	-2 088	-3 900	1 206	1 908	187	400	-216	2 503	6 204
Commonwealth payments	22	817	-505	5	69	-58	85	-434	997
Total	-3 021	-201	1 284	-3 618	2 188	1 059	200	2 109	6 840

^a Includes the effect of net borrowing. ^b Refers to total redistribution.

Source: CGC (2018h, p. 32).

To what extent does HFE achieve fiscal equalisation?

An evaluation of the extent of fiscal disparity between sub-central governments has been undertaken by the OECD (2013). Based on measurement of the Gini coefficient of tax raising capacity and the ratio of highest and lowest tax raising capacities before and after equalisation, Australia is found to have eliminated measured fiscal disparities among the sub-central governments (table 2.5). However, this does not mean that economic disparities are eliminated.

An earlier analysis by the CGC (2009) of the extent of equalisation that occurs in federated nations found similar results to the OECD. Specifically, comparing Australia with Canada and Germany in 2006-07, the CGC (2009, p. 99) found that, based on national definitions of equalisation (appendix E), Australia achieved full equalisation, while significant disparities remained in Canada, and some disparities remained in Germany.

Table 2.5 Fiscal disparities before and after equalisation
2012

Country	Gini coefficient of tax-raising capacity		Ratio of highest to lowest tax raising capacity	
	Before equalisation	After equalisation	Before equalisation	After equalisation
Australia	0.07	0.00	7.5	1.0
Austria		0.05		1.5
Canada	0.11	0.08	2.4	1.8
China (2010)	0.31	0.18	10.3	5.3
Germany (2005)	0.06	0.02	1.7	1.1
Italy	0.19	0.04	4.5	1.3
Spain	0.13	0.05	3.0	1.4
Switzerland	0.17	0.11	4.3	2.6

Source: OECD (2013, p. 105).

Even in Australia’s case however, equalisation is not perfect, as acknowledged by the CGC (2015f, p. 19). This is largely due to conceptual considerations and data limitations. For example, materiality thresholds mean that factors with a very small individual effect on the GST distribution do not result in redistribution of GST. As noted above, discounting is another illustration of the implementation of proximate, rather than precise, equalisation. Similarly, a sizable proportion of State revenues classified as ‘other revenue’ (nearly 40 per cent) are assessed on an equal per capita basis and therefore do not affect the distribution of GST payments (CGC 2018c).

Further, the fact that States are free to spend GST payments as they deem appropriate can also contribute to differences in outcomes across States — the expenditure preferences of State governments and State populations are not nationally uniform. In general, the effort made by States in providing services is about average for most expenditure categories, although there are some significant areas of exception (box 2.6).

At the aggregate level, there is also a divergence between actual and assessed expenditures (figure 2.11). However, caution should be exercised when interpreting differences between actual and assessed expenditures. Differences between actual and assessed expenses can be due to: State policy choices, efficiency of service provision, and disabilities not assessed (either because they could not be reliably measured or because they were not material) (CGC 2008, p. 2). Hence, part of any difference between actual and assessed expenditures may be attributable to efficiency considerations, but the extent of this attribution cannot be factually established.

Box 2.6 How are funds actually used?

GST distributed to the States is not tied to expenditures in particular areas, although the effort made by States in providing services is generally about average for various expenditure categories. That said, there are some significant exceptions, such as the low level of actual spending for services to communities in Tasmania and housing in South Australia, as well as the relatively high level of expenditure devoted to post-secondary education in the Northern Territory (shaded areas in the table below).

Some participants to this inquiry have expressed concerns that HFE revenue is not being used by States in a way that improves services or State structural disadvantage. For instance, Neil Warren (sub. 38, p. 3) suggested reforms were necessary to make States accountable for how HFE funds were actually spent. Similar concerns were expressed by Garnaut and FitzGerald (2002b) in their review of federal financial relations.

The Yothu Yindi Foundation (sub. DR80, p. 3) contended that 'Indigenous Territorians in particular retain unresolved concerns that the Northern Territory government does not fully apply the funds it receives as assessed by the CGC for the benefit of Indigenous people'.

The ACT Government (sub. DR81, pp. 21–22) cautioned against interpreting low actual to assessed expense ratios as indicating that funds were not being used in a manner that improves services or seeks to rectify structural disadvantage. They argued that low actual to assessed ratios may in some cases reflect a more efficient use of funds by a State, rather than a lower standard of service, or be due to 'legitimate' State policy choices. For instance, the category 'services to communities' comprises State general government recurrent spending for the provision of electricity, water and wastewater services (utilities subsidies) and a range of expenses for the administration of community amenities and environmental services (CGC 2015f, p. 276). Hence, Tasmania's low ratio of actual to assessed expenses in this category may reflect a relatively small proportion of funds provided as subsidies for utilities.

Selected 'effort' ratios

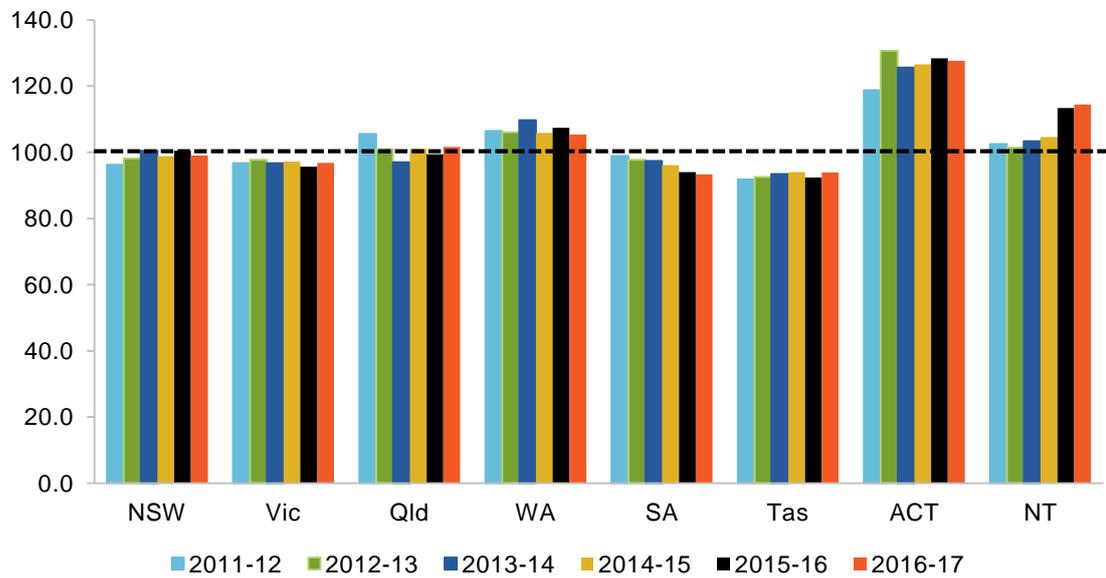
Ratio of actual to assessed expenses, 2016-17 assessment year^{a,b}

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Schools education	101.7	93.5	98.7	107.1	103.1	105.4	108.6	102.3
Post-secondary education	87.7	119.4	91.8	90.4	103.4	86.7	121.2	200.6
Health	92.1	95.1	110.4	111.1	98.5	89.7	118.5	122.5
Housing	94.9	101.5	105.2	141.2	7.2	81.5	152.0	164.9
Welfare	96.1	102.9	86.3	116.9	128.9	87.5	117.4	90.3
Services to communities	69.0	96.8	122.7	168.3	75.0	28.1	65.3	88.7
Roads	99.7	125.7	81.2	112.3	72.8	77.8	60.2	96.0
Transport	131.0	91.1	89.4	71.1	62.6	75.7	42.7	156.2

^a The ratio of actual to assessed expenses of a State is the ratio of its actual expenses per capita to its assessed expenses per capita. A ratio of 100 suggests a State is spending at average levels. A ratio greater than 100 suggests a State is spending more than average, given its characteristics. A ratio below 100 suggests below average levels of spending. ^b Shaded entries highlight areas of significant difference between actual and assessed expenses.

Source: CGC (2018g).

Figure 2.11 Actual to assessed expenditure ratios



Sources: CGC (2016f, 2018g).

FINDING 2.1

Australia achieves a high degree of horizontal fiscal equalisation and to a much greater extent than other countries. It is the only OECD country with a federal government that seeks to fully eliminate disparities in fiscal capacity between sub-national governments.

3 Does HFE influence States' incentives to undertake reforms?

Key points

- Despite the CGC's aspiration and endeavour, Australia's HFE system is not policy neutral. State policy decisions can and do influence the share of GST revenue flowing to each State.
- On the revenue side, changes in one State's tax rates generally have a small impact on GST shares. However, the effect can be substantial in some circumstances — such as large tax reforms where one State departs from what other States do on average, or where State policy has a significant influence on the size of a tax base (such as mining activity in some States).
 - HFE can discourage efficiency-enhancing reform or resource development where, as a consequence, a State experiences a large reduction in GST payments, or where the GST impacts of reform are uncertain. Though there is no direct evidence to link such incentives to individual policy changes, there is likely to be an effect on policy decisions at the margin.
 - The impacts can be pronounced where a State significantly reforms an existing tax. Policy cameos suggest that revenue-neutral reform can have significant effects on GST payments for some States — especially if done unilaterally — which would pose a first-mover disadvantage to reform.
- Definitive evidence that HFE influences State policy decisions is unsurprisingly scant, although there is some limited international evidence.
- On the expenditure side, changes in State policy can affect GST shares, though the potential to do so is much lower than on the revenue side. There is no compelling case that Australia's HFE system systematically biases State expenditure policy.
 - HFE is unlikely to directly discourage (nor encourage) States from improving the efficiency of service delivery or addressing their structural disadvantages given the broader benefits of doing so to the community. A greater driver of expenditure effort is accountability, which is lacking due to vertical fiscal imbalance and blurred funding responsibilities.
- The potential for HFE to distort State policy is pronounced for mineral and energy resources. States that increase mineral production or royalty rates will lose much of the additional revenue to equalisation — such that they retain as little as their population share of any increase in revenue or bear as little as their population share of any decrease.
 - These perverse incentives are largely driven by the high concentration of mineral production in several States, and were exacerbated by the mining boom. The incentives have the potential to distort trade-offs States make between fiscal and other policy objectives, including controversial decisions to facilitate or restrict resource extraction.
 - To some extent, these incentives are an inevitable consequence of pursuing full and comprehensive equalisation with disparate treatment of revenues, which has embedded policy non-neutrality in the HFE system.
 - Previous reviews have dealt extensively with the equalisation of resource development costs. The Commission has not received any new or compelling evidence that the treatment of mining-related expenditures requires change.

The terms of reference ask the Commission to consider the effect of Australia's system of horizontal fiscal equalisation (HFE) on productivity, economic growth and budget management, with a particular focus on the development or restriction of mineral and energy resources. This chapter does so through the lens of whether HFE influences State policy decisions. Sections 3.1 and 3.2 look at State tax and expenditure reforms respectively. Section 3.3 focuses specifically on mineral and energy resources, where the potential impacts of HFE have been highly contentious.

3.1 State tax reform

Australia's HFE system is designed to equalise the fiscal capacity of all States. The Commonwealth Grants Commission (CGC) does this by first assuming that each State has the capacity to levy the average tax rate on its tax base (adjusted, where necessary, to reflect average exemptions and thresholds). It then uses GST payments to even out differences in capacity across States (chapter 2). In this way, States with stronger revenue bases (for example, due to high wages or mineral royalties) receive less GST than States with weaker revenue bases.

This method is intended to be policy neutral — that is, GST shares should reflect structural differences across States but should not be affected by an individual State's policy decisions, including the mixture of revenue bases that it chooses to tax. But the formula is complex, and in practice State policy can directly influence components of the formula, such as national average tax rates or the size of actual tax bases, and hence GST shares (box 3.1).

The academic literature has found that these effects are likely to be present in most countries that implement equalisation based on representative tax bases, including Canada, Germany and Australia (Buettner 2005; Dahlby and Warren 2003; Karkalakos and Kotsogiannis 2005). This approach, based on average rates of specific taxes, may lead to 'double counting' of tax bases and not always align with long-term measures of fiscal (or tax-paying) capacity, such as household disposable income (Peter Abelson, sub. 9; Garnaut and FitzGerald 2002b, p. 167). Such alternative measures are discussed further in chapter 7.

Moreover, the literature also notes that because most HFE systems are forms of redistribution based on observable indicators that can be influenced by governments, adverse incentive effects are, *in principle*, inescapable (Boadway 2004, p. 216). The precise form of equalisation and how it is implemented will influence the nature and extent of these incentives in practice.

Box 3.1 How does State tax reform affect GST shares?

Changes in tax rates

An increase in a tax rate in one State affects GST shares through:

- the average-rate ('Robin Hood') effect — the higher tax rate increases the national weighted-average rate, which can either reduce GST payments (for States with a relatively large share of the tax base) or increase GST payments (for States with a relatively low share)
- the elasticity effect — the higher tax rate leads to a reduction in the State's own tax base, due to lower demand or the movement of resources to other States. The State's GST payments increase as it is assessed as having lower revenue-raising capacity.

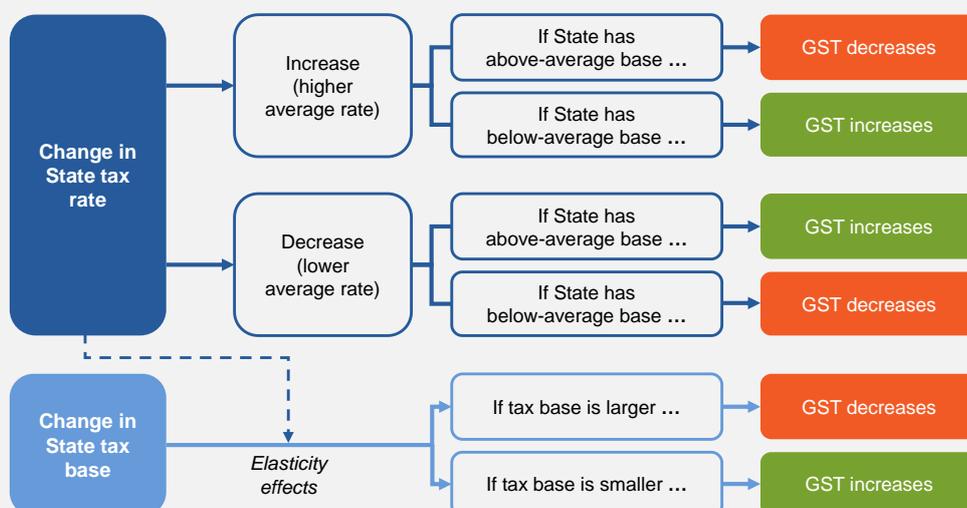
The reverse occurs for a decrease in a tax rate, as shown in the figure below. The effects occur because an increase or decrease in tax rates changes a State's position *relative* to other States.

The average-rate effect will at times be reduced (or more than offset) by the consequent elasticity effect. This change in the tax base means a change in assessed capacity, and thus a State's position relative to the other jurisdictions. In other cases, the elasticity effect will operate in the same direction as the average-rate effect and further increase or reduce the State's GST share.

In general, the average-rate effect is greater for States with larger shares of the national revenue base (as they have more scope to influence the national average). The elasticity effect is greater — all else equal — for smaller States, those with tax bases that are more responsive (elastic) to tax changes, and States with tax rates very different to the average.

Changes in tax bases

GST effects also occur when policy affects the size of a tax base — for example, due to additional land being made available for development, State approval of resource extraction or reform by broadening a tax base. Any change in the size of the base affects a State's capacity or needs compared to other States, with the HFE formula acting to equalise the changes across all States. This means that a State that expands its tax base will see all but its population share of the additional revenue (calculated at the average rate, which may rise or fall due to the tax-base change) redistributed to other States, and vice versa. Further GST effects would arise from impacts on the average tax rate (which is weighted using each State's tax base).



Sources: Boadway (2004); Bucovetsky and Smart (2002); Dahlby and Warren (2003).

How does HFE discourage State tax reform?

In principle, the GST distribution formula can influence State policy incentives in several ways.

First, the formula gives States a financial incentive to rely on inefficient taxes — namely those with a mobile (elastic) tax base. Reducing the rate of these taxes would see a relatively large increase in the tax base, all else equal, and thus a reduction in the State's GST payments. By way of example, if a State with high insurance taxes were to lower its tax rate, the reduced cost of insurance would lead to greater take-up by households and businesses. But this larger tax base would mean the State is assessed as having a higher revenue-raising capacity, and so receives less in GST payments. If the State's capacity was initially below average, the effect on GST payments would be exacerbated by the downward impact on the average tax rate (Dahlby and Warren 2003).

Second, GST effects can arise where a State seeks to reform its tax base mix — for example, phasing out insurance tax and replacing it with a new congestion tax — and can either offset or exacerbate the direct revenue effects. In this example, the State would lose revenue if the CGC deemed that it still had the capacity to tax insurance and the imputed tax base expanded because of the lower tax rate (though the lower average rate would partly reduce the GST impact). The impact of the new congestion tax would be more ambiguous, as some revenues may be shared with other States through equalisation (if the State is assessed as having above-average capacity) or, alternatively, may not be subject to equalisation at all (if the new tax is not considered to have a material distributional impact at the national level) (Brumby, Carter and Greiner 2012a, p. 68). The impacts will also depend on the size of the State, because States will generally only retain their population share of any changes in their fiscal capacity — anywhere from 1 per cent (for the Northern Territory) up to 32 per cent (for New South Wales).

Third, a range of State policies can have a material impact on economic growth and productivity over the long term, and thus change the size of individual State tax bases (Henry et al. 2010a; PC 2005) — with a direct flow-on effect to a State's assessed capacity to raise revenue. For example, the WA Government (sub. DR83, p. 12) argued that land values (the land tax base) are sensitive to State policies on land supply, zoning and planning regulation. Any changes relative to other States will affect GST shares — in general, a State will only retain a small proportion of any additional tax revenue it collects from a larger tax base, and bear only a small proportion of any reduction in revenue (box 3.1).

In some specific revenue areas, the above GST impacts can be moderated by other components of the formula. For example, the CGC currently applies an average tax-free threshold to its assessment of payroll tax, the largest own-source revenue item in most State budgets. This process means that actions by one State to broaden or narrow its payroll tax base are unlikely to have a significant influence on its GST payments (box 3.2).

Box 3.2 The payroll tax assessment

The CGC assesses each State's capacity to raise payroll taxes in a broadly similar manner to other taxes: it calculates an average tax rate (weighted using each State's tax base) then estimates how much revenue each State would raise if it were to apply that average rate.

However, calculating the tax base for each State — taxable remuneration (payrolls) — is a complex exercise that involves the CGC making adjustments for the different coverage of payroll taxes across States (CGC 2015f, pp. 54–61). General government payrolls are removed from the tax base measure, since these are either untaxed or any tax collected reflects an internal budget transfer within States. An average threshold is then calculated, based on the tax-free threshold in each State (weighted by States' shares of total payrolls). This is done separately for the private sector and taxable public sector (government business enterprises and universities). The CGC then uses a measure of the value of payrolls in each State that is above the *average* threshold.

This is intended to produce a policy-neutral approach to assessing payroll tax capacity (CGC 2015f, p. 58). Because the tax base is derived from a measure of an average threshold — not the value of payrolls above the *actual* threshold that applies in a given State — a policy change in one State to narrow or broaden its payroll tax base by changing its threshold is unlikely to have significant impacts on the GST distribution. (The Productivity Commission has not quantified the size of these impacts — and thus any reform disincentives — given the need for customised data drawn from confidential business-level payroll data by the ABS, and because there are limited publicly available elasticity estimates).

That said, payroll tax is in principle a highly efficient tax, setting aside the (often considerable) economic distortions that arise from tax-free thresholds (Henry et al. 2010a, p. 13). This means that the elasticity effects of a rise in one State's tax rate — and thus the impact on its GST payments — are likely to be small.

Regardless of the mechanics in the formula, the potential to lose GST payments could discourage States from pursuing efficiency-enhancing reforms that would benefit the wellbeing of Australians. Conversely, the potential to gain GST payments at the expense of other States could encourage States to favour particular policy changes regardless of their efficiency implications. Policy is most likely to be influenced when the effect on GST payments is large, or when raising revenue is the primary objective of a reform.

Inquiry participants pointed to a number of potential policy distortions that can arise due to HFE (box 3.3). For example, the WA Government (sub. 15) submitted that the GST formula gives States a stronger incentive to raise tax rates than to pursue structural reforms that grow the tax base (or to pursue efforts to improve tax compliance). It also argued that the redistribution of revenue gains to other States makes it less likely that a State will undertake significant structural reforms with high upfront costs and long-term benefits (WA Government, sub. DR83, p. 13). The NSW Government (sub. 52, p. 13) argued that HFE can discourage a State from adjusting its tax base mix to better align with the structure of its economy or to extract the greatest value from available tax bases.

These effects could be stronger in cases where the costs States incur in material policy effort are not fully shared with other jurisdictions through equalisation. Others have argued that, in general, HFE diminishes incentives to undertake contentious reforms because State

Governments must bear all the political costs but see the fiscal benefits diluted (Ergas and Pincus 2011, p. 8).

States could also be discouraged from pursuing reforms due to uncertainty about how the CGC will assess their revenues, and thus about the effects on their GST payments (and total revenues) (Queensland Government, sub. 32, p. 7; Fahrer and FitzGerald, sub. DR102, p. 9). The CGC has considerable discretion over the methodology it adopts and to change that methodology as it sees fit (chapter 2). Uncertainty is likely to be greatest in the case of more substantive reforms — for example, substituting a broader land tax for stamp duty on housing, or introducing a congestion tax in a major city. The NSW Government (sub. 52, p. 14) submitted that it can sometimes be difficult to anticipate how the CGC might change its methodology:

The CGC treatment of a potential policy change is uncertain. State Governments must necessarily consult with the CGC and Commonwealth to secure a determination on a proposed treatment before initiating any such reform with confidence regarding its fiscal outcomes — and even then the final outcome will only be known once all other states' policy approaches are known.

That said, in many cases the GST effects of reforms will be small or not a deciding factor in policy decisions (ACT Government, sub. DR81, p. 25). Several States argued that they primarily focus on economic efficiency, distributional impacts and community welfare when considering tax reform proposals — rather than on how reform might impact their GST share (box 3.3).

Other jurisdictions pointed to tax reforms that smaller States have undertaken regardless of the GST impacts (such as abolishing some inefficient taxes or altering payroll taxes), or argued that HFE can facilitate multilateral reform (in all States) by offsetting impacts on States' overall revenues and thus providing a level of fiscal certainty (SA Government, sub. 25, p. 12; Tasmanian Government, sub. 28, p. 14; NT Government, sub. 51, p. 20; sub. DR89, p. 14; Queensland Government, sub. DR106, p. 6).

The CGC (2017i, p. 25) has acknowledged that States may consider the GST effects of their policy decisions. In general, it examines the policy neutrality of its assessments when considering methodological changes (chapter 2) — though often it is not able to remove the potential for State policy to directly influence GST shares. The CGC is currently undertaking research on whether elasticity effects can be reliably estimated and applied to its revenue assessments. Elasticity adjustments to substantively address policy non-neutrality in the HFE system are neither imminent nor immediately feasible. Their potential is explored further in chapter 7.

Box 3.3 HFE and State tax reform: what participants say

Some participants argued that HFE discourages States from undertaking tax reform or from developing their economies:

[I]t would appear to us quite reasonable that any state Treasury would consider and model the impact on GST receipts of any tax reform — it would be negligent not to. The outcome of this consideration may not determine the decisions made or policies adopted as it is just one of a number of considerations and our observation of recent tax reform proposals is that political rather than fiscal considerations have been paramount. However, this may not always be the case. (SACOSS, sub. DR75, p. 3)

There is a disincentive [from HFE] to undertake microeconomic reform (such as tax reform) that requires compensation for losers, incentivising States to maintain the status quo and free-ride on stronger States. (WA Government, sub. 15, p. 50)

The CGC seeks to equalise revenue capacity on an individual assessment of various taxation bases ... This approach can distort state decisions to alter their tax mix to enhance economic efficiency and minimise deadweight losses. (NSW Government, sub. 52, p. 13)

[T]here are ... some circumstances in which the distribution of the GST may be materially affected by State tax reforms and in such circumstances, States may be disincentivised from participating in reform. (ACT Government, sub. DR81, p. 23)

[E]qualisation diminishes incentives for states to make difficult political and policy decisions that promote economic development, because they know they will receive a significantly diminished amount of GST if their state-based revenue increases ... (CCIWA, sub. 11, p. 1)

Others disagreed, and argued that State policy decisions are determined by other factors, with GST effects playing at most only a minor role:

The overall fiscal impact of unilateral tax reforms tends to weigh more highly than GST revenue implications in the decision-making process, including level of additional tax revenue to be raised, revenue stability and increased efficiency of a state's tax regime. (NT Government, sub. 51, p. 19)

[A] distinction must be made between incentives or problems that exist in theory, and those where there is evidence of the problem in practice. While it may be technically possible for States to influence their GST shares at the margin ... Queensland continues to remain unaware of any evidence that this is a factor for governments in the setting of expenditure and revenue policies. ... Where potential HFE impacts are considered in the policy decision making process, they are at best fourth or fifth order considerations. (Queensland Government, sub. DR106, p. 6)

[M]ost of those [GST effects] when you're talking about individual tax measures are very, very marginal. I mean you'd have to be thinking about some major significant rethink of a whole jurisdiction's tax system before you would start thinking about what does this do to the GST. (Victorian Government, trans., p. 147)

While the related GST impacts may well have been considered by some states as part of the broader policy development process, there is no evidence that they drove the ultimate decisions. State policies are influenced by a wide range of considerations, including community support, social impacts and economic factors. (SA Government, sub. DR89, p. 12)

Governments make a wide-range of policy decisions, regardless of negative GST consequences. In reality, in considering tax reform, States are concerned with broader economic development issues, rather than temporal direct fiscal consequences. If this were not the case, no State would ever provide tax relief. (Tasmanian Government, sub. DR74, p. 6)

Estimates of State tax policy impacts on GST payments

There have been several previous attempts to quantify the impact that a change in State tax rates would have on a State's GST payments (box 3.4). Past research has found that changes in average tax rates mostly have small effects on States' GST payments, with the elasticity effects being larger. These findings are generally consistent with the Productivity Commission's estimates of small average-rate effects for most selected tax types (table 3.1; appendix C). The main exception is iron ore royalties — for which Western Australia has a very large share of the revenue base (section 3.3) — and other mineral royalties, though there are also moderate effects on NSW's GST share from land tax rates and stamp duties on property.

Table 3.1 Average-rate effects per \$100 revenue increase, 2016-17^a

<i>Revenue category</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
	\$	\$	\$	\$	\$	\$	\$	\$
Insurance tax	-2.6	1.9	0.7	0.3	-0.5	0.4	0.1	-0.1
Land tax on income-producing property	-7.5	-3.7	5.6	-0.2	3.5	1.2	0.8	0.3
Iron ore royalties	32.0	25.6	20.0	-87.9	6.1	1.5	1.7	1.0
Taxes on heavy vehicles	5.3	0.8	-1.3	-5.2	-0.2	-0.3	1.3	-0.3
Payroll tax	-2.9	1.3	2.1	-3.1	1.9	0.8	-0.1	-0.2
Stamp duty on property	-10.4	-1.5	1.5	5.3	3.4	1.0	0.0	0.6

^a Figures indicate the change in each State's GST payments, in dollars, for a \$100 increase in revenue raised by a tax-rate increase in any State (the amount by which that State's tax rate needs to increase to raise the \$100 in revenue will depend on the State), assuming no change in the size of tax bases. – Nil or rounded to zero.

Sources: Productivity Commission estimates based on data provided by the CGC; Appendix C.

However, there are circumstances where the impacts can be very large — such as an individual State undertaking major reforms to its tax base mix. Often this is because of changes in tax bases, which tend to have a larger impact on GST payments than average-rate effects — and changes in tax bases can significantly impact GST shares even for a State that does not have a dominant share of a tax base. Where reforms involve substantial modification to existing taxes, a State acting unilaterally could find itself deviating far from average policy — with a correspondingly large impact on its GST payments that could serve as a first-mover disadvantage to State tax reform.

The Productivity Commission has analysed three reform 'cameos' to illustrate how tax or expenditure reforms can significantly affect a State's GST payments (table 3.2; appendix C). All three cameos represent potentially efficiency-enhancing tax reforms.

Box 3.4 HFE and State tax reform: the evidence

2012 GST Distribution Review

The 2012 GST Distribution Review produced estimates of average-rate effects across all main tax categories and all jurisdictions in 2010-11 (in response to a tax rate increase in any one State). Its estimates were less than 5 cents per \$1 change in own-source revenue for most tax categories, with a median effect of less than 1 cent (Brumby, Carter and Greiner 2012c, p. 30). The exception was mining, where the effects were large (up to 42 cents for Western Australia). In the event of a State increasing one tax and reducing another (for example, to make a reform revenue neutral), there would be two average-rate effects to take into account.

The 2012 Review also examined the effects of hypothetical tax reforms (which were revenue neutral in terms of own-source revenue). In the case of *all* States replacing stamp duties on housing with broad-based land taxes, the effects on annual GST payments ranged from a \$455 million increase for New South Wales to a \$264 million decrease for Western Australia (Brumby, Carter and Greiner 2012c, p. 33). These estimates did not include elasticity effects.

State Government estimates

Several State Governments have also estimated the GST effects of hypothetical policy changes, often to illustrate that the effects of unilateral reform can be large. For example, in its submission to this inquiry, the WA Government (sub. 15, p. 54) estimated that:

- if Western Australia replaced its iron ore royalties with a revenue-neutral rate increase in payroll tax, its GST payments would increase by \$2.8 billion a year
- similarly, if Queensland replaced its coal royalties with additional stamp duty it would see its GST payments increase by \$1.4 billion a year
- to raise an additional \$1 billion in revenue net of HFE, Western Australia would need to raise iron ore royalties by over \$8 billion, compared with just \$950 million for stamp duty.

The magnitude of these effects is heavily contingent on, and sensitive to, assumptions about mineral prices and hence royalty revenues.

The NSW Government (sub. 52, pp. 15–16) estimated the impact of Victoria unilaterally introducing congestion pricing on major roads. It submitted that the collection of \$900 million in revenues by Victoria would be offset by a loss of \$22 million in GST payments to that State. At the same time, Queensland would gain \$53 million and New South Wales would lose \$47 million, despite neither having introduced a similar charge.

Academic literature

There have been few attempts to estimate elasticity effects in Australia, in part because this requires assumptions to be made about how tax bases will respond to tax rate changes. One study found that an additional \$1 in land tax revenue in 2000-01 would be accompanied by an increase in GST payments of 23 to 49 cents across States due to the elasticity effect (on the assumption that land taxes are capitalised into land values) (Dahlby and Warren 2003, p. 440).

These cameos show a single-year impact on GST payments of major changes in a State's tax base mix — in this sense, it is a 'comparative static' analysis. The analysis does *not* assume that these reforms would be implemented in a single year. In practice, such reforms are likely to be complex endeavours that require lengthy transition periods, especially where there are

distributional consequences or implementation is complex (appendix C discusses this further). In the ACT's case, for example, the replacement of stamp duties on housing with municipal duties (economically similar to a land tax) is being phased in over a 20-year period (ACT Government 2017). The simplifying assumption used for these cameos is that the reforms had already been fully phased in *prior* to the year for which GST effects are calculated (2016-17), and the estimates apply regardless of the length of time over which reforms are phased in.

The cameos also rest on other assumptions, including how the new taxes would be structured and how the CGC would treat these taxes in its assessments. Appendix C explains these assumptions in more detail. Some inquiry participants questioned the assumptions underlying the cameos in the draft report (box 3.5).

Box 3.5 Response to the cameos in the draft report

Some States raised objections to the cameos presented in the Productivity Commission's draft report (cameos 1 and 3). The SA Government (sub. DR89, pp. 13-14) argued that the cameos are 'unrealistic examples that yield distorted results', and instead favoured a focus on observed State behaviour. The Victorian Government (sub. DR87, p. 19) estimated that the unilateral stamp duty–land tax cameo would only affect Victoria's GST payment by \$10 million if elasticity effects were disregarded. Both jurisdictions stated that they generally would not consider elasticity effects in their financial modelling to support tax policy decision making (Victorian Government, sub. DR87, p. 19; SA Government, sub. DR89, p. 13).

The Tasmanian Government argued that the cameos do not provide evidence that GST impacts drive State behaviour:

I think the cameos as presented, at best, illustrate that under certain circumstances something is theoretically possible. ... [I]t's sort of an n-th order issue when you start looking at tax reform or other reforms. So simply because something is theoretically possible under certain circumstances doesn't mean that it's supportive or evidence that that is driving a particular behaviour. (trans., p. 452)

The Commission's cameos are not intended to represent how tax reforms would be implemented in practice — they only show a one year GST impact and involve a range of simplifying assumptions. Rather, the cameos illustrate that large scale tax reform — regardless of how it is implemented — can ultimately lead to changes in State tax bases and thus flow through HFE formulas to affect a State's GST payments.

Cameo 1: Replacing stamp duty with land tax

The first cameo involves a single State halving its average rate of stamp duty on property and replacing the lost revenue with a new broad-based tax on all residential land. Economists have widely recognised that this would improve efficiency by removing a constraint on people moving house (stamp duty). Raising revenue in this way also makes it difficult for people to avoid paying the tax by changing their behaviour (Henry et al. 2010a; PC 2017d). This cameo uses empirical estimates of stamp duty elasticities — which specify how much the tax base would expand over time if duty rates were lowered (Davidoff and Leigh 2013).

The net effect is a reduction in GST payments for any State that undertakes this reform unilaterally, with the ACT and Queensland experiencing the largest reduction on a per-capita basis. In absolute terms, the annual net impact on each of New South Wales, Victoria and Queensland could be a reduction of about \$1 billion. These are material impacts, at about 2 per cent of total revenues.

The impacts are much smaller in the case of multilateral reform, as the national average stamp duty rate would also fall by half (bringing down assessed revenue in all States). Indeed, because no State would be a big outlier from average policy after multilateral reform, some States would see a modest gain in GST payments whereas others would still experience a reduction (depending on where each State stands in relation to the average for each tax base).

Cameo 2: Abolishing insurance taxes

The second cameo illustrates what would happen if a State abolished its insurance taxes. Insurance taxes are among the most inefficient of all taxes, because they discourage households and businesses from taking out adequate levels of insurance cover (or any insurance at all) (Henry et al. 2010b, pp. 472–473). The inefficiency of State insurance taxes — and calls for their removal — was recognised by some inquiry participants (ICA, sub. DR70, p. 3; FSC, sub. DR90, p. 2), as well as by the Henry Review (Henry et al. 2010b, p. 474) and the Productivity Commission on several occasions (PC 2014b, 2018).

All States would lose from unilateral reform because their tax base has increased (due to increased demand for insurance) and because they are still assessed as having the capacity to raise revenue through insurance taxes (the extent of the increase was calculated using published estimates (Tooth 2015, p. 28)). The GST impacts of this reform are typically small due to the small size of the insurance tax base (just over \$5 billion nationally in 2016-17). The total impact is greatest for Victoria (a loss of \$87 million), while the per-capita impact is greatest for South Australia (a loss of \$17 per capita). If all States were to multilaterally abolish their insurance taxes the effect would be the same as if insurance taxes were removed from HFE completely (the GST impacts are the same as the CGC’s insurance tax assessment with the signs reversed — in other words, removing insurance taxes would effectively ‘rebate’ the current assessment).

Cameo 3: Congestion tax with increased public transport spending

The third cameo involves a State introducing a new type of congestion tax and hypothecating the revenue to public transport. Congestion taxes and other forms of direct road-user charging have been identified as efficiency-enhancing reforms with the potential to reduce travel times and pollution, and better channel new investment to areas where roads are most highly valued (Henry et al. 2010a; PC 2014c, 2017d).

Table 3.2 Impact on GST payments of hypothetical reforms, 2016-17^a

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Cameo 1: Stamp duty halved with revenue replaced by new land tax^b								
<i>Unilateral reform</i>								
GST, lower bound (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
GST, lower bound (\$pc)	-43	-56	-63	-51	-48	-45	-82	-39
GST, upper bound (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
GST, upper bound (\$pc)	-164	-189	-201	-143	-146	-152	-283	-132
<i>Multilateral reform</i>								
GST, lower bound (\$m)	135	-18	380	-306	-157	-19	-2	-13
GST, lower bound (\$pc)	17	-3	78	-119	-91	-37	-5	-55
GST, upper bound (\$m)	100	-13	281	-227	-116	-14	-1	-10
GST, upper bound (\$pc)	13	-2	58	-88	-68	-27	-3	-41
Cameo 2: Abolishing insurance taxes								
Loss in own-source revenue (\$m)	1 985	1 218	828	661	479	104	20	43
<i>Unilateral reform</i>								
GST (\$m)	-16	-87	-61	-37	-30	-8	-4	-3
GST (\$pc)	-2	-14	-12	-14	-17	-15	-9	-11
<i>Multilateral reform</i>								
GST (\$m)	136	-99	-35	-14	29	-20	-4	6
GST (\$pc)	17	-16	-7	-5	17	-38	-9	26
Cameo 3: New congestion tax introduced and hypothecated to public transport^c								
Congestion tax revenue (\$m)	1 560	1 249	977	514	343	104	81	49
<i>Unilateral reform</i>								
GST (\$m)	73	19	-36	2	-3	-2	0	0
GST (\$pc)	9	3	-7	1	-2	-3	-1	-2
<i>Multilateral reform</i>								
GST (\$m)	227	76	-8	-91	-62	-43	-70	-28
GST (\$pc)	29	12	-2	-35	-36	-83	-172	-113

^a All three cameos are evaluated on a 'steady state' basis; that is, assuming the new policy was fully in place in 2016-17. No transition paths are evaluated. ^b Cameo 1 uses two values for the elasticity of stamp duty revenue to duty rates, and thus produces lower and upper bound estimates. ^c Cameo 3 is associated with a higher per-capita stock of public transport infrastructure. The analysis only covers the operating and depreciation costs associated with maintaining this higher stock.

Sources: Productivity Commission estimates based on data provided by the CGC; Appendix C.

In this cameo, the new congestion tax is designed to raise revenue equivalent to \$200 per capita (though in the smaller jurisdictions with little congestion it may be more akin to a road user charge). The impacts on GST shares are much more modest than in cameo 1 (with the effects of multilateral reform being higher than for unilateral reform) — and less than 1 per cent of revenues for all States except the ACT. This is partly driven by the assumption that the congestion tax would not affect the size of the underlying tax base (total kilometres travelled in each State's capital city) — an assumption made because estimates for the

elasticity of kilometres travelled to a new congestion tax are not available. In practice, the congestion tax would be expected to reduce total kilometres travelled, which would moderate the GST impacts on States undertaking this reform (because the base and therefore revenue they ultimately collect from the tax would be less).

Evidence of policy distortions

Whether such GST effects — or uncertainty about their magnitude — actually influence policy choices is difficult to prove, given closed door decision making. Only two studies have looked at this quantitatively. The 2012 GST Distribution Review compared each State's actual tax revenues and expenditures (relative to the average, across many categories) with estimates of the average-rate effect. This is one way of seeing whether States rely more on tax or expenditure types that are associated with receiving higher GST payments. It found a correlation close to zero, suggesting that States do not systematically set higher tax rates in cases where doing so would generate the largest consequent gains in GST payments (Brumby, Carter and Greiner 2012a, p. 69). By contrast, regression analysis by Dahlby and Warren (2003, p. 444) found some correlation between State tax rates and GST effects, though the authors noted that their model was simplistic and that the results provide only weak evidence of a policy impact.

Several jurisdictions argued that there is a lack of evidence that States change their tax rates to increase their GST shares (Tasmanian Government, sub. 28, p. 1; Queensland Government, sub. 32, p. 7; ACT Government, sub. 49, p. 26). Some pointed to the GST Distribution Review's conclusion that:

The current system creates perverse theoretical incentives in some instances, but there is little evidence that they have any effect in the real world. In particular, there is no evidence that HFE acts as a material disincentive to State tax reform. (Brumby, Carter and Greiner 2012a, p. 140)

Some participants criticised the Productivity Commission's draft report for not providing concrete evidence that GST incentives had actually affected State reform outcomes (NT Government, sub. DR69, p. 21; Saul Eslake, sub. DR71, p. 2), while others continued to assert that such evidence does not exist (Tasmanian Government, sub. DR74, p. 4; Victorian Government, sub. DR87, p. 1).

Others pointed to one specific example: a recently abandoned proposal in Western Australia to raise royalty rates on gold (Parliamentary National Party of WA, sub. DR76, p. 3; WA Government, sub. DR83, p. 27). The Parliamentary National Party of WA (sub. DR76, p. 3) argued that:

It is increasingly found within the Western Australian psyche that any revenue reform or tax increase proposals proposed by the State Governments is pointless and most revenue will be lost in the GST carve up. This is compounded by modelling which shows the majority of WA's mining royalties have been subject to redistribution via the GST.

Counter examples can also be found, such as where a State explicitly chooses not to pursue efficiency-enhancing reforms even where these would be associated with an increase in GST payments. One such example is the NSW Government's decision not to replace insurance taxes with higher payroll taxes (via a lower tax threshold), despite its own Financial Audit recommending this in 2012 (Brumby, Carter and Greiner 2012c, p. 36).

In most cases, however, there is no policy decision to observe and hence no specific examples are available. In a context of vertical fiscal imbalance and an arguably limited range of (at times inefficient) tax bases available to the States, the GST effects of major tax reforms — such as those illustrated in the above cameos — may act as a strong first-mover disadvantage that discourages States from even investigating a reform.

Yet an absence of evidence is not equivalent to evidence of absence. Ultimately, States choose whether or not to pursue particular policies on the basis of a wide range of factors, as noted earlier. This can arguably mean that 'State policy behaviour cannot be conclusively linked to Australia's HFE system', even in cases where HFE does have an influence (ACT Government, sub. DR81, p. 25).

The effect of HFE incentives on policy outcomes is an empirical question, and one that would require substantial and transparent data on policy decisions and the factors that influence these — data that in many cases are not recorded. In other countries, researchers have found that the incentive effects in HFE formulas have had a detectable bias on jurisdictions' policy settings. And there is evidence in other policy areas that financial incentives have a bearing on the policies set by governments, whether for good or bad (box 3.6).

On balance, GST effects are likely to be small or modest for most State policy decisions, and thus unlikely to distort most policy outcomes. However, there are likely to be other cases where perverse incentives distort policy at the margin, especially where there are outliers and atypical circumstances, for example, in relation to mineral and energy policy (section 3.3) and when States are contemplating substantive reforms to their tax base mixes that depart from what other States do. Over time, these effects could have a material cumulative impact on the economy and wellbeing. Indeed, it is the substantive reforms to tax base mixes (as opposed to smaller adjustments in individual tax rates) that would generate the greatest potential benefits for the community.

Yet, in these cases, the potential GST implications of reforms will be too large for State Treasuries to ignore — and at a minimum can and should be estimated prior to a policy decision being made. That some States purport not to examine how prospective reforms would impact their GST payments would suggest that important policy decisions are being taken without due regard for the fiscal implications (box 3.7).

Box 3.6 Evidence of financial incentives influencing policy

Definitive evidence that the GST formula influences State policy outcomes is unsurprisingly scant. Multiple factors influence State policy decisions, and many are impossible to directly observe, let alone quantify. This makes it difficult for researchers to use quantitative techniques (such as econometrics) to isolate the marginal effect of HFE incentives from other factors.

Similar challenges arise in many policy areas where financial incentives are at play but decision makers may not be primarily driven by a pecuniary motive. In some of these areas, it may be possible to quantify the impact of such incentives on policy decisions. This usually requires having access to robust data over a wide spatial scale or long time horizon.

Researchers have found evidence that HFE can distort policy decisions in other countries. Studies have found that, all else equal, subnational jurisdictions in Canada and Germany set higher tax rates when this leads to receiving higher payments through HFE formulas (Buettner 2005; Ferde 2014). The empirical techniques used in these studies (which rely on discontinuities in the equalisation formula to show causality) would not be applicable to Australia, due to differences in HFE formulas and the availability of data.

More generally, there are other policy areas where it is widely accepted that the availability of funding from another level of government has distorted decision making. For example, the Productivity Commission previously found that the rules set by the Commonwealth to provide financial assistance to the States to rebuild assets following a natural disaster have discouraged States from investing in mitigation and insurance (PC 2014b).

Another example — where financial incentives have been used to drive good policy decisions — is the National Competition Policy. In this instance the Commonwealth provided financial incentive payments to the States to encourage them to enact an agreed set of regulatory reforms designed to spur competition in the economy (the payments also acted to share the fiscal benefits of reform). These incentive payments played a critical role in keeping the reform process on track (PC 2005, p. xxiii). However, exercising control over payments as a way to drive State reforms can also be a negative, especially where this acts to reinforce problems of poor accountability (PC 2017d, p. 196).

FINDING 3.1

Most State tax reforms would have limited impacts on the GST distribution. However, there are circumstances where the GST effects can be material — such as for a State undertaking large scale tax reform — and act as a significant disincentive for States to implement efficient tax policy. These disincentives are likely to be exacerbated where the State is a first mover on reform or where there is uncertainty about how significant tax changes will be assessed by the CGC.

Box 3.7 Do States quantify the GST impacts of policy decisions?

All State Treasuries evaluate the potential revenue implications of policy decisions as a matter of routine. It could reasonably be expected that this includes estimating any impact that policy changes might have on a State's GST payments.

Some States have acknowledged that they actively consider the GST effects of their policy decisions. For example, the WA Government (2017b, pp. 28–29) stated that:

In Western Australia, whenever Treasury provides the Government with advice on a possible revenue measure, it is also asked to include the HFE impact of each option. The HFE impact is considered up front, when attention should be on whether the option is good policy or not.

The Victorian Treasurer argued that the Government is aware of GST effects when making policy decisions, but these tend to be minor:

[W]e're cognisant of the impacts that might accrue from it, but they tend to, when they play out, be relatively marginal in terms of the benefit or the disincentive that the State might receive as a consequence of those decisions. (trans., p. 146)

However, the Victorian Under Treasurer commented that:

... for most jurisdictions, when you're developing in the bureaucracy tax measures to propose to Government, you don't take into account the GST impact of that particular measure because it's just too insignificant. (trans., p. 147)

And the Queensland Under Treasurer explicitly stated that the Queensland Treasury does not consider GST effects, even when it has contemplated major policy changes such as replacing stamp duties with a land tax:

We've looked very hard at replacing all stamp duty with land tax, but it's like other states, we've found it an incredibly difficult task to do that, especially [given] the impact on the state in the short-term. So we're always looking at payroll, changing payroll rates of taxes and I think the point you're getting to is that in any of those discussions on tax reform which go to the government before each budget as to what you could do and what you think Queenslanders should pay — motor taxes and you know, motor vehicle tax and all this — we've never looked at the impact of the GST on the increased revenue into Queensland. (trans., p. 599)

Not all participants considered this approach to be sensible. For example, the South Australian Council of Social Service (sub. DR75, p. 3) submitted that:

While we do not want to get into arguments over evidence and absence of evidence, it would appear to us quite reasonable that any state Treasury would consider and model the impact on GST receipts of any tax reform — it would be negligent not to.

3.2 Efficiency of service delivery

The potential for HFE to influence State policies relating to the delivery of services and infrastructure has been an ongoing source of contention. Some inquiry participants argued that HFE can reward inefficiency and may offer States perverse incentives around the level of services they provide and the costs of those services (for example, MCA, sub. 34; NSW Government, sub. 52; Fahrner and FitzGerald, sub. DR102; Anwar Shah, sub. DR103). Incentive effects could arise because of the ability of State policy to influence GST shares through changes in national average costs or by addressing structural disadvantages (which, respectively, are analogous to the average-rate and tax base effects in box 3.1).

All State Governments raised concerns about the accuracy of specific assessments undertaken by the CGC, especially on the expenditure side. These concerns often related to the use of specific data sources or the way that data adjustments had been made. Such matters are not a focus of this inquiry, except in cases where there is potential to distort State policy. It is expected that the CGC will consider such concerns in the course of its 2020 methodology review.

Does HFE reduce incentives to deliver services cost-effectively?

The CGC assesses State expenditure needs by calculating the national average per capita *cost* of providing a service, and then applying this to each State using proxy measures for average levels of service *use* (CGC 2015f, p. 32). These figures are then adjusted up or down for each State depending on structural factors (termed ‘disabilities’), which reflect higher or lower levels of service usage or cost in specific States due to factors beyond the direct control of individual State Governments. For example, the CGC’s expenditure assessment for public housing in Queensland is based on the national average cost of providing housing and Queensland’s share of all households, adjusted up for that State’s above-average share of lower income and Indigenous households (among other factors).

This approach means that a State that reduces its actual expenditure below its assessed expenditure needs — whether by lowering the level of services provided, cutting the costs of delivering those services, or both — retains the full savings from doing so (and vice versa). This gives States a financial incentive to provide services as cost-effectively as possible (Tasmanian Government, sub. 28, p. 16).

However, this policy neutrality could be undermined by the ability of a single State to influence the national average per capita cost — analogous to the average-rate effect for taxes. For example, States with above-average costs for primary school education (after taking account of structural disadvantages) could have an incentive to increase their spending in order to drive up the average per capita cost and therefore the GST payments they receive (the reverse would apply to States with below-average costs). Alternatively, a State could influence the average per capita cost by increasing the number of residents using the government service rather than allowing greater private-sector provision. Such changes could be counter to economic efficiency if they were not the best course of action in the absence of GST effects.

The most populous States will have the greatest influence on average costs (for instance, New South Wales and Victoria between them have about 57 per cent of the national population). The efficiencies that these States are able to achieve will thus be built into the national averages (NT Government, sub. 51, p. 21). By contrast, smaller States have much more limited scope to influence the averages (for example, South Australia has 7 per cent of the population, so in general an extra \$1 per capita in expenditure in that State would raise the national average cost by just 7 cents).

However, smaller States can have a large influence on particular parts of expenditure assessments in some cases. This is often noted in relation to expenditure on Indigenous Australians who, on average, consume more public services than non-Indigenous Australians. While the average costs of most services to Indigenous Australians are driven by NSW and Queensland (which have the largest numbers of Indigenous residents), the Northern Territory has a disproportionate influence on average costs of delivering services to Indigenous people in remote areas (CGC 2015f).

Several inquiry participants argued that the ability of States to influence average costs can give them an incentive to provide services inefficiently. Others argued that the effects are small and do not materially influence State policy decisions (box 3.8). The latter view accords with the 2012 GST Distribution Review, which found that the incentives are small in magnitude, and concluded that ‘empirically, there is no obvious correlation between GST incentives and a State’s policy effort’ (Brumby, Carter and Greiner 2012a, p. 136).

Box 3.8 Cost-effectiveness of service delivery: what participants say

Some participants argued that HFE reduces incentives for States to deliver public services cost-effectively:

States are, in effect, compensated for continued underinvestment in important areas linked to their assessed disabilities, as defined by the CGC. Further, the incentive for governments to innovate, drive increased efficiency and cost savings in the delivery of government services is often dampened by the GST distribution. (NSW Government, sub. 52, pp. 6–7)

Although unintended these perverse incentives punish states that seek to maximise their own-source revenue or improve operating efficiency in the provision of public services. These incentives have been well documented in a number of economic papers ... (MCA, sub. 34, p. 2)

Other States disagreed or pointed to a lack of evidence:

While it may be technically possible for states to influence their GST shares at the margin by changing their expenditure or tax mix, Queensland is not aware of any evidence that this is a factor for governments in the setting of expenditure and revenue policies. (Queensland Government, sub. 32, p. 7)

South Australia is not aware of any evidence that demonstrates a systematic correlation between the direction of HFE transfers and differences between jurisdictions in their efficiency in delivering services. (SA Government, sub. 25, p. 11)

The CGC has established conclusively that the HFE system has virtually no impact on the efficiency of service delivery and that States overwhelmingly get to keep the benefits of reforms which enable services to be delivered at lower cost. (ACT Government, sub. 49, p. 14)

Conceptually, there may be some risks to policy neutrality, where larger states may be able to influence this baseline through a policy change, thereby affecting GST distribution. However, as highlighted earlier, there is little evidence that state governments game this to increase their GST share. (Victorian Government, sub. 53, pp. 16–17)

If a State is able to deliver the average level of service at a cost below the national average, its funding from the GST would only be affected by the marginal impact it would have on the average national standard. Therefore any reforms that States make to their service delivery systems will not materially affect those assessments or HFE transfers. (Tasmanian Government, sub. 28, p. 16)

The supporting principles of ‘what states do’ and ‘policy neutrality’ remove the ability and incentives for states to game the HFE process through unilateral changes to tax and service delivery policies. In addition, the use of the internal standard means national average expenditure and tax rates reflect the policies of the largest, most efficient states. (NT Government, sub. 51, p. 21)

The ability of individual States to influence national average costs is small — across the major expenditure categories, an additional dollar of expenditure in any State will move the national average by less than one cent (appendix C). There is a degree of homogeneity across States in the types of services they provide — at least compared to their revenue-raising capacities — meaning that there are few outliers (with the possible exception of the Northern Territory). Any attempt by a State to increase or decrease the cost of service provision in order to ‘game’ its GST share is likely to have very limited benefits, and in any case will generally be outweighed by the myriad other policy priorities that State Governments have. For this reason, the current HFE system is unlikely to materially distort State incentives to provide public services cost effectively.

Does HFE reduce incentives to address structural disadvantages?

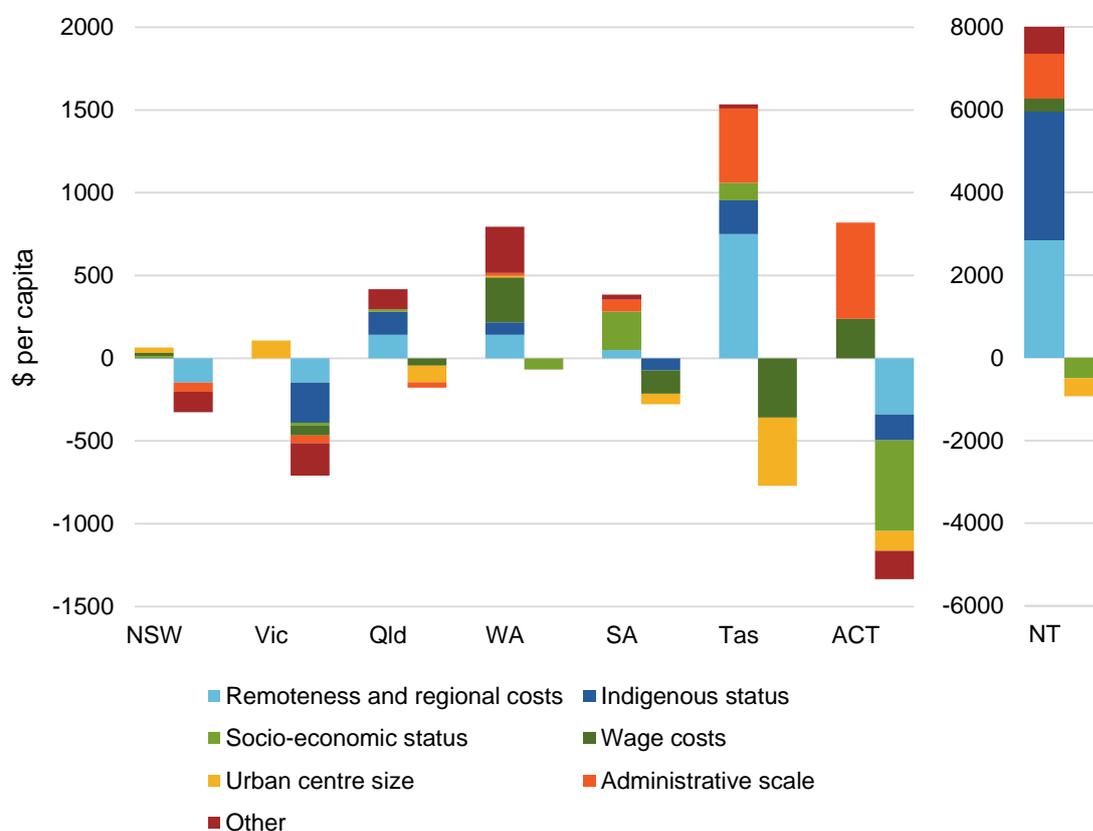
Structural factors have a significant impact on expenditure assessments, and hence GST shares (figure 3.1). This impact arises through both the use and cost of services. While these factors are largely invariant to State policy in the short term, and some (such as climate) may be completely beyond State Government control, there may be scope for State policy to address specific disadvantages over time, and thus affect GST shares.

To the extent that a State’s policy decisions can affect its assessed capacity, any State that addresses the underlying drivers of the *use* of services or infrastructure would in general only receive its population share of the fiscal benefits (Brumby, Carter and Greiner 2012a, p. 138). Moreover, where a State actually spends less than the expenditure it is assessed to require (and thus retains the fiscal difference), addressing the underlying disadvantage would lead to a net financial loss, all else equal. These factors suggest there may be financial disincentives for States to address their structural disadvantages, particularly if they would incur high costs to do so.

Several inquiry participants argued that HFE can dissuade States from addressing their structural disadvantages (box 3.9). Such incentives can be readily apparent in specific areas. To give one example, the Productivity Commission has previously found that the equalisation of spending on natural disaster recovery, but not of disaster mitigation expenses, biases States’ incentives to effectively manage natural disaster risks (PC 2014b, p. 33). More generally, some analysts have argued that the CGC does not adequately distinguish inherent disabilities from those arising from poor policy decisions or implementation (Fahrer and FitzGerald, sub. DR102, p. 9). A related view is that assessments of service delivery costs and usage are unlikely to be policy independent in the long term, because State Governments can indirectly affect the location, health, economic circumstances and behaviours of their populations (Garnaut and FitzGerald 2002b, p. 149).

Figure 3.1 Selected drivers of expenditure capacity, 2018-19

Difference from equal per capita distribution



Source: CGC (2018h, p. 32).

There are sound objections to adjusting for cost-related disadvantages in service delivery across States. The academic literature has argued that using HFE to compensate for interstate cost differences due to location or wage levels can be inefficient because it can impede people moving to take up jobs in highly productive industries or locations, or can preserve inefficient institutional structures that impede cost-saving technologies (chapter 5; Murphy 2017). Specifically, compensating for the higher costs of providing services to more remote or dispersed populations may give States an incentive to continue providing services to remote settlements (Ergas and Pincus 2011, p. 9), rather than reducing service levels or charging residents in these areas more to access services. This can act to impede migration within States.

More generally, there are long-running concerns that HFE reduces the need for smaller States to grow their economies and address their underlying sources of disadvantage. Garnaut and FitzGerald (2002b, p. 146) argued that the fiscally weaker States tend to have a higher share of their workforces in public rather than private sector employment, and as a result are less supportive of growth-oriented policies and more dependent on Commonwealth transfers. In

addition, researchers in other countries have found some evidence for a ‘flypaper effect’, where subnational jurisdictions use fiscal transfers to expand service provision rather than reduce taxes (Inman 2008).

Several States refuted these views. They argued that HFE is intended to compensate only for differences between a State’s service delivery costs and the average — it is not designed to provide funds for the State to deliver services over and above the average level, or to tackle the root causes of structural disadvantage (box 3.9). In addition, the Commonwealth Treasury has suggested that fiscally weaker States may have larger public sector workforces because of the very structural disadvantages that drive their high GST relativities (Commonwealth of Australia 2011, p. 35).

Box 3.9 Addressing structural disadvantages: what participants say

Some participants claimed that HFE discourages States from addressing their structural disadvantages:

[T]he current HFE system provides perverse incentives for states with these [expenditure] disabilities to:

- Address disadvantages faced by particular social groups that qualify that state for a greater share of GST, as this would sustain (or increase) that state’s national share of that group.
- Underinvest in infrastructure, or other efficiency-enhancing initiatives, that lower the cost of providing services to a remote area or particular group. (NSW Government, sub. 52, p. 7)

The system particularly encourages recipient States to adopt a welfare mentality. The motivation to undertake reform is diminished by the resulting loss of GST grants they are accustomed to receiving. Further, it entrenches a mindset that reform is not needed as they can continue to rely upon these grants. (WA Government, sub. 15, p. 52)

Others disagreed:

As a recipient HFE state, South Australia is not dissuaded from improving economic outcomes for its citizens. But the influence of state policy in this sphere is dwarfed by national and global forces and the investment decisions of individual firms. (SA Government, sub. 25, p. 22)

Divergences in fiscal capacity also occur because of structural factors such as socio-demographic factors, regional dispersion, and scale. These factors can cause fiscal divergence through increasing cost to provide services because of a State’s inherent disadvantages. These disadvantages may take a long time to resolve or may never be overcome. (Tasmanian Government, sub. 28, p. 34)

And several participants noted that HFE is not intended to address structural disadvantages:

The current HFE framework only compensates states for the higher costs incurred by governments in delivering its services to these remote communities — that is, it does not provide additional funding in excess of the cost of compensating for the disability so as to be able to reduce the disability. (Victorian Government, sub. 53, p. 4)

HFE is not designed to close the gap in unmet need, or address extreme disadvantage, backlogs in service provision, infrastructure deficits or economic efficiency. These are important issues and there are more appropriate means of pursuing these objectives from outside HFE ... (NT Government, sub. 51, p. 31)

It is difficult to conclusively link HFE to specific State behaviour on the expenditure side, as GST effects are likely to be just one of many factors that States consider when pursuing reform (BCA, sub. 47, p. 7). It is undisputed that HFE influences State service delivery by virtue of giving fiscally weaker States the capacity to provide a similar *level* of services to

the fiscally stronger States (chapter 2). And a State experiencing an increase in its own fiscal capacity will see some of the fiscal benefits flowing to other States under any form of full HFE.

But HFE only aligns States' fiscal capacities, not their policy outcomes. There is no compelling evidence that Australia's HFE system is likely to systematically bias States towards providing services in a particular way, or towards particular policies aimed at growing their economies or addressing structural disadvantages.

In sum, the potential for HFE to distort State policy is much lower on the expenditure side than it is on the revenue side. In some policy areas, States do not spend at the national average level despite being provided the fiscal capacity to do so through HFE (chapter 2) — an issue that has been contentious in the Northern Territory (Yothu Yindi Foundation, sub. DR80, p. 3; Fahrer and FitzGerald, sub. DR102, p. 15). However, accountability is a much greater driver of expenditure policy than HFE, and has been eroded by high levels of vertical fiscal imbalance, the complexity of HFE and the collective, consequential blurred funding responsibilities (chapters 6 and 9).

FINDING 3.2

Changes in State service delivery policies can impact on GST payments, but the impacts are mostly trivial. HFE is unlikely to directly discourage — nor encourage — States from improving the efficiency of service delivery or addressing their structural disadvantages, given the broader and more significant benefits of doing so to the community. Accountability for policy outcomes — which is lacking — is a much greater driver of expenditure choices.

3.3 Mineral and energy resources

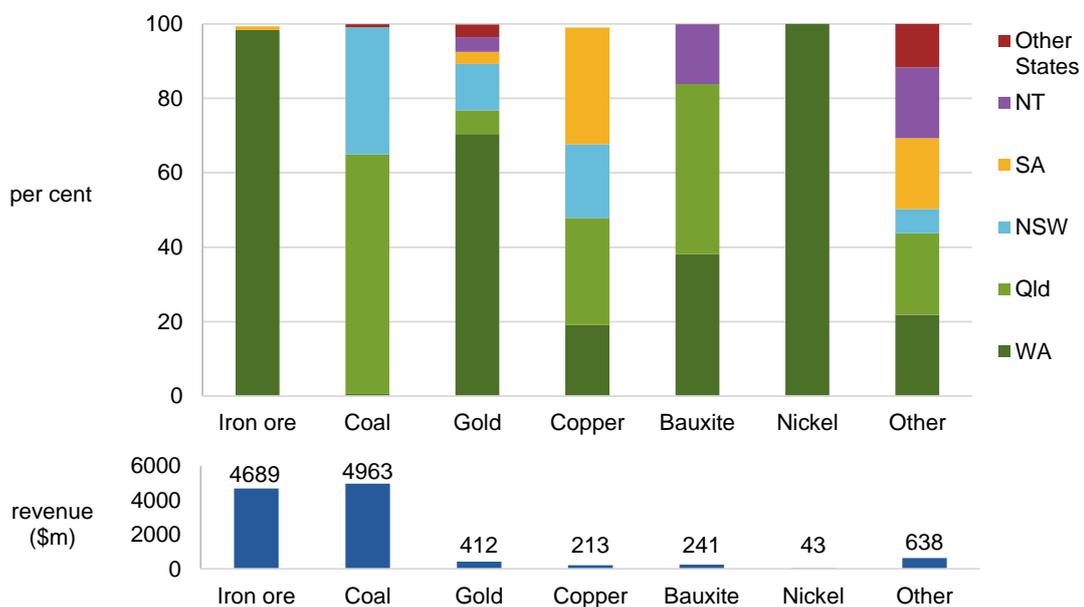
State royalties from the extraction of mineral and energy resources have been a major source of redistribution and controversy in Australia's HFE system. Though royalties comprised just 9 per cent of total State own-source revenues in 2016-17, they were the most unevenly distributed revenue source across jurisdictions (CGC 2018b).

Royalty revenue led to over \$44 billion being redistributed between States for the ten years to 2016-17 (primarily as a result of the mining boom) — with \$37.9 billion being redistributed away from resource-rich Western Australia, and gains for more populous New South Wales (\$15.8 billion) and Victoria (\$21.5 billion) (Productivity Commission estimates). This redistribution has been the primary cause of the fall in Western Australia's GST relativity to a low of 0.30 in 2015-16. In that year, \$6.2 billion was redistributed due to mining, compared to an aggregate redistribution of \$6.9 billion (CGC 2015e).⁷

⁷ These figures are not directly comparable because some of the redistribution between States on the mining assessment is offset by redistributions on other assessments (other tax types and expenditures).

Mineral and energy resources are very unevenly distributed across States (figure 3.2). Though States have ownership of onshore resources under the Constitution, the GST distribution is today used to balance out the differences between the States in their capacities to generate royalties. The CGC does this by calculating the value of production in each State (the tax base) and applying the average royalty rate, across seven mineral groups (iron ore, coal, gold, onshore oil and gas, copper, bauxite and nickel), plus an eighth residual category. The total is then redistributed across States on a per-capita basis.

Figure 3.2 State shares of value of mineral production, 2016-17^a



^a The share for 'Other minerals' includes the share for onshore oil and gas, which the CGC does not separately disclose for confidentiality reasons. 'Other States' comprise Victoria, Tasmania and the ACT.

Source: Productivity Commission estimates based on data provided by the CGC.

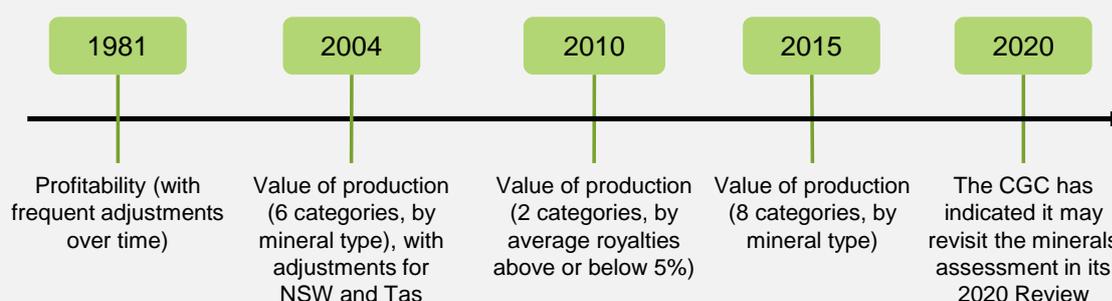
This is similar to the method used to equalise most other categories of State taxes (section 3.1). However, HFE combined with the concentration of known resources in a few States may be distorting State royalty policies and incentives to develop resources.

Does HFE influence State royalty policies?

Some inquiry participants argued that the way mineral and energy royalties are assessed acts as a disincentive for States to set royalty rates in an efficient way (for example, WA Government, sub. 15). This has been a long-running consternation that has persisted despite frequent changes in the CGC's methodology over the years (box 3.10).

Box 3.10 The ever-evolving mineral royalty assessment

The methodology the CGC applies in its mineral royalty assessment has changed frequently over the years, with the level of complexity waxing and waning. The timeline below indicates changes to the measure of revenue-raising capacity, including a major change from profitability to production values in 2004.



Amidst all this change, one constant has been the difficulty of disentangling the impact of State policy from underlying revenue-raising capacity. This is a nigh on impossible task, given the high concentration of activity in Western Australia, Queensland and New South Wales, which means that each of these States can have a disproportionate influence on national average rates and total production for specific minerals.

The prior assessment approach in place from 2010 to 2015, based on aggregating royalties into two categories (high and low rate), was heavily criticised for being sensitive to a single State's policy changes. The CGC adopted the approach just after Western Australia had negotiated to remove concessions on iron ore royalties for some producers, which would have led to iron ore fines moving from the low to the high royalty category. This re-categorisation would have seen Western Australia lose up to three times as much in GST payments as it gained in additional own-source revenue — a much larger GST effect than the State Government had originally estimated (WA Government, sub. 15, p. 69). This specific outcome was a major focus of the 2012 GST Distribution Review, as was the incentive for States to raise their royalty rates in anticipation of these being rebated under a future national profit-based mining tax. Ultimately, the Commonwealth Treasurer directed the CGC to adjust its assessments from 2011 to 2014 to reduce the fiscal impact on Western Australia.

The current mineral-by-mineral methodology, adopted in 2015, avoids the problem of a mineral moving between categories but could still impact States' incentives. It gives States with a high share of production for a particular mineral an outsized influence on the national average. As a result, a change in royalty rate can still be accompanied by a substantial change in GST payments (such that the State retains only its population share of any increase in revenue, and bears only its population share of any decrease in revenue).

The CGC has recently mooted a new methodological adjustment in its 2020 review. This would entail discounting the impact of any discretionary change in royalty (or other tax) rates by a State that has a dominant role in the relevant tax base, such that the State retains at least 50 per cent of its own-source revenue change net of GST payments (chapter 7).

Sources: Brumby, Carter and Greiner (2012a); CGC (2015d, p. 9, 2017g, p. 7, 2017j, p. 5).

In particular, the methodology can give States an incentive to keep royalty rates low. The WA Government (sub. DR83, p. 10) submitted estimates of the GST losses that various States would incur if they raised royalties on particular minerals — which can be close to

90 per cent of the own-source revenue gain in the case of Western Australia's iron ore and nickel royalties (table 3.1). The ACT Government (sub. DR81, p. 27) also provided quantitative estimates that indicate these GST effects are much larger for States that are dominant producers of particular minerals than for States that are relatively minor producers. It argued that 'dominant producers ... can be faced with incentives to lower or avoid raising their royalty rates' (ACT Government, sub. DR81, p. 27). Academics have suggested that HFE is likely to be one of many factors driving the under-taxation of mineral rents by Australian States (Petchey 2017, p. 18).

The GST consequences of an increase in royalty rates have attracted public attention in Western Australia, with politicians acknowledging that much of the increase would be redistributed to other States through HFE (McKinnon 2017; O'Connor 2016). Indeed, the WA Government (sub. DR83, p. 27) has argued that 'GST losses have been a factor in recent debates in Western Australia over proposed royalty rate changes for iron ore and gold'.

The methodology could also give States an incentive to extract rents through other means. For example, States could require mining companies to provide infrastructure and services directly to remote communities in exchange for paying lower royalties (Ergas and Pincus 2011, p. 8; Pincus 2011, p. 17), or could set low royalty rates and use other charges to extract rents from mining companies (such as freight charges) (Peter Urban, sub. DR123).

Alternatively, a State might facilitate resource development by providing royalty relief rather than direct assistance — for example, the WA Government (sub. 15, p. 72) argued that Queensland recently considered giving a 'royalty holiday' to a proposed coal mine, which would have resulted in increased GST payments that would offset 40 per cent of the foregone royalty revenue. Such incentives to 'game' the system could be reinforced by under-equalisation of some expenditures (discussed below), because royalty relief would mean that a State loses less revenue to other jurisdictions while bearing fewer unequalised costs.

These kinds of disincentives will not always work against good policy. Indeed, the way royalties are structured in most States (based on the volume or value of production) is highly inefficient — the Henry Review found that these royalties distort investment and production decisions, and fail to collect a significant proportion of the underlying economic rents (Henry et al. 2010a, p. 47). In addition to giving States an incentive to under-tax minerals, the use of production values in HFE calculations can discourage States from taxing minerals and energy in more efficient ways, such as by directly targeting economic rents using profit-based taxes (as in the Northern Territory, sub. 51, p. 19) or by providing royalty deductions relating to mine profitability, exploration costs and/or required rates of return (Garnaut and FitzGerald 2002b, p. 169). This is because such features would tend to reduce actual revenues to below the level the CGC assesses a State to have the capacity to raise based on production values.

In sum, there is potential for Australia's HFE system to distort State royalty policies — it is not policy neutral — and to discourage efficient taxation of minerals. While there is only limited direct evidence that GST effects have influenced past royalty policy decisions, there

are likely to be strong incentive effects at the margin, especially in the context of a mining boom. And, as discussed below, the policy neutrality issues associated with the current mining assessment could provide incentives for some resource-rich States to raise revenues in other areas, including by making efficiency-reducing tax changes, such as increasing stamp duties.

The CGC has indicated that it is considering changes to its mining assessments in its 2020 methodology review to address policy neutrality problems, including the use of discounting where a State dominates a particular revenue base. This would represent a material methodological change and a departure from full equalisation, and as such is further addressed in chapter 7 alongside other options to address mining policy non-neutrality. More generally, the CGC has stated that it ‘should articulate more explicitly, and in advance, how it would respond to discretionary changes in effective tax or royalty rates applied to mining’ (CGC 2017j, p. 28).

Does HFE discourage resource development?

Several participants strongly criticised the HFE system as a major disincentive to States developing their mineral and energy resources (box 3.11). This is because any State that sees an increase in production levels will lose GST payments, such that it only retains its population share of the increased royalties (calculated at the average rate). These are tax base effects, and arise regardless of how average rates are determined (section 3.1).

State Governments generally have a greater influence on their mining revenue base than on the size of other tax bases (Brumby, Carter and Greiner 2012a, p. 107). Extraction activity can be influenced, to varying degrees, by a wide range of policies relating to geological surveying, exploration licensing, approval processes, environmental regulation, and the provision of economic and social infrastructure (MCA, sub. 34, p. 3; WA Government, sub. DR83, p. 12; Garnaut and FitzGerald 2002b, p. 169). However, the method used to assess royalty revenues does not take account of past or current policy efforts.

As a result, State Governments may be discouraged from developing or approving (contentious) mining or other industry activity because they would bear the full social and political cost but retain only part of the revenue benefits after equalisation (Ergas and Pincus 2011, p. 8; Garnaut and FitzGerald 2002b, p. 9). The WA Government (sub. 15, p. 41) argued that equalisation can discourage State efforts to develop mining and reduce the funds available to offset risks to the community or to invest in infrastructure that would grow the national economy. It specifically pointed to the assistance it provided to support development of the North West Shelf gas project in the 1970s and 1980s, which it has previously argued ‘may not have gone ahead if the [future] impact of fiscal equalisation had been fully appreciated at the time’ (WA Government 2011b, p. 27).

Box 3.11 HFE and resource development: what participants say

The WA Government and other participants argued that the way royalties are assessed discourages resource development:

Risk averse development is encouraged, as risky successes are taxed by HFE, but risky failures are not subsidised by HFE. This can also mean a focus on shorter-term prospects, or reliance on large private firms to lead development initiatives who do not have an interest in establishing infrastructure to facilitate other entrants into the industry or broader economic activity. (WA Government, sub. 15, p. 46)

The system's treatment of resources revenue ... dulls the incentives for States to stimulate development of their resource endowment. Over time, this is likely to result in less investment in the resources sector than would otherwise be the case. (BHP, sub. 42, p. 1)

Under the current system, mining revenue is assessed mineral by mineral. Given the dominance of Western Australia and Queensland in iron ore and coal respectively, the policy of one State effectively becomes the policy average for HFE purposes, which in turn can create problems for the policy neutrality principle. (Queensland Government, sub. 32, p. 9)

Other participants argued that HFE is not a core consideration for mining policy:

No government would expect to be returned to office, nor opposition expect to win government, if it did not actively propose and implement policies which are designed to increase economic development. (Tasmanian Government, sub. 28, p. 20)

The South Australian Government has actively pursued expansion of mining through investments in geological mapping and creating regulatory certainty — even though additional royalties would be shared with other states through HFE. (SA Government, sub. 25, p. 5)

Critics of the current HFE system have claimed that it acts as a disincentive for State governments to pursue policies which are favourable to mining development and that this can have the effect of deterring otherwise productive investments. However, international comparisons of the favourability of jurisdictional mining prospects do not support this contention. (ACT Government, sub. 49, p. 32)

Some participants argued that the HFE system perversely encourages States to limit mineral or energy extraction:

The problem for the pro-active states is that as soon as the royalty revenues start to flow, their GST receipts start to fall. Meanwhile, for the obstructionist states, their share of GST distributions starts to rise. The policy signal heard in state capitals is unmistakable. State Governments can impose moratoria on new gas development, ban uranium mining, close brown coal generation and be rewarded with windfall gains for their budgets ... (MCA, sub. 48, p. 23)

[The] HFE system offers perverse incentives for some states that prohibit or limit gas activities for non-scientific reasons, as the loss of revenue from such decisions is in part shielded by increased shares of GST revenue. Not only is this hampering economic development, it is placing even further pressure on those states and territories that have chosen not to impose restrictions. (APPEA, sub. DR73, p. 2)

Others warned that penalising States for not extracting a resource would be fraught with danger:

Proposals for financial 'penalties' through the GST for states that have a ban on onshore unconventional gas ... would undermine state accountabilities to their constituents, and may reduce the capacity for sovereign state governments to balance potential economic gains of extracting non-renewable natural resources against other economic and policy considerations. (Victorian Government, sub. 53, p. i)

Seeking to penalise states that choose not to adopt a particular extraction method, due to environmental, economic, cultural or social concerns of their constituents, would open up all revenue sources to scrutiny regarding whether or not states are fully exploiting all options to broaden their revenue bases. (NT Government, sub. 51, p. 24)

Withholding GST from the states to force them to allow unsustainable development of unconventional gas mining will have perverse economic and environmental impacts on Australia. (Lock the Gate Alliance, sub. 20, p. 2)

Equalisation of resource development expenses

Disincentives to develop resources may be reinforced by incomplete equalisation of the expenses States incur to facilitate development — that is, where the expenses are not shared with other States to the same extent as the revenues. Because HFE is currently premised on average State policy, an individual State's resource development expenses are only shared among other States through equalisation to the extent they align with the CGC's expenditure categories and disability factors (most of which are agnostic to specific industry sectors). While this is true for all industry sectors, it has been especially contentious for mining, given the scale of upfront investment that often accompanies new development.

The WA Government (sub. 15, p. 60) argued that the CGC does not adequately recognise its expenditures on resource development, which compounds the disincentive for States to develop mining activity. It has also argued that the high costs it incurs to support mining activity in remote areas, including by providing infrastructure and services (such as ports and schools), are not fully recognised (WA Government 2013, pp. 34–35).

This view was not shared by all States. Some noted that the CGC already takes account of remoteness and other mining-related factors in assessing service delivery costs. Moreover, some States argued that the bulk of investment in mining infrastructure has been (and should be) undertaken by the private sector (SA Government 2012, p. 20), or that the nature of the underlying resources — coupled with global commodity prices — is a much bigger driver of mining activity than State Government actions (ACT Government, sub. 49, p. 5; NT Government, sub. 51, p. 25; Tasmanian Government, sub. DR74, p. 11). The NSW Government (sub. DR109, p. 32) argued that increased equalisation of development costs could create perverse incentives for States to over-invest and displace private capital.

The equalisation of resource development costs has been a long-running point of contention. It relates to specific details of the CGC's methodology and the availability of reliable data, as well as subjectivity in defining which activities constitute average expenditure policy across States. The 2012 GST Distribution Review dealt extensively with the equalisation of resource development costs, and found that Western Australia's unrecognised expenditures amounted to at most \$120 million in 2010-11, significantly less than that State's own estimate of \$1.6 billion (Brumby, Carter and Greiner 2012a, p. 119). The CGC's 2015 methodology review also examined these costs and, in response, introduced two new expenditure assessments (CGC 2015e, p. 44).

Earlier reviews have considered these matters in detail, and changes have already been made to the CGC's methodology. The Productivity Commission has not been presented with new or compelling evidence that changes to the treatment of mining-related expenditures are required.

Restrictions on mineral and energy extraction

Some States have imposed wide-scale restrictions on mineral and energy extraction (box 3.12). Where a State has banned or heavily restricted extraction of a resource, the CGC assesses it to have zero capacity to raise royalty revenue (CGC 2017g, p. 6). This treatment may distort States' incentives because policy decisions to *restrict* extraction are not treated symmetrically with policy decisions to *facilitate* extraction. For example, a State with 10 per cent of the population that allows extraction of a specific mineral would see about 90 per cent of the revenue equalised away to other States, whereas if it were to ban extraction it would effectively receive a share of other States' royalties from that mineral.

Several participants argued that the HFE system effectively rewards States for restricting resource extraction (box 3.11). Because GST shares do not change, these States would continue to receive a share of other States' royalties through HFE. For example, the WA Government (sub. 15, p. 89) argued that NSW and Victoria — which have restricted or banned coal-seam gas exploration — will benefit from the equalisation of Queensland's gas royalties. And Mike Nahan, the WA Opposition Leader, argued that:

Even though New South Wales and Victoria are donor states and will — always have been and always, for the foreseeable future — remain, they know that at the margin they are being compensated from Western Australia for locking gas into the ground. (trans, p. 130)

This GST effect could give States a financial incentive to accede to community pressure to introduce restrictions.

Other participants argued that restrictions on resource extraction are driven entirely by environmental, social and/or scientific considerations, rather than by HFE (box 3.11). Indeed, in some cases the Commonwealth has imposed restrictions on States on environmental grounds, even where a State Government has sought development (such as the proposed Franklin Dam in Tasmania in the early 1980s). Participants also noted that States benefit from resource development in terms of higher employment and incomes, separate to any royalty payments (for example, SA Government, sub. 25, p. 5).

There is no direct evidence that State policy decisions to restrict mineral and energy extraction have been influenced by GST effects. And in some (but not all) cases, the amount of reserves subject to restriction could be small — for example, the Victorian Government (sub. 53, p. 6) has stated that 'there are no proved and probable onshore gas reserves in Victoria', though the extent of extractable unconventional gas reserves in Victoria is not well known (Ross and Darby 2013, p. 12).

In its 2018 update, the CGC decided not to make any changes to its assessment of coal-seam gas royalties (CGC 2018h). However, it also noted that it would review the matter in its 2020 methodology review. One option it has identified is to treat these revenues on an equal per capita basis, on the premise that 'all States that have [coal-seam gas] have the opportunity to exploit it and whether they do or not solely reflects policy choice' (CGC 2017j, p. 25). The CGC has also considered using an assessment based on measures of known reserves,

but found that this would be impractical and unlikely to have a material impact on GST relativities (chapter 7). More generally, a change in methodology would only be warranted where the impacts on States' GST payments and incentives are material — which looks unlikely for the foreseeable future.

Box 3.12 State restrictions on mineral and energy extraction

Most States have implemented bans or moratoria on mineral and energy extraction:

- NSW, Victoria, Queensland and Western Australia ban uranium mining.
- Victoria has a moratorium on onshore conventional gas mining.
- All States except Queensland, South Australia and the ACT have placed heavy restrictions on coal-seam gas extraction:
 - Victoria bans onshore exploration for unconventional gas and hydraulic fracturing
 - NSW has significantly restricted coal-seam gas exploration and development
 - Western Australia and the Northern Territory have moratoria on hydraulic fracturing (pending scientific review), and Western Australia has banned hydraulic fracturing in the south-west of the State
 - Tasmania has a ban on hydraulic fracturing.
- Western Australia bans coal mining in an area around the Margaret River township.

Sources: CGC (2017g, pp. 4–5); Dawson and Johnston (2017).

Nevertheless, the distortions arising from the treatment of resource restrictions — at least under the current methodology — could ultimately have large financial implications for some States, especially over the long term. Although the policy counterfactual is unobservable, the fiscal incentives that arise through HFE are likely to distort policy decisions at the margin.

However, making adjustments to the HFE system specifically to *add* incentives for policies that are deemed to be desirable would be an intentional breach of policy neutrality and State autonomy, be a source of additional complexity, and affect State fiscal equality to the extent it departs from full equalisation. To the extent that there are other obstacles to State development of resources (such as cumbersome or ineffective development approval processes), these should be addressed directly rather than through HFE.

FINDING 3.3

The potential for HFE to distort State policy is pronounced for mineral and energy resources. While there is limited direct evidence that GST effects have influenced specific policy decisions, the incentive effects for some States are palpable and have the potential to undermine State policy neutrality.

However, making adjustments to the HFE system specifically to add incentives (rather than remove disincentives) for desirable resource exploration policies, or to singularly remedy disincentives for mining taxation, would not advance policy neutrality, would be a source of additional complexity, and come at the expense of fiscal equality.

3.4 Broader distortions across the HFE system

The potential policy distortions that arise from the way mineral and energy resources are equalised are symptomatic of broader distortions across the HFE system. These distortions arise from inconsistencies in how the CGC treats different revenue and expenditure categories.

A significant portion of State own-source revenues are not differentially assessed, with wide variation across States: from about a quarter for Western Australia to almost 60 per cent for the ACT (chapter 2). While this is often for good reason — generally, due to difficulty in defining average policy or obtaining suitable data — the result is that States may have a stronger incentive to rely on taxes that the CGC does not differentially assess (such as gambling, user charges, fines and licensing fees) rather than those which it does (such as mining royalties and land taxes). In addition, there could also be an incentive for States to raise taxes for which the GST effects are small (such as motor vehicle taxes) rather than mining royalties, which can be associated with large GST impacts (WA Government, sub. DR83, p. 27).

The WA Treasurer has argued that:

GST losses have been a factor in recent debates in WA over rate changes for iron ore, gold and stamp duty. Such debates impact on which revenues are increased and which are not. ... My budget is predicated upon a gold royalty increase. Now we lose about 60 per cent of our gold royalty [to HFE]... When your mechanisms are limited as a State Treasurer and they're all in decline, the own source revenue then you — sort of you do have to sort of, you know — consider even the ones that you don't capture. (WA Government, trans., pp. 61–69)

Several participants compared the treatment of mining royalties with gambling revenues to highlight the disparate treatment (by the CGC) and consequential distortions (box 3.13). States have a greater incentive to increase gambling activity (because they retain all of the revenue) than mining production (because they lose most of the revenue to equalisation). This incentive does not arise from the gambling assessment itself (which is policy neutral) or the equalisation of other revenues *per se*, but from inconsistencies in how the CGC

assesses different categories of revenues (some on an equal per capita basis, such as gambling and fines, and others on a differential basis, such as mining). In other words, State revenue-raising effort may be biased towards revenue sources that are more policy neutral in the GST distribution formula.

These inconsistencies in the HFE system will sometimes have large revenue consequences for State Governments. In extreme circumstances, they will compromise the trade-offs that States make between fiscal and other policy objectives. Such circumstances are likely to arise in mineral and energy policy, given the highly uneven distribution of resources across States, combined with the volatile nature of royalty revenues. Significant revenue consequences arising from HFE can discourage States from developing resources and give them an incentive to set the rate and timing of royalty changes in ways that are inefficient.

Such incentives are not a desirable feature of the HFE system, but to some extent may be an inevitable consequence of pursuing full and comprehensive equalisation with the data available (which are of variable quality). The incentives also point to an inherent tension in the HFE process between fiscal equality (providing all States with the same fiscal capacity) and efficiency (not encouraging or discouraging particular State policies). In principle, it is impossible to remove this tension and provide outcomes that are both fully equitable and completely policy neutral — especially in the case of mining (chapter 7).

Box 3.13 Case study: gambling revenues in the GST formula

Gambling has been a contentious part of the HFE formula, in part because State Governments are responsible for both taxing and regulating gambling (as well as managing the costs it places on individuals and communities). All States licence and tax gambling activities to some degree, but their approaches vary widely — for example, tax rates and deductions on wagering vary across States, as does the structure of taxes on gaming machines (pokies). Some States (such as New South Wales and Queensland) licence large numbers of gaming machines, whereas Western Australia has banned these machines outside its sole casino.

Gambling revenues are heavily influenced by State policy. The CGC currently assesses these revenues on an ‘equal per capita’ basis, meaning that it assumes each State has the same per-capita capacity to raise revenue. As a result, the revenues have no impact on GST relativities.

The CGC previously used a measure of household disposable income to guide the redistribution of gambling revenue, but ceased doing so because of evidence that the relationship between income and gambling activity within a State had weakened (potentially due to the rise in online gambling). Since 2010, it has been unable to find sufficient evidence to construct a reliable and material indicator of gambling revenue capacity that is not under the direct influence of State policy.

Some inquiry participants argued that the gambling assessment effectively penalises States that restrict gambling and rewards those that allow it, and thus gives States an incentive to over-rely on socially harmful gambling activity (WA Government, sub. 15, p. 56; Parliamentary Liberal Party of WA, sub. 22, p. 3; Parliamentary National Party of WA, sub. 43, p. 9).

Sources: CGC (2015c, pp. 8–9, 2015f, pp. 122–123); QGSO (2016).

4 How does HFE affect State budget management?

Key points

- Australia's HFE system provides most State Governments with a substantial share of their overall revenue, and its implementation can impact State budget management.
- The lack of contemporaneity of Australia's HFE system has mixed impacts on State budget management, but changes do not offer unequivocal improvements.
 - The three-year assessment period and two-year data lag limit the responsiveness of GST payments to changes in States' budget positions. This can exacerbate the fiscal impact of economic cycles when States experience large, localised economic shocks. This appears to have been the case with Western Australia through the mining investment and construction boom, which is still influencing its GST payments.
 - These impacts can generally be accommodated by sound budget management processes, and do not represent a case for significant change.
 - Introducing a shorter assessment period would not offer unequivocal improvements, as there is a trade-off between contemporaneity and smoother, more predictable GST payments. Further, the stability of overall revenues is more important for State budget management than GST payments alone.
 - Reducing the data availability lag would require the use of forecasts, which would introduce additional complexity, volatility and the potential for unintended consequences.
- The three-year assessment period reduces the volatility of GST payments. Compared with other sources of State Government revenue, GST payments are relatively stable. Despite this, States have experienced mixed results in budget forecasting.
- GST payments have not been the steady, growing source of revenue for States that was first envisaged. However, this is largely a product of a rising share of consumption on education and health services — which are exempt from the GST tax base — rather than a lack of contemporaneity in how HFE is enacted.
- Although Western Australia currently receives less GST than it would under fully contemporaneous equalisation, it benefited from the lack of contemporaneity (by about \$7 billion) before the construction phase of the mining boom came to an end and while iron ore royalties were increasing (between 2010-11 and 2015-16). Moreover, it is possible that this sum may never be completely 'unwound'.
- Western Australia's revenue-raising capacity remains structurally higher than it was before the mining construction boom and the highest of all the States. Its current (low) GST payments are chiefly reflective of this relative fiscal strength.
- The current implementation of HFE blurs accountability for State budget outcomes, as it seeks to address both vertical and horizontal equalisation. This is exacerbated by overlaps in funding and service delivery responsibilities between the Commonwealth and States. The need for sustainable and accountable fiscal management by States is not negated by Australia's current HFE arrangement.

The terms of reference ask the Productivity Commission to consider the effect of Australia's system of HFE on productivity, economic growth and State budget management. Chapter 3 examines how HFE can affect incentives regarding State Government decision making, while chapter 5 considers the influence of Australia's HFE system on interstate migration.

This chapter focuses on how features of Australia's HFE system affect States' ability to manage their budgets. More specifically, section 4.1 examines how HFE can alter the impact of economic fluctuations on State budget cycles, while section 4.2 looks at how the volatility of GST payments may impact on State budget planning.

4.1 How does HFE affect State budget cycles?

Australia's HFE system provides most States with a substantial share of their overall revenue. Over the past 16 years, GST payments as a proportion of total State revenue have ranged from an average of 18 per cent (in Western Australia) to 57 per cent (in the Northern Territory) (figure 4.1). As a result, HFE has considerable scope to influence States' budget outcomes and management.

One recurring theme of consultation with participants was that, while equalisation payments help to smooth fluctuations in individual States' financial circumstances, shorter-term shocks can see a lack of contemporaneity (timeliness) in those payments amplifying fluctuations.

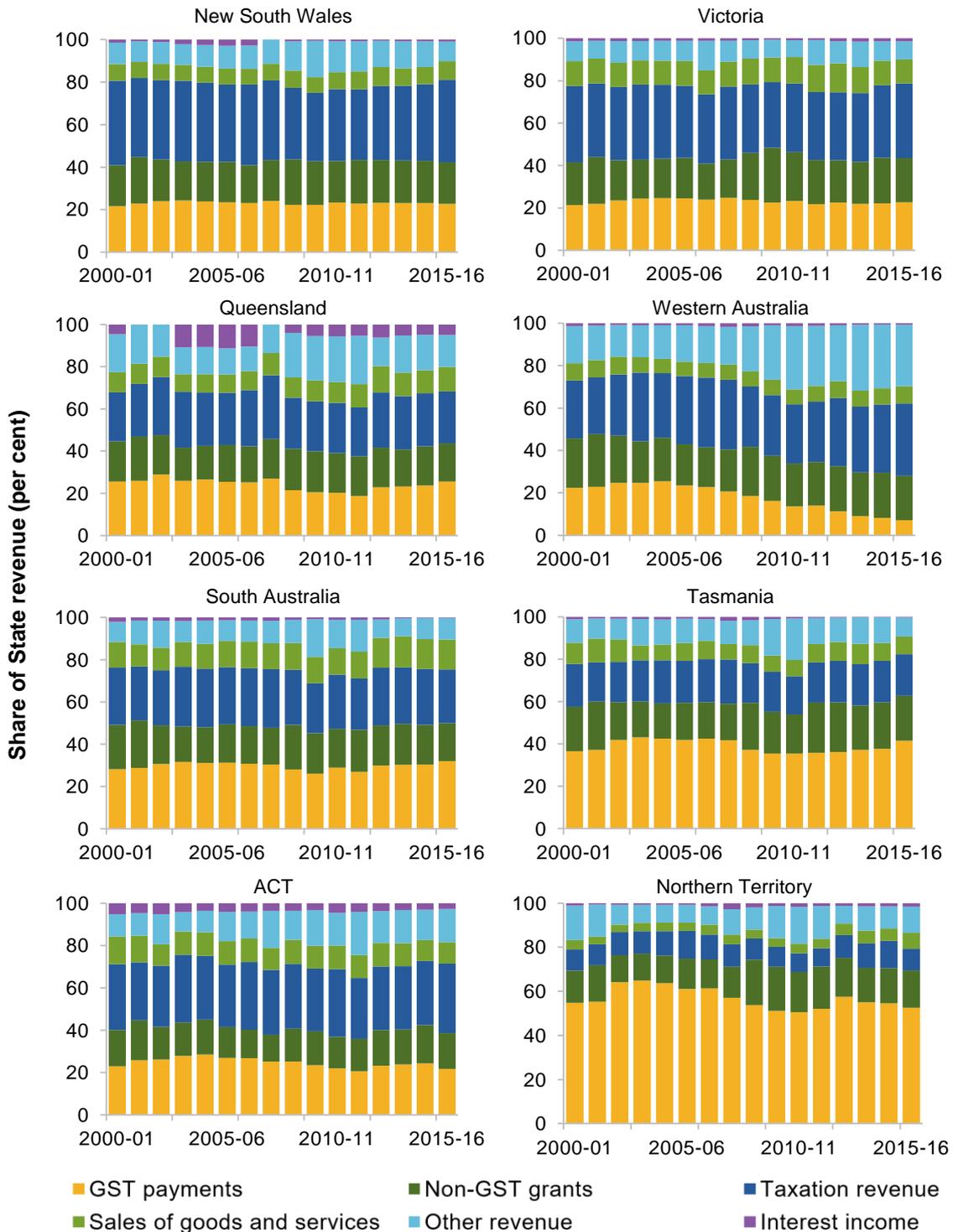
GST payments can help to smooth out fiscal disparities due to localised shocks ...

States' year-to-year fiscal capacities are affected not only by long-term structural factors such as demographics and remoteness (discussed in chapter 3), but also by business cycles and economic shocks. While structural factors tend to have a consistently positive or negative effect on fiscal capacities, economic shocks have the potential to either attenuate or exacerbate a State's budget position. These types of shocks include natural disasters (box 4.1), rapid commodity price changes, and transformational technologies.

During a localised downturn, more contemporaneous equalisation payments can offset declines in States' own-source revenue or increases in expenditure requirements, reducing the need for States to run budget deficits or reduce their expenditure (Smart 2004, pp. 197-198). In contrast, were a nationwide downturn to take place, HFE would not be able to offset all States' declines in their other revenues. As Hancock put it:

No State can escape the fiscal consequences of a collective downturn in the Australian States' fiscal position. But HFE protects a State from isolated variations in its own fiscal position at the cost of some exposure to variations in the States' collective fiscal position. HFE is a risk pooling mechanism and can be seen as providing 'insurance' for State budgets. (Hancock, sub. 54, p. 8)

Figure 4.1 State government sources of revenue^a



^a The data underlying these figures may differ from those published in State financial statements due to ABS adjustments. See ABS (*Australian System of Government Finance Statistics: Concepts, Sources and Methods, 2015, Cat. no. 5514.0*).

Source: Productivity Commission estimates based on ABS (*Government Finance Statistics, Australia, 2015-16, Cat. no. 5512.0*) and Treasury (pers. comm., 20 July 2017).

Box 4.1 **Natural disasters and Queensland's relativity**

Between 2009 and 2014, Queensland experienced a particularly severe succession of tropical cyclones and floods (Queensland Government 2013, p. 5). These events adversely affected both the State's revenue-raising capacity (for example, through the destruction of infrastructure and properties) and expenditure needs (due to greater emergency services expenditure, and the need to repair and replace damaged infrastructure — though some of this was funded by quarantined Commonwealth grants) (CGC 2012, p. 5).

Once the fiscal impacts of these natural disasters began to flow through into the CGC's assessments of fiscal capacity in the 2012-13 update, Queensland's relativity began to increase substantially (from 0.916 in 2009-10, up to 1.188 in 2017-18) (CGC 2018g).

Although natural disasters are sudden and relatively unexpected occurrences (and occur over only short periods of time), in some circumstances they can be considered structural disadvantages rather than cyclical events, particularly for the States that experience disasters more frequently (such as Queensland and the Northern Territory).

However, unlike most structural disadvantages, the risk exposure to costs arising from natural disasters is not entirely out of States' control. State land planning management and investment in disaster mitigation initiatives can reduce the budgetary impact of disasters, but States' incentives to do these can be distorted by HFE's treatment of disaster-related expenditure. The Productivity Commission has previously found that the equalisation of spending on natural disaster recovery, but not of mitigation expenses, biases States' incentives to effectively manage natural disaster risks (PC 2014b, p. 33).

... but a lack of contemporaneity can amplify budget fluctuations

By contrast, less contemporaneous equalisation can exacerbate the budget cycle where State fiscal situations change abruptly and equalisation payments fail to reflect new circumstances. Less contemporaneous equalisation will nevertheless respond over the longer term to *structural* change in States' fiscal capacities.

How does a lack of contemporaneity arise?

Two key features of Australia's HFE system limit the contemporaneity of GST payments. First, relativities are averaged over a number of years (the assessment period). Second, there is a lag between the assessment period and the year in which relativities apply (the application year), which is the result of delays in data availability.

Australia's HFE system currently involves a three-year assessment period and a two-year lag, such that equalisation payments for the 2018-19 financial year are determined by States' circumstances in the financial years 2014-15 to 2016-17.

The combination of the assessment period and the data availability lag can flow through to a ‘mismatch’ between States’ economic circumstances and GST payments in two ways, as the CGC (2017e, p. 3) explained:

Gaps arise when the assumption that States’ assessed deficits change in line with the growth in the pool does not hold. For example, a gap can arise when:

- a State is experiencing a long term structural trend (so that its fiscal capacity is growing — or declining — more rapidly than the change in the pool)
- a State is experiencing a sudden change in its fiscal capacity.

As a result, States’ actual GST payments can differ substantially from their contemporaneous GST requirements — the payments they would receive if relativities reflected their circumstances in the application year. In 2016-17, four States (Victoria, Western Australia, South Australia and the ACT) received GST payments below their contemporaneous requirements (figure 4.2). That said, the value of the mismatch has generally been small relative to the States’ GST payments overall — with the notable exception of Western Australia, discussed further below.

Further, notwithstanding significant changes in other States’ circumstances, individual States’ actual GST payments tend to follow the same trends as their contemporaneous GST requirements, but display smaller fluctuations as a result of averaging over the assessment period (figure 4.2).

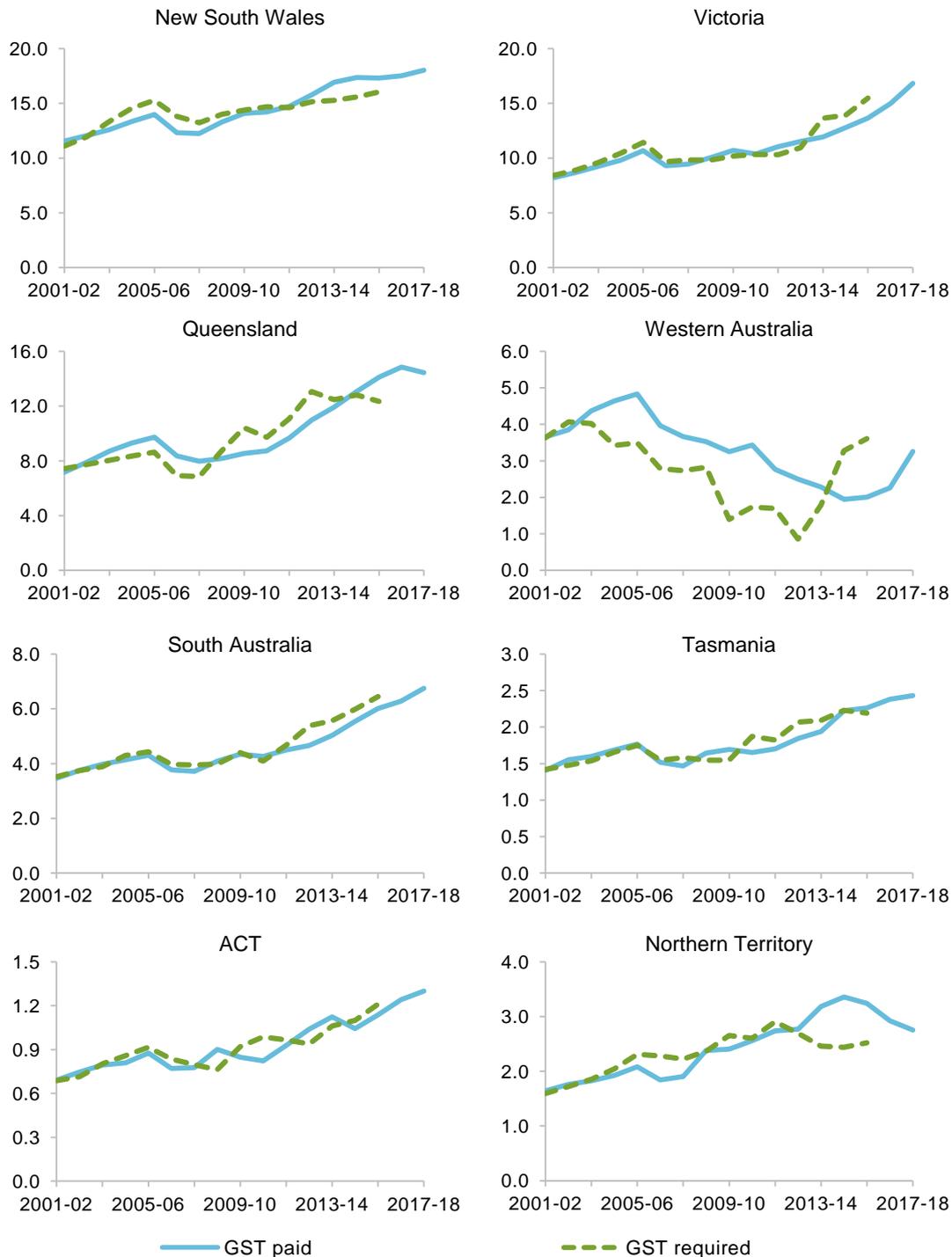
What are the effects of non-contemporaneity on States?

Several States outlined the impacts of limited contemporaneity on State budget management. For example, the WA Government (sub. 15, p. 94) argued that limited contemporaneity can lead to more extreme fiscal policies as lags ‘hide’ the GST consequences of increased State revenues, leading States to apply lower tax rates — or expend more revenue — than they would otherwise. The WA Government contended that this contributed to its lower land tax rates and reduced electricity prices prior to 2008-09. (However, Western Australia’s increased gross operating expenditure per capita, which rose 241 per cent in nominal terms from 1999-2000 to 2015-16 compared to 201 per cent for the rest of Australia (ABS 2017d), may have been a larger driver of its current budget position.)

The WA Government (sub. 15, p. 93) further argued that Australia’s combination of a three-year assessment period and two-year lag mean that changes in economic conditions in the current year impact GST payments beyond the State’s four-year budget forward estimates, reducing its propensity to incorporate changes in GST payments into its budget planning.

But State Governments’ central concern with limited contemporaneity is that, with GST payments failing to respond to particularly rapid changes in fiscal capacity in the short term, the GST distribution can be pro-cyclical, rather than counter-cyclical, for individual States — potentially amplifying the size and impact of economic fluctuations. The ACT Government (sub. DR81, p. 30) argued that this phenomenon was one of the key factors leading to weakened community support for HFE.

Figure 4.2 GST payments and assessed requirements^{a,b}



a 'GST payments' represent the actual amount of funds allocated to States. 'GST requirements' represent the payments that States would have received had the CGC access to data on States' circumstances and populations in the application year. Estimates use the annual relativity calculations included in later assessments. For example, GST required in 2015-16 is determined using the 2015-16 annual relativity from the 2018-19 update. **b** From 2000-01 to 2008-09, the CGC recommended relativities for distributing the pool of GST revenue plus Health Care Grants.

Source: CGC (pers. comm., 10 July 2017).

For example, the Queensland Government (sub. 32, p. 10) noted that:

The volatility seen in recent years often appears inconsistent with the economic activity and the structural fiscal position of a particular jurisdiction at a particular time. The effects of HFE can magnify the fiscal experience of states — distributing more GST as a State's fiscal position improves and then distributing less when a State's fiscal capacity reverses. This feature of the system makes it even more challenging to manage State budgets, and ensure that essential ongoing services continue to be provided as required.

The potential for HFE to exacerbate the impact of economic cycles on State budgets has been brought to the fore in recent years in Western Australia. In this instance, the three-year assessment period and two-year lag have resulted in declining GST relativities coinciding with significant falls in royalty revenue, thereby exacerbating the effects of the economic cycle on Western Australia's budget. As at the 2018-19 relativity update, the State's GST payments have still not fully caught up with its increased annual GST requirements (as assessed by the CGC) (figure 4.2).

Yet even with the decrease in economic activity from the heights of the construction boom, Western Australia's economy remains larger in per capita terms than all other States and the nationwide average (figure 4.3). In 2016-17 (the most recent assessment year), the CGC assessed Western Australia's per capita revenue-raising capacity to be 27 per cent higher than that of the next-strongest State (New South Wales), and 31 per cent higher than the average (CGC 2018f). Eslake (2017a, pp. 11–12) has also noted that the relative growth in Western Australia's per capita gross state product throughout the mining boom was unprecedented, arguing that the State's all-time low GST payments merely reflect this strong growth.

Some participants (Phillip Bubb, sub. DR60, p. 2; NT Opposition, sub. DR78, p. 6) also noted that the lack of contemporaneity can over-equalise — delivering more funds than a State requires to equalise its fiscal capacity — if the State is undergoing economic expansion:

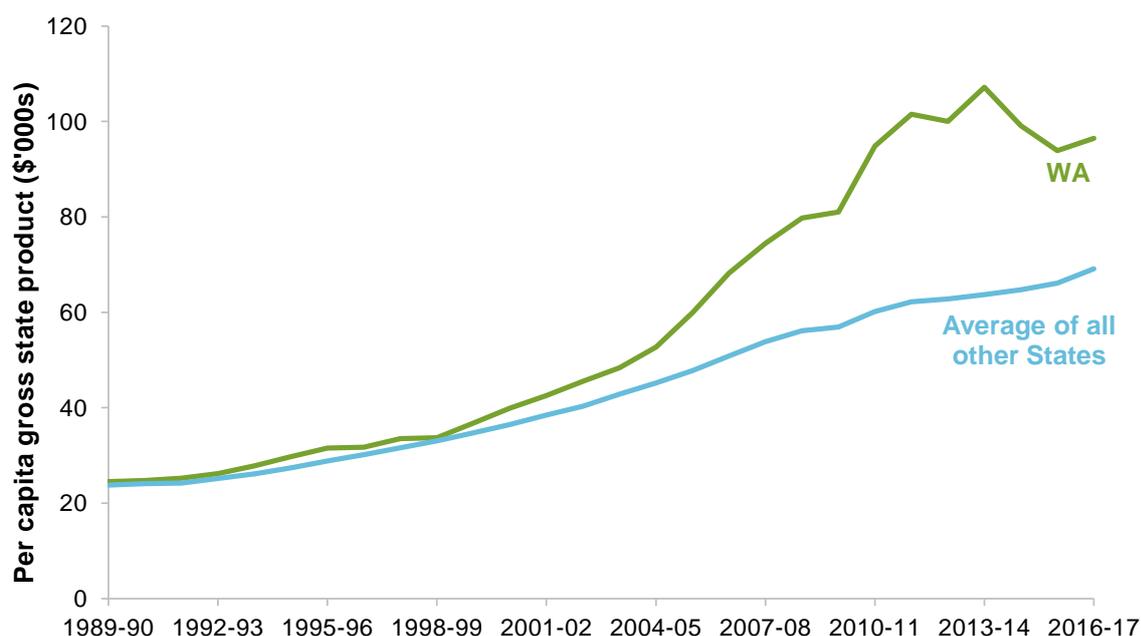
Clearly the averaging of relativities over three years has a perverse effect on Western Australia because they reflect a legacy of boom in mining royalties which no longer applies. At the same time, averaging provided Western Australia with above standard levels of service when the boom was ramping up. Something similar occurred to New South Wales years earlier when a property boom collapsed, and stamp duties revenues too. (Phillip Bubb, sub. DR60, p. 2)

For example, before the construction phase of the mining boom came to an end, Western Australia benefited from the lack of contemporaneity — with the CGC estimating that the State retained about \$7 billion more than it would have under fully contemporaneous GST payments (box 4.2). Moreover, it is possible that this sum may not ever be completely 'unwound':

... unless iron ore royalty revenues grow at low rates into the future, a significant part [of the \$7 billion] may remain as a permanent net benefit to Western Australia. ... The lags in the assessment system have provided a large and likely ongoing benefit to Western Australia (at the expense of other States) while cyclical developments (around the trend) provide broadly offsetting short term gains and losses. (CGC 2015a, p. 8)

While this ‘over-equalisation’ offers a benefit rather than a problem for the booming State that is over-equalised, it also means that the other States are being less than fully equalised for that year. For those States that do not experience large and rapid changes in fiscal capacity, or significant volatility in own-source revenue, limited contemporaneity has been less problematic.

Figure 4.3 Per capita gross state product
Nominal dollars



Source: Productivity Commission estimates based on ABS (*Australian Demographic Statistics, Jun 2017, Cat. no. 3101.0*) and ABS (*Australian National Accounts: State Accounts, 2016-17, Cat. no. 5220.0*).

States should be able to manage the impacts of pro-cyclicality

Even with limited contemporaneity, States should be able to manage the budgetary implications of lagged GST payments. Given the retrospective nature of the CGC’s assessment processes, States are generally able to forecast the direction of changes in their GST relativities. Although volatile revenue streams — and fluctuations in the growth rate of the GST pool — can create difficulties in accurately forecasting specific relativities, GST payments are relatively stable compared to other revenue streams, and for several States they comprise the least volatile source of revenue (section 4.2 provides more detail).

Indeed, some States argued that, by allowing State Governments to forecast several years of GST relativities based on current and recent circumstances, limited contemporaneity promotes stability of GST payments and provides States with more certainty when managing their budgets (SA Government, sub. 25, pp. 16-17; Tasmanian Government, sub. 28, p. 28; Victorian Government, sub. DR87, p. 20).

Box 4.2 Non-contemporaneity and Western Australia's budget position

After roughly 10 years of strong growth driven by the mining construction boom, Western Australia's royalty revenue peaked in 2013-14 and declined substantially thereafter. Due to the three-year assessment period and two-year lag, Western Australia's GST payments have remained heavily influenced by previously high royalty revenues, contributing to a deteriorating fiscal position. The WA Government argued that the HFE system thereby exacerbated the effect of the downturn on the State's finances (sub. 15, p. 93).

However, many have argued that Western Australia's current fiscal predicament is chiefly a product of its continued high spending, despite falling GST payments (Langoulant 2018, p. 55; CCIWA, sub. 11, p. 1; Tasmanian Government, sub. 28, pp. 6, 24; NT Government, sub. DR69, p. 16; SACOSS, sub. DR75, p. 2; Victorian Government, sub. DR87, p. 20). Eslake (2017b), for example, argued:

Despite the sharp decline in its share of GST revenues, the WA government's total revenue per head of population in 2015-16 was just A\$67 (or 0.7%) below the average for all states and territories. By contrast, by 2015-16 the WA government was spending over A\$1000 (or 10.5%) more per head of population on 'operating expenses', than the average of all states and territories ...

WA's present fiscal woes are the result not of a flawed system of distributing revenue from the GST among the states and territories, but rather of its inability to control its own spending.

Though Western Australia currently receives lower GST payments than it is assessed to need, while mining royalties were increasing it received larger GST payments than it would have under a fully contemporaneous HFE system. The CGC has estimated that growth in iron ore royalties alone resulted in Western Australia retaining an extra \$7 billion from 2010-11 to 2015-16 compared to contemporaneous GST payments (CGC 2015a, p. 8; pers. comm., 11 August 2018).

In its first submission to this inquiry, the WA Government (sub. 15, pp. 97-99) discussed why these excess GST payments were not provisioned as a contingency for the emerging (and forecast) downturn in GST payments. (The 2011-12 budget projected a fall in WA's relativity from 0.72 to 0.33 by 2014-15 (WA Government 2011a) — its actual relativity in 2014-15 was 0.38). Among the reasons given was an expectation within the WA Government that the HFE system would be reformed following the 2012 GST Distribution Review (that is, it did not see the continued decline in its GST relativities as guaranteed). Consistent with this notion, the then WA Treasurer (Porter 2011, p. 3) stated in his 2011-12 budget speech:

What we reasonably anticipate is that in 2013-14 the CGC will have brought in a new GST system. We expect it will produce a floor of about 75 per cent of our population share of the GST. Therefore we expect extra revenue of \$1.8 billion in 2013-14 and \$2.5 billion in 2014-15. These amounts will allow for reduced borrowings and will be used to progressively reduce existing debt to less than \$18 billion while maintaining strong infrastructure investment. ... If that change does not occur in that year, the State Government will then have no choice but to wind back infrastructure investment to decrease debt.

In the 2011-12 budget papers, the WA Government's spending over the forward estimates (2011a, p. 33) did not explicitly include additional GST revenue from the anticipated relativity floor. However, the asset investment program in the key budget aggregates (p. 6) is identical to that shown in the assumed budget aggregates if a floor of 0.75 were introduced (p. 64). This suggests the State was on a higher course of spending than would be the case if there was no expectation of a floor. A recent inquiry into WA Government expenditure (Langoulant 2018) reached a similar conclusion (p. 54), stating that 'if the warnings Treasury provided that the policy settings of the day would cause major difficulties in the future had been heeded, it is highly likely that the State's current budget and debt positions would have been mitigated, and in a material manner' (p. 55).

Although a lack of contemporaneity arguably exacerbated its existing budget problems after the decline of the construction phase of the mining boom, overall, Western Australia benefited from limited contemporaneity during the boom. With its relativity set to increase substantially in the next few years, Western Australia could be expected to remain a net beneficiary of the lag and three-year averaging into the next decade.

Further, States have a range of options with which they can manage short-term fluctuations in their GST payments, just as they would with any other source of volatility in State revenues (Jim Hancock, sub. 54, p. 8; Victorian Government, sub. DR87, p. 2; CGC 2015a, pp. 4–5, 14). These options include: increasing revenue-raising capacity by bringing more revenue sources onstream or lifting tax rates; increasing borrowing; running a surplus to accumulate a fiscal ‘contingency fund’ for the onset of lower GST payments; or tapering expenditures down to align with reduced revenues. The CGC (2015a, pp. 10, 14) has also noted that, while HFE necessarily interacts with State budget management, the system’s priority is not to balance State budgets on behalf of Governments.

How could greater contemporaneity be achieved?

Without moving substantially away from the current assessment methods used by the CGC, contemporaneity could be increased by reducing the length of the assessment period, addressing the lag in data availability, or both. The CGC (2017e) considered both of these options in preliminary work for the 2020 Methodology Review.

Reducing the length of the assessment period

Several participants have suggested that the assessment period be shortened so that GST relativities can respond faster to changes in States’ fiscal circumstances (Business Council of Australia, sub. 47, p. 5; WA Government, sub. DR83, p. 34; Business SA, sub. DR94, p. 5).

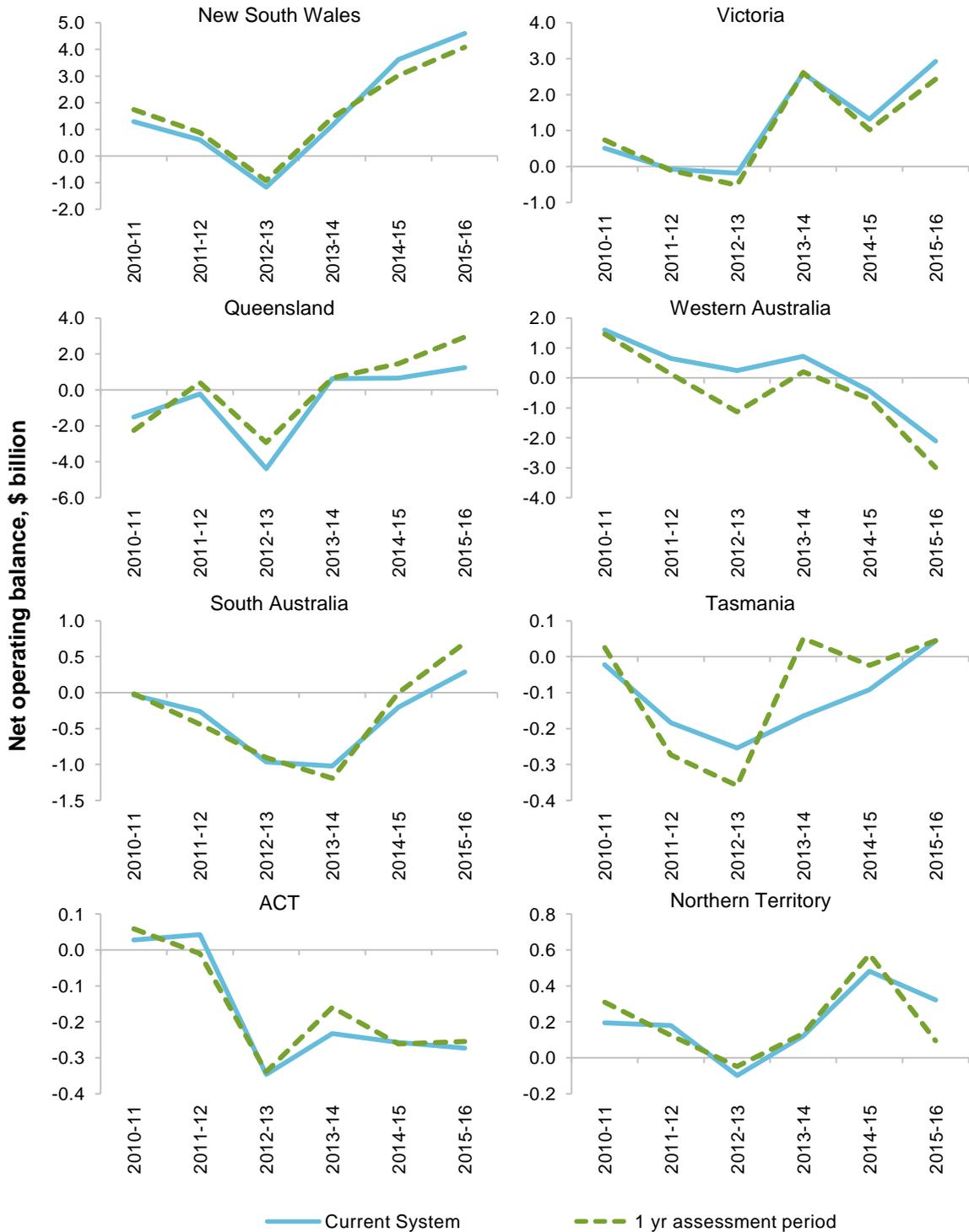
Phillip Bubb and the ACT Government both mooted the option of assessing a single year for each update:

Averaging ... makes the calculation and understanding of the changes to relativities all but impossible, not least for Grants Commissioners themselves. I suggest that the [CGC] base recommendations to the Commonwealth on an assessment only of the latest year for which data are available. This should provide more up to date and accurate recommendations. It is also far simpler. (Phillip Bubb, sub. DR60, p. 3)

A possible option that can be considered is a move to a one-year assessment period from the current three-year assessment period. It is expected that the relativities calculated using a one-year assessment period would be much more volatile than relativities calculated using a three-year assessment period. However, the ACT’s analysis ... shows only a slight increase in volatility between the two approaches. (ACT Government, sub. DR81, p. 31-2)

Productivity Commission analysis of such a change suggests it is unlikely that reducing the length of the assessment period would systematically reduce the amplifying effect HFE can have on State budget cycles. Figure 4.4 shows how States’ net operating balances would have differed had GST payments been calculated using a one-year assessment period. It suggests that a shorter assessment period could have led to larger extremes in operating balances in some cases (for example, during Victoria’s, South Australia’s and Western Australia’s most recent operating balance minimums) and smaller declines in others (notably, Queensland’s most recent minimum).

Figure 4.4 Net operating balance and assessment period



Source: Productivity Commission estimates based on ABS (*Government Finance Statistics, Australia, 2015-16*, Cat. no. 5512.0) and CGC (pers. comm., 10 July 2017).

These figures must be interpreted cautiously, however, as they assume that the States would have implemented identical policy and expenditure measures in the face of a single-year

assessment period. It is not possible to know the counterfactual, and as discussed above, greater contemporaneity may have had a material impact on some States' revenue forecasts and, therefore, expenditure decisions.

In its most recent preliminary work for the 2020 Methodology Review, the CGC has indicated that, subject to the availability of reliable data and the trade-off between contemporaneity and predictability, it will seek to minimise the length of time between the assessment years (or year) and the application year. As such, it will consider whether the three-year assessment period is still fit for purpose, or whether a reduced assessment period — as short as a single year — may be warranted (CGC 2017j, p. 29). (The assessment period was previously shortened from five years to three years, as an outcome of the 2010 Methodology Review.)

The move to consider this issue may reflect that the trade-off has worked more in favour of smoother, more predictable GST shares rather than contemporaneity (at least in recent years). Given the current economic circumstances in Western Australia (regardless of whether the lack of contemporaneity per se can be said to have exacerbated those circumstances), a relevant consideration may be whether the effects of a localised downturn are amplified rather than muted by the HFE system's assessment timeframe, and if these effects spread to the national economy.

Shortening the lag

Another option would be to reduce the lag between the assessment period and application year. Given that the lag exists because of delays in the finalisation of reliable annual State data, substantial reductions would require the CGC to forecast States' circumstances up to the application year. Such approaches have been suggested by the ACT Government and the WA Government.

The WA Government (sub. 15, pp. 113-14) has outlined a system in which forward estimates could be used as the basis for the calculation of State fiscal capacities, in an attempt to implement a fully contemporaneous GST assessment. Forward estimates — and therefore fiscal capacities — could be updated during the financial year (for example, following each State budget) and monthly GST payments adjusted to reflect these, with a final correction in the following financial year to ensure the assessed fiscal capacities matched States' final budget outcomes.

The WA Government argued that, while this system would result in greater volatility of GST payments, 'this [would be] necessary to cancel out the volatility in other revenue and ensure much more stable total revenue' (sub. 15, p. 93).

The ACT Government (sub. 49, pp. 76-78; sub. DR81, pp. 66-68) proposed retaining the three-year assessment period, but replacing the earliest assessment year with estimates for the year prior to the application year. For example, the 2017-18 GST relativities would have been calculated as follows:

- The application year would be the 2017-18 financial year.

-
- The assessment years would be 2014-15, 2015-16 and 2016-17. The earliest year would be weighted at 20 per cent, with the other two years weighted at 40 per cent each.
 - Finalised State data would be available for 2014-15 and 2015-16.
 - Forecasts would be required for 2016-17.

Given that the CGC's relativity update is typically released early in the calendar year, actual data would likely be available for the complete first half of the financial year. The ACT Government (sub. 49, p. 77-78) contended that this would reduce the level of reliance on State estimates and therefore minimise the scope for error in forecasting. It further recommended that the CGC either source the abovementioned forecasts from independent parties or develop the capability itself, to avoid the errors which could arise due to differences in forecasting methods across States.

Is reducing the lag feasible?

While the potential benefits of increased contemporaneity are clear, the use of forecasts and projections would introduce several complications. First, forecast and projection approaches are likely to produce inaccurate relativities when States' economic circumstances change course, as has occurred recently in Western Australia (that State's forecasts are discussed in more detail later in this chapter). The CGC noted this risk in preliminary work for the 2020 Methodology Review:

It is not clear that estimating financial data will reduce gaps if the cause is a sudden change in State fiscal capacities. It is unlikely forecasts or projections could reliably predict turning points, particularly for the more volatile revenue streams (such as property duties and royalties) or payments for specific purposes (PSPs). (2017e, p. 8)

Inaccuracies in the calculation of relativities due to using forecasts or projections would likely need to be corrected in later years. These corrections could be large, introducing additional volatility and uncertainty to GST payments and increasing the complexity of the HFE system (Tasmanian Government, sub 28, pp. 26-27; Queensland Government, sub. 32, p. 13; NT Government, sub. 51, p. 27; Victorian Government, sub. 53, p. 10). The CGC also noted recently that this could, itself, have adverse effects on contemporaneity:

The [CGC]'s view is that an approach using such unreliable data raises a range of issues, including that it would almost certainly require consequent GST adjustments in future to compensate for errors. This ex-post correction could, of itself, undermine the contemporaneity of GST distributions in future years. Most States expressed concerns that the use of forecasts would merely introduce unwarranted complexity, uncertainty and volatility. (2017j, p. 30)

An additional issue introduced by forecast approaches is the increased degree of judgment required by the CGC, as it would be required to develop forecast methods. Using forecasts produced by States, on the other hand, could be difficult due to inconsistency in methods and a lack of comparability across States (Queensland Government, sub. 32, p. 13).

Moreover, relying on States' forecasts could lead to unintended consequences, as forecasting techniques and assumptions could affect GST payments. In this regard, the Victorian Government noted that forecasts 'introduce a number of risks, including to greatly increase

the risk of gaming of GST shares by some States by varying their revenue forecasting assumptions’ (Victorian Government, sub. 53, p. 10).

FINDING 4.1

Features of Australia’s HFE system can exacerbate the fiscal impact of economic cycles when States experience large economic shocks. Such a situation recently occurred in Western Australia.

However, offsetting cyclical influences on State budgets is not the primary objective of HFE, and options to improve contemporaneity do not offer unequivocal improvements.

- Reducing the length of the assessment period would have mixed impacts across States, and may ultimately have little effect on State budget fluctuations.
- The two-year data availability lag cannot be substantially reduced without introducing additional scope for volatility and dispute.

The most effective response to a lack of contemporaneity lies with the States themselves, and with the necessity for State Treasuries to factor the assessment period and GST lag into their budget management processes (which most do).

4.2 How does the HFE system affect budget planning?

Volatile equalisation payments can contribute to uncertainty in budgetary processes. Several States stressed the importance of stable and predictable equalisation payments (for example, SA Government, sub. 25, p. 16; NT Government, sub. 51, p. 27). The Queensland Government (sub. 32, p. 10) suggested that volatile revenues challenge States’ ability to plan for the sustainable provision of services, and noted that slowing growth in the GST pool (discussed in more detail below) compounded this:

Steady growth of the GST pool in earlier years provided a buffer against volatility in CGC relativities to States. Conversely, now with reduced growth in the GST pool the fiscal impact of this volatility has become more apparent.

The Victorian Government (sub. 53, p. 10) also argued that stability of *overall* State revenues was important, as volatile revenues can force State Treasuries to allocate larger contingencies, and can undermine confidence in planned investments, distorting resource allocation. However, it contended that the volatility of *individual* revenue sources was less material, and in particular, that the current degree of volatility in GST payments ‘is not a problem to be removed, as it is offset by the volatility in that State’s own revenue sources’ (sub. DR87, p. 2).

Most States — with the exception of Western Australia and the ACT — also cautioned against changes that improve contemporaneity but increase volatility.

What drives volatility in equalisation payments?

Volatility and contemporaneity are closely related — contemporaneous equalisation payments would necessarily be more volatile than those calculated over a range of years. As such, the factors that limit the contemporaneity of equalisation payments in Australia (particularly the length of the assessment period) also reduce their volatility.

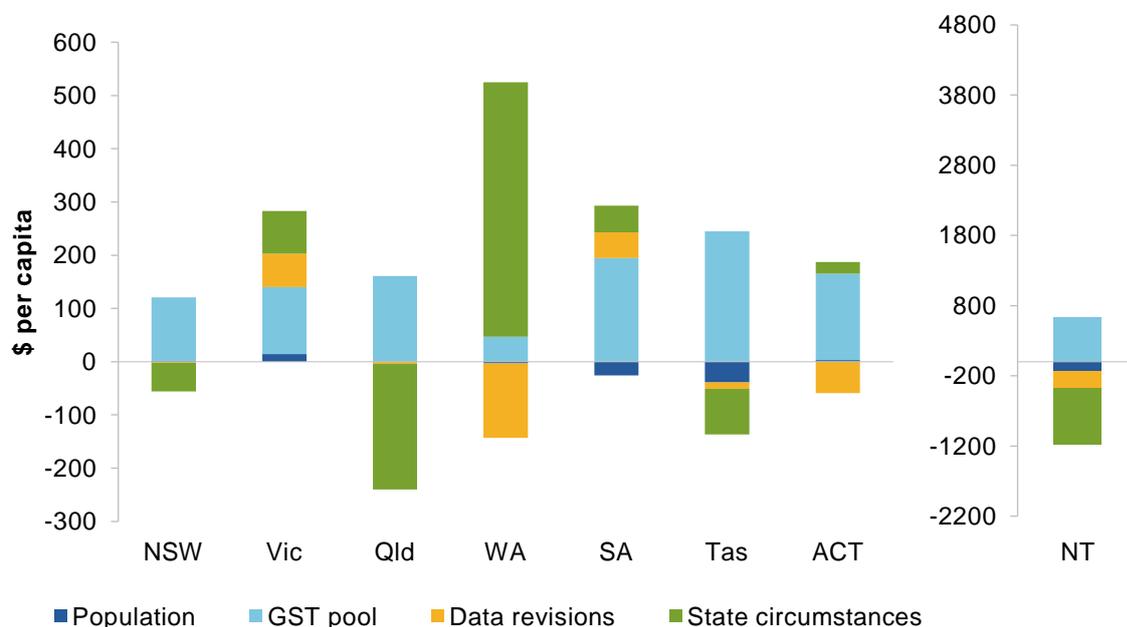
Other important influences on revenue volatility and predictability include:

- *the size of the total GST pool* — Australia’s national GST collections determine the total amount of funding to be distributed to States. In many years (for most States), changes in the size of the pool have contributed more to changes in each State’s GST payments than changes to populations and relativities combined. Annual nominal growth in the GST pool has ranged from 14 per cent in 2002-03 down to -3 per cent in 2008-09. As such, while a State can only receive more GST payments at the expense of another State in any one year, growth in the GST pool over time can result in larger GST payments for all States.
- *revisions to data and the CGC’s methodology* — the CGC calculates annual relativities on three separate occasions for each assessment year. For example, the 2013-14 annual relativity must be calculated for the 2015-16, 2016-17 and 2017-18 relativity updates. Because the data used by the CGC are often revised following initial release, annual relativities for an assessment year can vary materially across updates, particularly given adjustments to States’ population shares. In the 2018-19 update, data revisions changed GST payments substantially for some States, with reductions of \$140 per capita for Western Australia and \$247 per capita for the Northern Territory (CGC 2018h, pp. 11, 15). These effects can be compounded by changes in the CGC’s methodology, which is reviewed every five years.
- *judgements regarding the exclusion of Commonwealth payments* — both the Commonwealth Treasurer and the CGC have the ability to determine whether specific Commonwealth payments are excluded from the calculation of States’ relativities. While the share of Commonwealth payments excluded from the GST calculations is relatively small (appendix B), these determinations can have significant impacts on State budgets, particularly for smaller States (Brumby, Carter and Greiner 2012a, p. 70). When payments are quarantined, relativities become less representative of the amount of funds transferred from the Commonwealth to States, obscuring the extent to which the Commonwealth is equalising States’ fiscal capacities (chapter 2; appendix B).

The CGC reports the change in GST payments resulting from changes in population, the size of the GST pool, data revisions and States’ circumstances (figure 4.5).

Compared to other sources of State Government revenue, GST payments are relatively stable. Over the past 16 years, the relative variation in GST payments to the States from one year to the next has been smaller than for other major sources of revenue (figure 4.6), though the absolute change in dollar amounts has sometimes been larger. Moreover, in some cases GST payments appear to partially offset fluctuations in other revenue streams, dampening the volatility of *overall* State revenues.

Figure 4.5 Contributors to change in GST payments^a
2017-18 to 2018-19



^a 'State circumstances' includes all of the factors that make up State fiscal capacities (broadly: expense requirements, investment requirements, net borrowings, revenue-raising capacities, and Commonwealth payments). In the 2018-19 Relativity Update, some of the main sources of change in State circumstances included mining production (a major driver of change in GST payments for Western Australia), natural disaster relief (a major driver for Queensland), Commonwealth payments, and property sales.

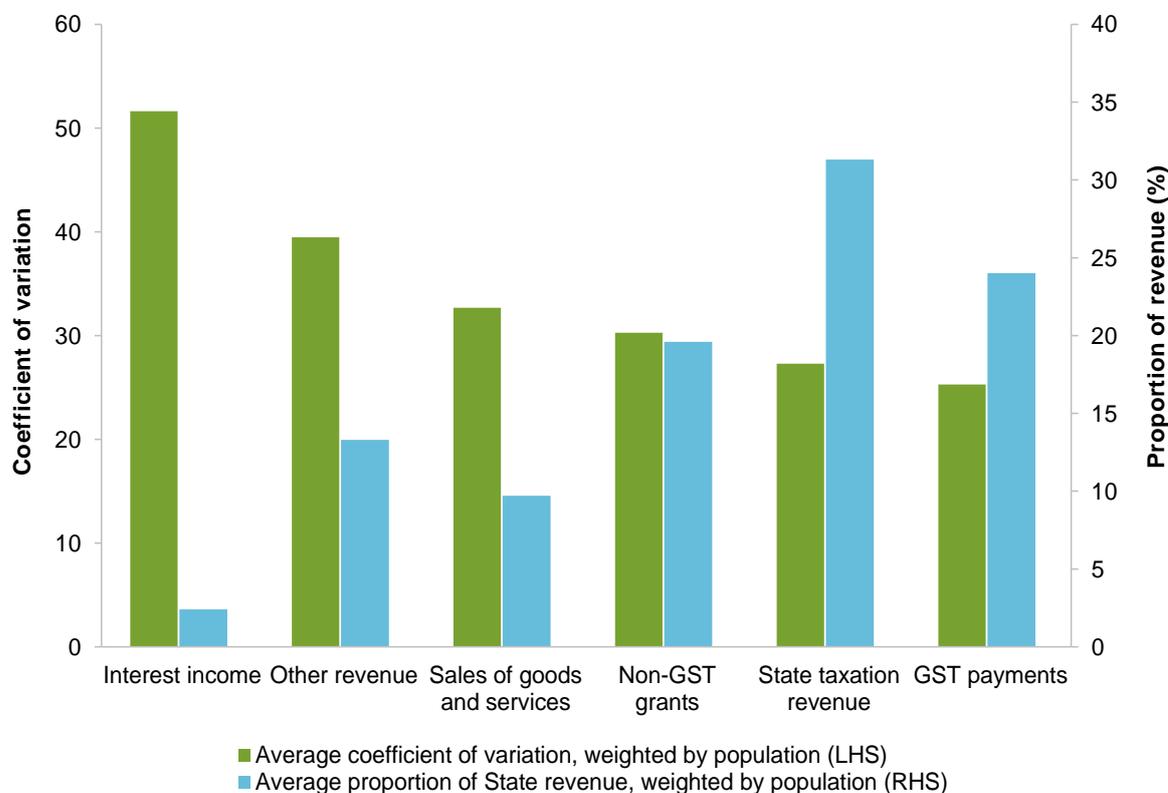
Source: CGC (2018h, pp. 8–15).

How accurate are forecasts of future GST payments?

States have reported varying degrees of success with forecasting GST payments. The ACT Government (sub. 49, p. 35), for example, described predicting future relativities for small States as an 'exercise in futility'. In a similar vein, the NSW Government (sub. 52, p. 25) noted that the complexity of the formula, combined with changes in methodology, makes predicting GST consequences of spending decisions difficult.

On the other hand, the Tasmanian Government (sub. 28, p. 21) reported that its forecasts have proven to be as accurate as those for other revenue sources and in some cases more so. The Queensland Government (trans., p. 602) likewise noted that it had experienced few difficulties in forecasting GST payments, with relatively small variations between forecasts and the actual payments. And the WA Government (sub. 15, p. 92) reported that it had been able to forecast relativities one year in advance reasonably accurately (at least up until the State's dominance of iron ore royalties began to affect relativities), though forecasting further out is more difficult.

Figure 4.6 **Year-on-year volatility of State revenue sources^{a,b}**
2000-01 to 2015-16



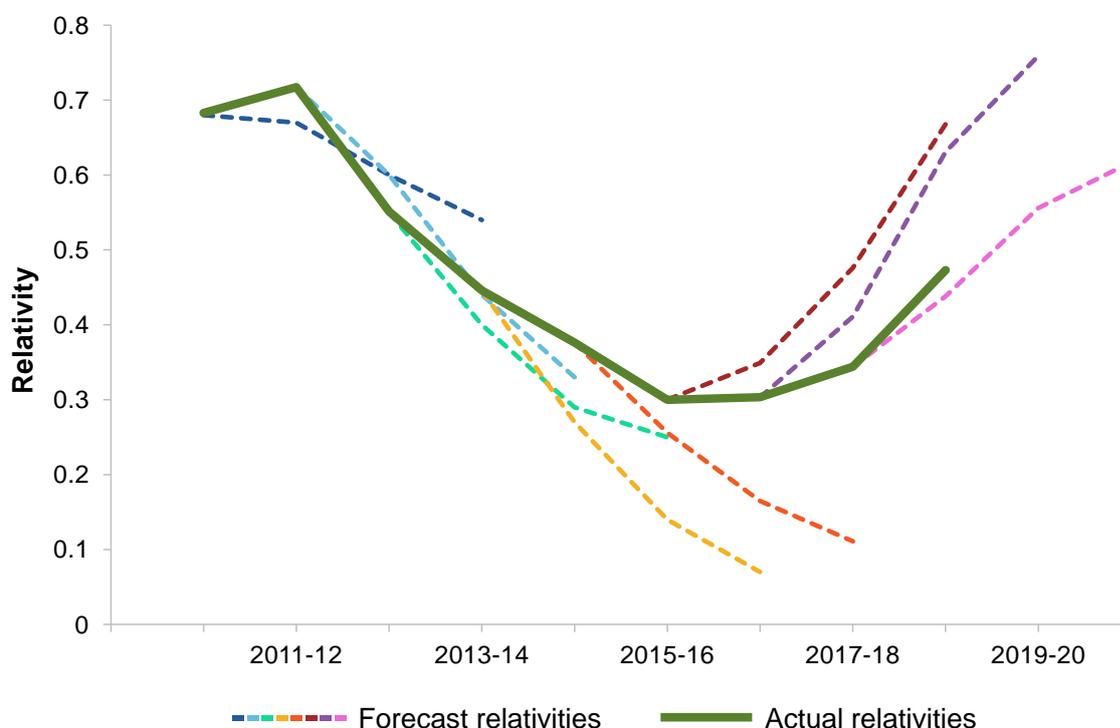
^a The coefficient of variation is a measure of dispersion, showing the degree to which values are spread above and below the mean, relative to the size of the mean itself. It takes into account both positive and negative changes, and is calculated by dividing the standard deviation by the mean. ^b Royalty income is included in 'other revenue'. 'State taxation revenue' includes stamp/transfer duty, land tax, insurance tax and vehicle licensing charges. 'Current grants and subsidies' presented in the ABS Government Finance Statistics have been disaggregated into 'Non-GST grants' and 'GST payments'.

Source: Productivity Commission estimates based on ABS (*Government Finance Statistics, Australia, 2015-16*, Cat. no. 5512.0) and Commonwealth Treasury (pers. comm., 20 July 2017).

Indeed, all States' predictions in outyears tend to be less accurate; nonetheless, significant shifts in relativities in recent years have been reasonably foreseeable — for example, the WA Government successfully predicted the decline in its relativities, albeit overstating the extent of this decline (box 4.2; figure 4.7).

The WA Government's relativity forecasts were much more accurate in the earlier years of its relativity decline, but that accuracy began to decline around 2013, as the assessment period became almost entirely dominated by highly volatile royalty revenues (figure 4.7). The effects of the mining boom on Western Australia's forecasting were further compounded by population changes, resulting in much less accurate forecasts. For example, in the 2013-14 Western Australian budget, the State's one-year and two-year GST revenue forecasts were underestimated by about 29 per cent and 52 per cent respectively.

Figure 4.7 Western Australia's performance forecasting relativities



Sources: CGC (2018g); Western Australian Budget Papers (2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017).

Overall, States have generally had more success forecasting GST payments than taxation revenue. Excepting Western Australia, GST forecasts, on average, are of roughly comparable accuracy to taxation revenue forecasts for the budget year (figure 4.8).

Fiscal equalisation and incentives for budget management

Vertical fiscal imbalance (VFI) necessitates payments from the Commonwealth to the States to ensure that States have sufficient revenue to meet their spending needs (chapter 2). When combined with the HFE system's joint role of addressing VFI and achieving horizontal equity, the Commonwealth's influence over State fiscal positions can mean that responsibility for States' budget positions appears to be shared with the Commonwealth. This has been illustrated in recent years in Western Australia, where the WA Government purported that its worsening budget position was a result of its declining GST share.

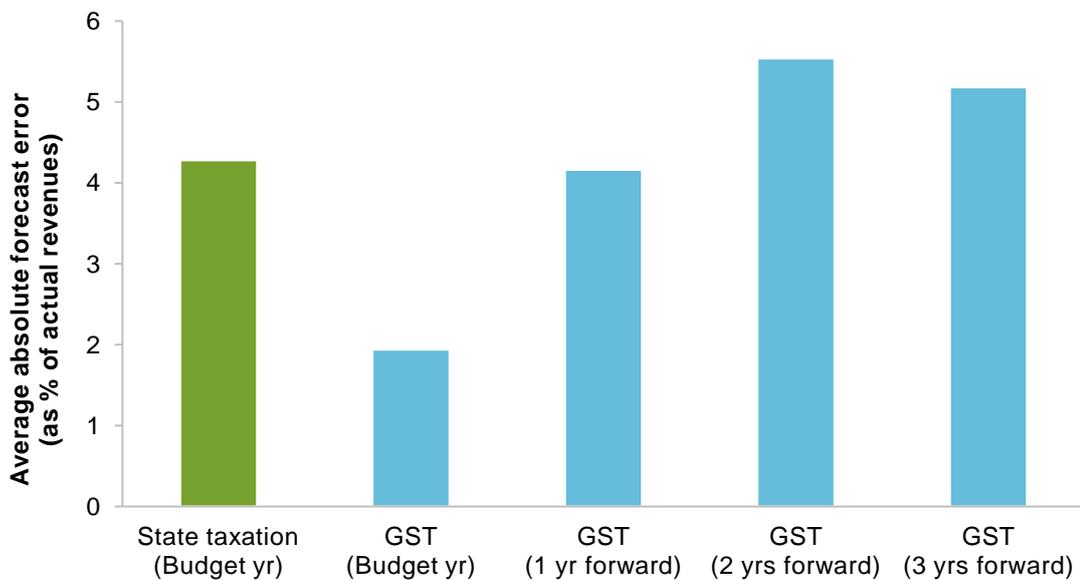
Along these lines, the NSW Government argued:

The current system also inhibits, to some degree, state government being made accountable for the revenue and expenditure choices they make. This makes it difficult for citizens to hold governments to account for their revenue and expenditure choices. (sub. 52, p. 22)

The Commonwealth Government's influence over the treatment of Commonwealth payments in the CGC's assessments, through the Treasurer's discretion to quarantine or

discount payments via the terms of reference for each relativity update, has arguably further compounded the perception of joint responsibility for State budgets — as have the large quarantined infrastructure payments made from the Commonwealth to Western Australia in recent years.

Figure 4.8 States' revenue forecasting errors^{a,b,c}
2012-13 to 2016-17 for GST payments, 2011-12 to 2015-16 for State taxation



a 'State taxation' includes stamp/transfer duty, land tax, insurance tax and vehicle licensing charges. **b** Western Australia's GST payment forecasts have been removed as outliers for the reasons discussed in the text above. **c** Averages are not weighted by population.

Source: Productivity Commission estimates based on data provided by the Tasmanian Government (pers. comm., 18 August 2017).

Such ambiguity regarding accountability for States' budget circumstances will persist under other approaches to addressing VFI. However, the relative complexity of Australia's HFE system likely exacerbates this. Along these lines, the Business Council of Australia argued:

Perhaps the biggest concern with complexity is it acting as a barrier to accountability – very few citizens or the journalists that inform them will be able to understand if a state is receiving a fair share of the GST, or hold the CGC to account for the judgements they must make. (sub. 47, p. 6)

Concerns around VFI have become more elevated in the context of the recent slowdown in the growth of the GST pool, driven by the shift in consumption patterns towards products and services exempt from the GST (Daley et al. 2015, pp. 5–6; PBO 2014, pp. 38–40). Indeed, since the global financial crisis, GST payments have not been the steady, growing source of revenue first envisaged (chapter 2) — especially for Western Australia. The latter phenomenon, however, is largely a product of equalisation itself — driven by Western Australia's unprecedented increase in revenue-raising capacity due to the mining construction boom — rather than a lack of contemporaneity in how HFE is enacted. As such, there are likely to be benefits from improved communication and understanding

of Australia's HFE system and its objectives, and from longer-term reform of federal financial relations to address elevated VFI and a clearer delineation of the roles and responsibilities of all levels of government (chapter 9).

But even with reform to federal financial relations being a longer-term prospect, there is little evidence of a need for a significant shift in the way the CGC deals with issues related to contemporaneity. While it is possible that the combination of the three-year assessment period and the two-year lag may exacerbate the fiscal impacts when one or two States experience localised economic shocks, any change to contemporaneity must be weighed against the potential for greater volatility. The CGC's examination of this issue in the 2020 Methodology Review indicates that the existing mechanisms for changes to the assessment period are sufficient.

Regardless of the length of the assessment period, movements in GST payments are (for the most part) relatively foreseeable, and States have a range of budget management processes at their disposal with which to accommodate those movements. Indeed, the most appropriate response to a lack of contemporaneity lies with the States themselves, and with the necessity for State Treasuries to factor the assessment period and GST lag into their budget management processes.

More importantly, there is evidence that HFE can impose a substantial disincentive for some States to undertake major tax reform (chapter 3). Taxation is one of the key budget levers by which States can improve their fiscal capacities and budget positions, given that some expenditure needs (particularly those that are driven by structural disadvantages) are often outside of States' control, except in the long term. As such, there is a possibility that the current HFE system could indeed affect the overall incentives for good budget management. Moreover, some of the options for revenue reform analysed in chapter 3 — such as replacing stamp duties with a broad-based land tax — could provide States with less volatile revenue sources, thereby offering greater stability and predictability to State budgets (Henry et al. 2010b, pp. 253–256).

FINDING 4.2

Volatile State revenues can contribute to uncertainty in budgeting processes. Compared with other sources of State Government revenue, GST payments are relatively stable and in some cases may offset volatility from other revenue sources.

5 Does HFE influence interstate migration?

Key points

- HFE in Australia has mainly been focused on providing fiscal equity. HFE's influence on economic efficiency and productivity remains a secondary and subsidiary concern for the Commonwealth Grants Commission.
- The traditional focus of how HFE bears on efficiency has been its impact on the interstate movement of labour and capital. There are two schools of thought.
 - The most common is that fiscal equalisation can counteract distortions caused by movements of labour and capital that are fiscally induced (the 'efficiency in migration' theory).
 - An alternative is that HFE dulls economic signals for labour and capital to move to where they are most productive. That is, HFE can make it more attractive for labour and capital to remain in fiscally weaker States even though they are less productive and it is more costly to deliver government services.
- Modelling results provide no clear evidence on whether HFE's influence on migration enhances or reduces efficiency. Model outcomes are largely driven by assumptions of whether HFE is good or bad for efficiency, rather than having this determined by the model itself.
- Bearing these caveats in mind, the modelling results available suggest that the size of HFE's impact on interstate migration of labour is small. Other factors, such as differences in work opportunities between States, and family reasons, are a bigger driver of interstate migration.
- However, the current HFE redistribution task in Australia is historically high. To the extent there are (migration) efficiency effects at the margin, these would be more pronounced in the current environment. Similarly, fiscally induced movement may become apparent if State fiscal capacities were to diverge over a sustained period, although the gap in fiscal capacities would need to be substantial for it to have a material influence on migration decisions.

This chapter considers the influence of Australia's HFE system on the efficient movement of labour and capital across State borders. These location decisions have been the traditional focus of the efficiency effects of HFE on the economy. However, HFE can also influence other aspects of efficiency, such as the incentives for States to facilitate economic development and to undertake material tax reform (discussed in chapter 3). It can also affect State budget management (discussed in chapter 4).

This chapter is set out as follows: section 5.1 discusses the theory for and against HFE, based on the efficient migration of labour and capital; section 5.2 summarises the modelling used

to evaluate the efficiency effects of HFE; and section 5.3 looks at whether HFE has influenced interstate migration decisions in Australia.

5.1 HFE and efficient migration: what the theory says

Economists are divided on the effects of HFE on interstate migration and, in particular, whether it promotes or detracts from efficient migration outcomes. Efficient migration refers to the movement of labour and capital to areas where they are most valued and most productive. In a federation that functions well, a person may decide to move interstate to enjoy higher earnings, particularly if these earnings more than offset the costs of moving.

However, a person may also decide to move if there are ‘net fiscal benefits’ from moving — such as getting better public services or paying lower taxes. For example, Queensland was able to attract a large influx of people from interstate when it abolished death duties in the mid-1970s. A State with a strong fiscal capacity could offer these sorts of net fiscal benefits to its residents, which may attract labour and capital from fiscally weaker States. This would distort migration decisions as labour and capital may no longer move to areas where they are most productive.

Proponents of HFE say that equalisation removes incentives for fiscal migration and so facilitates the efficient movement of labour and capital over the long term. This ‘efficiency in migration’ theory was first credited to Buchanan (1950, 1952) and expanded upon and formalised by others.⁸ Boadway and Flatters (1982) developed a framework to show that an ‘optimal’ fiscal transfer can correct for these distortions in migration decisions by fully equalising net fiscal benefits between States. Following equalisation, each State would have the capacity to provide similar levels of services to their residents. Such equalisation would therefore also satisfy Buchanan’s ‘equal treatment of equals’ objective (chapter 1).

Opponents of HFE, on the other hand, point to it adding to existing distortions and further discouraging people and capital from moving to more productive areas. According to this view, the services that are funded by HFE in fiscally weaker jurisdictions can reduce incentives for labour and capital to move to where they are more productive. For example, Courchene (1984) argued that equalising transfers in Canada reduced the levels of out-migration from the Atlantic Provinces below what was optimal for the country. Garnaut and Fitzgerald also concluded that HFE ‘has a tendency to shift more resources to regions where long-term growth potential is lower’ (2002b, p. 153).

Building on this, it is also argued that HFE could widen disparities between States. As noted by the OECD (2013, p. 111), ‘equalisation may in fact be self-defeating in that it slows down regional convergence’. In other words, in the absence of fiscal transfers, fiscally weaker jurisdictions would be forced to become more competitive, and would eventually overcome

⁸ Buchanan and Goetz (1972); Flatters, Henderson and Mieszkowski (1974); Boadway and Flatters (1982); and Myers (1990).

their fiscal disadvantages. McKinnon (1997, p. 85) argued that the economic development of the southern American States in the second half of the twentieth century resulted from low wages and more flexible labour markets. These conditions encouraged investment and labour migration and brought with it new prosperity. From this perspective, HFE may hold back the economic growth of fiscally weaker jurisdictions. A number of other factors can also bear on what is considered ‘efficient’ (box 5.1).

Box 5.1 **Other efficiency considerations for equalisation**

Externalities — agglomeration and congestion

The effects of having more concentrated labour and capital markets can bring with it positive externalities, known as agglomeration (or ‘clustering’) effects. Agglomeration can provide economies of scale benefits through entrepreneurship, product diversity and better job matching (Krugman 1993; Romer 1986). The flipside to this is the negative diseconomies of scale costs brought about by congestion. Both effects can influence the efficient settlement pattern within a country (Boadway and Shah 2009, p. 53). If these externalities are present and not accounted for in the equalisation process then HFE may in fact distort efficient labour and capital movements.

Efficiency over time

Economic development

A common criticism is that HFE can constrain efficiency over time — hampering a State’s longer term growth potential. This could occur if HFE reduces incentives for a State to pursue policies that favour economic development, thereby curbing labour and capital flows to the State (Garnaut and FitzGerald 2002b, p. 134; Weingast 2009, p. 283).

HFE’s potential influence on efficiency over time has only recently been considered formally in the literature. Chan and Petchey (2016, 2017) suggested that, in theory, redistributions caused by HFE may provide a disincentive for States to develop. They demonstrated that HFE may reduce a State’s incentive to save, which would lower its capital spending and output over time. This would lead to lower economic growth for a country when compared to a scenario without HFE (Chan and Petchey 2017). However, as the authors noted, these efficiency costs would need to be weighed up against the possible efficiency benefits suggested in the efficiency in migration literature, as well as equity and other concerns.

HFE’s influence on State policy choices, including economic development and tax reform, is discussed further in chapter 3.

Human capital development

A contrasting view is that HFE could promote productivity by enhancing human capital. According to the Commonwealth Treasury submission to the *GST Distribution Review*, HFE could contribute to efficiency by boosting investment in health and education services in fiscally weaker States (Commonwealth of Australia 2011, p. 34). It pointed to the well-established positive link that education and health outcomes have with higher productivity and income.

The potential for HFE to support human capital development in fiscally weaker States could also be seen as an equity outcome. However, as noted in chapter 1, equity in State fiscal capacities does not necessarily translate into equity of individuals’ access to public services (interpersonal equity).

In summary, the theoretical literature broadly supports HFE's role in preventing migration that occurs based on fiscal considerations alone. However, as noted by Shah, it can have adverse consequences for efficiency if it impedes the productive flow of labour and capital across States. HFE policy must thus be carefully designed and balanced to ensure that it does not hold back other policy objectives like economic growth (sub. DR103, p. 12).

5.2 Modelling HFE's impact on migration

There have been past attempts to quantify the efficiency effects of HFE using modelling. Most of these studies examine either the Australian or Canadian systems of equalisation. In Australia, these studies have primarily been conducted using computable general equilibrium modelling. Such modelling aims to examine the welfare effects of a simulated change to the HFE system for each State and for Australia as a whole.

The most comprehensive modelling of Australia's HFE system has been undertaken by Dixon, Picton and Rimmer (2002, 2005), Independent Economics (2012, 2015) and Murphy (2015, 2017). These groups disagreed on whether HFE enhances or reduces national welfare through its impact on migration (when compared to an equal per capita distribution or some variant). However, despite these models applying different assumptions and leading to different conclusions, the overall efficiency impacts of all three models are generally found to be small. These models are described in detail in appendix D.

There are limitations in such modelling exercises. Many behavioural questions are left largely unanswered by these models. For example, HFE's influence on economic efficiency depends on how people and governments actually respond to fiscal transfers — States could respond in a number of ways, including by reducing taxes or providing subsidies, paying down debt or providing more or better quality services. These behaviours can drive the results, but they are not well known and are typically determined outside of the models. As a result, model outcomes depend largely on what underlying (often contentious) assumptions are first made about whether HFE actually improves or distorts migration decisions.

Moreover, HFE can bear on efficiency through multiple channels that are not typically captured in a single model. As noted by Pincus (sub. DR96), if the model is underpinned by the assumption that HFE removes incentives for labour to respond to differences in States' fiscal capacities (and responds purely to economic factors, such as wage rates), then it must show that HFE improves economic efficiency. However, the results may change if other possible inefficiencies of HFE are included, such as the disincentives for tax reform or development (described in chapter 3). Such disincentives would be very difficult to model and have not been included in any empirical modelling to date.

For these reasons, HFE's influence on efficiency remains contested. As noted in chapter 1, the Commission has opted not to undertake modelling of the efficiency impacts of HFE. Such modelling, while helpful in exploring economic interactions and distributional effects

of a policy change, has inherent limitations (mentioned above). Further discussion of the modelling limitations can be found in appendix D.

5.3 Has HFE influenced migration decisions?

Given the issues involved with using modelling to quantify efficiency effects, the Commission has primarily used a principles-based approach to assess the influence of HFE on migration decisions. This assessment has drawn on evidence from other relevant studies and academic literature as well as perspectives from submissions to this inquiry (box 5.2). Broadly speaking, inquiry participants' views on whether HFE helps or hinders the efficient movement of labour and capital largely aligns with how much GST is redistributed to or from their State. Most participants, particularly from fiscally weaker States, tended to point to the role that HFE can play in preventing inefficient migration. Other participants have argued that HFE reduces incentives for people to move to more productive and high growth regions, or to areas where it is cheaper to provide public services.

Does Australia's system of equalisation encourage efficient migration?

Australia has its own unique geographic, cultural and institutional features that have helped to shape location decisions of labour and capital within the federation. Australia also has a system of equalisation that is often regarded as the world's most comprehensive, where assessments by the Commonwealth Grants Commission (CGC) aim to fully equalise both revenue and expenditure capacities of State budgets (chapter 2). It is therefore valid to ask if the effects of HFE on migration are particularly pronounced here.

Migration due to differences in service delivery

Australia's comprehensive system of HFE has been raised as an efficiency concern as it is said to counteract economic signals for people to migrate, including due to differences in wages and living costs.

As discussed in chapter 3, the CGC's assessment compensates States for the added costs of delivering services to people living in high cost areas, such as remote towns or congested cities. This could also influence location decisions as it means people face reduced incentives to move to areas where service delivery is cheaper (Boadway 2004, p. 238; Garnaut and FitzGerald 2002b, p. 134). Murphy (2015, 2017) said that this form of equalisation is inefficient and that people in high cost areas should pay the extra costs of delivering these services so as to signal the true cost of living in these areas. Pincus (2011, p. 15) also argued that compensating for these cost differences (where they reflect productivity differences) would be inefficient and would reduce national output.

Box 5.2 HFE's influence on efficient migration: what participants say

Some participants argued that HFE supports efficient migration

ACCI (sub. 40, p. 40):

... it would appear highly unlikely that labour or capital mobility would in any way be affected by the current system of HFE ... It is difficult therefore, without any firm evidence or analyses of a reasonable counterfactual, to suggest that the current system of HFE is not in the best interests of national productivity growth or that it acts as a disincentive for state growth agendas.

Hancock (sub. 54, p. 7):

HFE supports efficient location decisions in general, and this is true under circumstances of high labour demand in a few regions ... HFE avoids the situation where individuals relocate simply to establish a share in the rents from mineral resources, a dynamic that would distort location decisions.

NT Government (sub. 51, p. 18):

... equalisation does not impede efficient labour and capital movement decisions by providing states with the capacity to provide infrastructure and services at comparable levels.

SA Government (sub. 25, p. 8):

HFE supports the efficient movement of labour across state borders as opposed to movement motivated by fiscal effects that can arise from accidental variations in the location of natural resources and variations in human resource characteristics.

Tasmanian Government (sub. 28, p. 9):

... the greater the uniformity in the net fiscal benefit across States, the more migration decisions will be influenced by employment-related factors, which leads to higher national productivity.

Victorian Government (sub. 53, p. 3):

With HFE in place, fiscally weaker states receive additional GST support, thereby allowing them to offer a comparable level of general government services to other jurisdictions. Labour and capital owners can then make migration and investment decisions based on where they can be most efficient and productive, balanced with other relocation costs. In this regard, HFE appears to be serving Australia well.

Others disagreed, and argued that HFE discourages people from moving

WA Government (sub. 15, p. 40):

... there is significant conceptual evidence to support the view that HFE in Australia, by equalising revenues from States with high performing economies, is likely to result in below optimal migration to areas of high economic opportunity.

Chamber of Minerals and Energy of Western Australia (sub. 29, p. 2):

... the HFE policy provides no incentive for people to move to areas of economic growth or for governments to enact policies to attract investment and encourage growth. This is a key concern for Western Australia's resource sector, which is still facing short-term [labour] shortages ...

Parliamentary Liberal Party of WA (sub. 22, p. 6):

Over the longer term there are structural issues which should not be ignored. In particular, it is important for future economic prosperity that there be mobility of capital and labour to growth industries and growth regions ... To the extent that the current GST distribution props up weaker states and declining industries it also mitigates against the mobility of capital and labour. In the same context it limits the capacity to support growth sectors through economic and social infrastructure.

Institute of Public Affairs (sub. DR91, p. 9):

... the reduction of incentives for ... labour and capital ... to move to higher productivity locations creates efficiency costs for the national economy. This is because opportunities to produce even more output than is currently available are foregone, while factors of production are encouraged to remain in areas where service provision is relatively costly ...

More generally, some economists have argued that HFE only supports efficient migration when equalising on source-based factors (such as mineral endowments) and demographic composition but not residence-based factors (such as productivity levels or amenity) (Albouy 2012; Murphy 2015, 2017). This is because it is efficient for people to migrate based on differences in residence-based factors across States, but not due to differences in fiscal capacity arising from source-based factors. Despite these concerns for efficient migration, there were mixed views on whether HFE should compensate for geographic and other cost-related disadvantages (chapter 3, box 3.9).

Longer-term considerations for migration and development

The efficiency of Australia's system of equalisation could also depend on whether it negatively effects patterns of settlement over time (box 5.1).

The WA Government argued that HFE has discouraged economic development opportunities, suggesting that this has consequences for Australia's long term settlement pattern and for economic growth (sub. DR83, p. 15).

In contrast, participants from the Northern Territory argued that HFE helps to develop the State's long-term economic potential and sustain its population. For example, the NT Opposition said that '[f]or the NT to grow and achieve sustainable population growth it will require levels of service provision comparable to competing Australian jurisdictions' (sub. DR78, p. 11). Jack Priestly also said that the Northern Territory's potential is 'left untapped due to lack of infrastructure, population and services' (sub. DR59, p. 1).

Participants in other fiscally weaker States have also contended that HFE helps to achieve long-term efficiency — for example, by ensuring that these States can maintain investment in health and education services to foster higher productivity growth over the long term (Queensland Government, sub. 32, p. 5; TasCOSS, sub. DR66, p. 3; Tasmanian Greens, sub. DR79, p. 2).

These arguments remain a point of contention between the States. It suggests that trade-offs are present, but that the long-term economic impacts of HFE on migration are not known, and perhaps can never be known. It does, however, imply that there is no single optimal point at which equalisation can enhance economic efficiency over the longer term.

Migration could depend on other forms of equalisation

Efficient movement of labour and capital could also depend on other forms of fiscal equalisation that occur outside of Australia's HFE system. This includes the Commonwealth's own spending and tax policies and the transfers it makes directly to States (chapter 2).

Commonwealth tax-transfer policies reallocate funds based on a person's income and spending behaviour and their need for public services. As incomes vary across States, some

States receive more in benefits than they pay in taxes, and some States receive less. For example, as people in Western Australia, the Northern Territory and the ACT earn higher incomes on average than those in other States, they pay much more personal income tax than they receive in social security benefits, while the reverse is true for Tasmania (ABS 2017a, 2017b).

That said, the extent to which Commonwealth spending and taxes influence movement across State borders depends on whether it creates differences in net fiscal benefits. Most taxes and social security spending are applied on a nationally consistent basis. It is therefore unlikely to encourage inefficient fiscal migration.

Australian States also receive significant payments from the Commonwealth for specific purposes. The majority of payments for specific purposes are also taken into account in determining the GST relativities (CGC 2015f, p. 46). Overall, these forms of redistribution are small relative to the size of government revenues for most States (figure 5.1). As such, they are unlikely to create differences in net fiscal benefits large enough to attract labour and capital.

The ACT Government (sub. DR81, pp. 32–33) noted that while the average amount of GST redistributed (from an equal per capita distribution) as a proportion of a State's total revenue is typically very small (2.8 per cent overall in 2015-16), it varies significantly between the States:

- for New South Wales, the amount of GST redistributed *away* from the State was only 1.2 per cent of its total revenue
- for the Northern Territory, the amount of GST redistributed *to* the State represented 44.2 per cent of its total revenue.

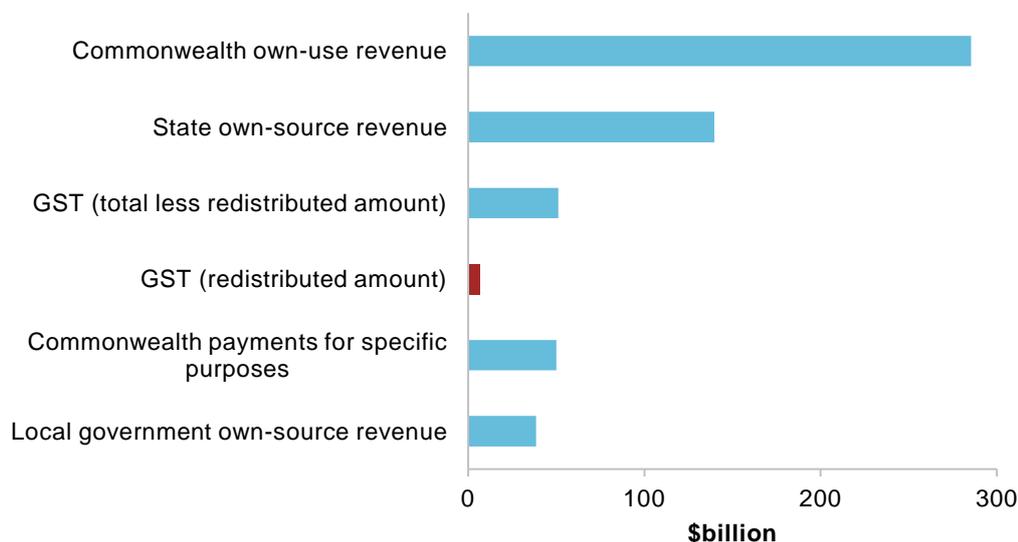
Although the amount of GST redistributed as a result of HFE can be an important source of funding for smaller States, it remains small in the context of total government revenue and overall economic activity.

Labour and capital movements in Australia

There are many factors that drive movements of labour and capital across State borders, but most moves are for work or family reasons.⁹ Australia has negligible barriers to interstate movement of labour and capital. It has a common goods and services market, centralised legal, financial and policy institutions (including federal-based tax and social security systems) and an open labour market.

⁹ There is not a strong evidence base on capital movements across States, so this discussion is essentially about labour movements.

Figure 5.1 **GST redistribution represents 1.2 per cent of all government revenue^{a,b,c}**
2015-16



^a Commonwealth own-use revenue refers to total Commonwealth revenue less GST and payments for specific purposes. State and local government own-source revenues exclude grants and subsidies. ^b GST (redistributed amount) refers to the total amount redistributed away from an equal per capita distribution as a result of the CGC's assessment. GST (total less redistributed amount) also includes \$786 million in funding for other general revenue assistance. ^c Specific purpose payments are an expense for the Commonwealth.

Source: Productivity Commission estimates using ABS (*Government Finance Statistics, Australia, 2015-16*, Cat. no. 5512.0); Commonwealth of Australia (2016a); CGC (2015e).

But while Australia does have a high level of intrastate migration, it is far less common for people to move interstate. States also differ in their appeal as a destination for interstate migration. Queensland, and to a much lesser extent Western Australia, have gained more people from interstate in recent decades than they have lost to other States, while New South Wales, Victoria and South Australia have traditionally lost people from this movement.¹⁰ In more recent years, more people have moved out of Western Australia and into Victoria. This change appears to be in response to the contrasting fortunes of these States, with people leaving Western Australia now that the construction phase of the mining boom has ended.

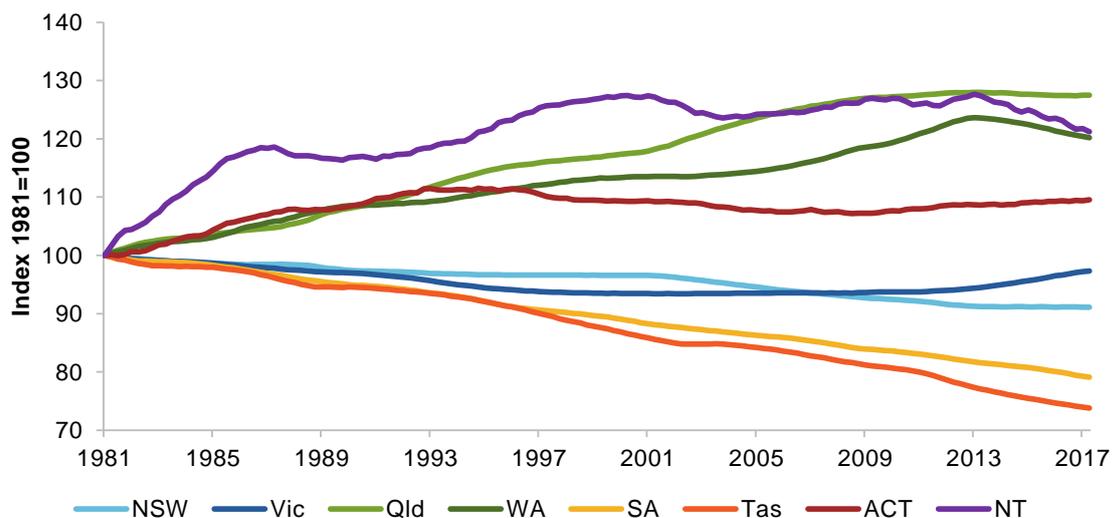
More broadly, some States have grown much faster than others over the past few decades. Population growth (which includes net interstate migration as well as natural growth and net overseas migration) has risen in Queensland and Western Australia as a share of the national population, while it has fallen considerably in South Australia and Tasmania (figure 5.2).

¹⁰ Queensland is also regarded as a retirement destination. The WA Government analysed ABS net interstate migration data to show that, for ages below 60, Queensland was still overwhelmingly the favoured destination for interstate migrants, followed by Western Australia and Victoria (WA Government, sub. 15, p. 26).

Labour supply has, to some extent, adjusted to meet changes in labour demand between States. The Productivity Commission’s *Geographic Labour Mobility* study concluded that workers appear to be responding to market signals and moving to areas with better employment and income prospects. The study also noted that ‘there do not appear to be *significant* impediments that are distorting decisions’ (PC 2014a, p. 19).

Figure 5.2 States’ shares of the national population are changing

State shares of the national population, compared to 1981



Source: Calculated using ABS (*Australian Demographic Statistics, September 2017, Cat. no. 3101.0*).

Work is a primary reason for people to relocate, particularly for long-distance moves. According to respondents to the survey on *Household, Income and Labour Dynamics in Australia*, it was the most common reason given by people in the labour force for moves of more than 30 km (PC 2014a, p. 116). However, while finding secure employment is an important reason for people to move, not everyone responds to the job opportunities that are on offer in different areas. For an individual, the signal of better income or job prospects that are available in another State (assuming they are known to them) would need to be weighed up against a raft of other considerations in deciding whether they should stay or move.

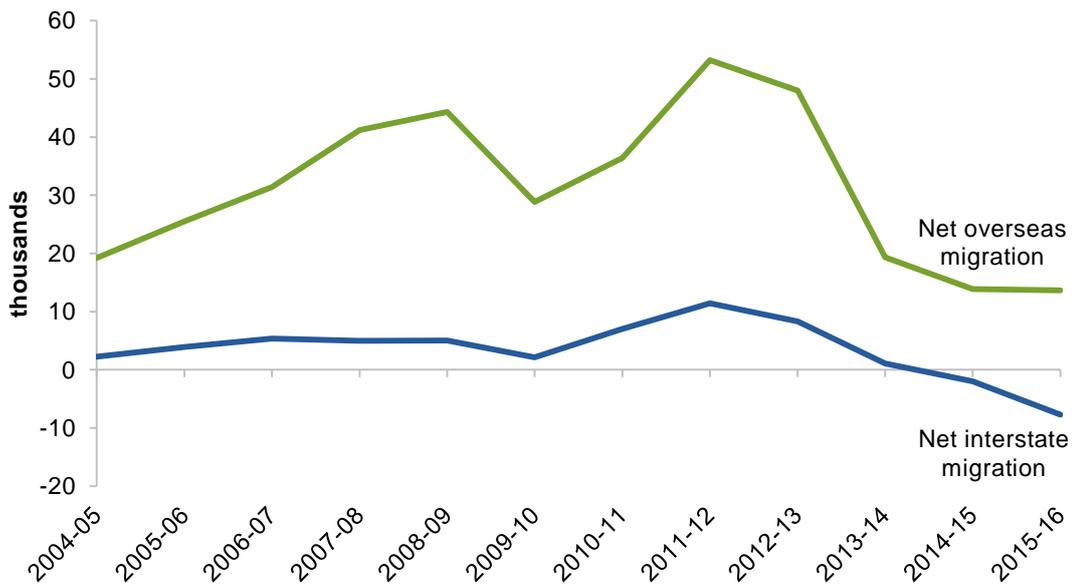
The WA Government examined the relationship between relative economic performance and population movements across States. While the WA Government observed that these indicators tend to move in the same direction, there was not a strong relationship, suggesting that ‘work opportunities have not been a consistently strong driver of interstate location choices’ (sub. 15, p. 24).

Western Australia has instead relied much more on overseas migration to meet its labour demands during the mining boom (figure 5.3). The WA Government concluded that Western Australia is ‘attracting far too few interstate migrants, relative to its strong economic

performance' (sub. 15, p. 26). This may in part reflect the rise of fly-in, fly-out workers from other States and the distance and costs that prevent stronger interstate labour flows into Western Australia (PC 2014a, 2017f).¹¹

Figure 5.3 WA's incremental labour needs have relied largely on overseas migrants

Net migration to Western Australia, overseas and interstate



Source: ABS (*Migration, Australia, 2015-16*, Cat. no. 3412.0).

Do people move based on net fiscal benefits?

When deciding where to live, a person might consider living costs, and the quality and availability of public services in the area. These factors could to some extent represent the net fiscal benefits of the area, and may encourage some people to relocate. Some States, particularly those most affected by GST redistributions, tended to highlight the role that public services can play in influencing where people choose to live (for example Tasmanian Government (sub. 28, p. 9) and the NT Opposition (sub. 31, p. 2)). However, for differences in net fiscal benefits to encourage sizable interstate migration, they would need to be large enough for people to recoup the costs of moving. There is no evidence to suggest that this is currently the case in Australia.

¹¹ A report by Deloitte Access Economics (2014, p. 39) estimated that 14 per cent of Western Australia's FIFO workforce actually lived interstate. During the height of the mining boom, this equated to about 10 000 people living interstate and working in Western Australia.

Some economists were also doubtful that net fiscal benefits are large enough to be important for interstate migration:

... Western Australia attracted six overseas migrants for every interstate migrant (on ABS data). This experience suggests that, if large differences in wages are not sufficient incentive to move, then small differences in 'net fiscal dividends' are unlikely to trigger significant additional internal migration. (Pincus 2012, p. 3)

Many influences affect decisions to move, or not to do so. At different stages in their life, people may decide to move in spite of negative consequences in terms of the 'net public sector benefits' that they will receive and other costs they will incur: higher incomes, or improved lifestyles or stronger family connections, for example, may be dominant influences. Conversely, the opportunity to receive higher net public sector benefits by moving may be outweighed by, for example, the transactions costs of moving, or potential income reductions or the loss of family or community connections. Empirical studies suggest that policy-induced mobility of households does exist but that it is modest compared to mobility induced by other location-specific influences. (Walsh 2006, p. 72)

How important is the migration argument for HFE?

Summing up, on the basis of the evidence (including available modelling from both Australia and overseas and economic literature) the Productivity Commission's view is that fiscal migration (including the influence of HFE) is unlikely to be a major factor in interstate migration decisions. Labour is not always responsive to better job opportunities across States borders. And when people do move interstate, this is driven primarily by work and family reasons, not by differences in net fiscal benefits.

A caveat to this discussion is that in recent years the redistribution task arising from Australia's system of HFE has been historically high (figure 2.9, chapter 2). To the extent there are (migration related) efficiency effects at the margin, these would become more pronounced in the current environment. Similarly, fiscally induced migration may become apparent if State fiscal capacities were to diverge over time, although as discussed in chapter 6, the gap in fiscal capacities would need to be large and sustained over a long period of time for it to have a material influence on migration decisions.

FINDING 5.1

Taken together, the available evidence suggests that fiscal factors (including those related to HFE) are unlikely to play a major part in interstate migration decisions. Other factors, such as differences in work opportunities between States and personal reasons, are bigger drivers of interstate migration.

6 Summing up the need for change

Key points

- Australia's system of HFE mostly delivers equitable fiscal outcomes with a degree of transparency and few distortions to economic activity. However, it has some major shortcomings.
 - On equity, HFE achieves almost complete fiscal equalisation; as such, it enables all States to provide the average national level of services and mostly adjusts for fiscal disadvantages that are out of States' control. But it does not systematically provide for State Governments to retain a reasonable share of the fiscal dividends of their policy efforts or economic development (without them being equalised away), raising concerns about fairness.
 - On efficiency, there is no clear evidence that the HFE system distorts patterns of interstate migration. And GST payments are mostly unaffected by changes in State policy settings. But in some cases, there can be material disincentives for a State embarking on significant tax reforms and resource development policies, especially where it is a first mover.
 - The independent CGC is highly regarded. It carries out the GST distribution at arm's length from government and with generally transparent processes for consultation with the States. But concerns have been raised with the CGC's decision-making framework and insufficient leadership from the Commonwealth Government.
- Many of these problems are due to the pursuit, above all else, of comprehensive equalisation of fiscal capacities. In doing so, it is likely that opportunities are being missed to achieve broader equity outcomes (which incorporate fairness by rewarding States for their policy efforts) and to improve efficiency in the Australian economy.
- The objective of HFE should be reframed to allow for trade-offs to be made between equity and efficiency. The system should enable State Governments to provide a 'reasonable' standard of services, rather than the 'same' as under the current system.
- Governance changes are also needed to enhance transparency and accountability.
 - Greater leadership from the Commonwealth Government is required. Further, the CGC should play a more prominent public communication role to inform the public discourse on HFE. It should also provide the States with 'draft rulings' on the HFE implications of a proposed policy change.
 - The Commonwealth Treasury should provide input into the CGC's consultation processes. This will ensure the CGC's judgements can be informed by perspectives that take into account the costs and benefits for the community as a whole.
 - Outlining clear guidelines detailing the basis on which Commonwealth payments are to be quarantined from HFE by the Commonwealth Treasurer would ensure the CGC's relativities are not undermined or the objective of HFE compromised.
 - Public release of data provided by the States (as well as the CGC's calculations) would improve government accountability in the HFE system.

This chapter provides the Productivity Commission’s overall assessment of the performance of Australia’s HFE system, drawing upon the framework outlined in chapter 1 and the analysis and evidence presented in chapters 3 to 5. It outlines how the system performs with regards to: equity (section 6.1); efficiency (section 6.2); and transparency and accountability (section 6.3). It then proposes a revised objective for HFE (section 6.4) that strikes a better balance between these three criteria. This revised objective acknowledges that there is a trade-off between full and comprehensive equalisation on the one hand and fairness and efficiency on the other hand. Finally, the chapter outlines a number of governance reforms (section 6.5) that would support the HFE system’s pursuit of efficiency and equity and help to enhance transparency and accountability in the way GST payments are distributed to the States.

6.1 The interpretation of equity is incomplete

HFE achieves a high degree of fiscal equalisation ...

The current system of HFE performs highly on the *fiscal equality* element of the Productivity Commission’s criteria for assessing Australia’s HFE system.

HFE in Australia almost completely eliminates fiscal disparities among sub-central governments — which is unique among OECD countries (chapter 2, table 2.5). This is achieved despite aspects of the CGC’s methodology, including materiality thresholds, discounting of revenue streams, non-differential assessments for ‘other revenue’ and data limitations. Lifting the service delivery capacities of the weaker States is widely supported among both inquiry participants (chapter 1) and Australians more generally (Brown and Hollander 2017, p. 10).

The current system also explicitly addresses material structural disadvantages (called disabilities by the CGC) that are out of a State’s control (such as remoteness or demographics) by adjusting expenditure needs to account for higher service delivery costs and levels of service use (chapters 2 and 3). The general consensus from inquiry participants is that the system is relatively effective at compensating for the *actual* costs of inherent or entrenched disadvantages — although some participants also noted that funding is not provided for States to *overcome* their longstanding disabilities, and others expressed dissatisfaction at particular assessment methods.

... but too little weight is afforded to fairness

Although the current HFE system scores highly in the achievement of fiscal equality, there is scope for improvement in its pursuit of the broader concepts of equity outlined in chapter 1. This chiefly relates to the element of *fairness* laid out in the Productivity Commission’s assessment framework — perceptions of unfairness in the system have been a longstanding and recurring feature of public debate. Recently, participants in Western

Australia and New South Wales have expressed the view that their States are effectively being ‘punished’ for their fiscal strength with lower relativities (WA Federal Liberal Members and Senators, sub. 35, p. 3; Minerals Council of Australia, sub. 48, p. 4; Wealth Wisdom Pty Ltd, sub. 10, p. 4). Moreover, there is a perception in those States that other State Governments — who may not commit to the expense, or risk the political fallout, of developing natural resources or undertaking difficult but revenue-enhancing reforms — are then ‘rewarded’ by the equalisation of the stronger States’ fiscal dividends.

That said, many of the factors that serve to reduce a State’s fiscal capacity are structural, and therefore mostly out of the State’s control, except for in the long term. And delivering a higher degree of equality (by adjusting for these structural disadvantages and giving all States the ability to provide a reasonable standard of public services) necessarily requires redistribution away from the fiscally stronger States. Further, some fiscal success is as much the result of private-sector activity, or sheer good luck (for example, where a State’s borders happen to be drawn in respect of mineral deposits) as of State Government effort.

But on balance, the current HFE system does not provide for any systematic consideration of States ‘retaining’ a reasonable proportion of the fiscal dividends of their good policy reform or economic development without them being ‘equalised away’ through lower GST payments. Not only does this result in outcomes that many Australians would consider to be unfair, it reduces incentives for States to undertake reform, and thus also has efficiency consequences for the economy and community (section 6.2).

Concerns around fairness also relate to the timing of Western Australia’s low relativities, coming as they have in the aftermath — and as a consequence — of a mining investment boom and significantly higher royalty revenues for the State. These concerns are not necessarily misplaced, as the current system’s approach to contemporaneity (chapter 4; section 6.2) poses the potential for HFE to amplify the impact of large economic shocks on State budgets in the short to medium term.

In giving States autonomy, HFE cannot achieve interpersonal equity

There is an unavoidable tension between ensuring the same standard of services across all States on the one hand and State autonomy on the other (chapter 1, box 1.2). Most participants favoured untied GST payments on the basis that this would enable States’ services to reflect the preferences of their communities (Tasmanian Government, sub. 28; Queensland Government, sub. 32; Victorian Government, sub. 53). Others expressed concerns that States sometimes do not spend revenue in a way that improves services or addresses structural disadvantage (chapter 2, box 2.6). While actual expenditure by most States is in line with assessed capacity in the majority of service areas, there are some significant exceptions.

Participants raised concerns about States receiving more funds per capita than the average (because of their assessed disabilities) but ultimately spending *less* than the average on the services in question (Neil Warren, sub. 38; Yothu Yindi Foundation, sub. DR80;

NSW Government, sub. DR109). Fahrer and FitzGerald (sub. DR102, p. 9) stated that this practice is ‘contrary to the broad intent of fiscal equalisation in federations which is that States should be compensated for difficulties they face in providing a minimal level of service that everyone in the nation ought to be able to receive’.

The Productivity Commission’s annual Review of Government Services shows substantial differences between State outcomes in health, education, and many other service areas, especially with respect to Indigenous Australians (chapter 9). This is despite more than three decades of full equalisation — indicating that there may be a weak link between State fiscal capacities and horizontal interpersonal equity.

It is not possible to resolve this issue through HFE alone without broader reform of financial relations between the Commonwealth and States. Ultimately, States are accountable to their electorates for how they use HFE funds, not to the Commonwealth Government or the CGC. But a complex system of HFE, coupled with the vertical fiscal imbalance and overlapping service delivery responsibilities, means that meaningful accountability is at present an illusion.

Consequently, making HFE payments conditional upon the achievement of specific performance benchmarks (as suggested by Warren, sub. 38; and Dillon, sub. DR68) would not be possible without substantial reform of federal financial relations — and even then may not be the best way to improve interpersonal equity. Rather, a clearer delineation and understanding of governments’ spending, taxing and decision-making roles within the system can go some way to providing greater accountability (and more scrutiny) for all parties involved. Section 6.5 provides more detail of measures to improve transparency and accountability. But ultimately, substantial progress on accountability requires longer-term reforms to federal financial relations (section 9.3).

6.2 Efficiency is being compromised

Australia’s current system of HFE has brought economic benefits. Because it provides all States with a similar level of fiscal capacity, differences in State tax and expenditure policy have not been a material driver of interstate migration.

Further, the system is intended to be policy neutral, to prevent States ‘gaming’ their GST shares and to provide them with autonomy in how they set their policies. In practice, however, the way HFE is implemented can create material disincentives for States to undertake efficiency-enhancing reforms, including changing tax mixes or more efficiently taxing mining activity. Moreover, the lag in GST payments can make State budgets harder to manage and exacerbate the fiscal impact of economic cycles.

HFE does not hold back migration ...

There is little evidence to suggest that HFE has led to inefficient patterns of interstate migration (chapter 5). Indeed, by having equalised States' fiscal capacities over a long period, there are strong in-principle reasons to suggest that HFE has avoided outcomes where labour and capital move between jurisdictions on the basis of States having differing capacities to offer lower taxes or a higher level of government services. People move interstate for a wide variety of reasons — often personal or job-related — and the role of interstate differences in net fiscal benefits has been very small.

Moreover, the amount of money redistributed due to HFE is small relative to the size of total State Government revenues. On this basis, it is likely that HFE has had little effect on individuals' decisions to relocate to another State.

... and it is mostly policy neutral ...

Across the majority of State revenue and expenditure types, changes in State Government policy have only small impacts on GST payments (through interaction with the distribution formula) (chapter 3). This is because the ability of a single State to influence national average tax rates or service delivery levels is limited, and because most tax bases and government services are similar across jurisdictions.

While many criticisms have been levelled at HFE for distorting State expenditure policies, there is no compelling reason — either from evidence or in principle — to suspect that HFE systematically biases States towards providing services in a particular way, or towards particular policies aimed at addressing structural disadvantages. Indeed, the broader community benefits of improving the efficiency of service delivery would likely far exceed the modest impacts on a State's GST payments.

... but it can discourage desirable tax reform and resource development policy

In certain circumstances there can be large GST impacts that may create a strong disincentive to reform — and thereby erode State autonomy. These circumstances can arise for some (but not all) parts of the revenue assessments. The cameos in chapter 3 show that large-scale tax reforms can have material implications for a State's GST share, even when done on a revenue-neutral basis — for example, New South Wales, Victoria and Queensland could each lose about \$1 billion per year from unilateral stamp duty reform. Such effects can deter States from the politically difficult task of improving the efficiency of their tax mixes (or policies that expand their tax bases). And because these GST effects are driven by changes in tax rates and bases *relative* to those in other States, the disincentives tend to be strongest for unilateral reforms — imposing a strong first-mover disadvantage.

Further, because material disincentives arise in some revenue assessments but not others, there can be additional distortions to State policy. Governments seeking to raise additional revenue have an incentive to do so in areas less subject to GST effects (such as stamp duties and insurance taxes, which are relatively distortionary transaction-based taxes), or in areas that are not subject to equalisation at all (such as gambling, which can come with social costs).

Perverse incentives can also arise for mineral and energy policy, where differences in State circumstances are particularly stark. For many minerals, there is no such thing as average policy — their concentration in one or two States means that those States effectively set the averages, and thus see most of the revenue from an increase in royalty rates equalised away. Moreover, the way mining revenues are currently assessed by the CGC can potentially discourage States from moving towards more efficient ways of taxing minerals (such as profit-based taxes).

Similarly large disincentives occur when the value of mineral production in a State changes, since this is used by the CGC as the measure of a State's tax base. Any State that sees its production increase will retain only its population share of the additional revenues, and any State that sees a decrease will only bear its population share of the reduction.¹² This has been especially contentious in relation to State efforts to boost — or restrict — their level of extractive activity. To the extent that State Governments can influence this activity, their policy decisions may have major consequences for their GST payments.

These dynamics have been large for Western Australia, which produces almost all of Australia's iron ore. The mining boom was the primary driver of that State's fiscal strength and the cause of its GST relativity falling as low as 0.30 in 2015-16.

Lagged payments can complicate State budgeting

The practicalities of implementing HFE — especially the need for accurate and comprehensive data — mean that adjustments in GST payments cannot be perfectly timed to coincide with changes in States' fiscal circumstances (chapter 4). Current practice is to average calculations over a three-year period, and this has helped to deliver a degree of stability and predictability to States' GST payments (at least relative to other main sources of State Government revenue). Despite the complexity of the CGC's calculations and the large number of relevant variables, most States have a solid track record in accurately predicting year-to-year movements in their GST relativities.

However, the combination of the three-year assessment period and two-year data availability lag means that circumstances that prevailed up to five years ago can still affect States' GST relativities. In ordinary circumstances this should be straightforward for States to manage — especially given the long lead times — but experience has shown that managing this lack of contemporaneity can be challenging when States' economies are changing rapidly. This has

¹² This reflects a fundamental premise of HFE — that changes in States' revenue-raising capacity relative to other States, will be equalised.

been evident as Western Australia went through the mining construction boom and saw large divergences between its current circumstances and its (backwards-looking) GST payments. When such extremes occur, the lag in GST payment adjustments can amplify the impact of large economic shocks or structural changes on State budgets. That said, even in such circumstances, States should be able to anticipate the lagged effects on their GST payments (as their forecasting track record would suggest) and can take steps to manage them (chapter 4).

6.3 Transparency and accountability are lacking

The overall governance of the HFE system is sound ...

The CGC is an independent agency that is generally highly respected. Its independence is considered by many participants to be positive as it removes some (though obviously not all) of the political melee around the distribution process. It allows the CGC to make decisions at arm's length from governments, but within a framework that enables extensive consultation and facilitates the input of all State Governments.

Further, CGC processes are well developed and embed a degree of transparency, particularly with regards to the yearly relativity updates and five yearly methodology reviews. This is demonstrated by the CGC's schedule of work for its five year methodology review, which gives States the opportunity to provide submissions on elements of the review and comment on the draft report, and also involves meetings between the CGC and State Governments. The CGC also makes considerable information available on its website regarding its methodology and assessments (though not all of the underlying data or calculations). The Tasmanian Government (sub. DR74, p. 35) commented:

The CGC is the appropriate, independent body, with responsibility for recommending State GST relativities to the Commonwealth Treasurer. Tasmania believes that the CGC's processes are analytical and data driven. Such processes rely on historical, empirical data on what States do and the circumstances in which they operate. The CGC is transparent, consults with the States on relevant matters, and discharges its responsibility with the highest integrity and expertise.

Others were similarly positive about the independence of the CGC and its processes (for example, Victorian Government, sub. 53; ACT Government, sub. DR81; SA Government; sub. DR89; Queensland Government, sub. DR106; Anthony Penney (representing Business SA), trans., pp. 223–4).

That said, the HFE system is not without its critics, and there are several impediments to the transparency and accountability of the system.

... but the HFE system is not well understood ...

It has become apparent throughout the inquiry that the HFE system is understood by few, and even fewer fully comprehend the specific details of the distribution process. Some of the disagreement and confusion around HFE appears to stem from the absence of a well-articulated policy objective *by governments* — and specifically the Commonwealth Government.

As noted in chapter 2, the tax reforms of 2000 led to a reframing of HFE in the context of the distribution of GST revenue to the States and resulted in a distancing of the Commonwealth Government from the workings and policy development of HFE. The NT Government (sub. 51, p. 40) commented:

... while equalisation is a central element of Australia's federation, the Commonwealth itself has rarely defended HFE and its intent, and more recently has blurred the conversation by talking about a possible relativity floor sometime in the future ...

And as noted by the SA Government (sub. DR89, p. 15):

There is little information provided on what HFE really is, what it is attempting to achieve and why it is fair for states to get different GST allocations.

The complexity of the system is another factor contributing to it not being well understood. For example, the 2015 methodology review was made up of more than 800 pages of reports, 57 worksheets containing supporting data, and a range of supporting and discussion papers on which the States provided feedback to the CGC. Anwar Shah (sub. DR103, p. 8) noted that:

The Australian equalization program, over the years, unbridled in its pursuit of the holy grail of equalization for 'full justice' has drifted away from its original objectives and morphed into a black box only a handful of Australian experts could fully comprehend.

Complexity may not be a problem in and of itself — as participants have noted, there are many aspects of public policy that are complex — but an overly complex system can adversely affect both the understanding of the system broadly and the way in which decisions are made. As noted by the NT Government (sub. 51, p. 40):

... the recommended GST distribution between states is so poorly understood that it allows a degree of political gaming and misinformation, which can distort the public's views on HFE. For example, the consistent misinterpretation of relativities and statements such as 'Western Australia receives 34 cents out of every GST dollar raised in the state' are misleading, incorrect and indefensible.

This demonstrates a lack of public understanding about who owns the revenue raised through the GST and therefore who should have control over its use. Further, as noted by Anwar Shah (sub. DR103, p. 43):

Complexity and opaqueness of the current HFE approach impedes striking a durable political compact on equalization and does not help strengthen citizens' trust in governance.

The absence of a strong neutral public voice in the debate means there is no attempt to communicate what the system is seeking to achieve and how the system in place is meeting that objective. Clearer leadership from both the Commonwealth Government and the CGC would help to alleviate some of these concerns.

... and there is a lack of clarity around some decisions

Some inquiry participants have expressed concern that the CGC, at times, is required to exercise its judgment, particularly in choosing between approaches that reflect the supporting principles of HFE, stepping into the domain of policy decision making (Business Council of Australia, sub. 47; WA Government, sub. DR83; NSW Government, sub. DR109). They contend that the CGC relies on questionable data and judgments, which can result in unpredictable outcomes, and that in some cases CGC decisions overrule the decisions of elected officials (NSW Government, sub. 52).

Participants have asserted that such judgments should be the domain of elected governments, rather than the CGC, especially given they can involve trade-offs between equity and efficiency. For example, the WA Government (sub. DR83, p. 37) commented:

Western Australia agrees that judgements on what constitutes the best equalisation outcome must continue to be made. However, policy judgements should be made by governments, while the CGC should make judgements about technical implementation.

And the NSW Government (sub. DR109, p. 19) contended:

Good governance ... requires policy setting functions to remain strictly within the domain of elected representatives. More broadly, good governance also requires open and transparent decision making processes underpinned by robust accountability frameworks. The CGC does not meet current thresholds for good public sector governance.

The CGC (2015e, p. 30) acknowledges that from time to time it is required to exercise its judgment:

In practice, the Commission often has to evaluate alternative methods which embody mixtures of these principles and has to decide trade-offs among them — for example, between methods that capture what States do in detail and methods that are policy neutral. The Commission has not set rules for how it would decide the appropriate approach in any such cases, nor has it established a hierarchy among the principles. As required, judgment is used to devise the best overall equalisation result.

But the CGC (2015f, p. 2) has also noted that where it does, it provides opportunities for State Governments to provide input into its decisions:

In exercising our judgment, we seek to take the fullest account possible of State views, notwithstanding they are often substantially in conflict with one another. The consultation we have undertaken has strengthened our ability to exercise the most informed judgment in finalising our recommendations.

In some instances, it appears that the CGC applies its own discretion when considering trade-offs between equity and efficiency. And its consideration of trade-offs has varied over time, as shown recently with the mining assessment. In the 2015 methodology review, the CGC (2015e, p. 37) reported:

We acknowledge that this [a mineral-by-mineral approach] has the potential to make the assessment less policy neutral because changes in State policies may have a larger impact on their shares of GST. However, we consider that the goal of policy neutrality is subsidiary to the requirement to achieve equalisation.

Yet in a preliminary paper for the 2020 methodology review, the CGC (2017i, p. 5) stated that the current approach to the mining assessment risks ‘undue conflict with the policy neutrality principle in some circumstances’ and that it will modify the operation of its assessments to secure greater policy neutrality. The CGC has consequently proposed introducing a revenue discount that is targeted to additional revenues from future State tax or royalty rate changes (chapter 7).

Accountability is blurred

Accountability is difficult to achieve given the lack of understanding of the system and the fact that the CGC exercises its judgment, particularly on some matters that encroach upon policy decisions. And the system is so complex that only a handful of people understand it. This complexity acts to undermine accountability and with it, public confidence in the HFE system. Compounding this, in cases where the redistribution task is very large, there is a heightened perception that the system is unfair, which serves to further reduce public confidence in the system.

More broadly, there is a lack of accountability between levels of governments, as Gray (2017, p. 31) concluded:

... we seem to have arrived at a situation in which no one is accepting accountability for one of the most critical aspects of federal financial relations and where there is confusion about the priority to be given to compensating the States for their loss of the power to levy income tax as against achieving HFE.

Another factor contributing to blurred accountability is that, as noted in chapter 2, the GST distribution is used to achieve both horizontal equalisation (redistribution among States) and vertical equalisation (transfer of resources from the Commonwealth Government to the States). The OECD (Blöchliger et al. 2007) has found that systems that mix both horizontal and vertical equalisation are less transparent and accountable because they blur responsibility between financing and funding. Neil Warren (sub. 38, p. 3) identified this dual role in his submission.

Lack of transparency and accountability for quarantined Commonwealth payments

Insufficient transparency and accountability are particularly evident with respect to the broader system of Commonwealth payments for specific purposes, including for infrastructure, education, and housing. This system complicates lines of responsibility and blurs accountability between governments in the funding and delivery of services (discussed further in chapter 9).

The ability of the Commonwealth Treasurer to quarantine Commonwealth payments from HFE — which excludes them from the relativity calculation — further reduces transparency and accountability and adds an element of unpredictability to Australia’s HFE system. This is compounded by the fact that some payments may be fully quarantined, while others may only be partially discounted (table B.1 in appendix B provides a list of quarantined and discounted payments).

Even though only a small proportion of payments are quarantined by the Commonwealth Treasurer in practice — for example, about 5.2 per cent of payments for specific purposes in 2016-17 (CGC, pers. comm., 5 April 2018) — these payments have the potential to significantly affect the total funding received by a particular State and thus that State’s effective relativity. Quarantining a large number of payments also carries the risk of compromising the objective of HFE, and widens the gap between the headline and effective GST relativities in a non-transparent, ad hoc manner.

With respect to Commonwealth payments for transport infrastructure, the Grattan Institute (sub. 24, p. 9) submitted:

... the current approach is opaque, even to some decision-makers. This allows room for grants to States to be treated more or less favourably on grounds that are not consistently applied, giving rise to perverse incentives for both States and the Commonwealth.

And the Victorian Government (sub. 53, p. 6) submitted:

There may be legitimate reasons for such exclusions. For example, where there is no reliable, policy-neutral approach to objectively assess cost differences between States, or where reliable data is unavailable ... such exclusions should be independently and consistently administered by the CGC ... to prevent political decisions from interfering with the independent process. However, some other exclusions in the past have not been based on any obvious policy rationale. For example, inconsistencies are created through the differential treatment between funding for road and rail infrastructure ...

Even if payments are relatively modest in size, the quarantining of payments by the Commonwealth Treasurer without a clearly stated rationale can undermine system integrity, as well as create an impression that the system is unfair.

6.4 A revised objective for HFE is needed

The Productivity Commission's overall assessment is that the system is functioning reasonably well in a number of areas, including addressing the inherent advantages and disadvantages in the fiscal capacities of the States, the independence of the CGC and the stability that HFE provides for most States' budget management.

However, there are also a number of deficiencies with the system. In particular, the system provides disincentives for efficiency-enhancing reform and resource development, which over time could have a material cumulative impact on the economy and community wellbeing. These disincentives are not solely an efficiency problem. To the extent that they mean that States do not reap the rewards of their own efforts, they can detract from fairness, as well as from public confidence in the HFE system. And by encroaching on State decision making, they can erode State autonomy and thereby accountability for their tax and spending decisions.

To some degree, these problems arise because the objective of HFE is almost singularly focused on achieving full equalisation of fiscal capacities. While efficiency is partially considered by way of the supporting principle of policy neutrality, it has typically (until very recently, as discussed below) been secondary in the CGC's consideration and thus takes a 'back seat' to equity. And where the CGC's principles run counter to the equalisation objective, they have effectively ceased to apply.

Further, the objective of HFE has largely been left to the determination of the CGC (albeit in consultation with the States) and there has been little involvement from the Commonwealth Government. Since the late 1970s, when all States were brought into the HFE system (chapter 2), the objective of HFE has largely evolved through CGC processes.

The Commonwealth Government has provided only implicit approval of the objective through the terms of reference for yearly updates and five-yearly methodology reviews (box 6.1). Indeed, the *Commonwealth Grants Commission Act 1973* (Cwlth) provides little guidance on the objective of HFE, as it has not been updated to keep pace with what the CGC does in practice. It defines special assistance to the States as '... the grant of financial assistance to a State for the purpose of making it possible for the State, by reasonable effort, to function at a standard not appreciably below the standards of other States' (s 5(1)). Yet, the current approach of the CGC is to equalise to materially the *same* standard.

In striving for the same standard, it is likely that opportunities are being missed to more fairly reward States for their policy efforts and to improve efficiency and enhance the wellbeing of the Australian community over time.

Box 6.1 The evolution of the objective of HFE

The Commonwealth Grants Commission's (CGC) first task on creation in 1933 was to devise consistent principles for the special grants paid to the financially weaker (or claimant) States. It initially considered that special grants should enable the claimant States 'with reasonable effort, to put their finances in about as good order as that of the other States' but they were not aimed at equalising incomes or living standards of individuals in the States. This was further refined for the CGC's third report in 1936 such that special grants '... make it possible for that State by reasonable effort to function at a standard not appreciably below that of other States'.

In 1973, a 'grant of special assistance' was defined in legislation — the *Commonwealth Grants Commission Act 1973* (Cwlth) — as one made 'for the purpose of making it possible for a State, by reasonable effort, to function at a standard not appreciably below the standards of other States'. This has remained unchanged in the CGC Act, despite the practices of the CGC evolving.

In the late 1970s there was a change to Commonwealth-State financial arrangements, and the State Treasurers agreed that States should be able to provide services of the *same* standard (chapter 2). The CGC began to assess the financial capacities of all States, and for its review in 1981, State shares were based on equalisation principles defined in the *States (Personal Income Tax Sharing) Amendment Act 1978*, which is no longer in force:

- (i) ... payments ... should enable each State to provide, without imposing taxes and charges at levels appreciably different from the levels of the taxes and charges imposed by other States, government services at standards not appreciably different from the standards of government services provided by the other States;
- (ii) taking account of: differences in the capacities of the States to raise revenues; and differences in the amounts required to be expended by the States in providing comparable government services.

Similar definitions were adopted in subsequent CGC reviews in 1982, 1985, 1988 and 1993. However in the course of the 1993 review, there were calls for greater precision in the aim of equalisation. The 1999 terms of reference subsequently outlined equalisation to involve grants:

... that should enable each State to provide the average standard of State-type public services assuming it does so at an average level of operational efficiency and makes the average effort to raise revenue from its own sources.

However this was subsequently rephrased in the 1999 review (and applied in the 2004 review):

State governments should receive funding from the Commonwealth such that, if each made the same effort to raise revenue from its own sources and operated at the same level of efficiency, each would have the capacity to provide services at the same standard.

The principle was again modified in the 2010 review (and was unchanged in the 2015 review) to the principle still in place today (see above). The CGC is currently consulting on the definition that it will take to the 2020 methodology review.

Sources: CGC (2009, 2016b); *Commonwealth Grants Commission Act 1973* (Cwlth), s 5(1).

FINDING 6.1

While Australia's HFE system has a number of strengths, it also has several deficiencies. In particular, it can provide disincentives for desirable tax and resource development policies, and, to the extent that States do not reap much of the rewards of their own policy efforts, can detract from fairness.

Many of these concerns are due to the pursuit, above all else, of comprehensive equalisation of fiscal capacities. It is likely that opportunities are being missed to more fairly reward States for their policy efforts, and to improve efficiency and enhance the wellbeing of the Australian community over time.

Providing a 'reasonable' standard of services

The objective of HFE should remain focused on fiscal equity but it should be reframed to allow explicit trade-offs to be made between equity, efficiency, and transparency and accountability. As such, HFE should seek to equalise States' fiscal capacities such that they can provide services and infrastructure of a *reasonable* standard.¹³ In particular, the system should not unduly impact upon:

- State reform incentives and the choices that States make regarding their tax mix, delivery of services and infrastructure and longer term economic reforms.
- the efficient movement of people and capital between States.

The process for determining the distribution of funds should also be transparent and accountable.

This revised objective will inevitably (and desirably) still involve redistribution from fiscally stronger States to increase the fiscal capacity of the fiscally weaker States. Yet it does not require that States have an *identical* fiscal capacity. Some differences may be acceptable in order to provide reward for policy effort (fairness) and to achieve more policy-neutral (efficient) outcomes. In striking a balance between these outcomes, a *reasonable* standard of services also balances the benefits and costs to the Australian community from redistributions between States. A similar objective has been adopted in several other countries; for example, in Canada equalisation is intended to achieve reasonably comparable levels of public services at reasonably comparable levels of taxation across provinces (appendix E).

On occasion, the CGC makes some decisions that give consideration to objectives other than equity, particularly policy neutrality, which implicitly trade off reductions in fiscal equality with efficiency and fairness gains. And, as noted above, the CGC has recently signalled that

¹³ As noted earlier, the current system, while described as equalising to the 'same' standard, actually equalises States such that they achieve a *comparable* standard of services.

it is willing to consider changes to its methodology to better incorporate such considerations in the future, and specifically, in the mining assessment.

A change to the objective as suggested would assist in formalising this process, and provide an opportunity to set clearer bounds around when and how the CGC might deviate from the singular pursuit of the equalisation of fiscal capacities. This would help to improve transparency (and accountability) of the HFE system.

Participant concerns with ‘reasonable’

A number of participants supported a move to a ‘reasonable’ standard of services. For example, the NSW Government (sub. DR109) commented that it would reduce perverse incentives while providing services not appreciably different from the current system. The Queensland Government (sub. DR106; Jim Murphy, trans., p. 588) supported a move to ‘reasonable’, but only insofar as it would lead to greater simplicity in the system, without changing the equalisation benchmark itself. However, many participants expressed concerns with the term ‘reasonable’ (box 6.2). They suggested it is nebulous, would entrench an advantaged position for one (or several) jurisdictions, would leave the States open to the vagaries of government and could jeopardise future federal financial relations.

In some respects, a ‘reasonable’ standard of services could result in more uncertainty compared to the ‘same’ standard under the current system, as it requires judgments about the trade-off between the pursuit of full fiscal equalisation and the other principles. Often, these trade-offs — even between fiscal equity and fairness — are difficult to measure.

That is not to say that these factors are not able to be accommodated. A ‘reasonable’ standard of services can be defined by the specific approach to HFE that is adopted. Options — explored in chapters 7 and 8 — include changing the way fiscal capacities are measured (such as by adopting more simple and policy neutral indicators) or the use of alternative equalisation benchmarks (such as the average fiscal capacity of the States or the average of the donor States). To varying degrees, each of these options would result in less than full equalisation and must therefore be weighed against their benefits in terms of fairness and efficiency.

The implications for equity, efficiency and transparency and accountability will vary

The costs and benefits of a move away from full equalisation will depend upon the specific approach that is adopted and its careful implementation.

The impact upon migration patterns is perhaps the easiest to predict. As noted in chapter 5, HFE is expected to have little effect on decisions to relocate to another State — differing fiscal capacities appears to be a relatively minor consideration. There would need to be a large and sustained difference in fiscal capacities to materially influence the location decisions of people and businesses (box 6.3).

Box 6.2 Participants' views on 'reasonable'

We agree that the Commonwealth Government should clearly articulate the HFE principle, and aim for 'reasonable rather than full' equalisation. (WA Government, sub. DR83, p. 6)

... if equal per capita distribution of GST is not adopted in the short-term, a revised objective for HFE which provides the states with the fiscal capacity to allow them to deliver services and associated infrastructure of a 'reasonable standard' is a positive step forward if it adopts equalising to the average fiscal capacity of all states. (NSW Government, sub. DR109, p. 14)

... it might be semantics, but the same means you've got to really be very precise with what you're doing, where similar means you can be roughly approximately similar fiscal capacity. But we don't agree that you should move to a reasonable level, which I think was what was in part of your draft report. So we would say the equalisation principle should stay as it is, but you could give more flexibility to the Grants Commission to review their practices and reform their methodology. (Jim Murphy, trans., p. 590)

This proposed standard is nebulous, inadequate to ensure equality of opportunity of residents between states, and would be highly liable to political erosion. (TasCOSS, sub. DR66, p. 2)

The proposed alternative to the current form of HFE, equalising to a 'reasonable' standard is unacceptably vague and, unlike the current standard that equalises to a simple all-state average, would add significant complexity and uncertainty. Further, the proposed alternative relies entirely on the Commonwealth to determine the 'reasonable' standard most appropriate at any time. (NT Government, sub. DR69, p. 9)

This approach appears arbitrary, designed to address the point-in-time, fiscal concerns of one particular state and undermines the equity objective of HFE. It does little to improve the transparency, simplicity, economic efficiency, or equity of the current system, and may represent a worse alternative on all these counts. (Victorian Government, sub. DR87, p. 3)

Although the Commission appears to have considered this proposed change as a short term fix to an immediate problem, it represents a fundamental change to the equalisation system which would, in practice, entrench a specially advantaged position for one jurisdiction, allowing it to build up over time the capacity to provide higher and higher levels of service and lower and lower levels of taxation to its residents compared with all other jurisdictions. The consequences of this situation for the integrity and credibility of federal financial relations in the longer term need to be carefully considered by the Commission. (ACT Government, sub. DR81, p. 8)

The 'reasonable standard' aim would require the degree of 'acceptable inequality' to be subject to some form of complex and protracted process that would ultimately be politically determined at the discretion of the prevailing Commonwealth Government. The independent role of the CGC would be severely compromised. (SA Government, sub. DR89, p. 2)

Other implications for efficiency, including the incentives for States to undertake tax reform, vary depending on the particular approach adopted, and how well those incentive effects are targeted (discussed in chapters 7 and 8). Similarly, the implications for equity will vary depending upon whether greater emphasis is given to ensuring States have a similar fiscal capacity compared to improvements to the perceived fairness of the system. For example, there are some options within the current system that could directly address mining policy non-neutrality but come at too high of a cost to fiscal equality (chapter 7). There are also broader, more fundamental reforms, including equalising to the average of all states or equalising to the second strongest State, which would go some way towards addressing both efficiency and equity concerns.

Box 6.3 Would a less than full equalisation benchmark affect settlement patterns?

Participants to this inquiry have said that anything less than full equalisation would create differences in fiscal capacities between States. They further argued that the fiscally strongest States would be able to offer better tax arrangements and/or better services than the fiscally weaker States, which could encourage inefficient migration of labour and capital between States.

NT Government (sub. DR69, p. 12):

... partial equalisation may lead to distortions through creating significant differences in the quality and scope of government services across state borders, as well as significant incentives for fiscally stronger states to reduce own-source tax rates below the national average to increase competitiveness, distorting efficient investment.

Tasmanian Government (sub. DR74, p. 26):

If the proposed alternatives provided by the Commission create a situation where there is unequal treatment of the States and the fiscally strongest State attracts a 'strong State premium' thereby allowing it to provide above average services of a higher quality and levy lower than average own-source taxes and charges, the GST distribution may well become a significant driver of interstate labour movement.

Victorian Government (sub. DR87, p. 20):

Without full equalisation, this allows these states to reduce taxes on more mobile factors and/or increase the level of services ... This has the potential to induce an economically inefficient flow of capital and labour across states as migration may not be towards where those factors of production are the most productive.

SA Government (sub. DR89, p. 3):

Western Australia may have the capacity to cut business taxes like payroll tax leading to a relocation of head offices or other businesses and migration of people which would lead to inefficient resource allocation and reduce national welfare.

However, as discussed in chapter 5, small differences in States' fiscal capacities are unlikely to be a significant driver of interstate movement. There would need to be a large and sustained difference in fiscal capacities over time to materially influence the location decisions of labour and capital. Nonetheless, if fiscal capacities were to diverge substantially over a sustained period of time, however unlikely, then this situation would have to be managed accordingly.

Finding the right balance between equity and efficiency

There are many approaches that could provide a better balance between equity, efficiency and transparency and accountability in the system. That said, it is unlikely that one single reform to the HFE system would comprehensively address each of the problems the Productivity Commission has identified. Chapters 7 and 8 discuss the relative pros and cons of possible 'in system' changes to HFE, as well as more fundamental changes to the way HFE is currently undertaken, with a view to determining which approach strikes the right balance and is in the best interests of the Australian community overall.

But what is clear is that the current objective does not currently afford a meaningful trade-off between equity, efficiency, and transparency and accountability, and as noted above should

be revised to achieve a ‘reasonable’ standard of services. There is also a need for greater leadership on the objective.

Greater leadership on the HFE objective

Clear specification of objectives (and sub-objectives) by governments is particularly important for policy issues where there are trade-offs. As well as providing guidance to the CGC, it would help condition the expectations and beliefs of the broader community. Further, a clear objective is essential for assessing the effectiveness of the current system, and for assessing the merits of any future changes. This is a view that was shared by the 2012 GST Distribution Review Panel:

First, it is generally regarded as good governance to have a degree of separation between policy development and implementation, so that one does not dominate or subsume the other. Secondly, it is difficult for the public to have confidence in a system where the goal has not been explicitly endorsed by government. It is therefore important for the Commonwealth to be clear about what HFE is supposed to achieve. (Brumby, Carter and Greiner 2012a, p. 65)

The Commonwealth Government should take on a greater leadership role in specifying the objective of HFE and indeed, refining that objective over time as necessary. The Treasurer should present the revised objective to the Council on Federal Financial Relations — the Council of Australian Governments (COAG) council that oversees the financial relationship between the Commonwealth and the States, including the Intergovernmental Agreement on Federal Financial Relations (IGAFFR).

Following this, the Treasurer should reissue the terms of reference for the 2020 methodology review to reflect the revised objective. The objective should subsequently be reflected in all future terms of reference for the CGC’s yearly update and five-yearly methodology review.

The CGC Act and the IGAFFR should also be updated, to provide certainty and clarity for the States over the longer term.

A similar approach was envisaged by the Queensland Government (sub. DR106, p. 10):

Queensland supports the PC’s recommendation that a clear definition of HFE should be specified by governments for implementation by the CGC, and envisages the Commonwealth would present any reform proposal to the Council of Federal Financial Relations (CFFR) and the Council of Australian Governments (COAG) for approval and inclusion in the Intergovernmental Agreement on Federal Financial Relations (IGAFFR)

However, processes for updating the CGC Act and the IGAFFR should not delay the adoption of the revised objective as part of the CGC’s assessment processes.

RECOMMENDATION 6.1

The objective of the HFE system should be refocused to provide the States with the fiscal capacity to provide services and associated infrastructure of a reasonable (rather than the same) standard.

The Commonwealth Government should set this revised objective of HFE.

- The Treasurer should present the revised objective to the Council on Federal Financial Relations.
- Following this, the Treasurer should reissue the terms of reference to the CGC for the 2020 methodology review to reflect the new objective.

The terms of reference for all future relativity updates and five-yearly methodology reviews should reflect this revised objective.

The Intergovernmental Agreement on Federal Financial Relations and the *Commonwealth Grants Commission Act 1973* (Cwlth) should also be amended to reflect the revised objective.

6.5 Improving HFE governance arrangements

Many of the concerns around lack of transparency and accountability with the current system can be addressed through stronger governance arrangements. Indeed, governance changes can help to ensure that there is a sound basis for any judgements that involve equity–efficiency trade-offs, and can enhance transparency and accountability in the system.

Inquiry participants proposed some broad changes to HFE governance structures. For example:

- Neil Warren (sub. 38, pp. 3–4) suggested the CGC should no longer be central to HFE but should oversee collation and preparation of data, with COAG to assume a more central role in the allocation of grants. A new independent agency would communicate and monitor performance and oversee advice on the allocation of grants to States as a reward for meeting specific outcomes defined in intergovernmental agreements (for example, in health, education and Indigenous outcomes).
- The NSW Government (sub. 52, pp. 35–36; sub. DR109, p. 19) suggested the Board of Treasurers, a body comprising representatives drawn from the States (the Commonwealth Government is not a member), should take direct responsibility for recommending to the Commonwealth Treasurer the definition of HFE, the terms of reference for the CGC and the nomination of CGC Commissioners.

The Productivity Commission does not consider that such changes are required. While there is not strong evidence from overseas (governance systems are highly dependent on the particular characteristics of the HFE system — appendix E), an independent agency affords less scope for equalisation payments to be influenced by political considerations. The 2012 GST Distribution Review reported along similar lines:

Experience shows that a politically indifferent, rules-based, system of allocating finances to States has advantages over the ad hoc negotiation of special deals, especially, but not only, when governments of opposite persuasions are involved. (Brumby, Carter and Greiner 2012a, p. 45)

That said, it has also been suggested that an independent agency can produce other issues, such as mission creep, incentives for complexity, and issues with public oversight (Shah 2005, pp. 12–13).

A more public role for the CGC

The CGC — through its Chairperson and Commission members — should provide a stronger neutral voice in order to better inform the public discourse on HFE.¹⁴ The main aim of this role would be to communicate the processes and decisions undertaken in order to ensure the HFE system meets its objective. The CGC would thus become the strong independent voice that is missing from the HFE commentary.

A stronger communication role was almost universally supported by participants to the inquiry (including the Tasmanian Government, sub. DR74, p. 35; ACT Government, sub. DR81, p. 49; WA Government, sub. DR83, p. 37; Victorian Government, sub. DR87, p. 23). For example, the SA Government (sub. DR89, pp. 14–15), commented:

South Australia strongly supports the continued role of an independent and well-resourced CGC. However, it is agreed that the CGC could take a more vocal and proactive role in educating the community on HFE and correcting misunderstandings on how Australia’s system of HFE operates. This view was supported by recommendations in the Greiner Review.

The CGC (sub. DR61, p. 10), however, raised some concerns with taking on a greater public role in the current environment of uncertainty:

Until such time as the HFE architecture has been resolved and agreed to by governments (along with the Commission’s role in this architecture), there are clear limits to the scope for the Commission to adopt an expanded educational role.

Any concerns that a stronger public voice could overly politicise the CGC can be allayed by clearly defining the CGC’s role as one to inform, not advocate. It is anticipated that the CGC would not become involved in the politics of the public debate. Rather, it would stick to issues of fact — much like the Parliamentary Budget Office (PBO) and the Reserve Bank of Australia (RBA) do today.

The PBO and the RBA regularly engage with the public. The RBA uses multiple avenues of engagement, involving media releases, reports, public statements, speeches and the twice-yearly appearance of the Governor and senior officers before the House of Representatives Standing Committee on Economics (RBA 2017a).

¹⁴ The Brumby, Carter and Greiner (2012a) GST Distribution Review recommended that the CGC engage with governments more broadly, including through an annual public address following the release of the year’s relativities and briefing sessions for parliamentarians and State officials.

Further, the PBO, in addition to its costings function, undertakes research and analysis of budget and fiscal policy settings, and makes its reports publicly available (PBO 2017). As noted in the Productivity Commission’s *Shifting the Dial* Report (PC 2017d), the creation of the PBO, along with other changes, have markedly improved fiscal accountability arrangements. A recent review of the PBO by Watt and Anderson (2017) identified a number of additional opportunities to enhance transparency, including consulting more broadly on its research work and explaining budgetary processes in nontechnical language.

As part of its more public role (and consistent with other agencies), the CGC Chairperson and Commission members should represent the CGC at Senate Estimates and other Parliamentary Committees throughout the year (rather than the Secretary of the CGC as tends to currently occur) and engage more openly and publicly with the wider community.

RECOMMENDATION 6.2

The CGC — through its Chairperson and Commission members — should provide a strong neutral voice, to facilitate a better informed public discourse on the HFE system.

Strengthening the CGC’s interactions with State Governments

The CGC could also provide greater certainty for State Governments, through establishing a process under which the States are able to consult with it on the possible implications of a change in State policy (for example, a change to a State’s revenue base), and for the CGC to provide its advice in the form of a ‘draft ruling’.

Such a process could be similar to the Australian Taxation Office’s (ATO) draft rulings, which set out a preliminary view on the way a particular tax provision applies and is then open for public comment. In addition to public rulings, the ATO also issues *private* rulings, which set out binding advice on how a tax law would apply to a specific scheme or circumstance (ATO 2017).

A draft ruling process may help to reduce some of the fiscal uncertainty for the States and provide greater transparency about the CGC’s deliberations on its decisions. Jerome Fahrer (trans., p. 173), observed how confusion can arise for States when considering a tax reform:

There are genuine issues of interpretation about is this a new tax. Is this a new tax or an extension of an old tax? This makes a very big difference or can make a very big difference to the amount of GST that each State ultimately gets or loses from a particular reform.

A number of participants supported the idea of draft rulings. The NT Government (sub. DR69) and SA Government (sub. DR89) considered that it would provide greater certainty and increase transparency. The ACT Government (sub. DR81, p. 52) also agreed with the proposal but with the proviso that it should be ‘informed advice’ only, via

interpretations by CGC staff (as distinct from the Commission itself). The WA Treasurer (trans. p. 72) noted:

... a draft ruling environment would be very useful, you know, obviously on a confidential basis so you can actually have a dialogue with the Commonwealth Grants Commission. But that would be incredibly useful for states, not just WA, but I dare say all.

Others were less supportive of draft rulings. The CGC (sub. DR61, pp. 10–11) commented that there are significant differences between the draft rulings of the ATO and the advice that the CGC might provide, as the CGC's methods are fluid and generally dependent on the actions of governments. This was a concern echoed by the NSW Government (sub. DR109, p. 26), which noted that the ATO rulings are based on a static law and are legally binding, making them more credible. Further, the Tasmanian Government (sub. DR74, p. 35) commented that it would serve to place too high an emphasis on GST equalisation implications.

The Victorian Government (sub. DR87, p. 24) was less definitive and noted that the proposal has both pros and cons:

On the one hand it helps state governments remove uncertainty around how a particular policy decision will be treated by the CGC once the best policy decision has been selected, and on the other hand it encourages states to actively include GST effects in evaluating a policy decision, which is generally undesirable.

It is unclear why State Governments would not consider GST effects when evaluating a policy proposal. Indeed, the potential effect of policy changes on total State Government revenues (including significant changes in GST payments) are relevant for decision making, particularly when tax reform proposals are being considered (chapter 3).

The CGC operates in a dynamic environment, with the potential for changing circumstances in one State to have a flow-on effect through the system. As such, the CGC's 'draft ruling' advice to the States should not be locked in indefinitely, but instead reflect the circumstances that existed at the time of the request. Where materially different circumstances exist at a later date it may need to revisit its draft rulings.

Public draft rulings would benefit other States that may also be uncertain about how the CGC will assess a particular tax or policy change. Where there are concerns with the confidentiality of requests for rulings or the ruling itself, then the CGC could provide its advice to the States on a private basis, as the ATO does with private rulings.

Establishing a process for this advice to be provided to the States will deliver additional certainty in States' deliberations on future tax reform.

RECOMMENDATION 6.3

The CGC should strengthen its formal interactions with the State and Commonwealth Governments. In particular, when requested by a State Government, it should provide provisional 'draft rulings' on the HFE implications of a policy change.

Improving accountability in the HFE system

Some of the concerns about insufficient accountability for HFE, in particular the mismatch between the way funds are distributed to, and spent by, the States relate to broader federal financial relations issues, principally blurred responsibilities between governments. These issues are addressed in chapter 9.

Many of the other concerns with system governance, including the CGC making policy decisions and a lack of transparency in data and calculations, are directly related to the governance arrangements in place for the HFE system. Thus, they can be addressed through changes to aspects of the system.

A clearer treatment of quarantined Commonwealth payments

Existing principles for the treatment of Commonwealth payments in the HFE process largely provide a clear framework on whether a payment will be discounted, included or excluded from the HFE process by the CGC (appendix B). However, the ability of the Commonwealth Treasurer to quarantine payments from HFE calculations would also benefit from stricter, principled guidelines, to ensure that quarantining does not compromise the objective of HFE.

As noted by the GST Distribution Review (Brumby, Carter and Greiner 2012a, p. 70), the establishment and publication of such guidelines would aid transparency and may also improve predictability for the States, by making it clear when a payment would or would not be quarantined. This recommendation, like others made in that review, has not been subject to a government response (though some recommendations were incorporated into the CGC's 2015 methodology review terms of reference — chapter 1).

Similar to Brumby, Carter and Greiner (2012a), the Productivity Commission considers that the guidelines should establish that Commonwealth payments are to be quarantined only in exceptional circumstances that are in the national interest, as quarantining undermines the objective of HFE. To avoid duplication and additional complexity, Commonwealth payments should only be quarantined for reasons that would not already be considered by the CGC.

Many State Governments expressed support for clear guidelines. The Victorian Government (sub. DR87, p. 23), SA Government (sub. DR89, p. 17), and NT Government (sub. DR69, p. 28), for example, agreed with the Productivity Commission's draft recommendation.

The Tasmanian Government (sub. DR74, p. 30) expressed concern that guidelines for the Commonwealth Treasurer's decisions may not be effective:

While guidelines in relation to quarantining would aid transparency and accountability, Tasmania is not convinced that guidelines to govern the Commonwealth Treasurer's decisions in an area, which can be politically motivated, are likely to be effective ... However, if guidelines are adopted they should be developed in consultation with the States.

The WA Government (sub. DR83, p. 34) echoed these sentiments, and also argued that it was unlikely that a prescriptive set of guidelines could accommodate all circumstances in which Commonwealth grants were provided.

While it may not be possible for guidelines to cover all possible circumstances in which grants are provided to the States, they would help to set firmer boundaries and increase transparency and accountability of the Commonwealth Government's decisions to quarantine certain payments.

The precise circumstances in which payments are to be quarantined ought to be determined in consultation with the States (especially given that some of the general principles for the treatment of Commonwealth payments are set out in the IGAFFR). The guidelines should seek a balance between enhancing accountability and transparency, while not unduly affecting the ability of the Commonwealth Treasurer to quarantine payments in exceptional circumstances, where quarantining is in the national interest.

RECOMMENDATION 6.4

The Commonwealth Government, in consultation with the States, should develop clear guidelines detailing the basis on which Commonwealth payments are to be quarantined from HFE by the Commonwealth Treasurer (so that they do not unnecessarily erode the efficacy of the CGC's relativities and compromise the objective of HFE).

The guidelines should strike a balance between enhancing accountability and transparency, while not unduly affecting the Treasurer's ability to quarantine payments in exceptional circumstances that are in the national interest.

Strengthening the CGC's decision-making framework

Many of the criticisms of the governance of the current HFE system relate to the perception that the CGC makes decisions that involve policy judgments, and specifically, decisions that trade off efficiency and equity. With the revision of the objective to allow scope for a better balance between efficiency and equity, the CGC is likely to be confronted with these choices to a greater degree.

A strengthened decision-making and accountability framework will therefore be necessary for the CGC to make better-informed decisions and for the States and the public to

understand the CGC's decisions where they relate to significant matters of judgment, especially in relation to equity and efficiency trade-offs and policy neutrality.

In the first instance, the Commonwealth Treasury should provide input throughout the CGC's consultation process, including making public submissions and commenting on papers, as the States currently do. As noted by the ACT Government (sub. DR81, p. 50):

The Commission's final recommendations should be broadened not only to identify the educative role of the CGC but also better incorporate the role of the Commonwealth itself, which should provide strategic guidance to the CGC and the States on HFE matters.

The Commonwealth taking up such a role does not compromise the independence of the CGC. For its part, the CGC has a valid role in defending or indeed explaining the system. Stronger involvement of both parties would add greater clarity in the national debate, and diminish the difficulty of individual States, particularly those classified as a 'receiver', to enter the debate.

Indeed, the Commonwealth has ceased to become an active participant in many of the CGC/State deliberations and no longer submits submissions or papers to the CGC Reviews, Updates, or other independent inquiries.

The Commonwealth Treasury has a different outlook to the States, as it considers policy decisions from the perspective of the wellbeing of the Australian community overall. It is well-placed to provide input on policy decisions that involve trade-offs, as it does with any other policy proposal. Indeed it has a history of providing submissions to other review processes. Treasury participation would bring an alternative perspective to the work of the CGC, and should be a key element within the CGC's decision-making framework in the future.

In addition, while there is some consultation already (box 6.4), greater utilisation of the current processes around the CGC's terms of reference and recommendations to the Treasurer would improve transparency and accountability in the decision-making framework.

The Treasurer should nominate specific areas of focus for the CGC in the terms of reference for the five yearly methodology reviews. For example (and as discussed in chapter 7) the Treasurer should direct the CGC through the 2020 review terms of reference to examine revenue and expenditure assessments that use more policy-neutral indicators. There is also merit in the Treasurer nominating particular issues that have been raised by the States, for example where States may have identified assessments that have a material impact on the GST distribution and where the CGC is required to make a trade-off between efficiency and equity. The CGC's processes could be further informed by drawing upon (as it already does where needed), external independent experts.

Further, when making recommendations to the Commonwealth Treasurer, the CGC should provide a clear explanation of how it has addressed the specific issues identified in the terms of reference and particularly, when and how it has made judgments that involve trade-offs between equity and efficiency.

Box 6.4 **Development of the CGC's terms of reference**

The terms of reference for the five-yearly methodology reviews go through a consultation process prior to being issued by the Treasurer. It is first consulted on at an officer level (across Commonwealth and State Treasuries), including via the Heads of Treasuries. Following this, the Commonwealth Treasurer writes to State Treasurers with the draft terms of reference, inviting feedback.

The terms of reference for the five yearly reviews can change from one review to the next. For example, the 2020 review terms of reference gave the CGC a broad remit to undertake a comprehensive review of all the methods that underlie its assessments, with the specific areas of focus to be identified in consultation with the States as part of the CGC's work program. In contrast, the terms of reference for the 2015 review directed the CGC to focus on the recommendations arising out of the 2012 GST Distribution Review, identifying specific issues such as the appropriateness of the materiality thresholds, the development of a new mining assessment and the rounding of relativities.

Following receipt of the terms of reference, the Secretary of the CGC writes to the States seeking input from the State Treasuries on the review work program. This provides an opportunity for the States to identify specific aspects for consideration in the review.

Sources: Commonwealth Treasury, pers. comm., 11 April 2018; Swan (2013).

RECOMMENDATION 6.5

The Commonwealth Government should strengthen the CGC's decision-making framework. In particular:

- the Commonwealth Treasury should provide input, including public submissions, to the CGC's five-yearly methodology review process, drawing upon its community-wide perspective
- the Commonwealth Treasurer should nominate specific areas of focus for the CGC in the terms of reference for the five-yearly methodology reviews, following (as is currently the case) consultation with the States.

Improving access to data

Accountability could be further boosted by enabling greater scrutiny of the CGC's calculations and data. As noted by Neil Warren (sub. 38, p. 1):

Transparency of process, open-data access and transparent equalisation mechanisms are essential if there is to be a transparent and accountable equalisation process.

Phillip Bubb (sub. DR60, p. 4) suggested that the CGC's models should be made available to State Governments, allowing them to better examine those assessments with which they have a grievance, provide them with a better understanding of the calculations made by the CGC and allow for greater scrutiny of the way those decisions have been made.

The CGC (sub. DR61, p. 11) has noted that it already makes this possible:

The detailed data and calculations made by the Commission are routinely made available to all Treasuries, through access to the Commission's assessment system online (ASOL). All data are available to Treasuries, with the exception of a small number of datasets identified by individual States as being confidential.

However, there remain considerable gaps in data availability for the broader public, particularly in the underlying data that inform the CGC's development of State budgets. Saul Eslake noted to the inquiry that the calculations are difficult to replicate (trans., p. 472), and Fahrer and FitzGerald (sub. DR102, p. 17) commented that:

The documentation on the CGC's website gives a high level overview of how the CGC makes these calculations but lacks detail, particularly for the assessment of disabilities faced by individual States in the delivery of particular services.

There was almost universal support for making data more available, including from the Governments of New South Wales (sub. DR109), Victoria (sub. DR87), the ACT (sub. DR81) and the Northern Territory (trans., p. 383). For example, the WA Government (sub. DR83, p. 39) noted:

We agree that the CGC needs to make available State-provided data, and calculations on these data ... This should apply to all data, including from Commonwealth sources. Where it is not practicable to supply data, and the CGC cannot avoid the problem by using alternative methods, the CGC needs to undertake greater quality assurance.

Only one State raised concerns about confidentiality and the risk that publicly releasing data may increase misunderstanding around the HFE system. The Tasmanian Government (sub. DR74, p. 36) commented that:

While in principle Tasmania supports greater public access and transparency to the CGC's data and calculation methods, because of its complexity it also presents a risk of increasing the misunderstanding of how HFE works. Any increase in the availability of data should be considered carefully and accompanied with detailed explanation and guidance notes to users to mitigate the incorrect use and interpretation of the information.

The data collected by the CGC have the potential to be extremely powerful. The CGC brings together data in a wide range of areas, including expenditure areas such as health, education, housing and infrastructure, information on taxation and demographic characteristics. Further, the data are collected across all States and updated on a yearly basis. As noted in the Productivity Commission's *Data Availability and Use* (PC 2017b, p. 24) inquiry:

... significant improvements could come from aggregating data across the States and Territories in health, education, social welfare, child support, aged care, and better linking them with elements of datasets from other fields — the population census, taxation, employment, business ownership, telecommunications, private health insurance or housing.

As such, there is a strong national interest case — beyond that pertaining solely to the HFE system — for releasing the States' HFE data. Drawing on these data has the capacity to improve government decision making across a wide range of sectors and improve the

efficiency and productivity of the provision of services. In addition, the CGC should make public its calculations on these data, such as adjustments to State tax bases.

Any potential concerns associated with the public release of the data should be considered in the context of the likely broader community-wide benefits. That said, the CGC should assess where there may be risks associated with making the data publicly available — for example, if there were concerns with privacy or commercial confidentiality. Risks should not be downplayed where they occur, but in most cases risks are able to be managed with the right policies and processes. Thus, the CGC should, as far as possible, take steps to mitigate any risks where they exist.

Where there is potential for there to be misinterpretation of the data, there would be nothing to stop the States (and the CGC) from publicly providing clarification. Indeed, this could help to increase accountability for expenditure decisions, particularly where there is a significant mismatch between actual spending and assessed spending needs.

RECOMMENDATION 6.6

The CGC should immediately and systematically make the data provided by the States publicly available on its website, along with the CGC's calculations on these data.

7 Are there better ways to assess fiscal capacity?

Key points

- The HFE methodology could be improved to help address some of the problems with Australia's HFE system, in conjunction with the changes to the HFE objective and governance proposed in chapter 6.
- Introducing more policy-neutral indicators (of fiscal capacity) and higher materiality thresholds for what is incorporated into the equalisation process would partially mitigate some of the HFE system's problems, and complement any reform to the equalisation benchmark.
 - The CGC should be directed to develop simpler and more policy-neutral indicators for its 2020 methodology review (such as by aggregating taxes with similar bases) as a way to better balance equity and efficiency. This would be supported by a significant (and overdue) increase in materiality thresholds.
- Some other in-system changes offer prospective benefits, but on balance are not practicable.
 - Benchmark costs — set to reflect efficient costs of service delivery (what States 'should do') — would encourage greater efficiency, but face daunting practical difficulties and much scope for dispute.
 - Using a single broad indicator (such as gross state product) to assess fiscal capacity offers the prospect of a radically simpler and genuinely policy neutral approach. But most indicators do not adequately reflect States' revenue-raising capacities or expenditure needs and therefore pose a significant risk to fiscal equity.
 - Elasticity adjustments may help to mitigate the impact of policy-induced changes to tax bases on the GST distribution (albeit only those arising from tax rate changes), but would be difficult to implement, subject to dispute, and only possible to apply on an ad hoc basis.
- Blunter approaches to assess fiscal capacity, such as discounting entire revenue categories (for instance, mining), would come at too high a cost to fiscal equity.
- Another way to help address policy non-neutrality problems, especially in regard to the mining assessment, would be to apply discounts relating to future tax rate changes. This has recently been proposed by the CGC.
 - However, this departure from full equalisation represents a limited and poorly targeted way to reduce disincentives to reform. It would only address policy influence on average mineral tax rates, and only for Western Australia for the foreseeable future. Moreover, it is not well suited to addressing policy influence over tax bases or other non-mining tax rates.
 - There are no obvious approaches (including use of policy-neutral indicators) that would mitigate the policy non-neutrality problems that beset the mining assessment — the biggest driver of redistribution within HFE for the foreseeable future.
- Some of the disincentive effects within HFE — namely, those arising from the equalisation of tax bases — are inherent to equalisation itself and cannot be removed completely by way of methodological adjustments. The only way to address such disincentives would be to reduce the extent of equalisation (such that changes in States' tax bases do not impact their GST payments).

The Commission's terms of reference ask that it consider the present HFE formula used by the CGC. While this inquiry does not intend to replicate the work currently being conducted by the CGC as part of its 2020 methodology review, many inquiry participants raised issues with the present HFE formula. In particular, there are some aspects of the formula that carry significant implications for policy neutrality and States' reform incentives, especially in regard to the mining assessment.

This chapter considers several ways that the methodology used to assess State revenues and expenditures could be improved to alleviate the problems discussed in earlier chapters (relating to equity, efficiency, transparency and accountability). Five main types of changes are examined:

- the use of benchmark costs in the expenditure assessments (section 7.1)
- the use of a single broad indicator to estimate State fiscal capacities (section 7.2)
- streamlining the assessment of individual revenue and expenditure categories, including through the use of simpler and more policy-neutral indicators and by raising materiality thresholds (section 7.3)
- discounting entire revenue categories (section 7.4)
- targeted interventions to address specific cases of policy non-neutrality arising from future policy changes (section 7.5).

In the main, these are substantive changes to the methodology used for revenue and expenditure assessment which would result in a departure from full equalisation. They would need to sit alongside the changes to the HFE objective and governance proposed in chapter 6.

This chapter does not evaluate the use of specific data sources and adjustments within the current HFE formula, although some have been raised as part of this inquiry — for example, in relation to measuring Indigeneity (chapter 9). As noted in chapter 1, it is expected that the CGC can take account of these types of data issues in the course of its methodology reviews.

7.1 Applying benchmark costs

In the current HFE system, expenditure equalisation is based on national averages of the cost and use of providing State services (chapter 3). In this sense, each expenditure assessment is being equalised to an internally determined standard. A key issue with this approach is that, at least in principle, it could provide States with an incentive to influence their GST shares (by changing their patterns of service delivery and/or addressing structural disadvantage). This would reduce the efficiency of the HFE system.

An alternative approach is to use benchmark costs, which are externally determined estimates of the cost of providing a particular service. Benchmark costs are already used in other areas of policy, notably hospital funding, where hospitals are paid for undertaking medical procedures based on an estimate of the efficient cost (known as casemix funding).

Indeed, benchmark costs are already reflected in some of the CGC’s assessments (for example, as part of the assessment of hospital costs (WA Government, sub. DR108, p. 8)), but this is the exception rather than the rule.

In principle, there may be scope to use benchmark costs across the board for expenditure assessments. This could be done alongside the current methodology for the revenue side (or by using a different approach to assess revenue, such as a single broad indicator, as discussed in section 7.2).

Although a benchmark costs approach would involve a significant departure from the current focus on ‘what States do’ — it would effectively be a move toward ‘what States should do’ — it could offer advantages in terms of efficiency and policy neutrality. Where the benchmark costs reflect the efficient cost of providing a service, and are not based on averages of service costs and use across States, this would remove any scope for States to directly influence their GST shares by changing their expenditure patterns. For example, the ACT Government (sub. DR81, pp. 37–38) argued that, in principle, externally defined cost benchmarks could encourage greater efficiency but also argued that applying benchmarks would require measures of service usage rates across jurisdictions.

In practice, using benchmark costs for all expenditure assessments would be very complex and involve a high degree of subjectivity. For instance, the introduction of a benchmark costs approach would require important decisions, such as:

- Who would be the decision maker on setting and updating the benchmarks?
- What processes and assumptions would be used to determine the efficient costs?
- How detailed or granular would the benchmarks be in terms of specific subcategories of State services and different population subgroups?

What seems clear from these questions is that a benchmark costs approach could easily become highly complex and subjective. These problems were emphasised by some inquiry participants, with several pointing to the subjectivity or inaccuracy inherent in making judgments about efficient benchmarks. For example, the Victorian Government (sub. 53, p. 17) stated that:

Victoria is cautious of any proposal to introduce an externally-determined baseline, such as an ‘efficient price’ for government services. It is unclear how such an objective baseline could be reliably determined ... There is also a risk that, where a flawed ‘efficient price’ is used, it could potentially undermine state governments’ obligations to their constituents to provide the desired level and quality of services.

Along similar lines, the SA Government (sub. 25, p. 21) submitted that:

Adoption of an approach that uses the most efficient service provider as a benchmark would require the CGC to impose value judgements on jurisdictions, undermine states’ sovereignty and would be difficult to implement.

And the WA Government (sub. DR83, p. 26) argued that:

... [a] cost benchmark for efficient service delivery would not address the expenditure/revenue assessment imbalance, and would worsen it unless major changes were made to the revenue assessments to make them more conservative. Moreover, cost benchmarks that were not also applied to socio-economic disadvantage would distort the expenditure assessments in favour of less policy neutral elements.

The introduction of casemix funding in Victoria's hospital system provides some sense of the complexities involved with using benchmark costs. Although this reform has been widely regarded as a success, the classification, measurement and costing methodologies involved have been highly detailed and required a sustained and protracted effort to develop. The exercise was also beset by debates about definitions and how to make adjustments for different patient or hospital characteristics (Duckett 1995). And this reform was confined — at least initially — to health, whereas a widespread introduction of benchmark costs in HFE would involve many service delivery areas (across 13 expenditure assessments).

More generally, there is an absence of (much needed) advocacy and appetite for the use of externally defined benchmark costs and this approach, while with merit, is not a solution to the problems identified with the current approach to HFE. Although it would remove incentives for States to directly influence their GST shares, this would likely have limited benefits given the lack of major efficiency problems on the expenditure side that are directly attributable to HFE (chapter 3).

A move towards benchmark costs in HFE would also create a new risk — namely, it would introduce incentives for States to influence (or dispute) the benchmarks or call for ever-increasing complexity in the system. It would also not be a solution to broader problems with State service delivery — especially in the area of Indigenous policy — that are subject to confused accountabilities between levels of government. Addressing these problems requires broader reform to Federal financial relations, and cannot be achieved solely through adjustments to the HFE formula (chapter 9).

FINDING 7.1

The use of externally defined benchmark costs in the HFE system to assess State expenditure on service delivery would encourage greater efficiency, but faces daunting practical difficulties and a high degree of scope for dispute.

7.2 Using a single broad indicator

The CGC currently assesses States' fiscal capacities using 8 revenue and 13 expenditure categories (plus an additional assessment for net borrowing), with considerably detailed and complex calculations within many of these categories, including the overlay of a large number of 'disability' factors (chapter 2). This has resulted in a significant degree of

complexity — and arguably created a false sense of precision — that reduces transparency and accountability of the HFE system (chapter 6).

More fundamentally, the way that some of the revenue assessments are undertaken can compromise policy neutrality where States can directly influence the tax base measures or tax rates used in the assessments (chapter 3).

One way around these problems is to replace the current set of assessments with a single broad indicator (sometimes called a ‘global’ indicator). This metric could be external (independent) to State tax and expenditure policy decisions, such as per-capita household income or gross state product (GSP), or it could be internal, such as actual State revenues and expenditures.

Inquiry participants put forward several options for using external broad indicators to guide HFE (box 7.1). Much of the discussion of broad indicators is focused on assessing revenue-raising capacity, though in principle such an approach could also be applied on the expenditure side.

External broad indicators offer some considerable advantages. Foremost, they can provide for a genuinely policy-neutral measure of revenue-raising capacity. In this way, using a broad indicator would effectively remove the disincentives that the current HFE system creates for some major State tax reforms. In terms of the tax reform cameos set out in chapter 3, the impacts on GST payments would effectively be reduced to zero. This is because changes in individual State tax rates would have very little influence on the level of the broad indicator and thus do not influence the amount of GST revenue the State receives.

Moreover, to the extent the indicator aligns closely with taxpayers’ underlying ability to pay tax or States’ underlying expenditure needs — which many economists argue is reflected by aggregate household real disposable income (Peter Abelson, sub. 9, p. 9; PC 2008, p. 53) — all States would have the *potential* to levy an average level of taxes or provide an average level of services. At the same time, such an indicator would also give States flexibility in the type of taxes they choose to impose and the corresponding rates and exemptions they apply, without materially affecting GST shares.

While it would also be possible to use a single internal indicator (such as an ‘actual per capita’ approach), this would perform poorly on efficiency grounds, since it would mean that State policy decisions have a direct impact on GST payments — and thus States would not have a strong incentive to contain costs or pursue efficiencies (box 7.2). Such internal measures have attracted little support.

Box 7.1 Participant views on broad indicators

Several participants put forward options for using broad indicators to determine GST shares.

Peter Abelson (sub. 9, p. 6) submitted academic research that examined the impact of using broad revenue indicators, such as real disposable household income plus taxation of out-of-state residents, per capita personal income, or a broad macroeconomic indicator such as gross state product (GSP). Per-capita personal income has been used for the transfer of some revenues in the United States, but is otherwise not commonly found in equalisation schemes overseas.

The Queensland Government (sub. 32, p. 12) submitted that the use of global revenue and expense assessments would involve basing GST shares on estimates of total actual revenue generated by a jurisdiction, and total actual expenses incurred, rather than a more detailed categorisation. A further, less extreme option suggested was a move to more highly aggregated assessments, but drawing in the first instance on the current approach used by the CGC.

The WA Government (sub. DR83, pp. 21–27) called for simpler and more aggregated revenue assessments, and simplified spending assessments. It argued in particular that use of a GSP measure that excluded half of general government final consumption expenditure and an estimate of total offshore mining gross operating surplus (or gross mixed income) would lead to similar outcomes to the CGC's current method for assessing revenue capacity.

The Victorian Government, in its submission to the 2012 GST Distribution Review, also favoured a move to a simpler approach based on a streamlined set of broad indicators on either the revenue or expenditure sides (or both):

Each major revenue and expense category could be replaced by broad-based indicators drawn from a readily available and more reliable public data series (for example, Australian National Accounts data). Additional adjustments may be required to capture disabilities related to Indigeneity, remoteness and diseconomies of scale, but the overall HFE methodology would be much simpler, more transparent and more predictable. (Victorian Government 2011, p. 4)

More generally, a broad indicator approach would provide for a far less complicated, and more readily understandable, way to distribute GST revenue (once the specific indicator has been decided and agreed on). This would improve transparency and accountability of the HFE system. As the Queensland Government (sub. 32, p. 12) submitted:

A well designed, simpler system could theoretically achieve equalisation but with considerable improvement in transparency. The GST shares received by States may not be the same as under the current system, but could still be equalisation if it allows States to provide similar standards of service to their residents, taking into account their particular circumstances.

Such a model would also ensure that there would be far less reliance on subjective calls made by the CGC, helping to improve accountability of decision making.

Box 7.2 'Actual per capita' indicators

Broad indicators do not necessarily have to be external to factors that are influenced by State policy decisions. A different approach is to base GST payments on the gap between States' actual revenues raised and their actual expenditure on services and infrastructure (with any remaining GST distributed on an equal per capita basis). This approach is known as an 'actual per capita' (APC) model, and would effectively involve using States' actual (pre-GST) budget deficits as a broad indicator. It is an internal measure since each State's policy decisions would directly influence its GST share.

An APC approach has been used by the CGC to illustrate the impact of alternative ways of distributing the GST (CGC 2017a, p. 3). It is conceptually the same as the current HFE system, except that it uses *actual* revenue and expenses rather than *assessed* revenue and expenses as the basis for distributing GST payments. Indeed, an APC approach is currently used to assess natural disaster relief and recovery expenses within the current system (CGC 2015f, p. 396).

One benefit of an APC approach is that it is very simple, and thus transparent — estimating GST shares would only require data on each States' total revenues and expenses. It also performs well in terms of equity, since it would provide all States with the fiscal capacity to deliver a similar standard of services, in much the same way as current arrangements (a quantitative comparison is provided in appendix C).

However, APC (and other internal broad indicators) rate poorly from an efficiency perspective. It could reduce States' incentives to grow their economies, tax bases and revenues because any increase in own-source revenue would result in a commensurate reduction in GST payments.

Using actual expenditure on services also means that States would face a reduced incentive to contain costs or pursue more efficient service provision (as higher costs would be effectively paid for by higher GST payments). As Jim Hancock (sub. 54, p. 4) observed:

Suppose, for example, that the equalisation scheme responded to a State's hospital outlays simply by topping up its budget by whatever it spent, at the expense of grants to the other States. Under this arrangement, the effective price to the State of enhancements to the hospital would be reduced to zero. With such a system implemented across States, we could expect then to see excessive expenditures on hospitals as a result.

These efficiency costs mean that APC is not a suitable alternative to current arrangements. As noted in appendix E, fiscal equalisation based on actual expenditures has been largely phased out in other countries given the adverse effect it has on sub-national governments' incentives.

In practice, however, it is difficult to find a single broad indicator that would provide a reasonable reflection of States' fiscal capacities. The basis for choosing between different indicators is likely to be contested, and prone to ongoing disputation by States. International experience suggests that broad indicators, where they have been considered, provide a poor reflection of a jurisdiction's fiscal capacity. Most State-level indicators (such as GSP) are also subject to measurement problems, as evidenced by the frequency of major statistical revisions.

Even where a genuinely external measure of fiscal capacity can be identified, using this indicator alone to determine GST shares would essentially impose a system based on what States could do, rather than on what they actually do. The difference could potentially be quite large, with the implication that some States would need to significantly alter their

revenue and expenditure policies to receive a similar amount of GST payments. To the extent this is neither possible nor desirable, such an approach would come at a high cost to equity if the resulting GST shares do not reflect the actual circumstances and fiscal capacities of States, and thus do not enable them to provide a reasonable standard of services to their communities.

The impacts on GST payments of using GSP or gross disposable income (GDI) (two commonly cited metrics) would be substantial for some States with significant jurisdiction-specific structural differences that affect revenue and expenditure, as illustrated in table 7.1. These impacts would also vary considerably depending on the specific metric that is used. There would be very large declines in GST payments for the ACT and the Northern Territory, with relativities for both jurisdictions falling to negative values in the case of GDI (table 7.1). This occurs because these jurisdictions have relatively high per-capita incomes, but the indicators do not capture other major factors that drive those jurisdictions' respective fiscal capacities.

Table 7.1 GST effects of a broad indicator approach

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Gross state product	0.99	1.30	1.11	0.13	1.28	1.32	0.41	-0.95
Gross disposable income	0.89	1.31	1.10	0.70	1.14	1.17	-0.82	-0.62
Change in GST payments (\$million)								
Gross state product	2 812	5 225	93	-2 347	-926	-620	-845	-3 367
Gross disposable income	653	5 492	43	1 545	-1 556	-829	-2 194	-3 154
Change in GST payments (\$per capita)								
Gross state product	350	804	19	-906	-532	-1 182	-2 018	-13 665
Gross disposable income	81	845	9	590	-894	-1 581	-5 241	-12 801
Total redistribution from EPC								
Current approach							\$6 840 million	
Gross state product							\$8 103 million	
Gross disposable income							\$7 479 million	

Sources: Productivity Commission estimates based on data provided by the CGC; Appendix C.

For the ACT, the impacts are largest on the revenue side. This is largely due to the payroll tax exemption for Commonwealth employees, which means that even though incomes are high in the ACT, the jurisdiction's revenue-raising capacity is much lower because it cannot tax some of this income (through payroll taxes). In principle, it may be possible to make adjustments for exceptional cases such as this (for example, by adjusting the broad indicator according to a State's public sector employment share).

For the Northern Territory, the impacts are almost entirely on the expenditure side. This is because the Northern Territory is a prominent outlier in some expenditure categories — especially where there are big structural differences from other States in terms of Indigeneity and remoteness (chapter 2).

Inquiry participants drew attention to the practical limitations of using a single broad indicator, particularly on the revenue side. Some argued that using GSP or GDI would result in counter-intuitive outcomes for particular jurisdictions (ACT Government, sub. DR81, p. 37), or that these measures are conceptually flawed because States do not actually tax total production or household income (SA Government, sub. DR89, p. 17).

In examining this approach, the 2012 GST Distribution Review found that the search for a single indicator that was adequately ‘broad’, but did not result in significantly inequitable redistribution outcomes compared with the current system, was elusive (Brumby, Carter and Greiner 2012a, p. 57).

On balance, the Commission is of the view that even though use of a single broad indicator could improve policy neutrality and simplify the HFE system, the risks and costs outweigh the benefits. A single indicator that accurately reflects the underlying revenue-raising capacities and expenditure needs of each State is unlikely to exist. Such an approach would also lead to significant changes in GST shares for some States, with the risk of not achieving a ‘reasonable’ level of equalisation. The broader the indicator that is used, the more such a risk may arise.

A better approach is likely to involve using multiple indicators to measure States’ fiscal capacities, though with much greater simplification and focus on policy neutrality than the current system.

FINDING 7.2

Using a single broad indicator to assess States’ fiscal capacities offers considerable potential to improve policy neutrality and simplify the HFE system. However, a single indicator that accurately reflects the underlying revenue-raising capacities and expenditure needs of each State remains elusive and arguably does not exist.

7.3 Streamlining revenue and expenditure assessments

Some of the problems with the current HFE methodology could be better addressed by more streamlining of the individual revenue and expenditure assessments. Simplifying the assessments — though without going as far as using a single broad indicator for States’ fiscal capacities — could bring substantial benefits in terms of improved policy neutrality, simplicity, transparency and accountability. This could be achieved by adopting more

policy-neutral (and simpler) indicators, as well as by substantially increasing materiality thresholds to exclude assessments that do not materially affect distribution outcomes.

More policy-neutral indicators at the category level

The indicators and metrics that the CGC uses in its revenue and expenditure assessments are complex and have very high data requirements (chapter 3). This can compromise policy neutrality where State policy can directly influence the indicators used within a revenue or expenditure category (for example, changing average tax rates or thresholds). Developing more policy-neutral indicators, where feasible, can help to remove the influence of State policy decisions.

In the Commission's view, there is considerable scope to adopt a simpler set of more policy-neutral indicators. This could be done in several ways:

- changing the measure of the tax base used in some revenue assessments — for example, assessing stamp duty revenue using a simple measure of property values, rather than the existing approach of using the value of property transferred with complex adjustments for tax exemption and progressive rate structures (discussed below)
- using a single measure for a category rather than separate measures for individual sub-categories — for example, assessing all mining production jointly rather than using separate indicators for each mineral (also discussed below)
- aggregating revenue or expenditure categories — for example, using property values as the tax-base measure for all property taxes (which would mean aggregating stamp duty, land tax and some insurance tax revenues).

What might policy-neutral indicators look like?

The CGC already uses policy-neutral indicators in a small number of cases where alternative metrics based on 'what States do' would be especially prone to influence by State policy choices. Examples include the use of distances between towns for the assessment of rural road expenditures, and the use of population growth for assessing infrastructure needs (CGC 2017i, p. 23).

Some inquiry participants argued that much more can be done to apply policy-neutral indicators to other revenue and expenditure categories (table 7.2 provides some examples).

Table 7.2 Some alternative indicators identified by participants

<i>Category</i>	<i>Current indicator(s)</i>	<i>Potential alternative indicators</i>
Revenue side		
Payroll tax	Value of payrolls with adjustments for tax-free thresholds and exempt employers	Total wages of all employees, or taxable payrolls of all employees
Land tax	Value of taxable land adjusted for tax-free thresholds and progressive tax rates	Value of unimproved land, or aggregate value of taxable land and properties
Stamp duty	Value of property transferred, adjusted for tax exemptions and progressive tax rates	Total value of property transferred, or total value of dwelling stock
Insurance taxes	Total premiums paid	Total value of insured property
Motor vehicle taxes	Number of vehicles registered, across multiple categories	Number of vehicles registered
Mining	Value of mineral production, across multiple categories	Actual revenues received, or mining company profits
Other revenue	Population	Gross state product
Expenditure side		
School education	Number of students, plus disability adjustments ^a , across multiple sub-categories	School age population (ages 5-17)
Post-secondary education	Population, plus disability adjustments	University age population (ages 18-24)
Health	Population, plus disability adjustments, across multiple sub-categories	Age-weighted population, with higher weights for ages 0-5 (2.0 weight) and ages 70+ (1.5 weight)
Welfare	Population, plus disability adjustments, across multiple sub-categories	Numbers of single parents and unemployed individuals below the poverty line
Housing	Number of households, plus disability adjustments, across multiple sub-categories	Population below the poverty line
Justice	Population, plus disability adjustments, across multiple sub-categories	Population, or a mix of property values and population
Roads	Length and use of roads, plus disability adjustments (including distance between towns), across multiple sub-categories	Length of roads weighted by road type and aggregate State expenditures on roads of each type
Public transport	Population, plus disability adjustments	Urban population (for large urban areas only)
Other services	Population, plus disability adjustments	A mix of land area and population, potentially weighted by the relative importance of rural versus urban services

^a Multiple disabilities are used for each expenditure assessment, and these vary across assessments. Examples include Indigenous status, socioeconomic status, remoteness, age, wage costs and service delivery scale.

Sources: CGC (2015f, pp. 31–32); Shah (sub. DR103); Eslake (trans., p. 477).

This approach would also be considerably simpler than the current HFE system (and would complement the broader changes to the objective of HFE discussed in chapter 6). This would improve certainty for States and have flow-on benefits for transparency and accountability.

On the revenue side, this could involve using more general definitions of tax bases and removing adjustments and carve-outs for tax-free thresholds, exemptions and progressive tax rate structures. On the expenditure side, it could mean making fewer disability adjustments and using a single measure for most expenditure categories, rather than multiple sub-categories.

One example of what a simplified system might look like was put forward in public hearings:

...it may be, for example, that you could simplify the assessment of revenue disabilities or capacities by focusing on three or four heads of revenue and doing everything else as a proportion of gross state product. So you might explicitly look at payroll tax, stamp duties, land tax and mineral royalties, and all other revenue you just looked at in terms of gross state product as an indicator of revenue raising capacity... On the expenditure side, you could perhaps look at education, health, public transport and maybe law and order as sort of key areas of state responsibility and do something similar to what the Grants Commission does at the moment and then simplify the treatment of everything else. (Eslake, trans., p. 477)

Other options were put forward by Anwar Shah (sub. DR103, p. 6), such as using simpler indicators for each assessment category and/or only equalising for major areas of expenditure that have a bearing on population mobility between States (school education, post-secondary education and welfare).

In a 2018 research paper, the CGC also explored broader indicators (including macro approaches, involving a higher level approach at the category level, and a global, aggregate indicator approach). It concluded that, given its present remit:

... broader revenue approaches... are not consistent with that objective, as understood, and agreed to, by governments to date... Were governments to change the equalisation principle or to ask the Commission to achieve additional objectives, then the Commission would be prompted to give more consideration to broader revenue approaches. (CGC 2018d, p. 12)

Benefits of using more policy-neutral indicators

As with a single broad indicator (section 7.2), greater use of simpler and more policy-neutral indicators offers scope to directly link GST shares to measures of each State's underlying or fundamental capacity to raise taxes or provide services, and is less prone to being influenced by differences across States in their specific policy choices and designs (depending on the specific metrics chosen). But it also differs from using a single broad indicator because it allows for multiple indicators, and thus offers scope to better reflect States' underlying fiscal capacities and inherent structural differences.

Box 7.3 Improving the policy-neutrality of the stamp duty assessment

The CGC currently uses the total value of property transferred (adjusted for tax exemptions and progressive tax rates) to assess a State's ability to raise revenue from stamp duties on properties — a tax base that, while reflecting 'what States do', is sensitive to changes in government policy. This can create strong disincentives to undertake stamp duty reform. For example, the net impact of New South Wales, Victoria or Queensland unilaterally halving its average rate of stamp duty on property and replacing the lost revenue with a new broad-based tax on residential land could be a reduction in annual GST payments of about \$1 billion (chapter 3).

These undesirable GST impacts would be reduced if a more policy-neutral measure of the tax base was in place — one that is less sensitive to changes in State tax rates or other policy settings. Two possible measures are the total value of the dwelling stock (which is a general measure of the underlying base for most property taxes, including stamp duties) and the unimproved value of land (which is currently used to assess land taxes).

Based on the calculations for cameo 1 in chapter 3:

- Using the total value of the dwelling stock may reduce the impact that unilateral tax reform has on a State's GST payments by up to 63 per cent, though this depends on the assumptions used.
- Using the unimproved value of land would eliminate the GST impact in this cameo (since the same indicator is used to estimate the GST distribution due to the new land tax, and because the size of the tax base is not expected to change as a result of the tax reform).

These effects are illustrated in the table below (effects under multilateral reform are presented in appendix C). While the unimproved value of land clearly performs better in terms of reducing disincentives to reform, the total value of dwelling stock measure may better reflect States' abilities to raise property tax (as it reflects the value of structures and improvements). There is thus a trade-off between accurately reflecting States' abilities to raise revenue (fiscal equity) and the need to achieve policy neutrality (efficiency).

Cameo 1: Stamp duty halved with revenue replaced by new land tax, unilateral reform

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Change in GST payments (\$m)								
<i>Current approach</i>								
GST, lower bound (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
GST, upper bound (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
<i>Value of dwelling stock^a</i>								
GST, lower bound (\$m)	-404	-340	-329	-169	-105	-27	-33	-10
GST, upper bound (\$m)	-523	-449	-398	-215	-133	-35	-43	-13
<i>Unimproved value of land</i>								
GST (\$m)	0	0	0	0	0	0	0	0

^a The lower and upper bound calculations are based on estimates of the elasticity of the value of average house prices to changes in stamp duty rates (-0.196 and -0.255 respectively), as reported by Davidoff and Leigh (2013).

Source: Productivity Commission estimates.

Specifically, such indicators offer potential to reduce the disincentives for policy reform identified in chapter 3. For example, using a more policy-neutral measure of the stamp duty

tax base, such as the total value of property (rather than turnover with various adjustments) would mean that GST payments are less prone to change as a result of tax reforms to replace stamp duty with land tax. Though such an approach would not necessarily remove all the GST consequences of tax reforms that impact on tax bases (for example, through elasticity effects), these impacts would generally be much more muted. An example of where policy neutral indicators could be applied to reduce disincentives for policy reform is the stamp duty assessment (box 7.3).

However, the key challenge is striking the right balance between equity and efficiency: ideally, the indicators should be beyond the direct influence of State policy and thus achieve a greater degree of policy neutrality, while also ensuring States remain able to deliver a reasonable standard of services to their communities. In some cases there may be a trade-off between achieving greater policy neutrality and achieving a reasonably equitable GST distribution among States. Choosing the right measure for each category inevitably involves making trade-offs between these factors.

There is also a case for making adjustments to reflect major structural differences (disabilities) between the States, as under the current system, to ensure that the indicators adequately reflect States' abilities to raise revenue or deliver services. For example, adjustments could be made for differences in the size of public service employment within States (which influences payroll tax collection) or the number of Indigenous people using health services. These adjustments would be most transparent when restricted only to the largest of divergences between the States (as reflected by raised materiality thresholds, discussed below).

A specific case: the mining assessment

Mining is currently the biggest driver of GST redistribution between the States and a source of considerable policy non-neutrality, especially for iron ore and coal (chapter 3). Addressing this non-neutrality will be of ongoing importance given high levels of mining production and royalty revenue (especially in Western Australia) for the foreseeable future (chapter 1).

As such, the Commission has examined whether there would be benefits in adopting alternative measures of the mining revenue base. Two alternative potential measures would involve use of the aggregated value of all mining production, and aggregate mining profits. Both have been used by the CGC in the past (chapter 3). Either of these approaches would be much simpler than the current approach, which consists of eight sub-assessments (each using the value of production of a specific mineral or group of natural resources).

An aggregated mining assessment would effectively involve treating all minerals together in a single assessment — using a single measure of the total value of production in each State (across all mineral types). The New South Wales Government (sub. DR109, pp. 29–30) supported the move to an aggregated assessment, stating:

To minimise the impact of state policy on the assessment of revenue raising capacity, the share of the revenue base attributed to individual states needs to be kept as low as possible. Achieving this outcome favours aggregated assessments of revenue raising capacity where the concentration of one particular mineral in one state will have a lesser impact. An example of such an approach would be to assess the revenue raising capacity from mining royalties for each state as one assessment.

The Queensland Government (sub. 32, p. 9) also supported this change, and argued that an aggregated approach ‘could greatly enhance the policy neutrality of the assessment while still assessing each State’s relative capacity to raise revenue through mining royalties’.

An aggregated assessment approach would mean that any individual State has less scope to influence its GST payments by changing the royalty rate on a single mineral, compared to the current mineral-by-mineral approach. However, policy neutrality problems could still remain, given the dominance of single mineral categories in some jurisdictions — for example, Western Australia’s iron ore comprised about 40 per cent of the value of all mineral production (across all States) in 2015-16, meaning that changes in its royalty rate could still have a material influence on GST shares, and thus policy non-neutrality would remain.

Another possible approach is to return to a profit-based assessment, which the CGC used between 1977 and 2003 (CGC 2015d, p. 13). This has several notable advantages, mainly that it is a much closer measure of the underlying tax base (mineral rents) that royalties seek to target. Profit-based measures are also more sensitive to differences across States in the quality of mineral deposits and the cost of extracting them, and can reflect price and cost changes over time. This means that profits can be an accurate way of capturing the various market and technological conditions impacting on extraction activities across States.

However, a profit-based approach would face practical difficulties. Profit-based measures have tended to be highly sensitive to price and cost changes, and therefore volatile. It can also be difficult to develop reliable profitability measures for all mining activities. Indeed, the CGC previously abandoned such an approach due to practical difficulties and growing problems with obtaining reliable data (CGC 2015d, p. 14).

Moreover, as with the aggregated value-of-production approach, a profit-based approach would have limited benefits in terms of improved policy neutrality. Western Australia’s policy decisions would still have a large influence on its GST payments given the sheer size of its iron ore sector. More targeted approaches could better address the specific areas of policy non-neutrality that arise from equalisation of mining royalties (section 7.5).

A further but possibly even less practical alternative would involve assessments based on *potential* mining production, such as measures of each State’s underlying reserves. A number of participants discussed this approach, but argued that it would be unworkable,

given incomplete data and the control States have over exploration activity (CCIWA, sub. 11, p. 6; Climate Change Our Future, sub. DR104, p. 1). Indeed, the Commission is not aware of any other country that uses such an approach as part of HFE.

The CGC has examined the impact of using measures of known reserves to assess coal-seam gas and uranium royalties, but found that the impact on the GST relativities would not be material in either case (CGC 2017d, pp. 27–28). It has also stated that:

In situations such as the [coal-seam gas] case, the [CGC] is not attracted to imputing a base for the banning States, based say on known gas reserves. This is because where exploration has been banned or discouraged known reserves may be incomplete, and not all known reserves have the same economic value. (CGC 2017i, p. 23)

Based on these points, it is unlikely that an approach based on potential production would deliver a viable alternative way of conducting the assessment.

Most recently, the CGC has discussed assessing revenues from banned minerals using equal per capita, and applying this treatment to coal seam gas and uranium royalties from 2020. It has signalled in this context that it could defer any decision on this approach until coal seam gas and/or uranium royalties become much larger (CGC 2018e, p. 13).

Implementing more policy-neutral indicators

The potential benefits of using simpler, more policy-neutral indicators is limited in some assessment areas, such as mining. And in some other assessment areas, such as payroll tax (discussed in chapter 3), the current indicators may already be largely policy neutral. Nevertheless, there is scope to investigate simpler assessments (table 7.2).

Greater use of more policy-neutral indicators will have winners and losers, with some States gaining GST revenue at the expense of others within each revenue or expenditure category. In this context, the Queensland Government (sub. DR106, p. 9) stated:

Simplification of the assessment process requires pragmatism; acceptance that any change to the current processes will result in some States being better off and some worse off. This needs to be accepted as a natural consequence of reform of the GST distribution process and moving from attempted precision to equalisation to a *similar level of services* standard.

Further, a State that loses GST payments in some categories will gain in others, and across the system as a whole may not necessarily be worse off. In other words, many of the impacts could cancel out.

The CGC itself is best placed to identify the specific indicators to be used under this approach. However, the CGC is unlikely to pursue and implement such an approach absent of direction to do so and while the HFE objective remains focused on achieving full and complete equalisation. The CGC needs to be explicitly directed, via the terms of reference it receives, to consider the use of simpler and more policy-neutral indicators in its assessments, consistent with achieving a reasonable standard of services in accord with a revised HFE

objective. There is an opportunity for this to occur as part of the CGC's 2020 methodology review. To facilitate this, the Commonwealth Treasurer should update the terms of reference for the 2020 review. In doing so, there is merit in nominating specific areas of focus, for example where States have identified assessments that have a material impact on the GST distribution or are adversely affecting policy neutrality.

A move towards more policy-neutral indicators would also best be implemented alongside other reforms to strengthen the transparency and accountability of the HFE system (chapter 6). In particular, the CGC should be given stronger guidance by the Treasurer to help it make the equity–efficiency trade-offs that a move towards this approach would entail. A clearly articulated revised objective from the Commonwealth Treasurer would assist in this regard, as would greater input from the Commonwealth Treasury in the CGC's consultation processes (chapter 6).

Raising the materiality thresholds

Materiality thresholds play an important function in the HFE system. The CGC uses these to remove factors, on *both* the revenue and expenditure sides, from the equalisation process that do not exert a material impact on redistribution. The level at which these thresholds have been set has modestly changed in the recent past (table 7.3), but falls well short of recommendations of independent review. In its 2010 methodology review, the CGC introduced a redistribution materiality threshold whereby separate assessment would occur if:

... the category is expected to be material; meaning, making a separate assessment rather than aggregating the service or revenue with broadly similar ones would redistribute more than \$30 per capita for any one State in the reference period. (CGC 2010, p. 39)

Subsequent to this, the 2012 GST Distribution Review recommended a quadrupling of the redistribution materiality threshold to \$120 per capita (since discontinued), and of the disability materiality threshold to \$40, to 'prevent the system becoming, or being viewed as, falsely precise' (Brumby, Carter and Greiner 2012a, p. 60). The effect of these increases would have been to remove one revenue category (insurance tax) and six disability factors.

In its 2015 Review, the CGC increased its threshold from \$10 to \$30 for disability factors — these thresholds apply to disability factors on both the revenue and expenditure sides. But the CGC did not go further and adjust this to the extent recommended by the 2012 Review or more substantially (table 7.3). A \$30 per capita threshold is low from the perspective of the HFE system overall. Even for a large State, such as New South Wales, \$30 per capita equates to about \$237 million, which is small relative to that State's own budget (0.3 per cent of total revenues) and relative to the total GST pool (0.4 per cent).

Table 7.3 Materiality thresholds over time

Per capita

<i>Level at which threshold applies</i>	<i>2010 CGC Review</i>	<i>2012 GST Distribution Review (Proposed)</i>	<i>2015 CGC Review</i>	<i>2020 CGC Review</i>
Category - total ^a	\$50	\$200	..	..
Category - redistribution ^b	\$30	\$120	..	..
Disability ^c	\$10	\$40	\$30	\$35
Data adjustment ^d	\$3	\$12	\$10	\$10

^a Minimum average revenue or expenses required for a separate category. CGC no longer use this threshold. ^b The minimum effect on the GST distribution of disaggregating a category. CGC no longer use this threshold. ^c The minimum effect on the GST distribution of including a disability (for either revenues or expenditures) or recognising extra population characteristics as part of a disability. ^d Adjustments aimed at improving the comparability of data. .. not applicable.

Sources: Brumby, Carter and Greiner (2012a, p. 60), CGC (2010, p. 87; 2015b, p. 20; 2017i).

More recently, the CGC has stated that it intends to increase the materiality threshold for disabilities marginally — to \$35 per capita — as part of its 2020 methodology review (with the threshold for data adjustments remaining at \$10). It noted that:

The large increase in the disability threshold applied in the 2015 Review achieved its goal of reducing the number of disabilities assessed by the Commission to those that have a substantive effect on the GST distribution. (CGC 2017i, p. 37)

In its submission to the 2020 review, the Queensland Government supported further consideration of raising the current disability threshold to \$50 per capita (Queensland Government 2017, p. 12).

In April 2018, the CGC also published a Staff Research Paper on a broader assessment approach (CGC 2018d). This paper considered the effects of increasing the disability materiality thresholds to \$100 and \$200 per capita respectively. It found that an increase in materiality thresholds to \$100 per capita would remove seven expense disabilities and three revenue disabilities, and that this would have the largest effect on redistribution in Western Australia (\$121 per capita), the ACT (-\$126 per capita) and the Northern Territory (-\$190 per capita) (CGC 2018d, p. 22).

The adoption of materiality thresholds by the CGC is a welcome step towards greater simplicity, as is its ongoing consideration of further opportunities for simplification in assessment methods. However, there is value in much higher materiality thresholds (in part because inflation has eroded — by about 15 per cent — the real value of earlier proposed changes in the materiality threshold). This would help to tighten the focus on factors that have the most important influence on revenue raising and expenditure across jurisdictions — thereby bolstering public confidence and understanding of the HFE system, and thus transparency and accountability.

Higher materiality thresholds would also assist with a move towards using simpler and more policy-neutral indicators, as discussed above. To be effective, these changes should be implemented together.

FINDING 7.3

The use of more policy-neutral revenue and expenditure indicators, along with significantly higher materiality thresholds, offers considerable scope to secure greater efficiency and simplify the HFE system (and therefore improve transparency and accountability), while also achieving a high degree of fiscal equality in overall State fiscal capacities.

The Commission has identified one prospective candidate — in the stamp duty tax base. But there is only limited scope to secure greater policy neutrality through this approach where it matters most — in the mining assessment.

RECOMMENDATION 7.1

The Commonwealth Treasurer should direct the CGC (in accordance with the refocused HFE objective) to:

- examine simpler and more aggregated revenue and expenditure assessments that use more policy-neutral indicators, consistent with achieving a reasonable standard of services
- adopt significant increases in materiality thresholds, which would assist in determining and applying more policy-neutral category level indicators.

This initial direction should be embedded in revised terms of reference for the CGC's 2020 methodology review.

7.4 Discounting entire revenue categories

Discounting entire revenue categories — for example, all mining revenues, or all stamp duty revenues — is another methodological adjustment that could be used to address policy neutrality problems. The discounted revenue would be quarantined from equalisation and retained in its entirety by the relevant State.

The CGC already applies discounts to selected assessments in cases where there are data quality problems or uncertainty. In the CGC's words, the discounts are:

- 12.5 per cent, if we were not fully confident about the size of an effect because of a low level of uncertainty around the information;
- 25 per cent, if there was a medium level of confidence about the size of an effect or a medium level of uncertainty about the information;

- 50 per cent, if we were confident of the direction of the effect on States and that it was large but we had limited confidence in the measurement of its size due to a high level of uncertainty in the information; and
- no assessment was made, if we were not confident of the direction of an effect or its size. (2010, p. 83)

Detail on the use of discounts by the CGC is published as part of their five yearly methodology reviews. In the 2015 review, discounts of 12.5 per cent were included in the areas of police custody, location wage costs, regional cost factors in policing, service delivery scale for policing and net borrowing (CGC 2015f, p. 18). Discounts of 25 per cent were used in the areas of land tax, health, location and service delivery scale and no discounts of 50 per cent were applied. The combined impact of making discounts in assessments, relative to undiscounted assessments, was \$503 million.

A more generalised discount could be used to address specific instances of policy non-neutrality in particular revenue categories. This would guarantee that a State retains at least the discounted proportion of the change in revenue — the proportion of revenue that is discounted would essentially be quarantined from equalisation. Efficiency benefits could result from such an approach if, for example, policy non-neutrality in the particular revenue category was preventing States from adopting optimal taxation policy. This justification has been argued with respect to mining, leading to calls to discount mineral royalty revenue (box 7.4). The approach used in Canada is sometimes put forward (box 7.5). The possible effects on the distribution of GST from a mining discount of 25 per cent are shown in table 7.4.

Table 7.4 Effects of a 25% discount to the mineral royalty assessment
2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Discounted approach	0.83	0.95	1.11	0.62	1.45	1.74	1.14	4.28
Change in GST Payments								
GST payments (\$m)	-428	-648	208	1042	-106	-40	-43	15
GST payments (\$per capita)	-53	-100	41	398	-61	-76	-104	63
% change in State revenue	-0.5	-1.1	0.4	3.9	-0.6	-0.7	-0.8	0.3

Sources: Productivity Commission estimates based on data provided by the CGC, Appendix C.

On balance, the introduction of a discount for particular revenue assessments is not justified on equity or efficiency grounds. A discount is inconsistent with the broad objective of HFE. Mining revenue, in particular, is a prime example of a source-based advantage that should *prima facie* be included in the equalisation process.

Box 7.4 Mining discounts: what participants say

Some inquiry participants advocated discounting all mining revenues in the HFE system:

A number of options are possible, including:

- mineral-specific royalty discounts whose magnitude reflects the degree of concentration of the mineral in any one State (highest discount where all the mineral is in one State, reflecting that this raises the greatest policy neutrality concerns);
- uniform discounting of all mining royalties; or
- uniform discounting of all revenues. (WA Government, sub. 15, p. 112)

A discount to mining revenue is one way to achieve equalisation to a reasonable level of fiscal capacity that also provides a solution to the issue of mining policy differences among states. The MCA therefore recommends that the Productivity Commission reconsider its draft finding on mining revenue discounts. (MCA, sub. DR82, p. 1)

Discounting assessed mining revenues is consistent with the CGC's current approach to aspects of its calculations, and would mitigate some of the adverse incentives that currently exist. Such a reform could be supported by 'safety net' provisions to limit short-term financial impacts on individual jurisdictions through an appropriate transition period. (Rio Tinto, sub. 37, p. 3)

Other participants opposed mining discounts on equity and efficiency grounds:

Victoria does not accept that mining revenue deserves preferential treatment compared to other revenue sources, as outlined above. Further, not only should all revenue sources be considered as part of a states' fiscal capacity without discount, the conceptual economic argument for fully equalising on immobile revenue bases (such as natural endowments in minerals and land) is particularly strong. (Victorian Government, sub. 53, p. 8)

Partial fiscal equalisation, on the other hand, would not achieve the fundamental equity objective of HFE and may adversely affect efficiency, depending on the details of its design. Partial fiscal equalisation which omits or discounts major components of fiscal capacity, such as mining revenues, would be both inequitable and inefficient. (ACT Government, sub. 49, p. 8)

Permanent discounts should also not be introduced to provide a supposed solution in cases where jurisdictions have managed the fiscal returns of buoyant conditions in a less than ideal way over time. The temporary use of a discount factor is also far from ideal, and runs the risk that it would become permanent over time.

FINDING 7.4

Discounting mining (or other revenue categories) in the HFE process — or removing it entirely — is not justified and would come at a high cost to fiscal equality.

Box 7.5 Canada's mining discount

In 2006-07, Canada undertook extensive reform of its fiscal equalisation system, following the recommendations of the Expert Panel on Equalization. In undertaking its review, the Expert Panel commented that:

By far, the most contentious issue involves how resource revenues should be treated in the formula. The Panel heard strongly held and diametrically opposing views ranging from excluding resource revenues entirely to including them completely. Given the importance of resources to the economies of some provinces and the impact of high prices for oil and gas in particular, this issue has direct bearing not only on the Equalization program but on the potential for resource revenues to increase disparities among provinces. (Department of Finance (Canada) 2006, p. 4)

A key part of the reforms was that natural resource revenues, such as royalties and fees, would contribute 50 per cent to defined provincial fiscal capacity (i.e. a 50 per cent discount of mining royalties). Prior to 2004, 100 per cent of natural resource revenues were included in equalisation payments. The use of actual resource revenues, instead of resource tax bases, was also introduced to calculate fiscal capacities of the provinces.

The equalisation formula was changed in 2007 to involve two options. Provinces would be entitled to a payment based on a calculation that either includes 50 per cent of natural resource revenues or excludes natural resource revenues entirely. Provinces automatically receive payments according to formula that yields the higher payment. There is also a fiscal capacity cap on equalisation payments to address the partial inclusion of natural resource revenues (Edison 2013).

Source: Appendix E.

7.5 Targeted interventions for future policy changes

A final form of potential adjustments to revenue and expenditure assessments involves making targeted interventions to deal with specific cases of policy non-neutrality when problems are expected to arise from policy changes. This approach effectively involves giving up some equalisation in State fiscal capacities to remove disincentives to reform (efficiency) and/or achieve 'fairer' outcomes by allowing States to retain a share of the benefits of their policy effort (equity).

This offers a more targeted approach than blunter techniques such as discounting entire revenue categories. It would link the amount of additional revenue a State retains after HFE directly to a specific policy decision. It would also provide for policy neutrality at less cost to equality of State fiscal capacities.

Such targeted interventions would apply to prospective policy changes only — that is, when a State introduced a specific policy change that would have a material impact on its GST payments. In general, an intervention would involve three main steps:

- identify the specific policy change made by a State
- estimate the likely impacts on GST payments (for all States)

-
- make an adjustment to the methodology to reduce these impacts (and determine the time period over which the adjustment should be kept in place).

The lags in the HFE system (chapter 5) mean that any targeted intervention would necessarily be backwards looking — it would be applied at least two years after a State had made the policy change. To provide certainty to States, such interventions would be most effective and practical when based on clearly defined rules and triggers. Certainty would also be bolstered by the CGC providing States with ‘draft rulings’ of how policy changes may affect future GST payments (chapter 6).

Discounting future tax rate changes

The CGC, as part of its 2020 review, has indicated that it is considering introducing a revenue discount that is targeted to future State tax or royalty rate changes (box 7.6). Under this approach, no discount would apply to revenue that is a result of existing tax rates, but the additional revenue raised from an increase in tax rates would be subject to a discount (and, conversely, the reduction in revenue from a decrease in tax rates). This would act to make the GST distribution less sensitive to each State’s policy choices, and thus more policy neutral.

Box 7.6 The CGC’s proposals for discounting future tax changes

In its position paper for the 2020 methodology review, the CGC stated that:

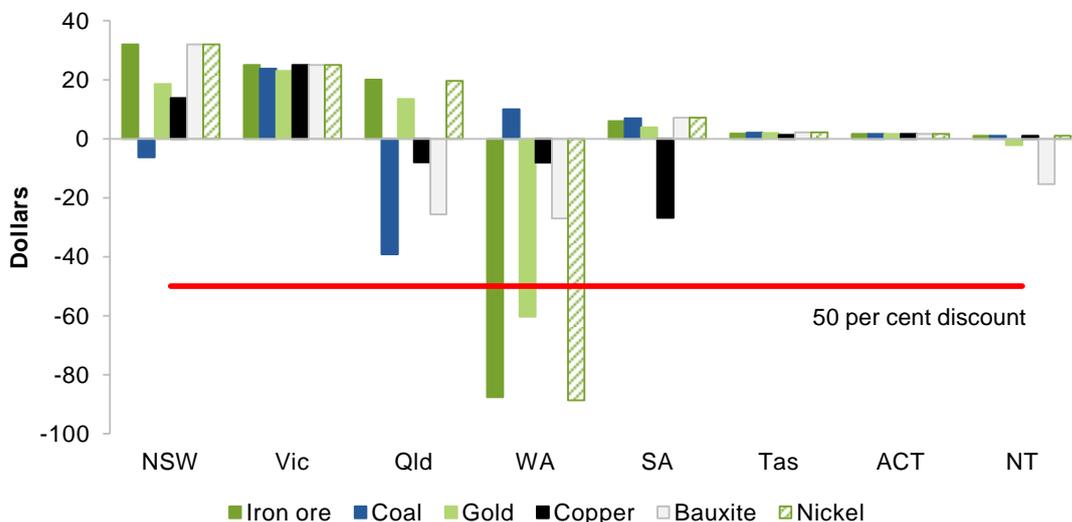
For the 2020 Review, the [CGC] considers that its methods should ensure each State retains, after equalisation, at least half of the own-source revenue effects of the discretionary policy changes that it makes. ...

This could be done by directly reducing the effect of a discretionary change in effective mining tax rates by the dominant State on the rate of tax used for the calculation of revenue capacity. This would apply only to the extent necessary to meet the at least 50% objective. The specific methods to be adopted by the Commission to give effect to this approach will be considered in consultation with the States over the course of the review. CGC (2017j, p. 29)

The discount would be applied such that the State undertaking the policy change would retain at least 50 per cent of any additional revenue (or, conversely, bear at least 50 per cent of any revenue decrease). For example, if a State with a tax base of \$100 million increased its tax rate from 10 per cent to 12 per cent, then \$10 million of revenue would be subject to full equalisation, and \$2 million would receive a discount such that the State retains at least \$1 million net of GST impacts.

The 50 per cent level is arbitrary, and effectively limits the circumstances in which such a discount would apply. In practice, and as shown in figure 7.1, were a floating form of discount to be applied, such that a State would retain *exactly* 50 per cent of revenue, it is likely to apply only to Western Australia, and only with regard to iron ore, nickel and gold.

Figure 7.1 Dollar change in GST payments from increasing mineral revenue by \$100 via rate change



Source: Productivity Commission estimates based on data provided by the CGC.

These are the only instances where more than 50 per cent of the additional revenue from an increase in royalty rates would be offset by reduced GST payments.

This kind of intervention would target policy non-neutrality problems that arise through impacts on average tax rates, where one State has a particularly large influence on the national average (the average-rate effect discussed in chapter 3). However, it would not offer a systematic way of addressing policy non-neutrality arising from scope for States to influence the size of their tax bases, either directly (for example, through development decisions) or indirectly (through elasticity effects) (chapter 3). It is not clear to what extent it would apply in the case of a State introducing a new type of tax (where the revenue collected is material at a national level, and thus would be subject to equalisation).

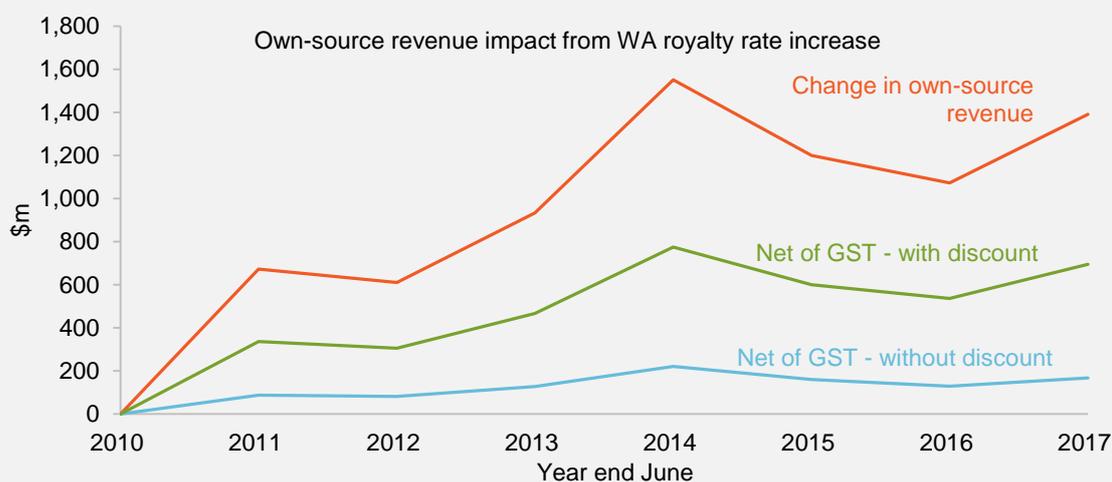
Discounting future tax rate changes would also involve less of an equity trade-off than discounting entire revenue categories. By closely targeting discounts to specific instances of policy non-neutrality, the impact on equality of State fiscal capacities would be minimised. And by only applying to *future* policy changes, it would support fairness by allowing States to retain more of the benefits of their policy effort while not unduly benefiting States simply because they have stronger tax bases.

To illustrate how this approach might impact GST payments, the Commission has estimated how it would have impacted GST payments had it, and a mineral-by-mineral assessment methodology, been in place since 2010 (box 7.7, appendix C). The analysis shows that annual GST payments would have increased for Western Australia (by between \$224 million and \$554 million over the seven year period), and decreased for all other States.

Box 7.7 How would discounted royalty rate changes have affected Western Australia?

The Commission has estimated how the CGC's proposal for discounting future tax rate changes might have impacted States had it been applied in the past. This analysis assumes that the approach had been in place since 2010, when Western Australia started to phase in an increase in its iron ore royalty rate.

The figure below shows the own-source revenue impacts on Western Australia (calculated using annual relativities). For simplicity, this analysis shows the impacts relative to a counterfactual scenario where the current mineral-by-mineral mining assessment is used for the entire period (in practice it has only been in place since 2015). It shows that in this hypothetical scenario Western Australia would have retained 50 per cent of the additional revenue, compared to about 12 per cent with no discount. With this mining discount (and a mineral-by-mineral assessment) WA's relativities would have ranged from 0.30 to 0.60 over the period, compared to a range of 0.22 to 0.58 without.



The table below shows what the implications for all States GST payments would have been in 2018-19 (calculated as the average of annual relativities over the three financial years up to 2016-17). WA's GST payments would have been \$519 million higher, whereas GST payments for other States would each be reduced by between \$4 million (Northern Territory) and \$190 million (NSW).

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
50 per cent discount	0.85	0.98	1.09	0.55	1.47	1.76	1.17	4.25
Change in GST payments								
\$m	-190	-153	-118	519	-34	-9	-10	-4
\$pc	-24	-24	-24	198	-19	-18	-24	-17
% change in State revenue	-0.2	-0.3	-0.2	1.9	-0.2	-0.2	-0.2	-0.1
Total redistribution from EPC								
Current approach								\$6 840 million
50 per cent discount								\$6 664 million

Sources: Productivity Commission estimates based on data provided by the CGC; appendix C.

The largest decrease in annual payments would have been to New South Wales in 2013-14 (\$207 million) although on a per capita basis the decrease is spread evenly across the States.

Some inquiry participants favoured the CGC's proposal. The ACT Government (sub. DR81, p. 27) supported it on the basis that the current mining assessment can give some States an incentive to lower or avoid raising their royalty rates. The ACT Government also noted that in practice only a few mineral categories would be affected.

The WA Government — while strongly favouring greater policy neutrality in the mining assessment — disagreed with the level at which a discount would be applied, and with the general approach it involves. It argued that redistribution due to tax rate changes should be capped at a significantly lower level than 50 per cent (WA Government, sub. DR83, p. 32). It also argued that the CGC's suggested approach was ad hoc, in that it discriminates between past and future royalty rate increases. (Figure 7.1 indicates that a 10 per cent threshold would then also cover coal and bauxite royalties in Queensland, copper royalties in South Australia and bauxite royalties in Western Australia and the Northern Territory).

Indeed, the 50 per cent threshold would effectively exclude all non-mining revenue categories — and thus it would have no impact on State incentives to undertake other types of tax reform. Combined with the fact that this approach is poorly equipped to deal with changes in GST shares due to changes in tax bases, it would have no impact on State incentives for broader tax reform initiatives (such as replacing stamp duty with land tax) discussed in chapter 3.

A further consideration is determining the time period over which the adjustment would apply — a matter which the CGC has thus far not addressed in its 2020 methodology review papers. Leaving the adjustment in place indefinitely may not be desirable, and may have unintended consequences, for fiscal equality. Any revenue sources (such as minerals) that provide States with a material fiscal advantage should, in principle, be included within HFE.

Further, over time, multiple adjustments and discounts would increase the complexity of the HFE system and reduce its transparency. If pursued, a time-limited approach would, at a minimum, be worthy of consideration.

Finally, a discount for future tax changes would not change the GST distribution in the foreseeable future. Any impact would ultimately depend on whether — and to what extent — a State changes its tax rates, and the change meets the 50 per cent threshold at which the discount would apply. Indeed, under an alternative (less than full) equalisation standard — such as equalising to the average (chapter 8) — it is unlikely that the discount would ever be triggered in practice.

FINDING 7.5

The CGC's proposal to discount revenues such that a State retains at least 50 per cent of the own-source revenue impacts of a tax or royalty rate change (net of GST payments) is an incomplete approach to mitigate policy non-neutrality in HFE. It would only address policy influence on average tax rates, not on tax bases, and only for Western Australia for the foreseeable future.

Elasticity adjustments

Targeted interventions to improve policy neutrality for future policy changes could also take the form of elasticity adjustments. This would effectively mean introducing adjustments to minimise the consequences of State tax policy changes where a higher (or lower) rate leads to a reduction (or expansion) in the tax base used to assess GST shares (chapter 3).

The CGC has recently stated that, as part of its 2020 methodology review, it will 'aim to minimise, to the extent practicable, tax reform disincentives arising from the effects on tax bases (elasticity effects) of tax policy choices' (CGC 2017j, p. 5). As part of this review, it has commissioned academic research on the elasticity of State tax bases, and noted that it will consider whether elasticity effects are material and can be reliably estimated.

Prior to 1999, the CGC used elasticity adjustments in its assessments of State taxes on petroleum, tobacco and mining (CGC 2013b, p. 12). This approach was discontinued due to concerns about the reliability of measurement (CGC 2015f, p. 14). It re-examined such adjustments in the course of its 2015 review, and found that in most cases tax bases would need to be very elastic to result in a material change to the GST distribution (CGC 2013b, pp. 12–15). Nevertheless, some jurisdictions — notably the ACT Government (sub. 49, pp. 8,14) — support the introduction of elasticity adjustments.

At this stage, it is not clear how any such adjustments would be made in practice, or what the implications would be for States' GST payments. Obtaining reliable and consistent data for all State taxes is likely to be challenging, if not impossible. The quality of estimates or data sources used could be open to dispute. And even where robust estimates exist, they would still need to be applied to clearly identified changes in State tax rates, and separated from the wide range of non-tax rate factors that influence the size of observed tax bases. A timeframe would also need to be specified over which any GST adjustments are made.

Moreover, while elasticity adjustments offer a way to deal with policy disincentives that arise from the way that tax bases change due to changes in tax *rates*, they do not address cases where State policy can directly influence the size of tax bases through other channels (such as approving mining or other development activities). They would be at best an ad hoc fix rather than a holistic solution.

There would also be uncertainty about the quality of estimates used to adjust GST payments and whether these estimates would change over time. Such adjustments would compound complexity within the HFE system even further. A better approach to deal with elasticity effects would be to adopt more policy-neutral indicators of States revenue-raising capacities, as outlined in section 7.3.

7.6 Summing up

This chapter has focused on some substantive proposals for change to the HFE process to address the concerns raised in earlier chapters — namely, that a system of full and comprehensive equalisation is overly complex and lacking in transparency and accountability; does not address concerns about fairness (reward for policy effort and risk taking); and imposes efficiency costs by discouraging major State tax reform (chapter 6).

While ongoing consideration of method change is a desirable permanent feature of the current arrangements, there is no clear-cut adjustment to the HFE methodology that collectively strengthens equity, efficiency and transparency and accountability.

Indeed, many of the options discussed in this chapter only *partially* address the problems with the HFE system. Some of these are likely to do so in a way that introduces other problems, or are simply unworkable. Using a single broad indicator, or discounting entire revenue categories, would be too blunt and risk falling short of a reasonable standard of equalisation. Benchmark costs and elasticity adjustments, while appealing in principle, face daunting practical difficulties and involve a high degree of scope for dispute.

That said, some changes to the HFE methodology would improve Australia's HFE system. This chapter has identified two prospective options for change. Specifically, the CGC should examine simpler and more policy-neutral revenue and expenditure assessments. This should be supported by significant (and long overdue) increases in materiality thresholds.

Taken together, these methodological changes would result in considerable simplification to the HFE system (and thus strengthen transparency), while also strengthening policy neutrality in some areas. Although it will likely result in some small reductions in fiscal equity, this package of changes still offers a way of achieving a reasonable standard of equalisation — without the seemingly false precision that besets the current system.

Making the changes work will, however, require changing the HFE objective and adopting the broader governance reforms outlined in chapter 6. These reforms would help to guide the CGC in implementing the methodology changes.

The suite of methodology and governance reforms would go *some* way towards addressing some of the existing problems with the HFE system. While these reforms would have the effect of departing from full equalisation — in terms of the fiscal outcomes for States — this would arise only to the extent necessary to achieve offsetting benefits, such as improved policy neutrality, fairness or transparency. As such, these reforms can help to strike a better

balance between equity and efficiency (chapter 1) while providing a reasonable standard of equalisation in line with the Commission’s revised objective for HFE (chapter 6).

While these changes are necessary, they are not sufficient in and of themselves, to resolve the other material problems of the current system. In particular, there does not appear to be any obvious policy-neutral indicators, or other workable methodology changes, that could be applied to the mining revenue assessment. Thus, without more fundamental changes, the largest and most contentious source of policy non-neutrality would remain untouched. Addressing this area of policy non-neutrality will be of ongoing importance given the high levels of mining production and royalty revenue in the foreseeable future.

Further, some of the disincentive effects within HFE — namely, those arising from the equalisation of tax bases — are inherent to equalisation itself and cannot be removed completely by way of methodological adjustments.

The only way to address such disincentives would be to reduce the extent of equalisation itself (such that changes in State’s tax bases do not impact their GST payments). Changing the equalisation benchmark offers a simple way of achieving this and is discussed in the following chapter.

8 Is there a preferred alternative benchmark for fiscal equalisation?

Key points

- Alternative approaches to distributing the GST involve trade-offs between equity, efficiency, and transparency and accountability. The current approach to managing these trade-offs is manifest in the equalisation benchmark, which to date has been set by the CGC as equalising to the same standard and thus to the strongest State plus an equal per capita (EPC) amount.
- Several alternative equalisation benchmarks (proposed by inquiry participants) would not deliver a reasonable standard of equalisation and do not provide a clear improvement over the current system.
 - An EPC benchmark appealed to some participants, and it performs well in terms of efficiency, fairness (reward for policy effort) and transparency, but does not equalise the fiscal capacities of States (to any benchmark) and, thus, is inimical to HFE.
 - An EPC benchmark with top-up funding could limit these downsides and offer benefits for transparency. However, funding the top up could create other losers, and should only be contemplated as part of broader reform to federal financial relations. Moreover, such funding is not certain and subject to the vagaries of the Commonwealth budget.
 - A relativity floor is not well targeted at the efficiency and fairness problems of the HFE system, such as disincentives to undertake major tax reform (efficiency) and receiving reward for policy effort (fairness).
- Other options for equalising fiscal capacities to less than that of the strongest State (which the Productivity Commission considers a desirable change) hold more promise. These options can deliver (to varying degrees) a reasonable standard of equalisation and at the same time enhance the efficiency and fairness of the HFE system.
- Options include equalising to the fiscal capacity of the second strongest State, to the average of the fiscally strong States, or to the average of all States. Other options involve full equalisation for the smallest States only and 90 per cent full equalisation (with 10 per cent EPC).
- No option is unambiguously superior. On balance, equalising to the average (ETA) fiscal capacity of all States is judged to be the preferred alternative. ETA is expected to provide the greatest scope for efficiency gains and to improve fairness compared with the alternatives. It would enable fiscally stronger States to keep a greater portion of the fiscal dividends of their policy effort, and the fiscal impacts are likely to be modest and manageable using a careful transition approach.
 - For those States that would receive less GST (compared to the current system), the largest revenue reduction (without transition) is 2.5 per cent or less of State revenue.
 - All States would be able to meet a high level (at least 97 per cent) of their assessed expenditure needs.
 - States can choose (as they do already) to prioritise the way they spend their GST payments to ensure that key services continue to be funded to meet community expectations.

The inquiry's terms of reference ask the Productivity Commission to assess concerns with the effects of horizontal fiscal equalisation (HFE) on productivity, economic growth and budget management for the States and for Australia as a whole; and to identify any better alternative arrangements. Earlier chapters examined the veracity of those concerns. Those that have substance are summarised in chapter 6, which also proposes a change to the HFE objective — that is, to deliver a 'reasonable' level of fiscal equalisation. This change to the HFE objective is a necessary precursor to other changes (including 'in-system' changes) that achieve a better balance between equity and efficiency in the HFE system.

Chapter 7 considered whether the problems identified can be addressed by 'in system' changes — adjusting substantial methodological elements of the current HFE system. But those concerns, the Commission's consideration of 'in system' changes, and the terms of reference, also raise the question of whether the equalisation benchmark itself needs to be changed to better address some of the problems with the current system.

The Commission has been presented with a number of suggestions for fundamental changes to the way GST payments are distributed among the States. They essentially seek to achieve a better balance between equity and efficiency by shifting the equalisation benchmark — away from that of the strongest State plus an equal per capita (EPC) amount (full equalisation) — to less than full equalisation.

Importantly, the adjustments proposed in chapter 7 also result in less than full equalisation, particularly where they are aimed at addressing issues of policy non-neutrality. As such, changing the HFE objective is needed lest the Commonwealth Grants Commission (CGC) remains hamstrung and unable to contemplate a trade-off that results in a modest departure from full and comprehensive equalisation. Changing the equalisation benchmark is not required to achieve the objective of these adjustments, which are largely focused on addressing issues of policy non-neutrality.

The alternative equalisation benchmarks considered in this chapter are:

- EPC (and a variant with 'top-up' funding for fiscally weaker States)
- a relativity floor
- explicitly equalising to some level less than that of the strongest State: to the second strongest State, the average fiscal capacity¹⁵ of the fiscally strong States (currently New South Wales, Western Australia, and Victoria), or to the average fiscal capacity of all States
- full equalisation for only the four smallest States (South Australia, Tasmania, the ACT, and the Northern Territory) and 90 per cent full equalisation — these two options were outlined by the CGC in its post-draft submission to this inquiry (sub. DR61, pp. 7–9).

¹⁵ References to 'fiscal capacity' in this chapter refer to States' fiscal capacities prior to the distribution of GST revenue, unless otherwise stated.

This chapter discusses the rationale of these alternative benchmarks and assesses their merit relative to the current arrangements and with respect to the Commission’s proposed revised objective for HFE.

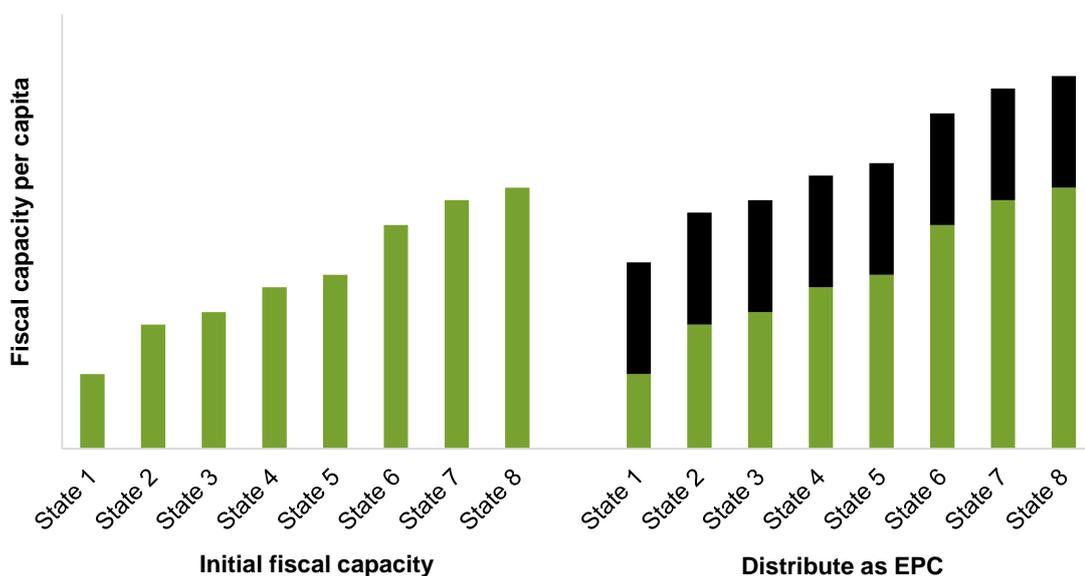
Each option is assessed against the criteria of equity (which includes notions of fiscal equality and reward for policy effort, or fairness), efficiency and (where applicable) transparency and accountability. These criteria are explained in chapter 1.

8.1 Equal per capita and variants

Equal per capita

A number of participants to this inquiry suggested that rather than aiming for full equalisation, the HFE system should instead see GST revenue allocated on an EPC basis (for example, Wealth Wisdom, sub. 10, pp. 4, 12; NSW Business Chamber, sub. DR85, p. 2; Institute of Public Affairs, sub. DR91, p. 13; NSW Government, sub. DR109, pp. 5–6). Under EPC, each jurisdiction would receive a share of the total pool of GST revenue equal to their share of the national population (figure 8.1).

Figure 8.1 Conceptual representation of EPC



The Commission has modelled the impacts of an EPC distribution and compared the States’ resulting fiscal capacities against that resulting from the CGC’s 2018-19 relativities (table 8.1). In the current environment, an EPC distribution would see more GST payments flow to New South Wales, Victoria and Western Australia (approximately \$6.8 billion in aggregate) and commensurately less to the remaining States, with the Northern Territory

experiencing the largest reduction in per capita terms. The impacts as a proportion of State revenue vary widely, ranging from an increase of 12 per cent (for Western Australia) to a decrease of 39 per cent (for the Northern Territory).¹⁶

Table 8.1 Effects of equal per capita distribution
2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Equal per capita	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Change in GST payments								
\$m	3 021	201	-1 284	3 618	-2 188	-1 059	-200	-2 109
\$pc	376	31	-256	1 380	-1 257	-2 018	-479	-8 559
% change in State revenue	3.7	0.3	-2.3	12.2	-11.4	-17.7	-3.6	-39.2

Source: Productivity Commission estimates based on data provided by the CGC.

Assessment of an EPC approach

Submissions that proposed EPC argued that it would be a ‘fairer’ system of distributing GST revenue (The Julie Matheson for Western Australia Party, sub. 4, p. 2; Put Western Australia First, sub. 12, p. 6; NSW Government, sub. 52, p. 3, sub. DR109, p. 2). (The Commission’s notion of fairness comprises reward for policy effort, discussed below.)

However, this justification for a change to EPC ignores the fundamental purpose of fiscal equalisation. That purpose is *not* to distribute an equal amount of GST revenue to each Australian. Rather, the purpose of redistribution should be to ensure each State has the fiscal capacity to provide its residents with a reasonable standard of services and associated infrastructure (chapter 2). The current system pursues this by equalising the fiscal capacity of all States up to the capacity of the fiscally strongest State (presently Western Australia), plus an additional EPC amount, via a redistribution of GST revenue.

Simply put, EPC and HFE are mutually exclusive. This proposal is thus at odds with the general endorsement of the concept of HFE.

¹⁶ References to State revenue correspond to General Government Revenue (measured on an accruals basis).

An EPC distribution does not take account of the fact that States have different revenue raising capacities and some face higher costs in providing services to their communities. These factors are outside States' control (such as endowments of mineral resources, the share of their population that are Indigenous, or the degree of remoteness). As the Queensland Government noted:

An equal per capita distribution ... ignores the structural differences that exist between States (such as differences in geography, population distribution, and entrenched disadvantage) and would likely create the inequitable situation where vastly different levels of service would be provided across States. (sub. 32, p. 3)

EPC would not redistribute GST among States to the extent required to address these differences. And it would make a very minimal contribution to equalising the standard of services and infrastructure that States are able to provide to their residents. Hence it fails to meet the core underpinning fiscal equality rationale of HFE, and would likely fail to enable some States to provide a reasonable standard of services to their citizens (chapter 1).

On the other hand, EPC rates well in principle on efficiency grounds. Distributing GST under EPC is totally independent of States' revenue raising capacity and their expenditure on services — a State's share of the national population would be the sole determinant of its GST payments. Thus, as Hancock noted, under this approach each State's grant is invariant to its own choices (sub. 54, p. 4). Accordingly, EPC would enhance efficiency by removing any disincentives faced by States to increase their revenue or pursue improved efficiency in providing services (policy neutrality). For this reason, EPC would also enable greater reward for effort than the current system.

EPC would be extremely simple to administer, as it would not require any assessments of States' capacities to raise revenue or of their costs of providing services and infrastructure. Instead, the assessment would be based only on population data and the size of the GST pool. On this, the NSW Government observed:

An EPC model would ... not have the data requirements of the current system. The amount of resources dedicated to the system would be greatly reduced. (sub. 52, p. 33)

Thus, EPC would help to increase transparency and accountability in the HFE system. But overall, the benefits of EPC do not outweigh its substantial costs to fiscal equality.

FINDING 8.1

An equal per capita approach to the distribution of GST revenue is incapable of providing States with the fiscal capacities to deliver a reasonable standard of services. It is thus inimical to the fiscal equality rationale underpinning HFE.

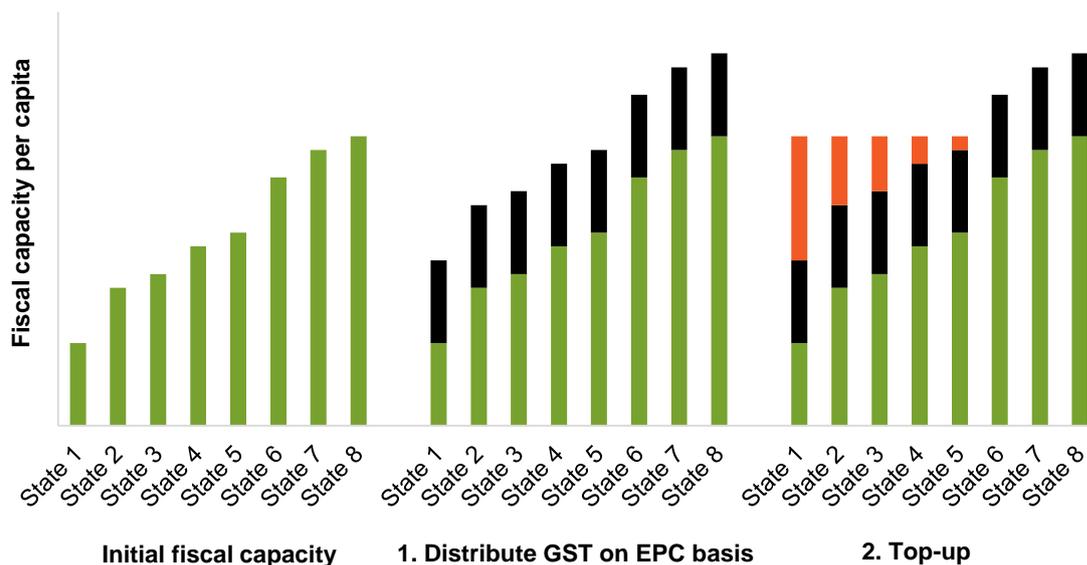
Supplementing an EPC distribution with ‘top-up’ funding

A variant on EPC is for GST revenue to be distributed to States on an EPC basis, and for the Commonwealth Government to provide additional (‘top-up’) funding to the fiscally weaker States (that is, States with a relative below one). This top up funding could fill any remaining gap between a State’s fiscal capacity and that of the fiscally strongest State (or the gap from any other equalisation benchmark), to ensure that no State is worse off than under current arrangements.

This is akin to pre-1981 equalisation arrangements, when vertical and horizontal fiscal transfers were provided separately. Figure 8.2 shows a conceptual representation of this method.

Among participants, McAuley (sub. 7, p. 1), Wealth Wisdom (sub. 10, p. 15) and the WA Government (sub. 15, p. 109) were attracted to this option. This method was considered — but not recommended — by the GST Distribution Review in 2012 (Brumby, Carter and Greiner 2012a, p. 173; chapter 1). This approach was at that time the preferred long-term policy position of the fiscally strongest States.

Figure 8.2 Conceptual representation of an EPC with top-up approach



The National Commission of Audit in 2014 considered and recommended an EPC distribution of GST revenue, with Commonwealth top-up funding to the fiscally weaker States (NCOA 2014, p. 74). (The distribution of that additional funding from the Commonwealth was to be determined by the CGC.) Importantly though, that recommendation was intended to be implemented as part of a broader set of proposed

reforms to federal financial relations, including those to address the underlying causes of the vertical fiscal imbalance between the Commonwealth and State Governments.

Were EPC plus top-up to be applied in 2018-19, Queensland, South Australia, Tasmania, the ACT and the Northern Territory (the current fiscally weakest States) would require top-up funding of about \$6.8 billion in total (table 8.1). However, in general top-up funding would primarily apply to South Australia, Tasmania, the ACT and the Northern Territory — States whose relativities are usually above 1.0. Queensland has historically fluctuated above and below a relativity of 1.0 (largely due to the incidence of natural disasters — chapter 4) and would not always require top-up funding.

EPC with top-up would tend to increase the GST payments received by States that currently have a relativity of less than 1.0, but (by means of the top-up funding) would see States with relativities greater than 1.0 get no less revenue than they presently receive.

Top-up funding would have to come from a pool of Commonwealth Government revenue. This, in turn, would need to be sourced from higher Commonwealth taxes, increased debt, a significant rearrangement of existing payments to States or savings against other expenditure responsibilities. Thus, any top-up funding would also run into the winners and losers problem of the smaller, finite GST revenue pool. The only difference would be that the losers in this case (from higher taxes or redirected funding) would not be as transparent as is the case with any redistribution of the GST pool and, thus, any accountability for their loss would be muted.

If top-up funding is forthcoming, it would always be subject to the vagaries of Commonwealth budget pressures, with commensurate uncertainty for State budgets and planning:

Supplementary Australian Government funding would leave those States exposed to the funding priorities of the Government of the day. (Tasmanian Government, sub. 28, p. 43)

... [I]t may create some uncertainty for States — even if the Commonwealth agreed to provide additional funding, there could be uncertainty as to how long additional equalisation grants would last — the Commonwealth may decide to withdraw its contribution to equalisation if faced with tight fiscal constraints. (Queensland Government, sub. 32, p. 15)

Assessment of EPC plus top-up

By definition, EPC plus top-up would provide all States with the fiscal capacity to deliver a reasonable standard of services and, in principle, would meet the fiscal equality element of the Commission's framework for HFE. However, as the amount of any top-up funding would always be hostage to fiscal constraints faced by the Commonwealth Government (whereas the size of the GST pool is not), in practice this level of fiscal capacity may not be consistently achieved. This risk would apply to any system that utilised top-up funding.

From an efficiency perspective, relative to current arrangements, EPC plus top-up has similar impacts as EPC (discussed above) for those States that do not receive any top-up

funding — for these States, disincentives for reform would be removed. However, for those States that receive top-up funding, the efficiency consequences would be largely similar to the current approach.

If implemented using the current CGC methodology by itself, EPC plus top-up offers no gain in simplicity compared with the current approach. The same assessment of revenue and expenditure capacity undertaken currently would still need to be done for all the States, to identify the size of the top-up funds needed to equalise fiscal capacity. As the NT Government observed:

If additional Commonwealth funds were available to meet this gap, a process similar to the current CGC methodology would be required in order to distribute the funds based on expenditure needs, and hence, there would be no simplicity or administrative gains. (sub. 51, p. 35)

EPC with top-up would, however, highlight the scale of the transfers required to address horizontal fiscal inequality (the top-up component). This may improve transparency and accountability in the Federation. The OECD has found that systems that mix both horizontal and vertical equalisation are less transparent and accountable because they blur responsibility between financing and funding (appendix E). Moreover, chapter 4 highlights how the HFE system suffers from poor accountability, manifest in blame-shifting for States' fiscal circumstances and deficiencies in the delivery of some services.

While EPC with top-up has some attraction, its implementation depends on the fiscal position and willingness of the Commonwealth Government to provide additional funding for HFE, and continue to do so at the level necessary to deliver the degree of desired equalisation (which need not necessarily be the same level as the fiscally weaker States receive under the current system). Given the fiscal cost to the Commonwealth of this approach in isolation, it should only be countenanced in the context of broader reform to federal financial relations that may be able to generate some compensating benefits. This is explored further in chapter 9.

The assessment of EPC plus top-up is necessarily partial in that it is made on the basis of this option being implemented on a stand-alone basis. In circumstances where it was implemented in combination with other changes to federal financial relations (for example, changes to vertical fiscal imbalance and expenditure roles and responsibilities), the nature of benefits and risks would be different.

FINDING 8.2

An equal per capita with top-up funding approach for distributing GST revenue could provide all States with the fiscal capacity to deliver a reasonable standard of services, depending on the level of top-up funding. While this would meet the fiscal equality rationale underpinning HFE, the top-up funding would always be subject to the vagaries of the Commonwealth budget. It should only be considered in the context of broader reform to federal financial relations that generate compensating benefits.

8.2 A relativity floor

Another commonly proposed change to the HFE benchmark that departs from full equalisation is to introduce a relativity floor. A relativity floor involves setting a lower limit to equalisation relativities, with jurisdictions that fall below this threshold receiving non-equalised compensating payments. These could be from a number of sources and done in several ways. For example:

With a floor in place, any state that has a relativity calculated below the floor would be distributed GST first to raise that state's relativity up to the floor. Distribution of the remaining GST would then continue as per usual, raising the weaker states to the leading state's capacity, followed by equal per capita distribution. The Federal Government would not be responsible for funding the gap between a state's relativity and the floor. (CCIWA, sub. 11, p. 8)

A relativity floor is often proposed on the basis that it would limit the influence of 'outliers' on the distribution of GST revenue and thereby deliver a level of equalisation more acceptable to outlier States. Given Western Australia's current position as the fiscally strongest State, the introduction of a relativity floor is also touted as another method of addressing the issue of policy non-neutrality in mining. However, the adoption of a relativity floor would be an indirect approach to addressing this problem — its influence on mining policy non-neutrality would most likely be incidental and only apply to one state, depending on the level at which the floor is set.

Several submissions argued for a relativity floor. For example, the Business Council of Australia stated:

The floor should be set initially below the lowest current relativity (WA currently at 0.344) and progressively raised to an agreed relativity. A key issue for the inquiry will be to determine how states that fall below the floor are funded — by top-up payments from the Commonwealth or from within the GST pool. (sub. 47, p. 9)

The WA Government also supported a staged or ratcheted approach, involving the introduction of a floor that progressively increases over time. In its view, this would provide a greater incentive for States to pursue economic development than is observed in the current system.

... a GST floor of 37.6 per cent could be formally introduced in 2018-19 and increase to 47.1 per cent in 2019-20 and then to 55.1 per cent in 2020-21, and so on. This is expected to have no financial impact for any State over the forward estimates period. (WA Government, sub. 15, p. 110)

Other State Governments opposed the introduction of a relativity floor. The Tasmanian Government, for example, stated that the introduction of a floor:

... would undermine Australia's system of comprehensive fiscal equalisation. It would allow one State to maintain a fiscal capacity in excess of the other States and because of the comparative advantage and consequent greater ability to provide higher quality services, better infrastructure and a more competitive tax regime, it would risk permanently entrenching that fiscal advantage. (sub. 28, p. 42)

The South Australian Government (sub DR89, p. 3) described a relativity floor as an arbitrary distribution method, while the ACT Government (sub. DR81, p. 36) argued that introduction of a floor would have adverse equity impacts.

Several participants also commented on recent Commonwealth Government funding provided to Western Australia as providing a *de facto* relativity floor (WA Government, sub. 15, p. 99; Parliamentary Liberal Party of WA, sub. 22, p. 9). In this context, chapter 2 discusses Western Australia's 'effective' relativity.

Assessment of a relativity floor

Like the other alternatives considered in this chapter, the introduction of a relativity floor would represent less than full equalisation when compared with the present system, in those instances where the boundary becomes operational (that is, when the floor binds). Absent of any jurisdiction passing such a point, and instead remaining within the lower relativity boundary, full equalisation would, it is assumed, remain in operation.

Proposals of this kind have some initial attraction. They acknowledge that the current system works in a satisfactory way *on average* and when jurisdictions are similar, but has difficulty in instances of large disparities in the economic fortunes of jurisdictions. At the margin, relativity floors may also reduce disincentives (in principle) for the recipient 'outlier' States to pursue further development. The presence of these disincentives is a key criticism made by some with respect to the current system (CCIWA, sub. 11, p. 8).

The magnitude of the redistribution impact would depend on the relativity floor chosen. The Commission's estimates using a 0.70 relativity floor point to a large overall impact based on current relativities (table 8.2). Western Australia would see its GST payments increase, mainly at the expense of the three largest States (in absolute, as opposed to per capita, terms). However, as pointed out by the WA Government (sub. 15, p. 110), if a 0.70 relativity floor was to be introduced in the future, when Western Australia's relativity is expected to increase, the impact on the GST distribution would be smaller.

A further downside of such a proposal, however, is the increased complexity and unpredictability it could introduce. As the Queensland Government stated:

A floor would result in a system that did not achieve equalisation, and may be more complex than the current system. (sub. 32, p. 8)

The increased complexity may particularly be the case for hybrid proposals that mix the operation of a relativity floor with other features, such as funding the floor through growth in the GST pool (as proposed by the Minerals Council of Australia (sub. 34, p. 4)). This increased complexity would likely have negative implications for transparency and accountability.

Table 8.2 GST impacts of a relativity floor compared to the current equalisation approach

2018-19 recommended relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
0.50 relativity floor	0.85	0.99	1.09	0.50	1.48	1.77	1.18	4.26
0.70 relativity floor	0.83	0.96	1.07	0.70	1.45	1.74	1.16	4.24
Change in GST payments (\$m)								
0.50 relativity floor	-65	-52	-41	181	-14	-4	-3	-2
0.70 relativity floor	-556	-450	-348	1 556	-120	-36	-29	-17
Change in GST payments (\$pc)								
0.50 relativity floor	-8	-8	-8	69	-8	-8	-8	-8
0.70 relativity floor	-69	-69	-69	594	-69	-69	-69	-69
Change in GST payments (% of State revenue)								
0.50 relativity floor	-0.1	-0.1	-0.1	0.6	-0.1	-0.1	-0.1	0.0
0.70 relativity floor	-0.7	-0.7	-0.6	5.3	-0.6	-0.6	-0.5	-0.3

Sources: Productivity Commission estimates based on data provided by the CGC; appendix C.

Overall, the concept of a floor has some simplistic (‘first blush’) attraction as a way to reduce disincentives for the fiscally strongest State(s) (that would otherwise fall below the floor) to pursue major reform. It would thus provide these States with greater reward for their policy efforts.

However, the introduction of a relativity floor is unlikely to fix the policy disincentives and complexity concerns identified in earlier chapters. While it would provide a degree of policy neutrality to those States for which the floor binds, it would not address the lack of policy neutrality in the HFE formula for the other States. The extent to which a floor improves efficiency and fairness is therefore dependent on the level at which the floor is set.

In sum, a floor would be blunt and arbitrary and would only benefit one State for the foreseeable future. As demonstrated above, a relativity floor of 0.70 would currently only affect Western Australia — a much higher floor would be needed to capture any other State. And adding a floor today creates a variant to the system that can be further varied — with inevitable pressure for funding beyond the GST pool. A floor is targeting a symptom, and ultimately, prevention is better than cure.

FINDING 8.3

The introduction of a relativity floor would blunt the equalisation task and introduce greater incentives for policy effort for the beneficiary State(s) — Western Australia for the foreseeable future. But a floor represents a band-aid solution, as it is not well targeted to broader efficiency and fairness problems.

8.3 Alternative equalisation benchmarks

The options assessed above entail either significant costs to efficiency or equity, or pose other risks, such that they do not offer greater net benefits than the current approach to HFE. However, there are other ways to adapt the current approach to deliver a level of fiscal capacity equalisation that is reasonable (less than that of the strongest State plus its EPC amount), so as to better balance efficiency and equity considerations.

Two models identified by the Commission in its draft report as having some merit were equalisation to the second strongest State (ESSS) and equalisation to the average (pre-GST) fiscal capacity of all States (ETA). They are discussed here primarily in terms of their impacts on equity and efficiency. Also discussed in this section are two options for less than full equalisation raised by the CGC in its submission following the Commission's draft report (sub. DR61). (There are a number of other variants for equalising to less than the strongest State (less than full equalisation), several of which were raised by participants to this inquiry (box 8.1)). In addition to reducing disincentives for policy reform, some of these alternatives could also result in less resources deployed by large States to argue the case for changes in relativities, given that under a number of the alternatives, these States would receive EPC amounts of GST only.

Box 8.1 Variations on equalising to less than the strongest State

The Western Australian Parliamentary Liberal Party proposed that the HFE system be changed so that:

... in the spirit of trying to come up [with] a practical second order — second best solutions, our recommendation ... is to move to equalising to the average. But I would like to suggest a couple of alterations to it. One is that the territories, ACT and the Northern Territory, be taken out of the equalisation process and dealt with directly by the Commonwealth in whatever means the Commonwealth wishes to deal with it. (trans., p. 120).

This approach is similar to the Canadian system (appendix E).

The Business Council of Australia recommended setting aside a portion of the pool for distribution on an equal per capita basis:

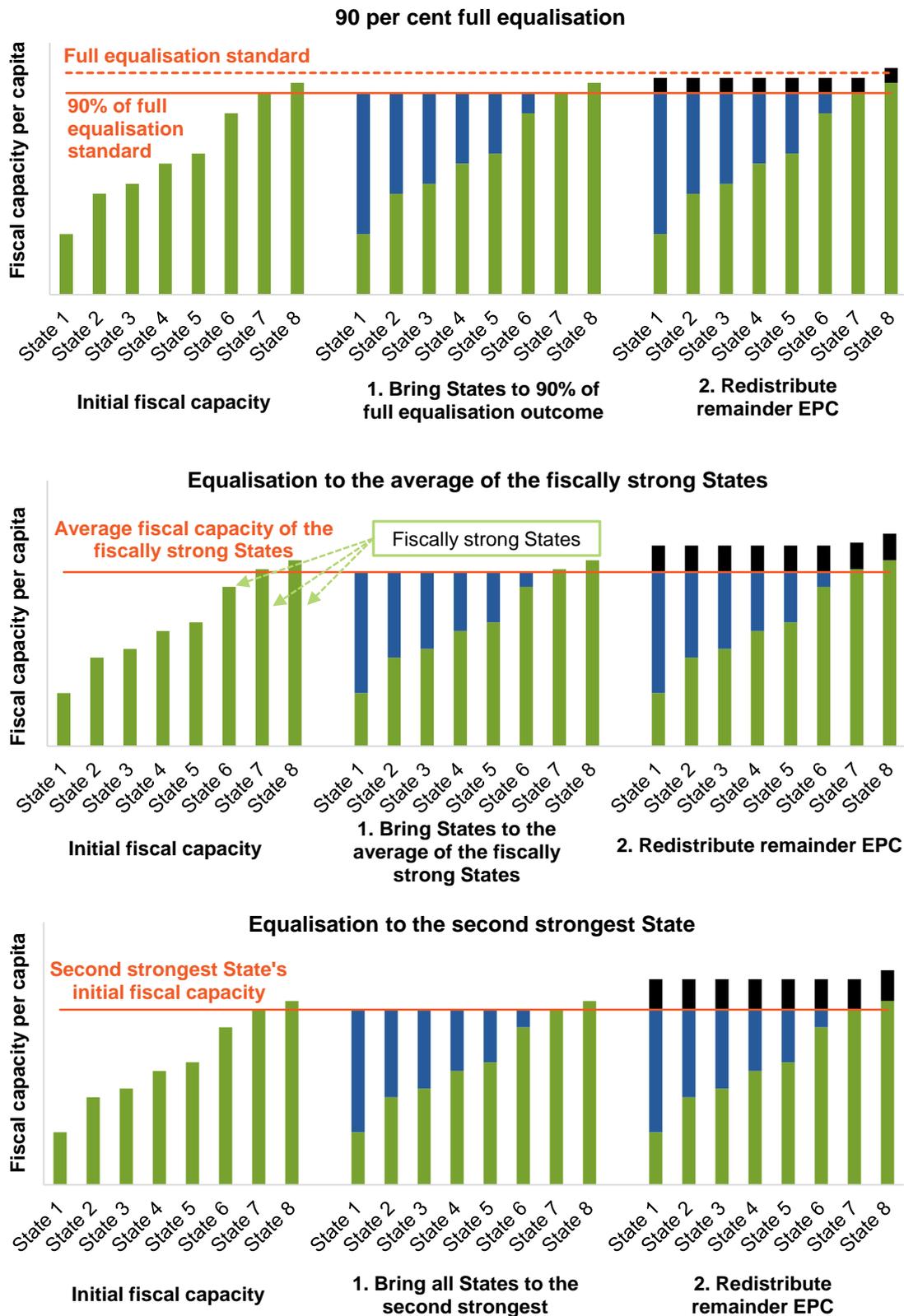
Quarantining a certain percentage of the GST pool for equal per capita distribution (say 25 per cent initially) with the remainder being equalised through a simplified process. Consideration could be given to progressively raising the amount of the pool distributed on an equal per capita basis. (sub. 47, p. 10)

Conceptual representation of the options

The options presented in this section are described conceptually in figure 8.3. There are five options.

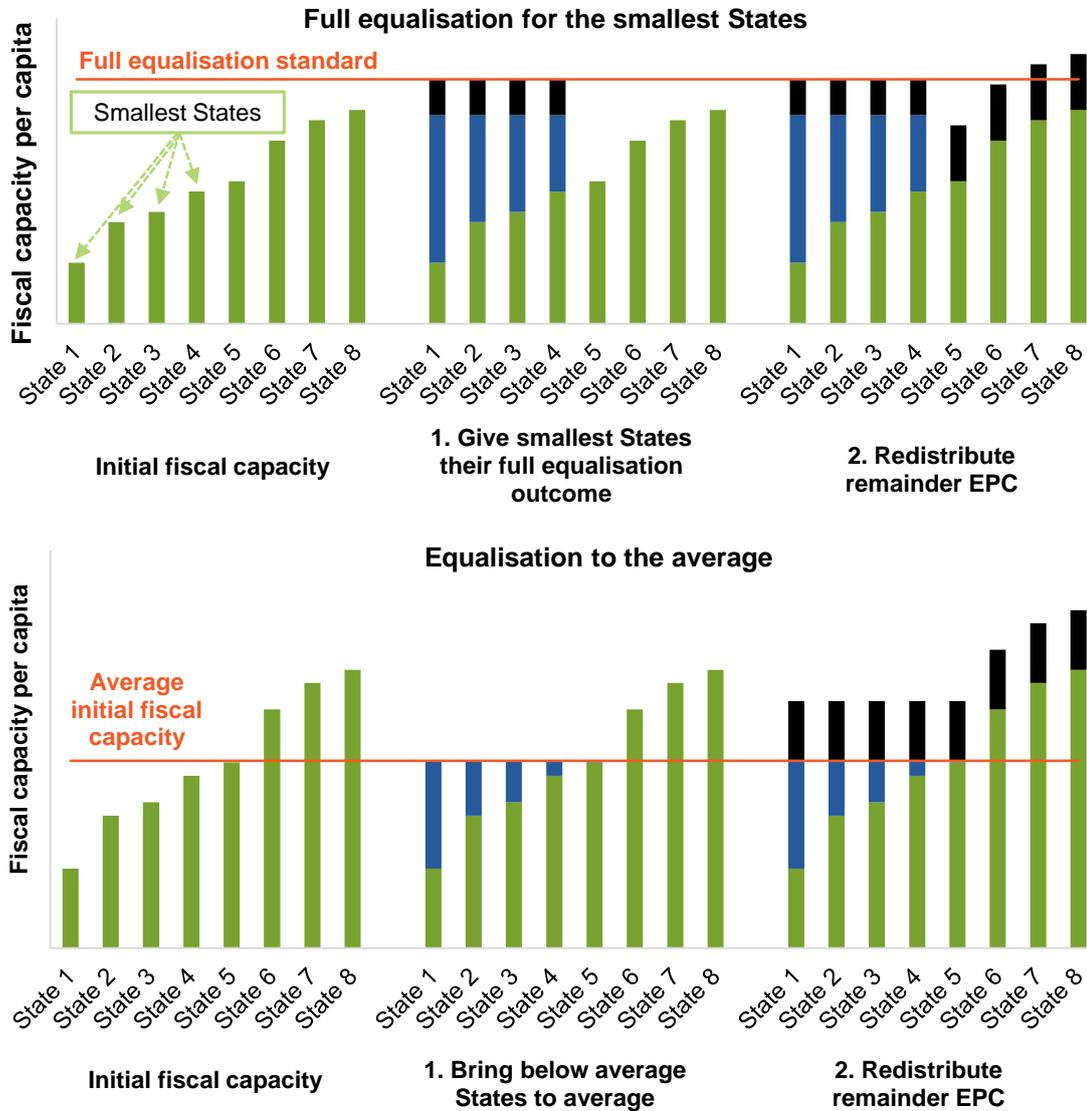
- *90 per cent full equalisation*: This benchmark, outlined in the CGC's submission following the draft report (sub. DR61), defines reasonable equalisation as a proportion (90 per cent) of the current system of full equalisation. Under this benchmark, 90 per cent of the GST pool would be distributed on a full equalisation basis, with the remainder of the GST distributed on an EPC basis. This benchmark can therefore be thought of as 'diluting' equalisation outcomes under the current approach by 10 per cent of the GST pool.
- *Equalisation to the average of the fiscally strong States*: This benchmark equalises to the average of the fiscally strong States (or 'donor States' — that is, those with a relativity below one under the current system), for States that have a pre-GST fiscal capacity below this level. The remainder of the GST is then distributed on an EPC basis to all States.
- *Equalising to the second strongest State (ESSS)*: This benchmark would lift the fiscal capacities of all States to that of the second strongest State, and then distribute remaining GST revenue on an EPC basis.
- *Full equalisation only for the smallest States*: This benchmark (raised by the CGC, sub. DR61, p. 8) entails applying full equalisation to the four smallest (least populous) States only. These States would continue to be provided with the same fiscal capacity as the strongest State, plus the EPC amount that would be received by the strongest State had full equalisation applied. All remaining GST revenue would then be distributed to the remaining States on an EPC basis. The CGC (sub. DR61, p. 9) submitted that a policy rationale for this benchmark is that the most populous States are sufficiently economically diversified and fiscally strong that they could withstand fluctuations in fiscal capacity without the need for equalisation. This equalisation option is similar, although distinct, from full equalisation to the fiscally weaker States, in which any State with a relativity above one would be fully equalised, with fiscally strong States receiving only an EPC amount.
- *Equalisation to the average fiscal capacity of all States (ETA)*: This benchmark works by allocating GST such that those States with a below-average fiscal capacity prior to the distribution of GST are brought up to the average (pre-GST) fiscal capacity of all the States, with all remaining GST revenue allocated on an EPC basis to all States. Each State would receive a minimum per capita GST amount, albeit lower than under ESSS.

Figure 8.3 Conceptual representation of equalisation benchmarks^{a,b}



(continued next page)

Figure 8.3 (continued)



^a Fiscal capacity is a measure of a State's ability to provide services, including infrastructure, to its population given its own-source revenue and Commonwealth payments, excluding GST. Fiscal capacities are presented here in per capita terms for ease of comparison and illustrative purposes. ^b Fiscally weaker States are those with a relativity above 1.0, while fiscally stronger States are those with a relativity below 1.0 (under the current system).

A snapshot of the distributional impacts of the alternative benchmarks

As each of these alternatives deliver less than full equalisation, they reduce the equalisation task (by varying amounts) compared with current arrangements — figure 8.4 and table 8.3 show what the equalisation task and relativities would have been under each option had they applied over the period 2000 to 2017-18, and what they could be if applied between 2018-19 and 2020-21. Despite the differences in the size of the equalisation task under each of the

alternatives, they all tend to allocate roughly similar proportions of GST to the States, while reducing the extent of equalisation.

Changes to the equalisation benchmark in the current fiscal environment will result in a smaller amount of GST redistributed away from EPC, and commensurately a material redistribution of GST payments to Western Australia and in some cases New South Wales at the expense of the other States.

Analysis of the alternatives indicates that 90 per cent full equalisation would most closely replicate the relativities produced by the current HFE system. This benchmark would result in a similar amount of the GST pool being redistributed away from EPC as does equalisation to the average of the fiscally strong States and ESSS. By contrast, ETA would see the equalisation task reduce by the most (with the obvious exception of EPC, for which the equalisation task is always zero).

Table 8.3 Equalisation task and relativity ranges of alternative benchmarks

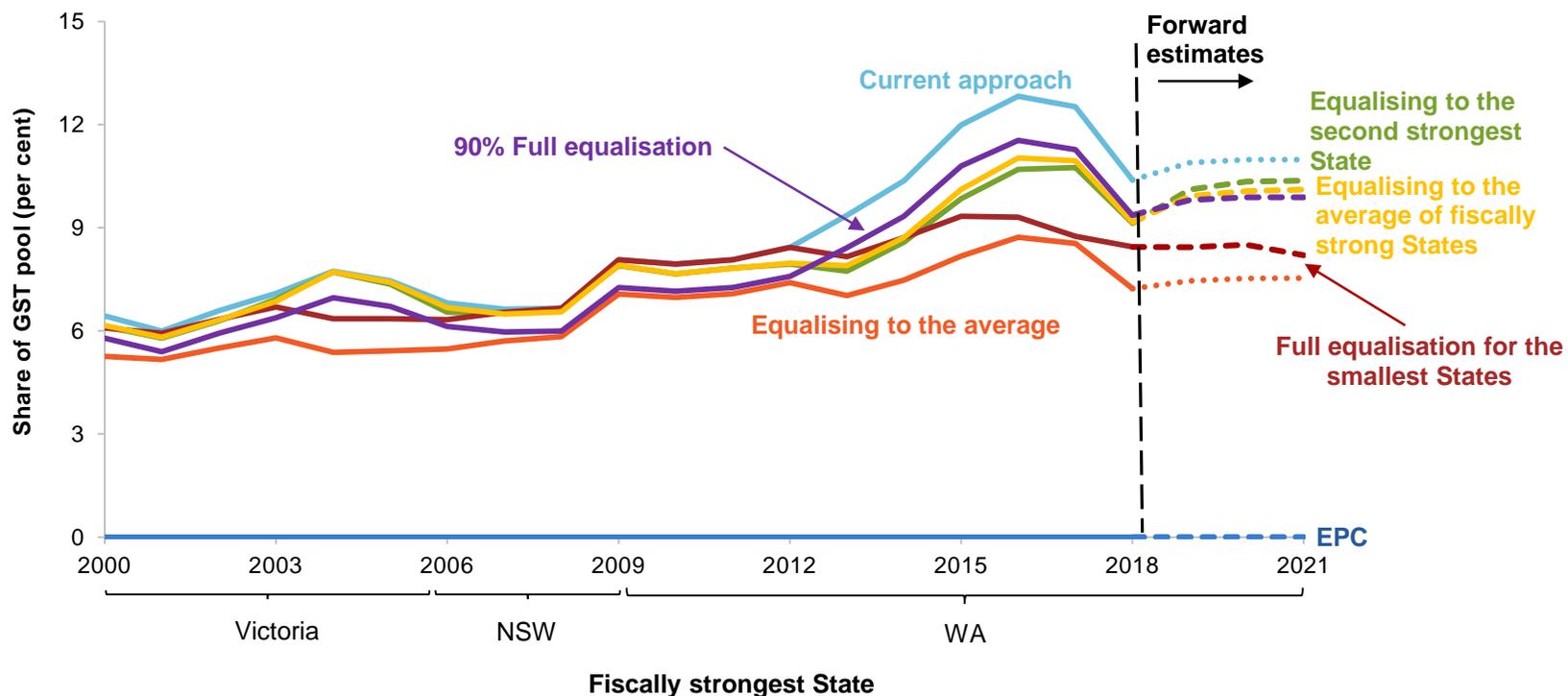
<i>Equalisation benchmark</i>	<i>Equalisation task (per cent of GST pool^a)</i>				<i>Relativity ranges</i>			
	<i>Year end June</i>	<i>2000–07 average</i>	<i>2008–17 average</i>	<i>2017–18</i>	<i>2018–20 average</i>	<i>2000–07</i>	<i>2008–17</i>	<i>2018–20</i>
Current approach		6.84	9.62	12.52	10.75	0.87–4.39	0.30–5.66	0.47–4.75
90 per cent full equalisation		6.16	8.66	11.27	9.68	0.88–4.05	0.37–5.21	0.53–4.39
Average of the fiscally strong States		6.68	8.66	10.95	9.71	0.87–4.38	0.76–5.63	0.81–4.73
Second strongest State		6.66	8.55	10.75	9.86	0.87–4.39	0.82–5.62	0.80–4.74
Full equalisation for smallest States ^b		6.33	8.34	8.75	8.46	0.92–4.39	0.89–5.68	0.90–4.76
Average of all States		5.46	7.43	8.54	7.40	0.92–4.32	0.87–5.57	0.89–4.65

^a The GST pool includes Health Care Grants prior to 2009. ^b Refers to South Australia, Tasmania, the ACT and the Northern Territory.

Source: Productivity Commission estimates based on CGC data (pers. comm., 10 July 2017), and assumptions and methodology outlined in appendix F.

Each of these alternatives are forms of equalisation that could potentially be used to meet the Commission’s proposed revised objective of a reasonable (rather than the same) standard of equalisation. The preferred approach is that which best balances the potential benefits (in terms of greater fairness and increased policy neutrality (efficiency)) with the potential costs (in terms of less fiscal capacity equalisation).

Figure 8.4 The equalisation task under alternative benchmarks^a



^a The pool includes Health Care Grants prior to 2009. Dashed sections denote projections using the GST relativity estimates and assumptions for growth in the GST pool outlined in chapter 9 and appendix F.

Sources: Productivity Commission estimates to 2018-19 based on CGC data (pers. comm., 10 July 2017), and CGC (2018h). Estimates between 2018-19 and 2021-22 based on assumptions outlined in appendix F.

8.4 How do the alternative benchmarks stack up?

The Commission has assessed the relative merits of each of the alternative equalisation options against the criteria of equity, efficiency, and where relevant, transparency and accountability (as outlined in the framework in chapter 1).

Under this framework, the notion of equity incorporates an element of fiscal equality (to address States' inherent advantages and disadvantages, and enable them to provide a reasonable standard of services). It also incorporates the concept of fairness (in that there is a degree of reward for policy effort). Balancing fiscal equality and fairness, therefore, does not necessarily mean that fiscal capacities have to be equal.

And while HFE should enable equity, it is important that the system does not discourage policy reforms that enhance efficiency, productivity or growth. This is the efficiency dimension of the Commission's assessment framework. The final component of the assessment relates to transparency and accountability.

Comparing the equity implications of the alternative benchmarks

A number of submissions to the draft report highlighted what they considered would be the equity implications of less than full equalisation, in which the fiscal capacities of States are no longer equal (as in the current system). The main concern was that the fiscally weaker States would no longer be able to fund key services and that the fiscally strongest States would be able to provide a higher standard of services and/or lower taxes compared with other states (box 8.2). The Commission's overall assessment of the expected fiscal equality and fairness effects of the alternative benchmarks is provided in table 8.4.

Box 8.2 Participant concerns about equity and the equalisation standard

A number of participants to this inquiry raised concerns about the equity implications of moving away from the current system of full equalisation. For example, the Treasurer of the Northern Territory stated that:

If adopted, these changes could permanently reduce the standard of services and infrastructure in the Territory and Territorians would be worse off. This means worse roads, fewer teachers, fewer nurses, poorer quality infrastructure to support Territorians, fewer health services, fewer police on the beat. If adopted, these changes will simply make the rich states richer and the poorer jurisdictions like the Territory poorer. (trans., pp. 371–2)

The Government of South Australia also stated that:

A move away from a full equalisation objective would automatically mean that there is acceptance by the Commonwealth Government and broader community that certain States would be in a position to provide a higher level of services or reduce State taxation to a greater extent than other States. (sub. DR89, p. 5)

Similarly, the CGC argued (with respect to equalisation to the second strongest State specifically) that if the fiscally strongest State:

... remained the fiscally strongest State over the intermediate term, it would be able to:

- provide services in excess of the average and/or
- provide services of a higher quality than the average and/or
- levy lower than average own-source taxes and charges and/or
- retire debt at a faster rate than other States. (sub. DR61, p. 6)

Equity in the distribution of GST does not require equal fiscal capacities

Although most of the alternatives discussed above would provide some States with a lower fiscal capacity compared with other States, this does not necessarily mean that fiscal equality would be compromised. The relevant assessment criteria is whether the equalisation benchmark would provide States with the fiscal capacity to provide a reasonable standard of services. Thus, when considering the relative fiscal equity impacts of alternative benchmarks, it is not necessarily the case that the option with the least fiscal impact is the best option overall — as these impacts need to be weighed against the potential fairness and efficiency benefits of the alternative options.

Table 8.4 Possible equity effects of the alternative equalisation benchmarks

<i>Benchmark</i>	<i>Fairness</i>	<i>Fiscal equality (no transition) relative to current approach^a</i>
90 per cent full equalisation	<ul style="list-style-type: none"> • Small reduction in disincentives for all States, slightly increasing the potential for greater reward for policy effort 	<ul style="list-style-type: none"> • Small gains in total State revenue for NSW and WA • No change in total State revenue for Vic • Average change in GST payments as a share of State revenue (excluding WA, NSW and Vic): -1.5 per cent
Equalisation to the average of the fiscally strong States	<ul style="list-style-type: none"> • Greater reward for effort for those States above the equalisation benchmark — likely one to two States (currently WA) 	<ul style="list-style-type: none"> • Total revenue gain of 7.8 per cent for WA • Average change in GST payments as a share of State revenue (excluding WA): -0.9 per cent
Equalisation to the second strongest State	<ul style="list-style-type: none"> • Greater reward for effort for the strongest State (currently WA) • Possibly some increase in reward for effort for second strongest State (currently NSW) 	<ul style="list-style-type: none"> • Fiscal gain for WA (8.0 per cent of total revenue) • Average change in GST payments as a share of State revenue (excluding WA): -0.9 per cent
Full equalisation for the smallest States	<ul style="list-style-type: none"> • Greater reward for effort for the largest States (those receiving an EPC amount of GST) • No change for smaller States 	<ul style="list-style-type: none"> • No fiscal impact on smallest States • Fiscal gain for NSW (1.2 per cent of total revenue) and WA (10.0 per cent of total revenue); fiscal loss for Qld and Vic (4.5 per cent and 2.1 per cent of total revenue respectively)
Equalisation to the average	<ul style="list-style-type: none"> • Prospect for larger number of States (currently NSW, Vic, WA) to receive reward for effort compared with other alternatives 	<ul style="list-style-type: none"> • Gain in WA total revenue of 9.8 per cent, 1.0 per cent gain for NSW • Average change in GST payments as a share of State revenue (excluding WA and NSW): -2.1 per cent

^a Assuming immediate implementation (2018-19) from current to alternative equalisation benchmark.

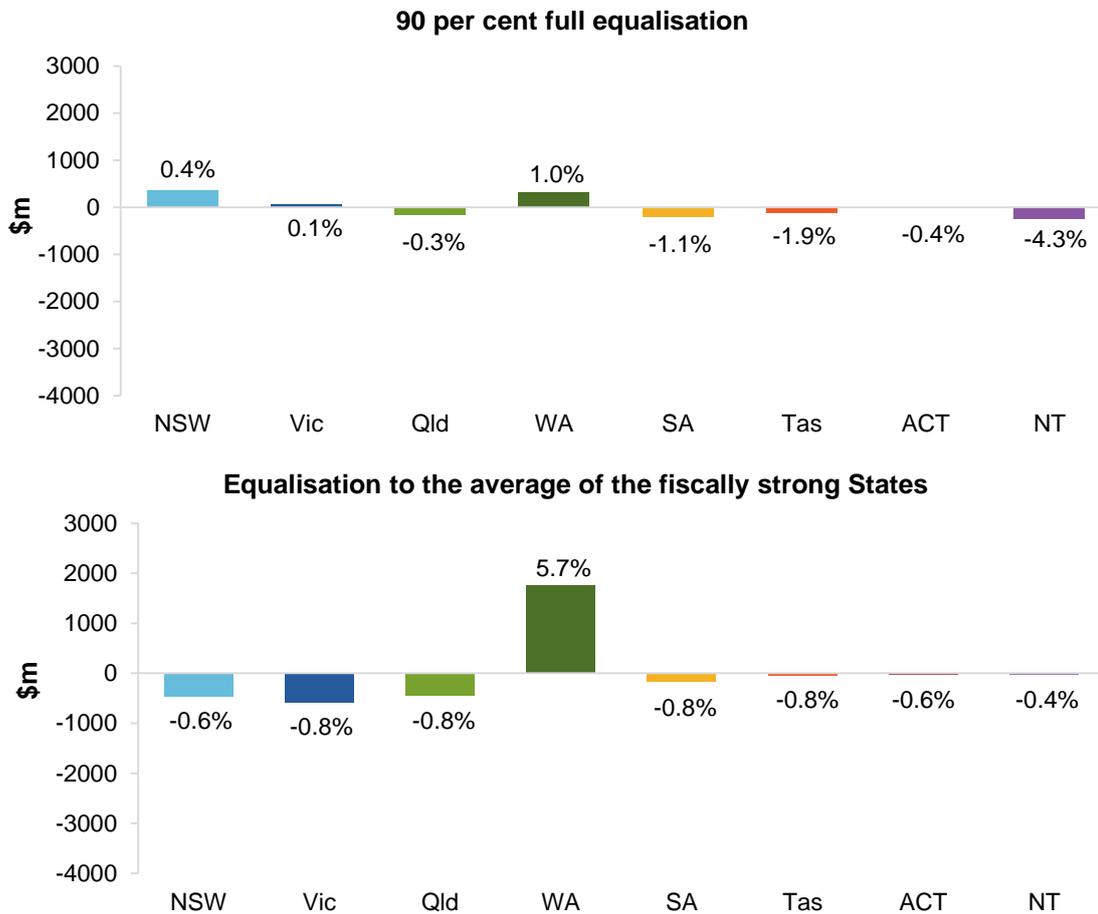
The fiscal impacts of the alternatives are shown in figure 8.5 and table 8.5, which indicate the difference in GST payments relative to the current system. The GST impacts of immediate implementation in 2018-19 are shown in table 8.5 and the average change in GST payments between 2018-19 and 2020-21 is shown in figure 8.5. This analysis shows that relative to the current approach, in the year of implementation:

- under 90 per cent full equalisation, Western Australia, New South Wales, and Victoria would see an increase in their GST payments, and all other States would see a decrease

- the GST impacts are expected to be similar for ESSS and equalisation to the average of the fiscally strong States. These two benchmarks would see a reduction in GST payments for all States except Western Australia
- full equalisation for only the smallest States provides the largest gains to Western Australia, compared with the other alternatives, with the small States seeing no change in their GST payments (as they continue to be fully equalised as per the current system)
- ETA would result in New South Wales and Western Australia receiving more GST, while all other States would experience reductions in GST payments.

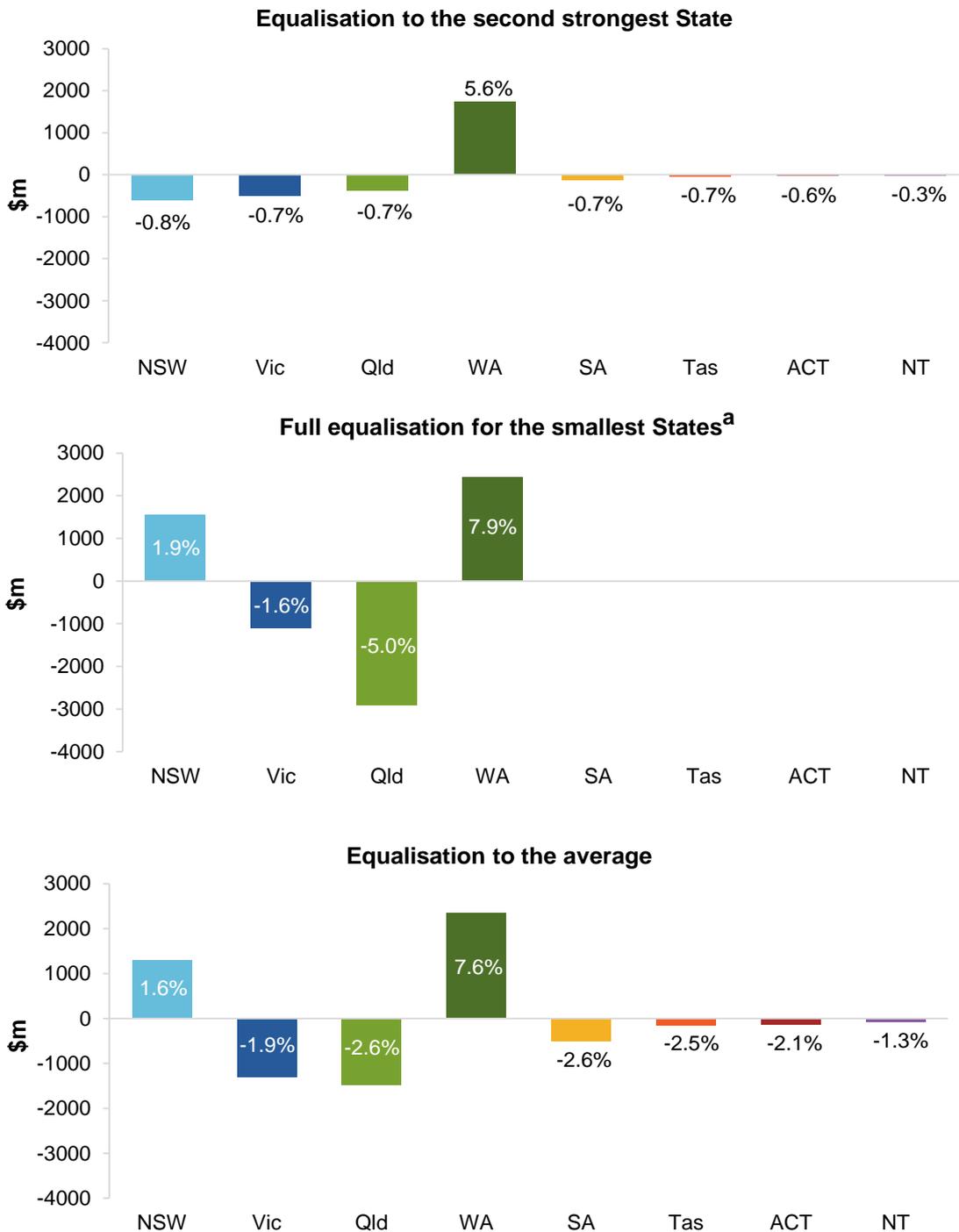
Figure 8.5 Average change in GST payments under alternative equalisation benchmarks (from 2018-19 to 2020-21)

Relative to the current benchmark and assuming immediate implementation (no transition) — percentage change in State revenue shown alongside each bar.



(continued next page)

Figure 8.5 (continued)



^a There are no changes in GST payments for South Australia, Tasmania, the ACT, or the Northern Territory under full equalisation for the smallest States.

Source: Productivity Commission estimates.

For those States that would experience reduced GST payments under the alternatives, declines would be relatively modest as a share of total State revenues (table 8.6).

Consequently, the reductions in GST payments are not expected to prevent States from providing a reasonable standard of services to their communities, once transition arrangements are taken into account.

Table 8.5 Fiscal impacts of equalisation alternatives (no transition)
2018-19

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
90 per cent full equalisation								
\$ million	302	20	-128	362	-219	-106	-20	-211
\$ per capita	38	3	-26	138	-126	-202	-48	-856
Relativity	0.87	0.99	1.09	0.53	1.43	1.69	1.16	3.94
Equalisation to the average of the fiscally strong States								
\$ million	-823	-666	-515	2 303	-178	-54	-43	-25
\$ per capita	-102	-102	-102	879	-102	-102	-102	-102
Relativity	0.82	0.95	1.06	0.81	1.44	1.73	1.14	4.23
Equalisation to the second strongest State								
\$ million	-842	-681	-526	2 357	-182	-55	-44	-26
\$ per capita	-105	-105	-105	899	-105	-105	-105	-105
Relativity	0.82	0.95	1.06	0.82	1.44	1.73	1.14	4.22
Full equalisation for the smallest States								
\$ million	1 009	-1 427	-2 542	2 961	0	0	0	0
\$ per capita	126	-220	-506	1 129	0	0	0	0
Relativity	0.90	0.90	0.90	0.90	1.48	1.77	1.18	4.26
Equalisation to the average								
\$ million	833	-1 570	-1 368	2 903	-474	-143	-114	-67
\$ per capita	104	-242	-273	1 108	-273	-273	-273	-273
Relativity	0.90	0.90	0.99	0.90	1.38	1.67	1.08	4.16
Total GST payments under current system								
\$ million	18 030	16 830	14 447	3 255	6 751	2 434	1 298	2 755
\$ per capita	2 246	2 591	2 878	1 242	3 879	4 640	3 100	11 181
Relativity	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26

Source: Productivity Commission estimates.

Changes in GST payments are generally small as a share of States' total revenue

The services provided by States to their communities are funded from a range of revenue sources, both own-source revenue and Commonwealth payments, which include GST payments. GST as a share of total revenue for most States ranges from between approximately 8 per cent (for Western Australia) and 49 per cent (for the Northern Territory) — and typically constitutes about a quarter of total revenue in New South Wales, Victoria, and Queensland (chapter 4).

Consequently, reductions in GST payments under each of the alternative benchmarks would typically represent a relatively small change in total State revenue for the relevant States. In most cases, reductions would not exceed 2 per cent for any State, and in almost all cases less than 2.5 per cent (if implemented immediately) (table 8.6). The exceptions to this are Queensland (in the case of full equalisation for the smallest States), and the Northern Territory (in the case of 90 per cent full equalisation). The largest average loss arises from a move to full equalisation for the smallest States only (-3.3 per cent on average, as a proportion of the combined total revenue for those States that lose revenue — Victoria and Queensland) and the smallest impact arises from a move to equalisation to the average of the fiscally strong States (-0.9 per cent on average). These impacts would be moderated through a carefully designed and implemented transition arrangement (transition options are discussed in chapter 9).

Conversely, Western Australia would receive an increase in GST payments of about 10 per cent if ETA were introduced immediately (and would receive similar increases under most of the alternative benchmarks).

Table 8.6 Impact on State revenue of alternative benchmarks

Change in GST payments as a share of total State revenue, in 2018-19 under immediate implementation

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
90 per cent full equalisation	0.4	0.0	-0.2	1.2	-1.1	-1.8	-0.4	-3.9
Equalisation to the average of the fiscally strong States	-1.0	-1.0	-0.9	7.8	-0.9	-0.9	-0.8	-0.5
Equalisation to the second strongest State	-1.0	-1.0	-0.9	8.0	-0.9	-0.9	-0.8	-0.5
Full equalisation for the smallest States	1.2	-2.1	-4.5	10.0	0.0	0.0	0.0	0.0
Equalisation to the average	1.0	-2.3	-2.4	9.8	-2.5	-2.4	-2.0	-1.2

Source: Productivity Commission estimates.

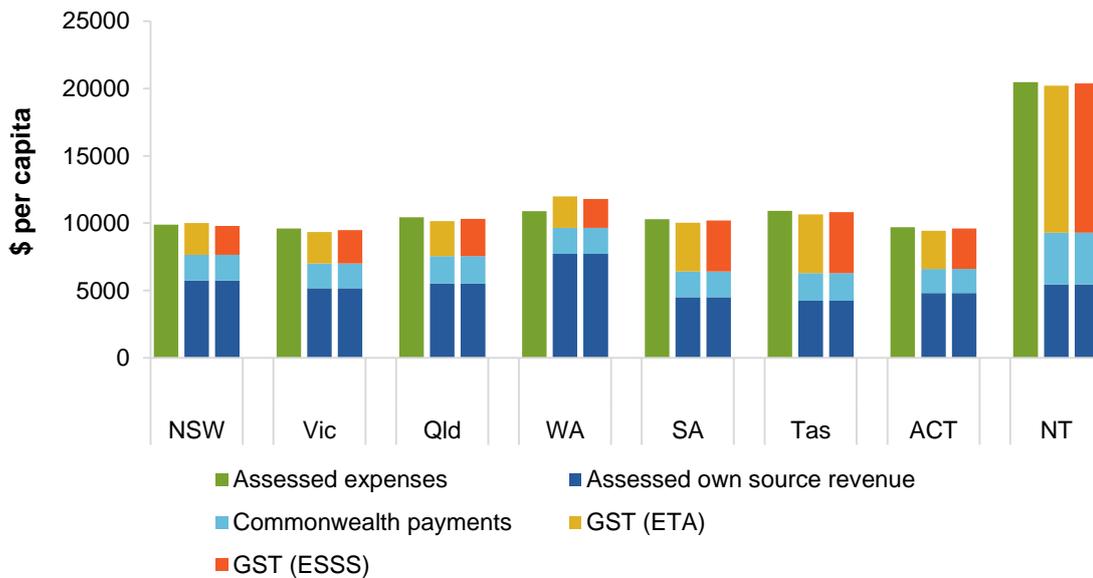
States are judged to continue to be able to provide reasonable standards of services

Under all of the alternative equalisation options, States would be able to meet a high level of their assessed expenses, assuming they made the average revenue raising effort.¹⁷ For example, under an immediate transition to ESSS in 2018-19, *all* States would have been able to fund at least 99 per cent of their assessed expenditure needs (Western Australia would be able to meet more than its assessed expenditure needs). Under ETA, the fiscally weaker States would have been able to fund approximately 97 per cent of their assessed expenditure

¹⁷ States' actual revenues may differ from assessed revenues, partly depending on revenue-raising effort. It is therefore possible that actual revenue may be above or below assessed revenue.

needs (figure 8.6). The outcomes under the other alternatives discussed in this section would likely be similar, and somewhere between these two bounds.

Figure 8.6 State expenses and revenues under ESSS and ETA
2018-19



Source: Productivity Commission estimates based on CGC (pers. comm., 9 April 2018).

States may choose to reorient spending of GST payments

States can prioritise, as they currently do, the way they spend their GST payments to ensure key service areas continue to be funded. As the Victorian Treasurer remarked:

... HFE does not impose particular policy choices on States and each of them is free to make choices about how it raises revenue and its expenditure priorities. (trans., p. 139)

Similarly, the Tasmanian Treasurer stated:

HFE provides the states with a level of revenue and at the end of the day, then priorities and choices are made. (trans., p. 455)

GST payments are untied, and there are many areas where States' ratios of actual to assessed expenses are either above or below 100 per cent as assessed by the CGC (chapter 2), often by more than the change in GST payments outlined above. While in some categories of spending, divergences from 100 per cent may be due to relative efficiency or inefficiency in service delivery, there are likely to be others where States have made a conscious choice to spend more or less in certain areas, and thus provide a higher or lower standard of services than other States. There are therefore many ways that funds could be prioritised to manage the budget implications of a move to a new equalisation benchmark. For example, services to industry (such as tourism and trade promotion) could be reduced to enable other services,

such as health and education, to be provided either at the level assessed as required by the CGC, or at the current level (which may already be higher or lower than that assessed by the CGC), if this is what a State Government decides is in the best interests of its community.

Equalising to the average improves fairness to the greatest extent

The flipside of the fiscal equality impacts discussed above is that equity, when considered through the lens of *fairness*, is likely to be improved by the most under ETA. This is because a greater number of States would have an increased incentive to undertake reform due to the muted policy disincentives (discussed below), and would therefore retain a greater proportion of the fiscal dividends of their policy efforts.

There are also some broader considerations that make some of the alternative benchmarks undesirable. In particular, full equalisation for only the small States (or the fiscally weaker States, depending on how such an approach was designed) could lead to significant differences in the treatment of States with similar initial fiscal capacities. For example, a State such as Queensland could have a relativity just below one, and therefore receive an EPC amount of GST. But a State such as South Australia that might have a similar fiscal capacity (but with a relativity just above one) would receive full equalisation, providing it with higher fiscal capacity than Queensland after the distribution of GST. This alternative therefore has the potential to treat States with similar fiscal capacities differently for what is essentially an arbitrary reason.

That said, equalisation benchmarks that result in different (asymmetric) fiscal capacities between States are not necessarily problematic, even though they may be considered by some to be inequitable. The CGC (sub. DR61) noted that a number of alternative equalisation benchmarks would be asymmetric, in that a change to the system would not affect all States equally. As an example, it noted that ESSS would be asymmetric because it would treat the fiscally strongest State differently to all other States (sub. DR61, p. 6).

As noted above, however, the Commission's notion of equity comprises elements of fiscal equality and of fairness. Hence, HFE benchmarks that enable States to provide a reasonable standard of services, address States' inherent disadvantages, and provide some degree of reward for policy effort and risk-taking, are judged to be equitable. It may not necessarily be the case that symmetric equalisation benchmarks deliver the right balance when viewed from the perspectives of both fiscal equality *and* fairness.

Comparing the efficiency implications of the alternative benchmarks

When a State varies its tax rate or tax base there can be a significant change in the State's share of GST, with the direction and size of the effect depending on the State's position relative to the equalisation benchmark. The potential to lose GST payments can discourage States from undertaking major efficiency-enhancing policy reforms (chapter 3). To varying degrees, each of the alternative benchmarks canvassed in this section have the potential to

reduce these policy disincentives. However, none of the options mute the disincentives for all States equally.

Generally, States that are above an equalisation benchmark (such as the strongest State in the case of ESSS) have less of a disincentive to undertake reform than States that are below the benchmark. This is because States above the equalisation benchmark only receive their EPC share of the residual GST pool. (This can be seen in figure 8.3 earlier — all States that are above the relevant equalisation benchmark receive only an EPC share, as represented by the black bars). Hence any tax changes (and subsequent assessment by the CGC of those States' revenue raising capacities) do not materially affect how much GST they receive.¹⁸ A general illustration of how alternative benchmarks mute disincentives is provided in box 8.3. The Commission's overall assessment of the potential efficiency effects of the alternative equalisation benchmarks is provided in table 8.7 and discussed in more detail below with respect to each option.

(The 90 per cent full equalisation option (as presented by the CGC) is not discussed in detail as it has limited efficiency effects — its allocation of a small share of the GST pool on a purely EPC basis does not materially change reform disincentives compared to the current benchmark).

Equalising to the second strongest State

ESSS provides limited potential efficiency benefits, as it only substantially reduces disincentives for the fiscally strongest State (the State above the equalisation benchmark, currently Western Australia). Box 8.4 shows how disincentives could be affected under ESSS (compared to ETA) with respect to the stamp duty and land tax cameo in chapter 3.

Besides having limited impacts on disincentives, another shortcoming of ESSS is the potential for equalisation to continue to be driven by fiscal outliers should the strongest and second strongest States attain a significantly stronger fiscal capacity than all remaining States.

¹⁸ In general, where a State falls below an equalisation benchmark and its fiscal capacity is relevant to the calculation of that benchmark (such as under ETA, where all States' fiscal capacities are used to derive the benchmark), the State may still experience a small reduction in its disincentives. If a State undertakes reform that strengthens its initial fiscal capacity it will lose GST revenue, because its higher fiscal capacity brings it closer to the equalisation benchmark. This is notwithstanding the fact that the State's stronger fiscal capacity will increase the equalisation benchmark (likely by a small amount).

Conversely, for States above the benchmark, although only receiving an EPC amount of GST, reform that strengthens their fiscal capacity results in an increase in the benchmark. This means that for a given GST pool, more GST must be used to bring States up to the benchmark, reducing the EPC amount to be received by any State above the benchmark. Hence, there is not a complete reduction in disincentives for States above the benchmark under such alternatives as ETA and equalising to the average of the fiscally strongest States.

For example, the NSW Government argued that:

The model introduces considerable volatility into the level of equalisation provided to fiscally weaker states based on the relative fiscal circumstances of the strongest and second strongest states. (sub. DR109, p. 16)

Similarly, the Chamber of Commerce and Industry Western Australia stated that:

... it is foreseeable that if both the leading state and second leading state were to simultaneously strengthen ahead of the pack the same problem as the current system would occur — the equalisation task would continue to be too great. For example, a future mining boom could see revenues in the two resource rich states of Western Australia and Queensland pull ahead of the other states. (sub. DR86, p. 3)

Table 8.7 Possible efficiency effects of the alternative equalisation benchmarks

<i>Benchmark</i>	<i>Efficiency effects</i>
90 per cent full equalisation	<ul style="list-style-type: none"> • Expected to marginally lower disincentives for all States
Equalisation to the average of the fiscally strong States	<ul style="list-style-type: none"> • Expected to lower disincentives for only one or two States • If applied from 2000, there would have been ten years in which two States (a combination of NSW, Vic, or WA) would have been above the benchmark, giving them reduced disincentives, and one year in which three States were above the benchmark • For all other years, only one State (shifting between NSW, Vic and WA) was above the benchmark • Generally expect similar efficiency effects to ESSS
Equalisation to the second strongest State	<ul style="list-style-type: none"> • Strongest State has an almost full reduction in disincentives • Modest reduction in disincentives for second strongest State (currently NSW) • No change in disincentives for other States
Full equalisation for the smallest States	<ul style="list-style-type: none"> • No change in disincentives faced by smallest States • Almost full reduction in disincentives for largest States • Question of whether/how States could move between groups and sources of additional funding for those States
Equalisation to the average	<ul style="list-style-type: none"> • Almost full reduction in disincentives for strongest three States • Modest reduction in disincentives for fourth strongest State (currently Queensland) • Small reduction in disincentives for remaining States^a

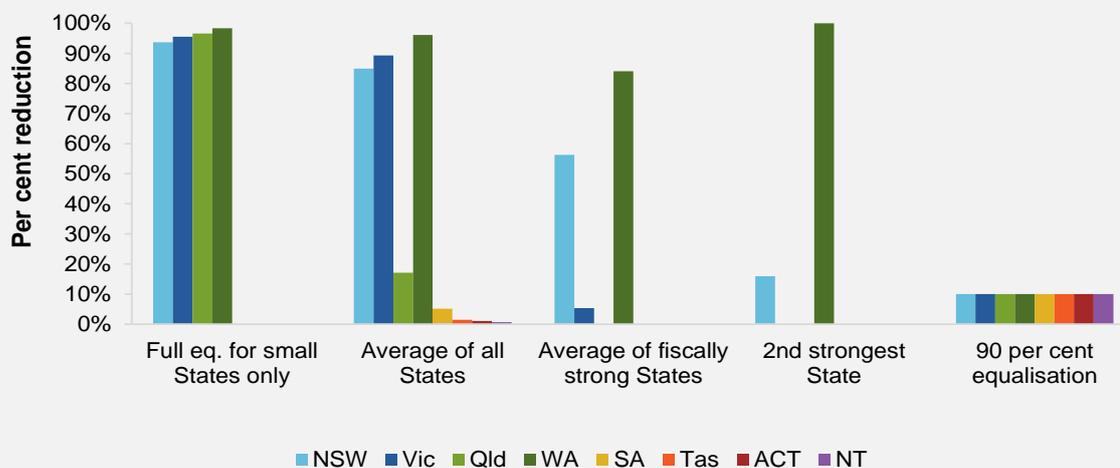
^a The (small) change in disincentives for the fiscally weak States occurs because under the current system, a fiscally weak State that undertakes reform that improves its fiscal capacity will receive less GST. Under ETA, an increase in the fiscal capacity of a fiscally weak State will increase the average fiscal capacity (albeit by a very small amount), and this may lead to a minor reduction in disincentive effects.

Box 8.3 How do alternative equalisation benchmarks impact State reform incentives?

A general ‘in principle’ illustration of how alternative equalisation benchmarks could affect policy reform disincentives is to examine what happens when one State loses \$100 per capita of GST revenue — for example, due to a policy that encouraged the expansion of one of its tax bases — while all other States gain an equal per capita amount such that the total amount of GST distributed remains constant. Examining whether a State loses more or less than the original \$100 under each of the equalisation benchmarks provides an indication of how the alternative systems affect disincentives. (The analysis is framed in terms of disincentives because the current system provides States with a disincentive to undertake reform due to the potential to lose GST payments). Compared with the current system (where disincentives are fully present for all States), the alternative equalisation benchmarks mute disincentives to varying degrees (see figure below, constructed using 2015-16 data).

- Full equalisation for only the small States significantly reduces disincentives for the four largest States (Western Australia, New South Wales, Victoria, Queensland) by between 94 per cent and 98 per cent, but does not change the disincentives for the small States (as they continue to be fully equalised).
- Equalising to the average reduces disincentives by between approximately 85 and 96 per cent for all the fiscally strong States that are above the average (Western Australia, New South Wales, Victoria) and by between 1 per cent and 17 per cent for the remaining States.
- Equalising to the average of the fiscally strong States significantly reduces reform disincentives (by about 85 per cent) for the strongest State (Western Australia), and reduces them by a much smaller amount for the remaining fiscally strong States (New South Wales and Victoria).
- When equalising to the second strongest State (currently New South Wales), disincentives are almost entirely eliminated for the strongest State (currently Western Australia). Disincentives for the remaining States remain unchanged, with the exception of New South Wales, which experiences a small reduction in its disincentives because reform in New South Wales that strengthens its fiscal capacity raises the equalisation benchmark, thus reducing the amount of GST left over for its equal per capita allocation.

Reduction in the financial disincentive to undertake reform by equalisation standard



Box 8.4 Case study: implications of alternative equalisation benchmarks on incentives to reform stamp duty and land tax

The Productivity Commission considered how moving to equalisation to the second strongest State (ESSS) and equalisation to the average (ETA) would affect States' disincentives to reform stamp duty and land tax, in line with the cameo in chapter 3, which assessed what would happen if one State halved its average rate of stamp duty on property and replaced the lost revenue with a broad-based tax on residential land.

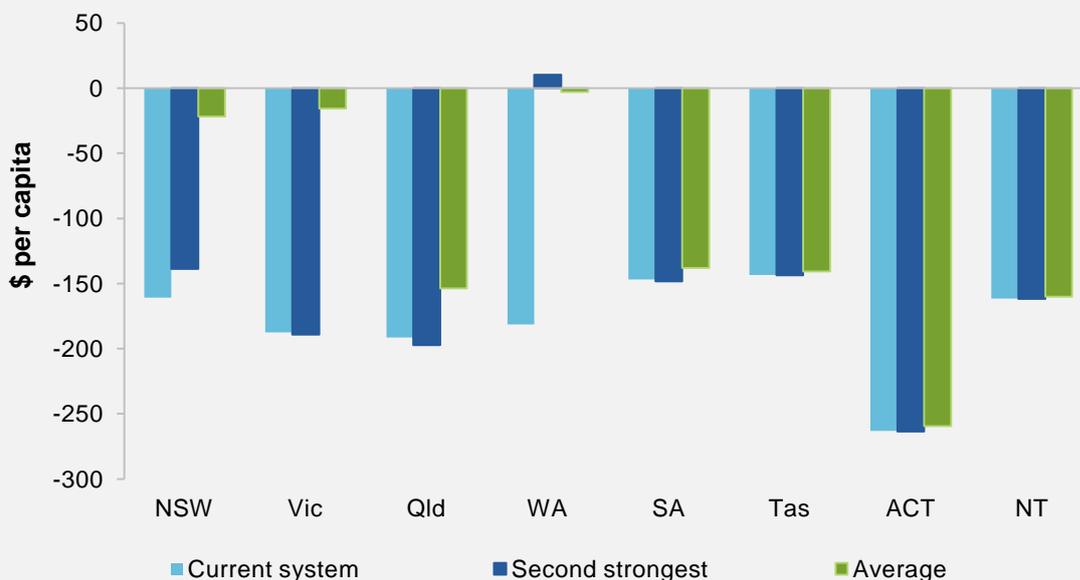
The analysis shows that ESSS would remove disincentives to undertake this policy reform (when considered solely through the lens of the amount of GST received) only for the strongest State (Western Australia) and reduces them for the second strongest State (New South Wales) (see figure). For Western Australia, this result can be attributed to the fact that the State would not be made worse off in terms of its GST payments if it unilaterally pursued such a tax reform. Ordinarily, such a tax reform would result in the State being assessed as having a stronger capacity to raise revenue, resulting in lower GST payments.

Disincentives for some of the other States slightly increase because when a State changes the amount of stamp duty and land tax it collects, it also affects the assessed fiscal capacity of the non-reforming States (through a change in the average tax rate of these two taxes). The size of this change will depend on the non-reforming State's share of each tax base.

Under ETA, disincentives are substantially reduced for Western Australia, New South Wales, and Victoria, and reduced by a small amount for Queensland, and are largely unchanged for South Australia, Tasmania, the ACT and the NT.

Change in GST payments from unilateral stamp duty

2015-16 annual GST payments^a



^a Estimates are based on the upper bound elasticity for stamp duty (appendix C).

Source: Productivity Commission estimates.

Equalising to the average of the fiscally strong States

Equalisation to the average of the fiscally strong States (currently Western Australia, New South Wales, and Victoria) is also likely to have limited efficiency benefits. Under this benchmark, all States are brought up to the average of the fiscally strong States, then given an EPC amount. Because these States continue to be equalised they would not experience any change in their disincentives to undertake reform.

The only States that would have their disincentives reduced would be those fiscally strong States that had an initial fiscal capacity above that of the average of the fiscally strong States, currently Western Australia and New South Wales, although this could change over time depending on the divergence in the initial fiscal capacities of the fiscally strongest State and the other fiscally strong States. If there were to be a large divergence, then it is conceivable that only the strongest State would receive an EPC amount under application of this benchmark, and therefore, would be the only State to have its disincentives for reform significantly reduced (somewhat similar to ESSS). For example, had this benchmark been implemented from 2000-01, there would have been seven years in which only one State was above the equalisation benchmark (box 8.5).

Full equalisation for only the small States

Full equalisation for only the small States provides the greatest potential benefits in terms of muting disincentives for the largest number of States. Under this benchmark, all fiscally strong States would face substantially diminished disincentives for reform as they are not subject to equalisation (they receive an EPC share of the GST pool).

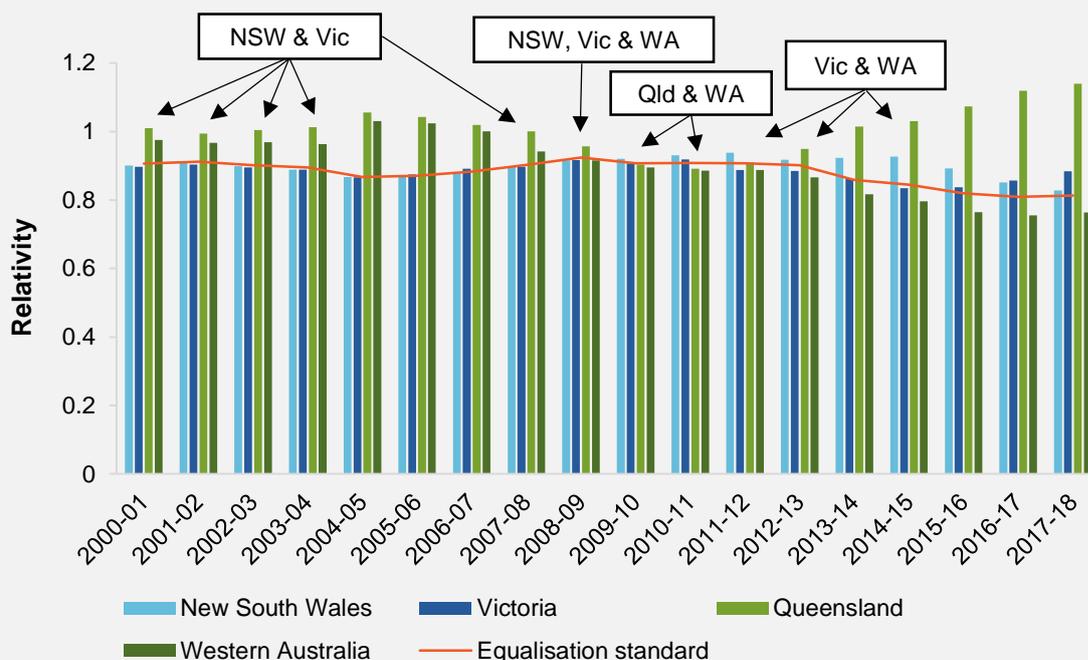
Although this option therefore has some attraction from an efficiency perspective, it also raises the question of whether States could move between groups (that are equalised and that are not equalised) and if not, how the effects of fiscal shocks, such as natural disasters, would be dealt with. As the CGC acknowledged:

If this approach allowed States to move between groups (for example, Queensland receiving its full equalisation outcome) then the results ... would be very different. ... If this approach did not allow States to move between groups, then it might require some capacity to account for the effects of natural disasters occurring in the four most populous States. (sub. DR61, p. 9)

If this benchmark did allow States to move between groups, such that it would provide full equalisation to any State regarded as fiscally weak (with a relativity above one), this would also reduce the number of States that would experience a reduction in disincentives for reform. Alternatively, additional fiscal equalisation required to account for the effects of natural disasters could be met with top-up funding, the risks of which were noted earlier in relation to an EPC plus top-up approach.

Box 8.5 Applying equalisation to the average of fiscally strong States

Had equalisation to the average of the fiscally strong States been in force from 2000-01 (until 2017-18), there would have been seven years in which only one State was clearly above the equalisation benchmark. In the figure below, those States with a *relativity below* the line are *above* the equalisation benchmark (arrows indicate the years in which the listed States were above the benchmark).



Commission estimates also suggest that if equalisation to the average of the fiscally strong States were implemented in the future, from 2018-19 to 2020-21, New South Wales and Western Australia would be the only States above the equalisation benchmark.

The fact that generally only one or two States would have been above the equalisation benchmark over the period 2000-01 to 2020-21 indicates that this alternative would likely have limited efficiency benefits.

Source: Productivity Commission estimates.

Equalising to the average of all States

ETA has the potential to materially reduce disincentives for several States, although as with the above option, this applies primarily to the largest (and fiscally strongest) States — currently, Western Australia, New South Wales, and Victoria would be above the equalisation benchmark. The Commission’s analysis suggests that disincentives are reduced for these States by between 85 and 96 per cent, and by between 1 and 17 per cent for the other States (box 8.3). That said, the large States also comprise the majority of the Australian population, and thus any reforms resulting from the reduced disincentives faced by these States would provide benefits to a large proportion of the community.

The NSW Government argued along similar lines:

The average model is the best model that reduces the fiscal penalty faced by fiscally stronger states from pursuing economic and fiscal reforms. The average state model most reduces the size of any possible economic efficiency impacts of equalisation ... The average state model also increases incentives for fiscally strong states to improve their fiscal capacity. This will result in greater economic development and activity nationally, with some economic benefits being captured, in part, by the Commonwealth's broad tax bases. (sub. DR109, p. 15)

As noted by the Chamber of Commerce and Industry of Western Australia:

ETA creates positive marginal incentives for each state to increase its own capacity, since improvement in any state's capacity raises the equalisation point ... Efficiency is increased as all states contribute to progression of the average, rather than the equalisation point being a fixed point or the responsibility of a subset of states which the remaining states cannot influence and therefore have nothing to gain by raising capacity. This is an important difference in incentives created by equalising to the average compared to full HFE, equalising to the second leading state or equalising to the donor states. (sub. DR86, p. 2)

ETA would also be less susceptible to fiscal outliers, as the equalisation benchmark would be determined by the fiscal capacities of all States, rather than a subset — alternatives such as equalising to the average of the fiscally strong States or ESSS use a smaller number of States to derive their equalisation benchmarks. Consequently, these benchmarks are more likely to result in greater fluctuations in relativities when the State(s) used to derive the benchmark undergo large changes in their fiscal capacity. ETA may therefore provide the most stable basis for deriving GST relativities, compared with the alternatives (with the possible exception of full equalisation for the smallest States).

Migration decisions are not expected to materially change under the alternatives

None of the above options are expected to have significant effects on people's decisions to move interstate. In chapters 5 and 6, the Commission concluded that there would have to be a large and sustained difference in fiscal capacities over time to enable State Governments to provide considerably higher standards of services or lower tax rates. And even if such an outcome were to occur, it is not clear whether this would be sufficient to influence movements in labour and capital — movements based on differences in States' capacities to deliver services are less important than work opportunities and other factors (chapter 5).

Thus, concerns about 'race to the bottom effects' on State tax rates, to attract business investment and increase population (as suggested by the Tasmanian Government (sub. DR74, p. 26) and the Northern Territory Government (sub. DR69, p. 13)) are unlikely to materialise.

Summing up the alternative equalisation benchmarks

The preceding discussion illustrates the difficulty in measuring the efficiency and equity impacts of the alternative equalisation benchmarks. Each benchmark variously trades off equity and efficiency. No benchmark is unambiguously superior and there is no ‘right’ balance. Determining which benchmark provides the greatest net benefits to the community is necessarily reliant on judgment. The judgment applied is whether the benefits — in terms of the efficiency gains (reduced disincentives for major reform) and improvements in fairness (States retaining greater reward (higher GST payments) for their policy effort) — outweigh the costs of a reduced degree of fiscal equalisation (lower GST payments to some States).

Equalising to the average of the fiscally strong States and equalising to the second strongest State have the least impacts on fiscal equity but they only narrowly reduce disincentives for reform (other than for the fiscally strongest, and perhaps second strongest, States) and they also raise other concerns. In particular, the equalisation standard in these benchmarks would be more exposed to a fiscal outlier State(s). That is, the equalisation benchmark could be affected by large changes in the fiscal capacity of one State, or of two States.

By contrast, while ETA could have the largest fiscal impact on the States, these impacts are expected to be modest (even in the absence of transition, they do not exceed a 3 per cent loss of total revenue for any State and still enable States to meet at least 97 per cent of their assessed expenditure needs). Further, any adverse impacts are expected to be manageable using a carefully designed and implemented transition approach (chapter 9). ETA also offers significant scope for efficiency gains, as it provides a larger number of States with greater incentives to undertake major tax reform and other policy efforts. It may also be considered fairer, in the sense that it would provide greater reward for effort than the current system.

Although full equalisation for only the smallest States has the potential to deliver similar efficiency benefits for the four large States, this benchmark runs into problems of determining whether States should be able to move between groups, and if so, how any additional funding required to equalise the fiscal capacity of these States should be distributed. In the Commission’s assessment, these problems materially reduce the net benefits of this approach.

On balance, ETA is considered to be more efficient and equitable than the current equalisation benchmark and the other alternatives proposed and considered.

FINDING 8.4

No alternative benchmark for equalisation is unambiguously superior to any other. All have costs and benefits that are difficult to comprehensively identify, let alone quantify. Determining which alternative benchmark is most likely to provide the greatest net benefit — the right balance — involves judgment about whether the benefits of greater policy neutrality (efficiency) and reward for policy effort and risk taking (fairness) outweigh the fiscal equality impacts.

Overall, equalising to the average (pre-GST) fiscal capacity of all States is judged to provide a better balance than the current benchmark and is thus a preferred alternative.

- It offers the greatest incentives for some States (but not all) to undertake efficiency-enhancing tax reform and broadly reduces policy non-neutrality with respect to the mining revenue assessment.
- It is less susceptible to fiscal outliers and therefore provides a more stable basis for deriving GST relativities.
- The impacts on fiscal equality are expected to be modest and manageable, especially when implemented through a carefully designed transition.

RECOMMENDATION 8.1

The Commonwealth Government should transition Australia's system of HFE towards equalisation to the average (pre-GST) fiscal capacity of all States, with the remaining GST revenue distributed on a per capita basis.

9 The way ahead

Key points

- The Commission has identified a package of reforms that will improve the equity, efficiency and transparency and accountability of the HFE system. Most of these improvements can be pursued without delay, including:
 - revising the HFE objective to give States the capacity to deliver reasonable service levels
 - governance changes to improve the transparency and accountability of the HFE system
 - in-system changes to achieve simpler and more policy neutral assessments.
- These reforms can only go so far. Equalising to the average fiscal capacity of the States (ETA) would meet the revised objective and provide additional fairness and efficiency gains. This change will require a transition period to ensure that States are able to adjust and manage their budgets, while also generating the reform benefits within an acceptable timeframe.
- The most effective transition approach is one that: enables States to manage their budgets during the current forward estimates period, is fiscally sustainable for all governments and delivers the benefits of reform in a timely manner.
- Either a four year or eight year transition path is judged to be manageable for the States. A four year transition would deliver the benefits of reform more quickly, but an eight year transition gives States more time to adjust and provides greater latitude to deal with changes in the future fiscal circumstances of the States. Both approaches would be ‘funded’ from within the GST pool. By delaying the full implementation of ETA, both transition paths are effectively funded by the States that stand to benefit the most from the new benchmark.
- Both transition paths would soften any (negative) year-on-year impact to less than 1 per cent of State revenue.
- There is only so much an improved HFE system can deliver in isolation. The greatest benefits will come from broader reform to federal financial relations, addressing the twin accountability issues of vertical fiscal imbalance (VFI) and spending responsibilities. This proved the single uniting view shared by States during the course of this inquiry.
- Governments should renew their concerted endeavours towards broader reform to federal financial relations, led by the Council on Federal Financial Relations and with the newly formed Board of Treasurers providing input and assuming a proactive role.
 - As a first step, the reform process should assess how Commonwealth payments to the States — both general revenue assistance and payments for specific purposes — interact.
 - The process should also include consideration of a practical division of responsibilities between the States and the Commonwealth, and accompanying accountability and performance arrangements. Clearly defining responsibilities and establishing accountabilities for Indigenous policy should be given priority.
 - Following this, options for addressing VFI, and particularly the extent to which these options are able to improve accountability, should be considered and advanced.
- If there is sufficient progress towards broader reform (including in relation to VFI), the transitional impact on some States could be further reduced.

The Productivity Commission has identified a package of changes that are expected to improve the equity, efficiency and transparency and accountability of the HFE system. In particular, it has proposed:

- a change to the objective of HFE — to achieve a better balance between equity and efficiency in the system — as a prerequisite for other reforms (chapter 6)
- changes to the way fiscal capacities are assessed, focusing on more simple, aggregated and policy neutral indicators for revenue and expenditure assessments and a significant increase in materiality thresholds (chapter 7)
- that the Commonwealth Government — consistent with the revised objective for HFE — adjust the equalisation benchmark to equalising to the average pre-GST fiscal capacity of the States (with any remaining GST distributed on an equal per capita (EPC) basis) (chapter 8)
- complementary reforms to HFE governance to establish the balance between equity and efficiency in practice, as well as to increase accountability in the system (chapter 6).

Most of these improvements are highly desirable (and should be the source of few, if any, serious objections) and can be implemented, or at least progressed, immediately. But the move to a new equalisation benchmark will need to be phased in over time, to give States sufficient time to adjust to the changes and plan ahead. A set of principles to guide the transition to the new benchmark, along with a proposed transition pathway, are outlined in sections 9.1 and 9.2.

But even with these reforms to the HFE system itself, the greatest benefits are likely to come from broader reform to federal financial relations, which are needed to holistically address the issues arising from vertical fiscal imbalance (VFI) in Australia. Section 9.3 outlines a process to commence these broader reforms and identifies areas that could be given priority in the initial stages of the process.

9.1 Transitioning to a new equalisation benchmark

Shifting the equalisation benchmark to the average fiscal capacity of all States is expected to deliver equity and efficiency benefits over the longer term. It will allow States to retain more of the rewards for their policy efforts and at the same time enable them to provide a reasonable standard of services. But in the shorter term, some States will need to adjust their budgets to the change in their GST payments and thus immediate implementation is not feasible.

A phased approach to implementation would give States time to adjust and is in keeping with previous changes associated with the GST, including when it was first introduced in July 2000. At that time, the Commonwealth Government agreed to provide financial

assistance¹⁹ to ensure the States would be no worse off during the transition, given they had agreed to abolish certain taxes (ANAO 2005; Australian Government 2007).

A carefully timed and implemented transition can help to alleviate any adverse budgetary impacts for States such that any State (especially the fiscally weaker States) is not materially disadvantaged. It can also help to build community acceptance and minimise potential disruption, although some participants, such as the Tasmanian Treasurer (trans. p. 457), argued that a transition simply delays the full implementation of a policy change they do not support:

With the transition part what you're talking about is the boiling frog. That's what you're talking about. That's exactly what you're proposing is that with the transition path we won't lose all of the money upfront, but we will get to a point at some stage where we will – and we will have that embedded moving forward.

But, as several other participants emphasised, a clearly articulated and transparent transition is needed to provide certainty for the States and allow sufficient time for them to adjust to the fiscal impacts of reform (box 9.1).

Principles to guide transition to a new benchmark

The Commission has identified three principles to guide the transition to the new benchmark. (These principles could apply to the transition to any benchmark). The transition to a new equalisation benchmark should:

- be manageable for State budgets
- be fiscally sustainable for all governments
- deliver the benefits of reform in a timely manner.

The transition should be manageable for the States

States ordinarily make expenditure commitments based on their expected revenues and expenditure needs over the forward estimates (the three years following the budget year). And while States are accustomed to managing temporary variations in their budgets (chapter 4), a new HFE equalisation benchmark would permanently change the amount of GST revenue States will receive. For States that face a reduction in their GST payments, this could affect their ability to meet budget commitments and provide continuity in the delivery of services in the short term. Further, the tools available to States to manage changes in revenues are different to the tools used to manage temporary fluctuations. Managing an ongoing decrease in revenue requires more lasting solutions.

¹⁹ This involved the calculation of a 'Guaranteed Minimum Amount' (GMA). The GMA was equivalent to the amount States would have received under the previous regime. If a State's share of the GST actually collected was less than the GMA, the Commonwealth would 'top it up' with an amount known as Budget Balancing Assistance (ANAO 2005, p. 15).

Box 9.1 Participants' comments on principles for transition

Several participants commented on the principles that should guide any transition to a new equalisation benchmark.

Danae Bosler (trans., p. 203) from the Victorian Trades Hall Council emphasised the need to protect services:

The normal principles that we would say in any sort of downsizing or cut of public funding, because that's what it's going to be, a cut of public funding to Victoria, you have to protect frontline services and you have to protect frontline jobs.

The CCIWA (sub. DR86, p. 1) put forward three principles for transition arrangements:

- Fair — every Australian should continue to expect a high standard of services from their State government
- Pro-growth — States should be rewarded, not punished for growing their own economy
- Durable — the new distribution method must last and each State should be able to rely on their forward estimates of GST revenue.

The Association of Mining and Exploration Companies (sub. 23, p. 3) argued that the transition should give States time to plan ahead:

Subsequent recommendations should be tied to a realistic and manageable transition period to allow States and Territories to strategically plan and prepare their future Budgets and Forward Estimates with increased certainty and predictability.

WA Council of Social Service (sub. DR84, p. 2) supported a gradual change:

With the different Australian States parties to hundreds of service contracts with community sector organisations alone, a sudden shift in the way in which the distribution of the GST is determined could have profound consequences. Any reform to the HFE should be introduced gradually, with top-up payments provided for particular states where it is considered necessary and appropriate.

A transition path should enable States to manage their budgets such that they can provide continuity in the delivery of services during the current forward estimates period and plan for changes over the longer term. In particular, the transition to ETA should be such that any single-year reduction in GST payments is manageable.

There is no hard and fast rule that dictates what change in revenue States can reasonably manage, and what is manageable is likely to vary by State depending on circumstances. As a rule of thumb, the Commission considers States could be expected to manage a reduction in their GST payments (relative to what they expected to receive) of about 2 per cent of their total revenue from one year to the next (box 9.2). Underpinning this rule-of-thumb is an expectation that savings or revenue measures incurred in any given year are 'locked-in' for subsequent years. So if, for example, total revenue was 3 per cent lower than expected after four years, then this reduction could be manageable if the budget adjustments are made over these preceding years.

But non-GST revenues can also vary, and the context of any decrease in GST payments will also be important. For example, if a State's royalty revenue is higher than expected, then a change of greater than 2 per cent may be manageable. Alternatively, if other (non-GST)

revenues are also falling then adjusting to a permanent 2 per cent reduction in GST payments could be more difficult.

Box 9.2 What can States reasonably manage?

State Treasuries are accustomed to managing revenue changes and have mechanisms in place to deal with revenue volatility from year to year, along with any forecasting errors that result in actual revenue differing to what was expected (chapter 4). While much of this volatility would likely be in opposing directions over time and thus potentially cancel out to some extent over the economic cycle, from time to time, State Governments 'permanently tighten' their belts. In such cases, governments have a range of options (OECD 2012), including:

- *top-down spending cuts*, in which the government allocates a reduced budget allocation to its agencies
- *spending reviews* to assess the strategic orientation of programs and/or the efficiency of spending
- *performance budgeting*, which focuses on how output and outcome information can be used in budgeting for resource allocation
- *automatic productivity cuts or efficiency dividends* through which agencies are required to reduce their operating costs without hampering the services they deliver.

Often, several of these tools may be adopted together. For example, since the late 1980s, both State and Commonwealth Governments have used efficiency dividends to control costs in the public sector (Horne 2012; Philipatos 2015). The efficiency dividend at the Commonwealth level was 2.5 per cent of operational (running) costs in 2017-18 (Hamilton 2017), but has previously been both higher (4 per cent in 2012-13) and lower (1 per cent between 1994 and 2005) (Horne 2012). New South Wales' efficiency dividend was 1.5 per cent in 2016-17, rising to 2 per cent for three years from 2018-19, while the Northern Territory had a 3 per cent efficiency dividend in 2017-18, reducing to 1 per cent from 2020-21 (NSW Government 2017; NT Government 2017).

Governments also take a more targeted approach to reducing spending. For example, in its 2017-18 Budget, the NSW Government announced savings from the New Home and First Home Owner Grants programs, changed its approach to procurement to create efficiencies and identified agency-specific areas where further savings could be sought. These savings, in combination with the efficiency dividend and other announcements made since 2011-12, will result in whole-of-government efficiencies and savings of \$28.1 billion between 2016-17 and 2020-21 (or about 2.5 per cent of general government revenue over the same period) (NSW Government 2017).

Because these approaches result in a permanent reduction in resources, they are somewhat akin to what a State may experience under the new equalisation benchmark.

The transition should be fiscally sustainable for all governments

The transition path should be fiscally sustainable for both the States and the Commonwealth Government. The most sustainable approach (given the current fiscal position of the Commonwealth Government) is for the transition to be funded through the GST pool, rather than from sources outside the pool, such as other Commonwealth payments. Should funding

from outside the pool be provided to alleviate any adverse budgetary impacts (akin to the ‘Guaranteed Minimum Amount’ in 2000) it should be only contemplated in the context of securing broader federal financial reform. And even then it would also need to:

- be for a limited time only, clearly specified at the commencement of the transition
- have clear limits set around the magnitude of any funding, including specifying that assistance will only be provided if the change in total revenue exceeds an agreed revenue variation threshold that States typically experience and manage (such as 2 per cent)
- be carefully considered in the context of broader expenditure priorities or intergovernmental funding arrangements.

The benefits of reform should be delivered in a timely manner

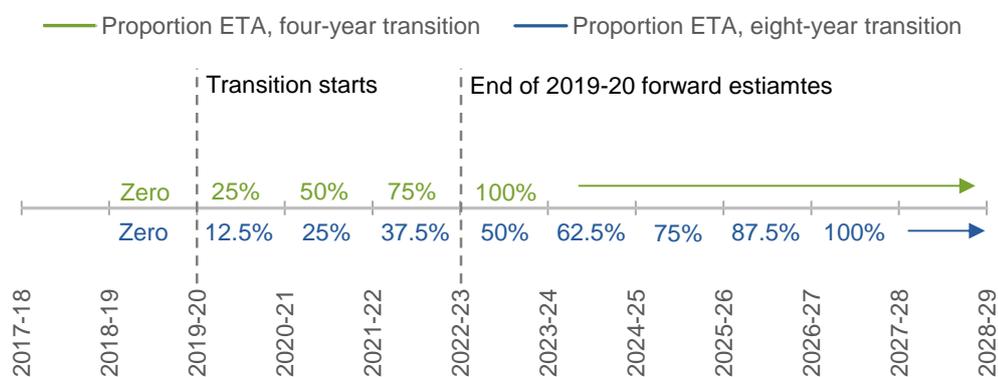
Moving to an equalisation benchmark of the average fiscal capacity of all States is expected to result in long-term efficiency and equity benefits. As such, while a lengthy transition path would benefit some States, there are potential costs involved from deferring full implementation of the new benchmark. The transition needs to strike a balance between assisting States to manage a change in their GST payments and capturing the benefits from reform.

9.2 Choosing an appropriate transition period

The Commission has assessed two possible transition periods, both beginning in 2019-20 — a four year transition and an eight year transition (figure 9.1). Under both options, GST relativities are calculated using a weighted average of the relativities that would apply under the current approach and ETA, with the weight on ETA increased by 25 percentage points per year until 2022-23 (for the four year transition), and by 12.5 percentage points per year until 2027–28 (for the eight year transition). The detailed transition analysis is contained in appendix F.

Regardless of the transition approach taken there is inevitable uncertainty in the potential future impacts. In particular, assessing a transition path is difficult due to the challenges associated with estimating States’ future GST payments, including States’ future relative fiscal capacities, population growth, and the size of the GST pool.

Figure 9.1 Two possible transition periods



The Commission has adopted a simple, illustrative analysis to assess the four and eight year transition paths to ETA. A ‘best estimate’ scenario of future GST payments to the States was developed, under which relative fiscal capacities, State populations and the GST pool evolve broadly as the Commonwealth Treasury and State Treasuries currently expect. This best estimate has been informed by consultation with and data provided by the Commonwealth and State Governments (box 9.3).

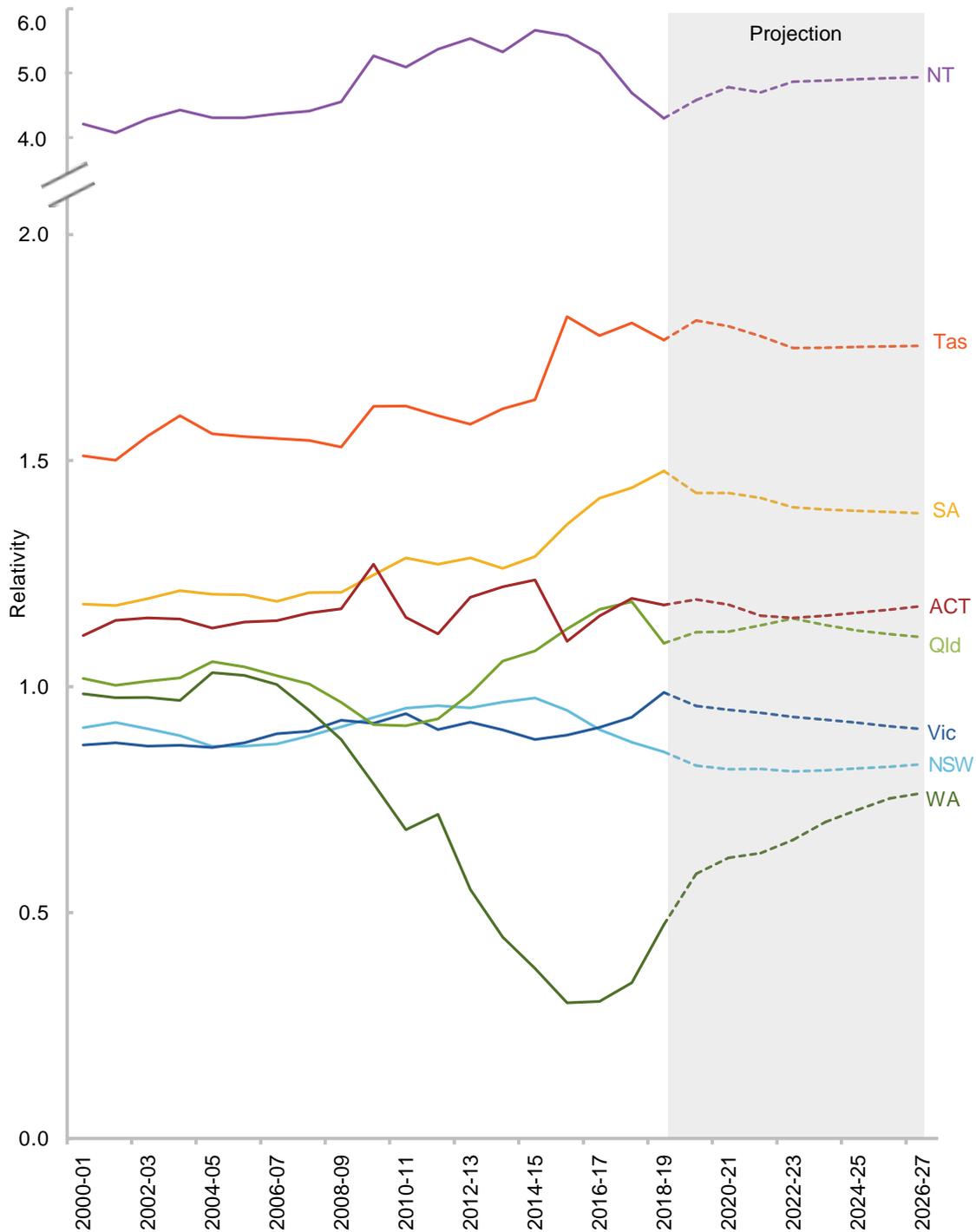
- For State relative fiscal capacities, the best estimate was based on an average of the GST relativity forecasts (based on the current equalisation benchmark) provided by contributing State Treasuries (figure 9.2).
- Growth in the GST pool was based on Commonwealth Treasury Mid-Year Economic and Fiscal Outlook (MYEFO) estimates over the forward estimates, and an assumption that the pool grows at 5.25 per cent per year in nominal terms beyond this, to 2027-28.
- State population growth estimates were based on Commonwealth Treasury MYEFO estimates over the forward estimates, and an assumption that State populations grow at the final year MYEFO growth rate beyond this.

Alternative estimates for GST relativities, State populations and pool growth were also considered (discussed below).

Both transition paths could be managed in the ‘best estimate’ scenario

A gradual transition to ETA means that each State’s relativity converges from its current level to what it would be under ETA (by 2022-23 for the four year transition and by 2026-27 for the eight year transition) (figure 9.3 — relativities are detailed in table F.4 of appendix F). The effect of this is to spread the GST impacts of the change to ETA over four or eight years, giving States time to adjust their budgets (figure 9.4). Based on the Commission’s analysis, this means that between any two consecutive years the amount that States will need to adjust their budgets does not exceed the 2 per cent budget management threshold for any State (figure 9.5).

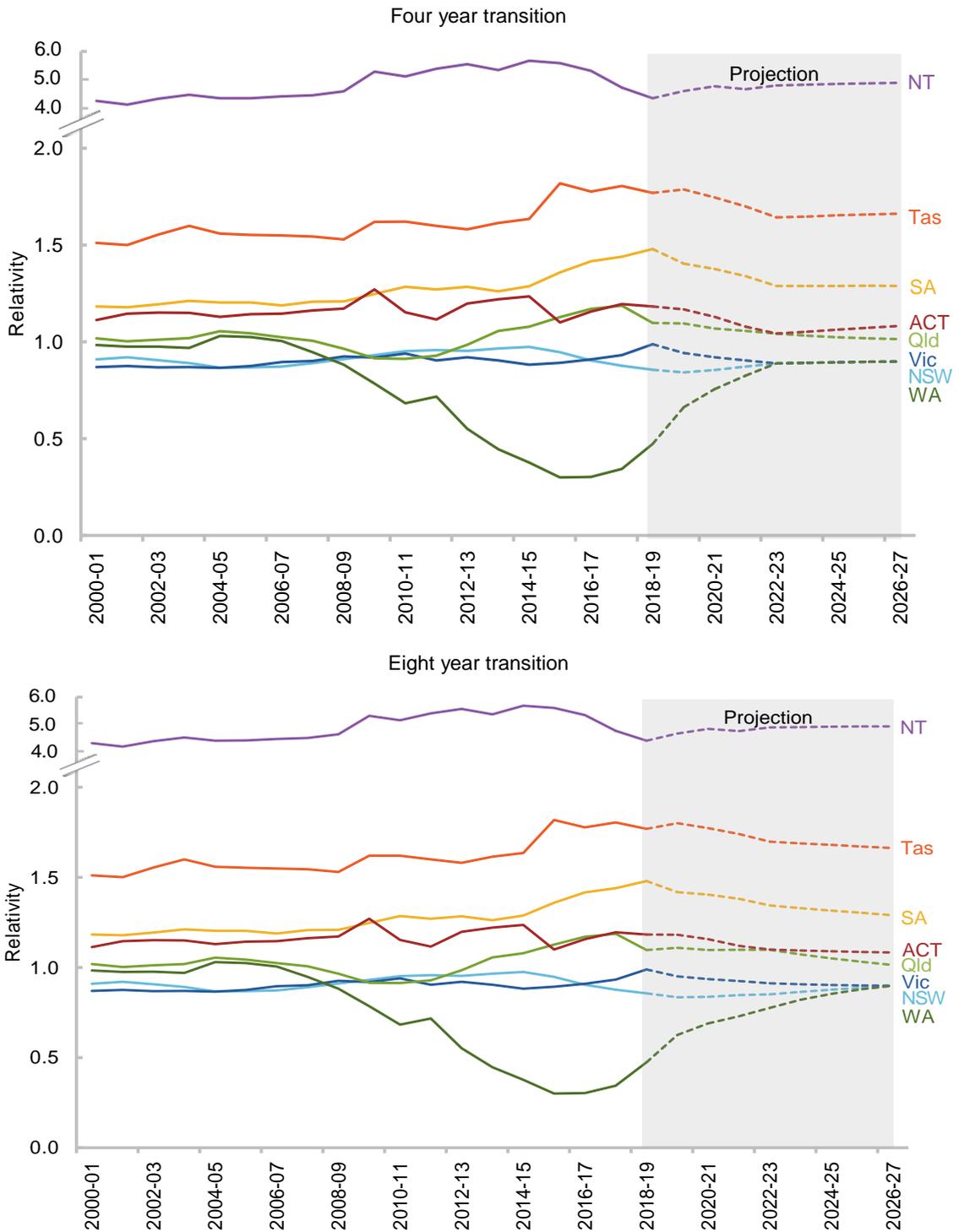
Figure 9.2 Current benchmark: historical and projected relativities
 Best estimate scenario, 2000-01 to 2026-27



Sources: CGC (2018g), Productivity Commission estimates based on data provided by State Treasuries (confidential).

Figure 9.3 Four year and eight year transition to ETA: historical and projected State relativities

Best estimate scenario, 2000-01 to 2026-27



Sources: CGC (2018g), Productivity Commission estimates based on data provided by State Treasuries (confidential).

As a proportion of total State revenue, the reduction in GST payments in the four year transition is expected to be highest in Queensland, South Australia, Tasmania and the ACT. The reduction in GST payments for these States in the first year of transition ranges between about 0.5 and 0.6 per cent of total State revenue, increasing to between about 2.3 and 2.8 per cent of total State revenue once ETA is fully implemented (figure 9.4).

But in no single year does any State experience a reduction in its GST payments from one year to the next of more than about 0.8 per cent of total State revenue (figure 9.5). GST payments would be higher under ETA in New South Wales and Western Australia. With an eight year transition these figures are halved.

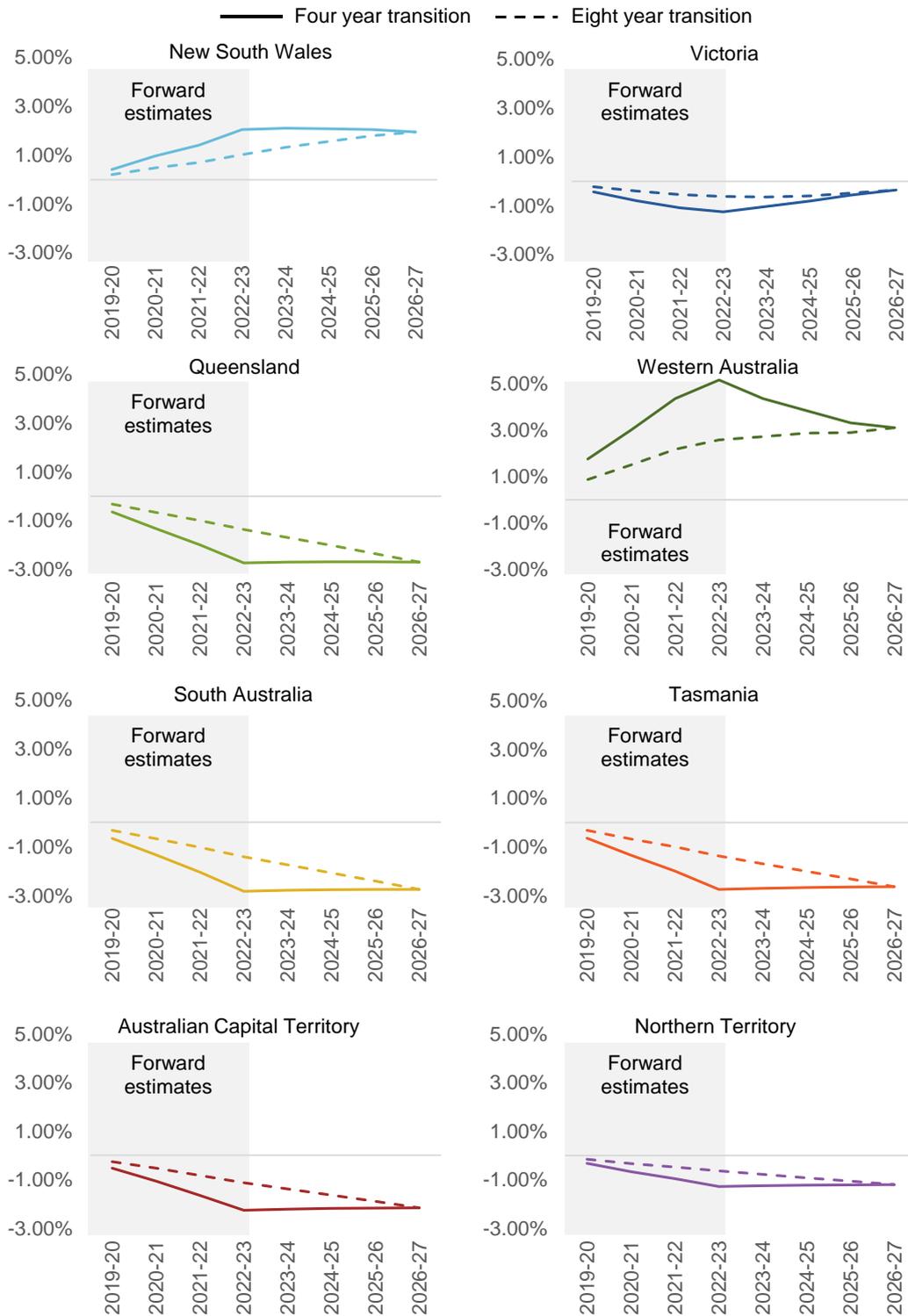
Box 9.3 State and Commonwealth Treasury consultation

The key assumptions underpinning the transition analysis were informed by consultation with the Commonwealth and State Treasuries, including seeking feedback on the projection methodology and data inputs. Each Treasury Department was asked to share their estimates of States' future GST relativities (based on the current equalisation benchmark) and the appropriateness of taking a simple average of these to form a 'best estimate' of relative State fiscal capacities. Views were also sought on alternative relativity estimation approaches, and the most appropriate method for projecting growth in State populations, revenues, and the GST pool beyond the forward estimates.

Most States supplied their relativity forecasts for either part or all of the eight-year projection period (the Commonwealth Treasury does not forecast GST relativities), with the caveat that forecasts beyond the forward estimates are highly uncertain. State Treasury Departments had differing views on the averaging approach for GST relativities. Some supported the approach on the basis that it can help reduce bias in underlying assumptions. Those that were critical noted (among other things (appendix F, box F.3)) that some jurisdictions simply assume GST relativities remain at their current levels over the projection period and including these estimates as part of an average could increase the forecast error rate. The Commission therefore excluded these forecasts from its best estimate. Most State Treasury Departments also provided views on GST pool growth over the projection period, which informed the Commission's best estimate of pool growth, and its alternative estimates.

In per capita terms (figure 9.6) the reduction in GST payments range from an annual increase of about \$676 per capita in Western Australia (in 2022-23) to an annual decrease of about \$333 per capita in Queensland, South Australia, Tasmania, the ACT and the Northern Territory by 2022-23. With an eight year transition these figures are halved.

Figure 9.4 Two transition paths to ETA: phasing GST impacts over time
 Transitioning to ETA: Change in GST payments (relative to current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27^a



^a The total change in each State's GST payments in millions of dollars is presented in appendix F.

Source: Productivity Commission estimates; appendix F.

Figure 9.5 Transitioning to ETA: the year-on-year impacts on State budgets are likely to prove manageable

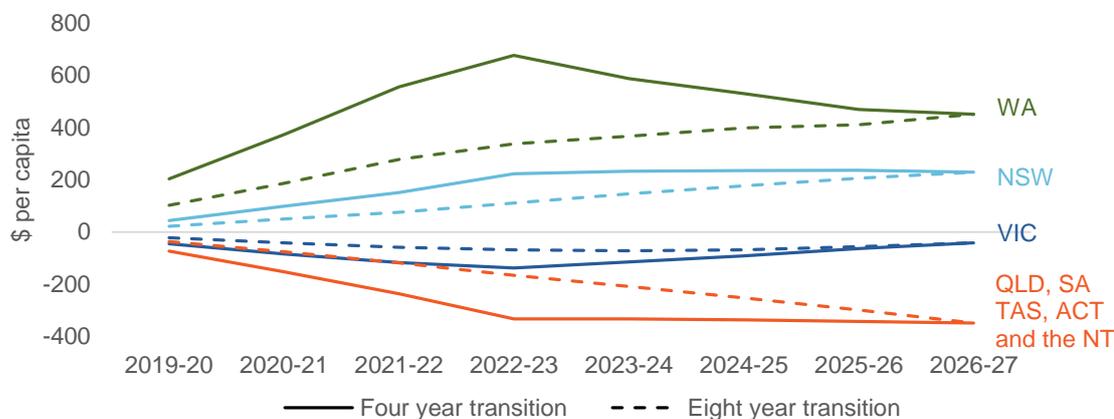
Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27^a



^a The year-on-year change in each State's GST payments in millions of dollars is presented in appendix F.

Source: Productivity Commission estimates; appendix F.

Figure 9.6 Transitioning to ETA: change in GST payments per capita
Relative to current benchmark, best estimate scenario, 2019-20 to 2026-27



Source: Productivity Commission estimates: appendix F.

Alternative scenarios for future GST payments

Economic variables do not always evolve as State and Commonwealth Treasuries expect and it is difficult to accurately project how fiscal capacities will develop over the long term. Scenario analysis has been used to consider two alternative outcomes for State fiscal capacities over the projection period (box 9.4).

Under alternative scenarios States remain within the budget management threshold

Under the two alternative scenarios for State fiscal capacities, the reduction in GST payments (due to the change in the equalisation benchmark) in the four year transition is still highest in Queensland, South Australia, Tasmania and the ACT. The reduction in GST payments for these States in the first year of transition ranges between about 0.5 and 0.6 per cent of total State revenue — similar to the best estimate scenario. By the end of forward estimates, the reduction in GST increases to between about 1.7 and 2.5 per cent of total State revenue (appendix F). In the eight year transition these figures are halved (appendix F).

However, at no time does any State experience a reduction in its GST payments from one year to the next of more than about 0.8 per cent. Should relativities return to their long run trend, GST payments for Victoria and New South Wales would be broadly similar to what they would receive under the current benchmark.

Box 9.4 **Beyond ‘best estimate’ projections: alternative scenarios for future GST payments**

The Commission considered two alternative methods for projecting relative fiscal capacities, population growth rates, and the size of the GST pool.

- Future relative fiscal capacities were projected using a ‘long-run trend’ method where relative fiscal capacities (measured by GST relativities) return to their long-run trend (using a 19 year average) at the end of the forward estimates, and a ‘business-as-usual’ method where fiscal capacities remain at their 2018-19 level for the projection period.
- Population growth was projected by assuming that State population growth rates move from their current rates to either the 10-year average growth rate (2007-08 to 2017-18) or 10-year linear trend at the end of the forward estimates, and grow at that rate thereafter.
- GST pool growth beyond the forward estimates was projected using a high-growth estimate, where the GST pool grows at 0.5 percentage points above the best estimate (which is 5.25 per cent), and a low-growth estimate, where the GST pool grows at 1.0 percentage points below the best estimate. The larger range on the downside reflects the possibility that the current trend in consumption towards GST exempt goods will continue beyond the forward estimates.

The two alternative scenarios for State populations and GST pool growth rates did have an effect on the projected *level* of GST payments that a State receives, for example, by affecting State population shares and the size of the GST pool. However, they had only a minor influence on the *change* in GST payments due to a change in the equalisation benchmark.

By contrast, the two alternative scenarios for State fiscal capacities did have a modest influence on GST payments, although budget management outcomes were still broadly in line with the best estimate results. As the Commission sought an illustrative measure of the effects of its policy proposal (and not an exact point estimate), only alternative scenarios for State fiscal capacities were included in the analysis.

Source: Appendix F.

Either a four year or eight year transition is judged to be manageable

Based on the above transition analysis, it is judged that a transition to ETA would be manageable over either a four or eight year timeframe. The best estimate (and alternative scenarios that take into account different GST relativities) show that between any two consecutive years the amount that any State will need to adjust its budget (due to the change in the equalisation benchmark) is less than one per cent of its total State revenue.

However, there are a large number of factors that could affect GST payments and State revenues — such as GST pool growth, the level of Commonwealth Grants or changing (interstate) population demographics. The Commission’s transition analysis does not capture these. Moreover, future economic variables do not always evolve as expected and it is difficult to project how fiscal capacities will develop over time. States may encounter unforeseen or exceptional events — for example, a large shock to a single State, such as a natural disaster, could result in its relative fiscal capacity being much lower than currently expected (and beyond the range of scenarios assessed by the Commission). Such events

could make the transition to ETA less (or, indeed more in the case of a positive shock) manageable than projected.

An eight year transition path gives States considerable time to adjust their budgets and provides latitude to deal with unexpected changes in State fiscal capacities, although it would delay the potential benefits of the change compared with a four year transition. That said, the costs of delay would be largely borne by the State(s) that stand to benefit the most: Western Australia and to a lesser extent New South Wales. These States (especially Western Australia as the initial primary beneficiary) would essentially ‘fund’ the transition to ETA by a transition path that ‘hastens slowly’. An eight year transition would also significantly reduce the potential need for funding to be provided to States from outside the GST pool, should the fiscal circumstances of the States evolve in ways significantly different to what is currently expected.

A longer transition path also provides a greater window for the States and the Commonwealth to substantively revisit broader reforms to federal financial relations, which could potentially alleviate any residual ongoing fiscal impacts on the States from the new benchmark. Indeed, during this inquiry, all States were united on one single policy endeavour — the need for substantive reform to federal financial relations. A process, and some priorities, for broader reforms to federal financial relations is discussed in the following section.

FINDING 9.1

There are many ways a new equalisation benchmark could be phased in. The most effective transition approach is one that:

- enables States to manage their budgets during the current forward estimates period and plan for changes over the longer term
- is fiscally sustainable for all governments, in that it is funded through the GST pool (in effect, by the States that benefit from the change) and not from outside the pool
- delivers the benefits of the new benchmark in a timely manner.

Either a four year or eight year transition path to ETA is judged to be manageable for the States. A four year transition would deliver the benefits of reform more quickly, but an eight year transition provides greater latitude to deal with unexpected changes in the future fiscal circumstances of the States. By delaying the full implementation of ETA, both approaches are effectively funded from within the GST pool by the States that stand to benefit the most.

An eight year transition would also provide more time for State and Commonwealth Governments to negotiate broader reforms to federal financial relations, which could potentially alleviate any residual ongoing adverse fiscal impacts on States from the new benchmark.

9.3 Broader reforms to federal financial relations

There is only so much a better system of HFE can do in isolation to improve Commonwealth-State financial arrangements. As noted by the Queensland Government (sub. DR106, p. 10):

... the distribution of GST forms only one part of a wider framework of federal financial relations, the various elements of which all have a role to play in achieving equity across States and ensuring they can meet their service delivery expectations. Review of HFE alone will not deliver meaningful fiscal reform.

Greater gains would be more likely to come from broader reform to Australia's federal financial relations. And, to the extent that progress towards this reform is made in the short term, it could also allow for a truncated transition path to the new equalisation benchmark.

A complex policy environment

HFE is part of a broader Commonwealth–State financial relations landscape. Some reforms to this broader landscape over the past 20 years have been beneficial. In particular, the introduction of the GST and the abolition of a number of State taxes has improved the efficiency of the revenue base, and the streamlining of the number of Commonwealth payments for specific purposes to the States, has reduced complexity to some degree. But VFI persists (figure 2.5), and the many other Commonwealth payments to the States which often come attached with conditions have resulted in highly complex federal financial arrangements (DPMC 2015; Garnaut and FitzGerald 2002a).

Vertical fiscal imbalance has persisted

In some respects, VFI reflects the comparative advantage in revenue raising and expenditure between levels of government in a federal system. By collecting relatively more revenue, a national government can improve the administrative efficiency of the taxation system through economies of scale and, for those businesses that operate across jurisdictions, lower compliance costs as a result of having to deal with only one set of rules and one collection agency. However, it also creates challenges. As Moran (2014, p. 162) commented:

... the fundamental obstacle to change in our Federation has been one of the world's most severe cases of vertical fiscal imbalance, which since World War II has been our Federation's Achilles' heel.

The Australian Chamber of Commerce and Industry (sub. 40, p. 7) noted to this inquiry the centrality of VFI to Australia's federal financial relations:

... any discussion on horizontal fiscal equalisation must, by necessity, start at the heart of Commonwealth-State Financial relations — which (is) the vertical fiscal imbalance (VFI).

The imbalance can lead to:

- accountability problems due to a mismatch of revenue raising and expenditure responsibilities
- blame shifting, in which blurred lines in service delivery responsibilities mean that the community does not have clear lines of responsibility to hold governments to account
- the Commonwealth attaching conditions to funding, potentially constraining the flexibility and manner in which a State spends revenue (in some instances this may also be a positive)
- distortions in the types and level of services provided, with potential for over- or under-spending relative to the community's preferences due to the division of funding responsibilities between levels of government
- the maintenance (or even introduction) of inefficient State taxes.

While Australia has a relatively high VFI compared with other federations (chapter 2), it is not solely a function of the decisions of the Commonwealth Government. There is equally a role for the States. Notably, the States have levers within their control to address their revenue shortfalls and go some way to addressing VFI themselves, independent of the Commonwealth. For example, there are a number of potentially efficient revenue options, such as more broadly applied land taxes and mineral rents, which could be applied by the States if they so wished, although as noted earlier and in chapter 3, HFE can in some cases, discourage such reforms. As noted by Walsh (2008, p. 56):

... I have also frequently pointed out that the ostensible degree of fiscal dependence of the states on the commonwealth is, at least to some degree, a choice the states have made. The most immediately obvious sense in which that is so is their natural preference for the commonwealth to raise the revenue and for them to do the spending ...

This does not, however, negate the need for broader federal state financial reform.

A web of Commonwealth transfers to the States

The States' high reliance on Commonwealth transfers makes it imperative that the system of both general revenue assistance (largely GST) and payments for specific purposes (chapter 2) work effectively together. Yet, the system is complex, susceptible to being gamed and accountability is more than blurred.

Payments to the States are calculated using a range of mechanisms

Commonwealth payments to the States are calculated in a range of ways. For example, the National Health Reform Agreement and National Education Reform Agreement (now named Quality Schools) — representing close to \$38 billion and 32 per cent of all payments to the States in 2017-18 — moved the basis of funding to States from EPC to an activity or needs basis (Commonwealth of Australia 2017b). Other payments for specific purposes,

such as skills and workforce development and housing, are based on an EPC approach (appendix B).

Several participants to this inquiry commented on the conflicting approaches to determining payments for specific purposes and HFE. They have suggested that HFE, as the fiscal capacity ‘spirit level’, can undermine other forms of States’ payments (Queensland Government, sub. 32; ACT Government, sub. 49; NSW Government, sub. DR52; Fahrer and FitzGerald, sub. DR102). Indeed, in 2002, Garnaut and FitzGerald (2002a, pp. 57–58) noted the controversy around whether the CGC should override the allocation of payments for specific purposes, commenting that ‘the equalisation of SPPs [specific purpose payments] adds an additional layer of complexity to an SPP system which is already complex’.

The scope for the CGC to ‘counteract’ the funding provided through SPPs depends upon the extent to which the assessment of needs differs under each approach. The WA Government (sub. 15, p. 88) submitted that under the schools education assessment, the CGC assessed Western Australia as needing to spend 6.6 per cent above the national average in 2015-16, while the Commonwealth’s Students First funding model assessed the State as needing to spend 14.1 per cent above the national average in the same year.

While the CGC’s approach to Commonwealth payments is consistent with its overall approach to HFE, it may not always be consistent with governments’ other, more specific objectives for its payments in particular areas. That said, the HFE system does not actually reduce the specific funding allocated under SPPs — the nature of the tied SPP funding means that the States are required to spend the agreed amount in a specific area.

The balance between tied and untied funding

GST payments are provided as untied funding, while most other payments are tied. States that receive a small proportion of HFE funding relative to Commonwealth payments (the fiscally stronger States), have a greater percentage of their Commonwealth funding tied, and less flexibility in how they spend these payments.

That said, the fiscally stronger States also have a greater ability to supplement Commonwealth funding with their own revenue sources. Indeed, when considering both Commonwealth and State revenue sources, the proportion of overall State revenue that is tied exhibits little variation across States (chapter 4).

A related concern is that the States may engage in strategic behaviour to increase their share of untied revenue (NSW Government, sub. 52, pp. 11–13). This could potentially occur through States’ selective participation in (and even lobbying in regards to) National Partnership Agreements. For example, a State may abstain from signing up to an Agreement even if it means forgoing tied funding to receive a greater amount of untied funding (NSW Government, sub. 52). Fahrer and FitzGerald (sub. DR102, p. 25) commented, ‘... the practice of the Commonwealth giving with one hand and taking with the other creates incentives for States to behave strategically’.

However, more crucially, there appears to have been little consideration of whether the current system results in an optimal balance between tied and untied funding.

A tapestry of responsibilities for funding and delivery of services

The patchwork of Commonwealth–State funding and delivery arrangements blurs accountability. The scope of activities jointly covered by the Commonwealth and States is extensive, including for health, education and road transport. As noted by Gray (2017, p. 3):

... powers assigned to the Commonwealth, but not exclusively so, create areas where both [the States and Commonwealth] may operate, at least in principle. ... this has created fertile ground for the growth of confusion about which government should be accountable for which function.

The difficulties that this creates for accountability have also been noted by the OECD. It advises that countries should only seek to fully equalise if the State Government is solely responsible for delivering services in its assigned policy area (Blöchliger et al. 2007, p. 10).

Broader reform to federal financial relations, as discussed below, would provide an opportunity to revisit these accountability concerns.

Confused accountability for addressing Indigenous disadvantage

One area where blurred lines of responsibility and accountability are particularly evident is with regard to Indigenous policies and programs. Reflecting this, the way Indigenous factors are accounted for within the HFE process (box 9.5) has been a significant point of contention and concern for some inquiry participants. For example, the Australian Medical Association (NT) (sub. DR101, p. 9) provided detailed analysis of the significant cost differences involved in treating remotely located Indigenous individuals compared with Indigenous people in urban areas.

There have been calls for major reform of the approach, mostly involving taking consideration of Indigenous expenditures out of HFE. The 2002 Review of Commonwealth-State Funding (Garnaut and FitzGerald 2002b), for example, raised the possibility of removing considerations of Indigeneity from the HFE process and establishing an Indigenous Community Development Program to fund policies and programs aimed at addressing Indigenous disadvantage. Some past modelling has also considered the welfare effects of removing Indigeneity from the HFE process (Murphy 2017, appendix D).

Changes of this kind were also considered by the 2012 GST Distribution Review. While the Review panel did not ultimately agree with calls to remove Indigeneity from HFE, it did note that the HFE system is not the right vehicle to address entrenched disadvantage. The inability of the system to deal with entrenched disadvantage was also raised in this inquiry (Yothu Yindi Foundation, sub. DR80, p. 2).

Several submissions to the present inquiry have also called for a different approach, including for Indigenous disadvantage to be funded directly by the Commonwealth Government through a specific purpose payment (Business Council of Australia, sub. 47, p. 10; NSW Government, sub. DR109, p. 32; Fahrer and FitzGerald, sub. DR102, p. 19).

Box 9.5 How is Indigeneity currently treated in HFE?

Indigeneity redistributes GST revenue because, on average, States spend more providing services per Indigenous person than per non-Indigenous person, particularly in areas such as health and housing. Hence, States with a higher proportion of Indigenous people than the average will be assessed as having higher service costs overall and will be given a higher proportion of GST revenue than would otherwise be the case. The Northern Territory is the main recipient of GST due to Indigeneity because its proportion of Indigenous population (about 30 per cent), is much higher than the national average (roughly 3 per cent) (CGC 2018a).

In broad terms, the method used by the CGC to adjust for Indigeneity (as summarised by the 2012 GST Distribution Review) is as follows:

... the CGC does not directly estimate the redistribution due to Indigeneity. Instead, the estimate is derived by assigning to Indigenous people the cost weights and/or spending levels relating to non-Indigenous people in each expenditure category, with all else unchanged, then comparing the resulting GST redistribution with the GST redistribution from the actual assessments. Estimates for other disability factors are obtained in a similar fashion, by applying average spending for (or removing) that disability, holding everything else constant, and comparing the resultant redistributions with the actual assessment redistributions. (Brumby, Carter and Greiner 2012a, p. 148)

Significantly, since its 2015 review, the CGC has changed the way it assesses the costs of providing services to Indigenous people. This was in response to concerns, raised by Western Australia and the Northern Territory, that in the 2011 Census, some people who had not previously identified as Indigenous were now doing so. It was not clear that both groups placed the same fiscal pressure on State Governments.

In this review, we have decided to use a geographic socio-economic index designed specifically for Indigenous people, and another specifically designed for non-Indigenous people.

As a result, we determine a region's Indigenous socio-economic status using an Indigenous specific indicator based on the socio-economic status of its Indigenous residents. Separately, we determine the same region's non-Indigenous status using a non-Indigenous specific indicator, based on the socio-economic status of its non-Indigenous residents.

In this way we can better identify average State spending on Indigenous residents of different socio-economic status and average State spending on non-Indigenous residents of different socio-economic status.

... Because our Indigenous measure better captures where Indigenous people of different socio-economic status reside, we consider it will better capture how this changes over time, and within the constraints of available data, appropriately capture the changing characteristics of the Indigenous population. (CGC 2015e, pp. 62–63)

The CGC also separately looks at the effects of location on the use and cost of services, involving consideration of the effects of concentrations of people living in small, remote and very remote communities.

Proposals of this kind are driven partly by concerns that inclusion of Indigeneity in HFE skews the HFE distribution but does not necessarily result in GST funds being spent in areas

of identified need (as discussed in chapter 2). For some participants, there was a desire to increase the connectedness between, *ex ante*, funds provided via HFE, intended for giving the capacity for service delivery to defined cohorts, and *ex post*, the actual services delivered to these cohorts. In this context, the Yothu Yindi Foundation (sub. DR80, p. 9) stated that:

... fiscal policy in the Northern Territory has embedded a system marked by systemic failures to appropriately or effectively spend funds or deliver key programs intended to deal with the issue of rampant Indigenous disadvantage and improved Indigenous futures. The problem is structural and the misapplication, or ineffective application, of funds will not change until there is a change to the way money is controlled, managed, spent and reviewed in a transparent manner.

As such, if governments are to effectively address Indigenous disadvantage (and importantly, improve accountability for outcomes in this area), more accountable policy development and funding is also required.

More clearly defined roles and responsibilities are needed for accountability

It is indisputable that poor outcomes in addressing Indigenous disadvantage continue to be observed, as has been shown in the annual *Overcoming Indigenous Disadvantage* report (SCRGSP 2016). However, in considering proposals for change in this area, there is a need to disentangle what exactly the inclusion of Indigeneity within HFE does, and does not, attempt to do. It is legitimate that such considerations are included in equalisation — as a way of measuring States' relative fiscal capacities — if they are a significant driver of jurisdictional spending (and they are). But this is only intended to recognise the existing differences States face in providing an average standard of services. It is not designed to allocate GST revenue in a way that would allow States to make additional investments to reduce levels of pre-existing structural disadvantage they face.

And, *absent of more fundamental reform to roles and responsibilities*, it remains an open question what taking Indigeneity out of HFE (and replacing it with SPP funding) would achieve. The Commission's view is that such a reform is unlikely to achieve the benefits it aims for without being situated in a much wider and more substantive approach to the funding and provision of services to Indigenous people and tackling Indigenous disadvantage.

A major part of the problem clearly relates to how funding is allocated, and to roles, responsibilities and accountability. These problems beset both funding received via HFE and the interaction with SPPs aimed at assisting Indigenous communities. Currently, there is no general rule for how Indigenous-related Commonwealth payments are treated within HFE. Some payments have an impact on relativities, whereas others do not. For instance, '*Stronger futures in the Northern Territory – Housing*', a National Partnership Payment, does not have an impact on relativities (as required by CGC terms of reference), whereas early childhood education National Partnership Payments focused on Indigenous children do have an impact on relativities. As things stand, there is a mixture of impact, no impact, and some discounted impacts.

Providing clearer lines of responsibility for service delivery, funding and policy frameworks, as discussed further below, would help to improve outcomes over time. Greater coordination of responsibilities at each level of government may also avoid duplication and overlap, and clarify where the buck stops in terms of funding, service delivery and policy effectiveness.

A process for broader reform to federal financial relations

The transition to a new equalisation benchmark provides an opportunity to renew a broader process of reform to federal financial relations. Recently, there has been an impasse in achieving change to Australia's federal financial relations, as indicated by the early termination of the Reform of the Federation White Paper process. Yet throughout this inquiry, all State Governments have emphasised the need for such reform (box 9.6). The Queensland Government (sub. DR106, p. 10), for example, noted that reform of federal financial relations was an opportunity to:

... properly consider the way that the Commonwealth and States can work together to ensure better fiscal outcomes nationally to allow each level of government to more autonomously deliver the services that the community expects and requires.

The support of the States indicates that there is a will for reform, even if the way forward is more difficult to agree on. The recently formed Board of Treasurers, with representation by all State and Territory Treasurers, may provide an opportunity for States to identify areas where they can undertake reform — including where they can compete and where they can cooperate — independent of the Commonwealth Government (Pallas 2017; Perrottet 2017).

There have been suggestions for reform to the broader federal financial relations landscape in recent years, including through the National Commission of Audit (2014), the Henry Tax Review (2010a), and from academics, including Stewart (2017). There has also been significant work, including for this inquiry (Gray 2017), on how to facilitate the reform process (box 9.7).

One challenge frequently raised is how to reduce Australia's VFI. The Commission noted in its recent *Shifting the Dial* report that eliminating VFI may not be feasible. However, it considered that improving the efficiency of the tax base, at both the Commonwealth and State levels, would potentially increase revenue available to the States (PC 2017a, p. 16). While it would not directly reduce VFI, a small number of participants to this inquiry (for example, CCIQ, sub. DR120 and trans., p. 513; CCIWA, trans., p. 15; Tasmanian Chamber of Commerce and Industry, trans., p. 494) suggested broadening the base and/or increasing the rate of the GST. For example, the Western Australian Local Government Association (sub. 46, p. 10) noted that:

One option ... is to broaden the base and/or increase the rate of the GST. This is because consumption is a stable and efficient tax base, and the revenue is provided directly to the States.

The *Shifting the Dial* report further noted that, fundamentally, there is a need for relief from the revenue-sharing pressures created by the States' very high level of financial dependence

on the Commonwealth (PC 2017a, p. 16). One approach would be for the States to expand their own source revenue. Another idea that has been flagged by participants to this inquiry, as well as in past reviews, such as the National Commission of Audit, is for the States to have access to the Commonwealth-raised personal income tax base through levying a surcharge under their control (box 9.8).

Box 9.6 Support for broader reforms to federal financial relations

The NSW Government (sub. DR109, p. 45) noted:

A new approach to fiscal federalism is needed that better reflects the equal, sovereign role of states and the services they provide to improve the wellbeing of all Australians.

The Victorian Government (sub. DR87, p. 24):

... joins the Commission in calling on the Commonwealth to drive reform in federal financial relations so that the federation can operate as intended.

The ACT Government (sub. DR81, p. 56) commented that:

... there remains an urgent need for reinvigorating discussion on roles and responsibilities in parallel with significant broadening of the tax reform agenda in the country. The ACT would also expect, and will continue to argue for, any tax reform to place a greater focus on the totality of State and Commonwealth taxation, including income tax, and specifically to design a more efficient suite of taxes thereby reducing reliance on existing less efficient taxes.

WA Government (sub. DR83, p. 19):

We support such broader reforms, and fully support ... reform of the interaction between general and specific purpose payments, and better delineation of responsibilities.

SA Government (sub. DR89, p. 18):

South Australia agrees and continues to support the reform of federal financial relations. However, the key issues in federal financial relations stem from the Commonwealth's failure to support reform and uphold the agreements it has made.

The Tasmanian Government (sub. DR74, p. 37):

Tasmania supported the direction and intent of the Reform of the Federation White Paper and continues to believe that reform of Federal-State financial relations is a worthwhile goal.

The Queensland Government (sub. DR106, p. 2):

Reform of federal financial relations provides an opportunity to improve Commonwealth-State relations to work towards improved economic outcomes nationally to allow each level of government to more autonomously deliver required services. This work should be led by CFFR and include clarification of the respective roles of each level of government, with an improved focus on accountability and certainty for better outcomes and service delivery, and consideration of ways to better match funding to service delivery and expenditure responsibilities, including greater State access to untied funding, for example through personal income tax sharing.

The NT Government (sub. DR69, p. 29) also agreed with the longer term goal of reform to federal financial relations. At the inquiry hearing (trans., p. 407), the NT Under Treasurer commented:

... there is only so much HFE can do and so some of those future development issues [such as dealing with vertical fiscal imbalance] need to be dealt with through other forums.

Some State Governments also raised the idea of personal income tax 'revenue sharing' between the Commonwealth and the States. For example, the Queensland Government

(sub. DR106, p. 10) commented that as part of longer-term reforms to federal financial relations, there should be:

... consideration of options such as the Commonwealth providing the States with access to a share of personal income tax revenues as untied funding to replace specific tied funding.

The SA Government (sub. DR89, p. 17) also voiced support for personal income tax revenue sharing, with the Commonwealth to cease certain tied funding arrangements. Notably, this proposal is distinct from the National Commission of Audit proposal under which States would levy their own surcharge. The difference is that revenue sharing would not reduce the level of VFI *per se* — the States would remain reliant on the Commonwealth for a significant proportion of funding. The WA Government (1998, p. 21) commented on such an idea as far back as 1998:

... revenue sharing under Commonwealth legislation would not reduce VFI, and may even worsen it if (as has been speculated) some State taxes are replaced by revenue sharing arrangements.

Any changes of this kind would need to be accompanied by wider changes to the roles and responsibilities of the Commonwealth and the States.

Box 9.7 Principles for the formulation of arrangements between governments

In a paper commissioned for the Productivity Commission, Gray suggested a set of principles for enhancing accountability when forming arrangements between States. These principles include:

- accept that the Council of Australian Governments (COAG) is the appropriate body through which to develop, implement and oversee intergovernmental arrangements, and that all activities within these spheres should take place under its authority
- acknowledge that the overarching objective is the improvement of the welfare of the Australian community
- include measures in the arrangement to ensure that benefits are distributed fairly across jurisdictions
- be wary of unduly constraining participant governments in the ways they may choose to discharge accountabilities that they have accepted
- ensure that SPPs are used in ways that improve community welfare rather than to give the Commonwealth a disproportionate role in matters that are properly the province of the States
- establish and maintain an independent body, funded by and reporting to COAG, to monitor and report on the discharge of accountabilities accepted under arrangements established by COAG.

Source: Gray (2017).

These options would be a substantial shift from the current arrangements, and their implications — for example, the degree of complexity, accountability, and tax competition (such as the potential risk of a race to the bottom) — would need to be carefully considered.

A concern raised by the Tasmanian Government (sub. DR111 p. 8), is that providing States with greater taxing powers would not preclude the need for HFE:

... if VFI was significantly reduced through the transfer or provision of greater taxing powers for the States and/or transfer of State funding responsibilities to the Commonwealth, there would still be some States that would have less capacity to raise revenue, or face higher costs, compared to others states. HFE would still be required.

Box 9.8 Policy options to address VFI

A range of options to address VFI have been recently put forward. The National Commission of Audit suggested that the Commonwealth Government reduce its personal income tax rate by an equivalent percentage to a new State surcharge. For example, the Commonwealth could permit States to access the personal tax base directly by reducing the current personal income rate by 10 percentage points, in exchange for a 10 percentage point surcharge (or other level determined by the States) at the State level (NCOA 2014, p. 71). A similar approach has been adopted in Canada (appendix E).

An alternative approach — raised in the Reform of the Federation Green Paper — is for the Commonwealth to transfer a fixed percentage of personal income tax collected to the States and Territories ('revenue sharing') (DPMC 2015, p. 95). This is the approach taken by Germany (appendix E).

Both approaches would increase the financial independence of the States (by facilitating a reduction in the form of tied grants). However, because the latter approach would utilise the current centralised approach to income tax collection and not provide States with additional responsibility to raise revenues, it would not, in and of itself, reduce the level of VFI (Stewart 2017, p. 170; WA Treasury 1998, p. 21).

Further, both approaches would be contingent on wider changes to the roles and responsibilities of the States. For example, the National Commission of Audit (2014, p. 26) commented:

As part of any agreement to move to new financial arrangements within the Federation, it would be necessary to negotiate a transfer of responsibilities for areas of spending where the Commonwealth currently makes tied grants. ... It would also allow the Commonwealth to significantly reduce its involvement in several key areas such as education and aspects of the health system thereby improving efficiency and facilitating greater accountability.

Other policy options that would address VFI include a deepening or broadening of States' own-source revenue raising capabilities, for example through reform of existing payroll and land taxes, or a reallocation of expenditure responsibilities to the Commonwealth (DPMC 2015).

Finally, while it would not directly address VFI, the Commonwealth Government could provide a greater proportion of untied grants to the States, an option raised by the National Commission of Audit. One way to achieve this would be through an expansion of GST revenues — by increasing the GST rate and/or expanding the base (DPMC 2015, pp. 95–98).

As recent history reveals, all governments are uniformly pivotal in driving federal financial reform, both to HFE and more broadly to federal financial relations. Australia's federated system retains a high degree of concern for state autonomy, as evident in many HFE processes, and a respect for broader buy-in within cross jurisdictional reform processes. It also has a long and credible history of concerted and coordinated national reform that has

delivered significant benefits across and within the States. The National Competition Policy reforms, which were based on extensive engagement, consultation, and agreements between the States, are considered to have been an example of such success (Gray 2017, pp. 31–32).

The State and Commonwealth Governments should work together to develop and closely assess options for reforming federal financial relations in the broad. The Council on Federal Financial Relations is the appropriate body to take carriage of the reform process; and there is considerable potential for the States to proactively drive the agenda through the recently established Board of Treasurers.

As a first step, and with the longer term goal of addressing VFI in mind, Governments should assess how Commonwealth payments to the States — both general revenue assistance and payments for specific purposes — interact with each other.

The process should then consider a better-delineated division of responsibilities between the States and the Commonwealth, and accompanying accountability and performance arrangements. This echoes the recommendation of the Productivity Commission’s recent *Shifting the Dial* report (box 9.9). In particular, responsibilities and accountabilities for Indigenous policy — a policy area where there continues to be little improvement despite significant expenditure — should be given priority.

Box 9.9 Intergovernmental relations in *Shifting the Dial*

The Productivity Commission’s recent *Shifting the Dial* report recommended intergovernmental relations be renewed (recommendation 6.4). It suggested that each level of government should have distinct roles in areas of shared responsibility. It went on to note that in areas of State and Local responsibility where the Commonwealth provides funding, State and Local Governments should be able to rely upon predictability in funding and flexibility in its use, subject to necessary measures to ensure accountability for decisions. Further, the conditions on Commonwealth funding to other jurisdictions should seek to ensure sound decision-making by those jurisdictions, rather than dictate outcomes.

In terms of steps to advance change, it suggested:

First, while not broken, the system of cooperative exchange at the apex of Australia’s federation — COAG — is in need of renewal. This is not an expensive undertaking — it has a cost only if it is insincere.

In order to arrive at agreement on fundamental reform at the apex, a practical division of responsibilities that is focused on the nature of the policy problem at hand and the parties most willing to design effective change should be taken. This means not treating the existing intergovernmental committee structures as sacrosanct.

Seeking reform primarily through control of payments should be least preferred.

Source: PC (2017d, pp. 197–198).

The principles of subsidiarity (where policy and service delivery is as far as is practicable delivered by the level of government closest to the people receiving those services), fiscal equivalence and sovereignty of governments are key considerations in determining where responsibilities lie (NCOA 2014; PC 2017a). But in some cases — particularly where

national and State or local priorities intersect or are interrelated, such as transport and education — it may not be possible to clearly separate responsibilities. Indeed, there may be some areas of policy where there could be welfare benefits from shared roles and responsibilities. As noted by Wiltshire (2014, p. 113):

A pure layer cake is no longer possible ... Marble cakes are the menu of the day, so it becomes a matter of assigning roles and responsibilities within shared functions of government. This applies to both revenue and expenditure.

Ultimately, the effectiveness and efficiency of the arrangements should be considered. For example, is there potential for specialisation, innovation and alignment with need (effectiveness) and is unnecessary overlap and duplication avoided (efficiency). Even where responsibilities are shared, there should be strong ‘belts and braces’ in place to ensure that decision makers are held accountable for outcomes (Smith 2014). This should include explicit and mutually understood assignment of responsibilities for policy functions such as financing, regulation, and implementation, to ensure direct accountability to citizens. It should also include processes for cross-jurisdictional cooperation and coordination, such as use of intergovernmental bodies with transparent decision making processes, and strong monitoring (and data collection systems) (Allain-Dupré 2017; Wiltshire 2014).

Following this, and ultimately informed by the allocation of funding responsibilities and accountabilities, options to meaningfully address VFI in Australia should be considered and advanced. As noted in the Reform of the Federation discussion paper (DPMC 2015, p. 10):

Addressing the mismatch between revenue and expenditure in Australia would go a long way toward ensuring governments can no longer shift the blame of policy failures and the costs of policy responses between them.

There is a clear appetite for such reform, and a range of options have been put forward — each has trade-offs that need to be worked through, including the extent to which they are able to fundamentally address the VFI problem and enhance accountability in the federal financial system.

Reforming HFE in isolation will only go a small way to improving federal financial relations. Without addressing this broader environment, the system is likely to come under further strain. The sustainability of the GST pool as a source of funding for States will likely come under increasing pressure, due to Australia’s changing consumption patterns. Like many inquiry participants, the Commission considers there is a need to revisit the broader operating environment in which HFE takes place, and to renew efforts to reform federal financial relations *in the broad*.

RECOMMENDATION 9.1

Improvements to the HFE system can only go so far.

The Commonwealth and State Governments, through the Council on Federal Financial Relations and recently formed Board of Treasurers, should work towards meaningful reform to federal financial relations.

In the first instance, the process should:

- assess how Commonwealth payments to the States — both general revenue assistance and payments for specific purposes — interact with each other, given the significant reforms to payments for specific purposes that have occurred in recent years
- develop a better-delineated division of responsibilities between the States and the Commonwealth and establish clear lines and forms of accountability. Policies to address Indigenous disadvantage should be a priority.

Following this, options to address the vertical fiscal imbalance should be considered and advanced.

A Public consultation

In keeping with its standard practice, the Productivity Commission has actively encouraged public participation in this inquiry.

The Commission released a guidance note on 19 May 2017 and invited public submissions by 30 June 2017. Subsequently, 56 submissions and 9 brief submissions were received (table A.1).

A draft report was released on 9 October 2017. Following the release of the draft report, 67 submissions were received. A total of 132 submissions were received throughout the inquiry (table A.1). All submissions are available online at: www.pc.gov.au/inquiries/completed/horizontal-fiscal-equalisation/submissions.

As detailed in table A.2, consultations were held with representatives from the Australian, State and Territory Government departments, agencies, several State grants commissions, a number of business groups, several past State Under Treasurers and a range of academics and others specialising in federalism and tax policy. The Commission also consulted with individuals who have worked on previous reviews of the HFE process.

The Commission held public hearings in Adelaide, Brisbane, Darwin, Hobart, Melbourne and Perth (table A.3).

The final inquiry report was delivered to the Australian Government on 15 May 2018.

The Commission thanks all parties who have contributed to this inquiry.

Table A.1 Public submissions^a

<i>Participant</i>	<i>Submission number</i>
ACT Government	49, DR81
Anwar Shah	DR103
Arthur Downing	56
Association of Mining and Exploration Companies	23
Australian Bankers' Association	55
Australian Chamber of Commerce and Industry	40
Australian Conservation Foundation	DR65
Australian Medical Association (NT)	DR101
Australian Petroleum Production and Exploration Association	18, DR73
BHP Billiton	42
Business Council of Australia	47, DR100
Business SA	26, DR94
Central Land Council	DR95
Chamber of Commerce and Industry of Western Australia (CCIWA)	11, DR86
Chamber of Commerce and Industry Queensland (CCIQ)	21, DR120
Chamber of Minerals and Energy of Western Australia	29
Chris Egan	17
Climate Change Our Future	DR104
Commonwealth Grants Commission	1, DR61
Community and Public Sector Union (CPSU)	DR98
Damien Kelly	DR77
David Burt	DR64
Doug Buckley	3, DR57
Financial Services Council (FSC)	DR90
George Williams	2
Grattan Institute	24
Great Northern Telecommunications	13
Griffith University	DR116
Institute of Public Affairs	DR91
Insurance Council of Australia	DR70
Jack Priestley	DR59
James McDonald	16
Janine Harding	19
Jerome Fahrer and Vince FitzGerald	DR102
Jim Hancock	54
John McAuley	7, 50, DR58, DR112
John Pitman	5, DR62
Jonathan Pincus	DR96
Julie Matheson for Western Australia Party	4
Ken Clarke	DR67
Launceston Chamber of Commerce	DR97
Local Government Association of Queensland	DR121

(continued next page)

Table A.1 (continued)

<i>Participant</i>	<i>Submission number</i>
Lock the Gate Alliance	20
Master Builders NT	DR99
Michael Chaney, Andrew Forrest, John Poynton and Nigel Satterley	41
Michael Dillon	DR68
Minerals Council of Australia (MCA)	34, 48, DR82
Neil Warren	38
Northern Territory Government	51, DR69
Northern Territory Opposition	31, DR78
NSW Business Chamber (NSWBC)	27, DR85
NSW Government	52, DR109
Office of Senator Peter Georgiou	DR122
Parliamentary Liberal Party of WA	22, DR107
Parliamentary National Party (PNP) WA	43, DR76
Pauline Hanson's One Nation WA	45
Peter Abelson	9
Peter Brohier	8, DR88
Peter Urban	DR123
Phillip Bubb	DR60
Put Western Australia First Party (PWAFP)	12, DR72
Queensland Council of Social Service	DR118
Queensland Council of Unions	DR117
Queensland Government	32, DR106
Queensland Nurses and Midwives' Union	DR110
Queensland Teachers' Union of Employees	DR119
Rebecca White (Member of Parliament)	39, DR63
Rio Tinto	37
Saul Eslake	DR71
Senator Peter Georgiou	44
South Australian Council of Social Service (SACOSS)	DR75
South Australian Government	25, DR89
Tasmanian Council of Social Services (TasCOSS)	DR66
Tasmanian State Government	28, DR74, DR111
Tasmanian Greens	30, DR79
The Australia Institute	33
Town of Port Hedland Council	DR105
Townsville City Council	DR113
Townsville Enterprise Limited	DR115
United Voice Queensland	DR114
Victorian Chamber of Commerce and Industry	DR92
Victorian Government	53, DR87
Victorian Trades Hall Council	DR93
WA Federal Liberal Members and Senators	35
WA Federal Parliamentary Labor Party	36

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Table A.1 (continued)

<i>Participant</i>	<i>Submission number</i>
WA Government	15, DR83, DR108
Wayne Muller	14
Wealth Wisdom Pty Ltd	10, BR8
Western Australia Council of Social Service (WACOSS)	DR84
Western Australian Local Government Association	46
Wilson Tuckey	6
Yothu Yindi Foundation (YYF)	DR80

^a DR before a number denotes that the submission was lodged subsequent to the release of the draft report in the inquiry report stage.

Table A.2 Consultations

Participant

ACIL Allen Consulting
ACT Government
Australian Bankers' Association
Australian Chamber of Commerce & Industry
Bruce Carter
Business Council of Australia
Centre of Policy Studies, Victoria University
Chamber of Commerce & Industry Queensland
Chamber of Commerce and Industry of Western Australia
Chris Murphy
Commonwealth Grants Commission
Commonwealth Treasury
Council on Federal Financial Relations
Crawford School of Public Policy
Deloitte Economics
Don Challen
Dr Lynne Williams
Dr Michael Vertigan
George Williams
Iain McLean
John Curtin Institute of Public Policy
Jonathan Pincus
Ken Henry
Local Government Consulting
Minerals Council of Australia
Neil Warren
New South Wales Government
Northern Territory Government
Office of the Economic Development Board of South Australia
Peter Brohier
Professor Anthony Mason
Professor Jeff Petchey
Professor John Freebairn
Professor Ross Garnaut
Professor Ross Williams
Queensland Government
Queensland Local Government Grants Commission
Robert Schwarz
South Australian Government
Saul Eslake
South Australian Centre for Economic Studies, University of South Australia
Tasmanian Government
The Hon John Brumby

(continued next page)

Table A.2 (continued)

Participant

The Hon Nick Greiner
University of Adelaide
University of Melbourne
Victorian Government
Victorian Grants Commission
Western Australian Government

Table A.3 Public Hearings

<i>Individual or Organisation</i>	<i>Transcript Page Numbers</i>
<i>Perth — 13 November 2017</i>	
Chamber of Commerce & Industry Western Australia	2-17
Western Australia Party	17-24
John Pitman	24-33
Put Western Australia First Party	33-46
Western Australia Party	46-57
<i>Perth — 14 November 2017</i>	
Department of Treasury Western Australia	59-92
Parliamentary National Party of Western Australia	92-106
Damien Kelly	106-115
Dr Mike Nahan	115-131
Eric Davies	131-135
<i>Melbourne — 17 November 2017</i>	
Victorian Government	138-166
Peter Brohier	166-169
ACIL Allen Consulting	170-184
John McAuley	185-188
Victorian Chamber of Commerce & Industry	188-197
Victorian Trades Hall Council	197-206
<i>Adelaide — 21 November 2017</i>	
South Australian Council of Social Services (ACOSS)	212-222
Business South Australia	223-232
South Australian Centre for Economic Studies	232-242
Urban Development Institute of Australia	243-249
Peter and Linda Emery	249-258
South Australian Tourism Industry Council	259-266
Jonathan Pincus	267-270
<i>Darwin — 28 November 2017</i>	
Yothu Yindi Foundation	271-288
Australian Education Union NT	288-299
Minerals Council of Australia NT	300-312
Bespoke Territory	312-325
Community & Public Sector Union NT and Electrical Trades Union NT	326-335
Australian Medical Association NT	336-341
Northern Land Council	342-348

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Table A.3 (continued)

<i>Individual or Organisation</i>	<i>Transcript Page Numbers</i>
Aboriginal Medical Services Alliance NT	349-360
Gerry Wood	361-369
 <i>Darwin — 29 November 2017</i>	
Northern Territory Government	371-387
Northern Territory Opposition	388-399
Northern Territory Government	399-411
Northern Territory Airports	411-417
Australian Hotels Association NT	417-424
Master Builders NT	425-426
Luke Gosling	427-428
 <i>Hobart — 1 December 2017</i>	
Tasmanian Council of Social Services	430-440
Tasmanian Government	440-460
Tasmanian Opposition	461-469
Saul Eslake	470-484
Launceston Chamber of Commerce	485-493
Tasmanian Chamber of Commerce & Industry	493-495
 <i>Brisbane — 5 February 2018</i>	
Griffith University	499-511
Chamber of Commerce & Industry Queensland	511-522
Queensland Council of Social Service	522-534
Queensland Council of Unions	534-546
Queensland Teachers' Union	546-556
Office of Senator Peter Georgiou	557-569
Townsville City Council	569-577
Local Government Association of Queensland	577-583
Gene Tunny	583-585
Queensland Government	586-606

B Other Commonwealth payments

This appendix considers the role that Commonwealth payments — excluding GST payments — play in horizontal (and vertical) fiscal equalisation. These payments, referred to as payments for specific purposes, can have differing effects on the calculation of relativities by the Commonwealth Grants Commission (CGC).

B.1 Types of payments for specific purposes

Payments for specific purposes comprise:

- National Specific Purpose Payments (National SPPs)
- National Health Reform funding
- Quality Schools funding
- National Partnership payments.

The relative sizes of these payments are illustrated in figure B.1.

National Specific Purpose Payments

There are currently three service delivery sectors supported by National SPPs: Skills and Workforce Development, Disability Services, and Affordable Housing. From 2018-19, the National Affordable Housing SPP is scheduled to be combined with homelessness funding, provided under the National Housing and Homelessness Agreement (Commonwealth of Australia 2017b).

National SPPs are allocated to the States based on population shares, and States must spend National SPPs in the sector for which they are granted. The share of federal fiscal transfers via National SPPs was much larger in the recent past (\$24.4 billion in 2009-10) (Commonwealth of Australia 2010), but two previous key national SPPs (health and education) take a different form now.

National Health Reform funding

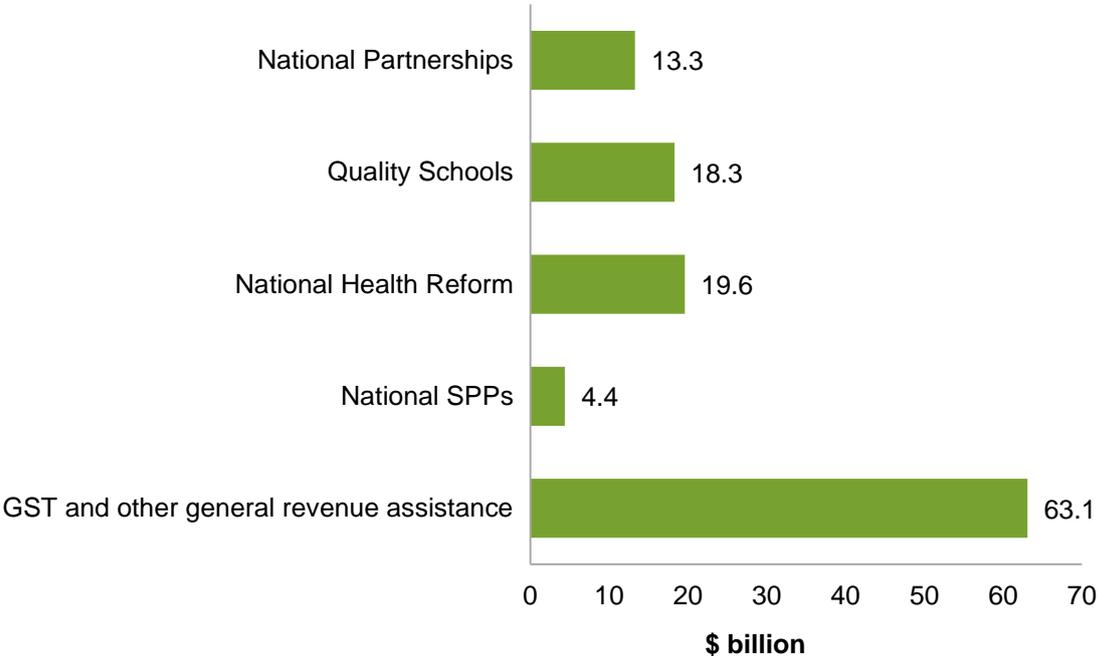
The National Health Reform Agreement, endorsed by the Council of Australian Governments (COAG) in 2011, made provision for the Commonwealth and States to share in the costs of funding public hospitals, with the States to continue as the managers of public

hospital systems. National Health Reform funding from 2016-17 to 2019-20 is linked to the level of services provided by public hospitals. Each State’s entitlement is directly linked to growth in public hospital activity in that State and the national efficient price for each procedure (adjusted for differences in patient characteristics), determined by the Independent Hospital Pricing Authority (Commonwealth of Australia 2017b). (This arrangement is effectively a form of usage-only equalisation, since it compensates hospitals for differences in usage, but not for most differences in costs between identical procedures. It therefore goes some way towards equalising States’ health expenditure needs — section B.2 elaborates on this concept.)

The Commonwealth’s contribution to hospital services between 1 July 2017 and 30 June 2020 will comprise funding for:

- public hospital services provided to public patients in a range of settings, as well as eligible private patients in public hospitals in a range of settings, on an activity basis
- block grants, including relevant services in regional and rural communities
- public health activities (COAG 2017).

Figure B.1 Total Commonwealth payments to the States^a
2017-18



^a As projected in the 2017-18 Mid-Year Economic and Fiscal Outlook. The GST is projected to comprise \$62.4 billion (approximately 99 per cent) of general revenue assistance in 2017-18. Other general revenue assistance includes payments for municipal services in the ACT, Snowy Hydro Limited tax compensation, and royalties.

Source: Commonwealth of Australia (2017e).

Quality Schools

From 1 January 2018, new funding arrangements associated with the Quality Schools package took effect. Under this arrangement, the Commonwealth will be the primary funding source for non-government schools, with a target to fund 80 per cent of the School Resource Standard for those schools. By contrast, the Commonwealth will be the secondary funding source for government schools, with a target of funding 20 per cent of the School Resource Standard for these schools (DET 2017b).

Nationally, on average, per student funding is to grow by:

- 4.1 per cent each year to 2027 for the Independent school sector
- 3.5 per cent each year to 2027 for the Catholic sector
- 5.1 per cent each year to 2027 for the Government sector (Commonwealth of Australia 2017d).

Students with the same need within the same school sector will receive the same support from the Commonwealth, regardless of the State in which they live. However, students with greater needs — assessed at the Commonwealth level and based on a range of factors, predominantly socioeconomic — will attract higher levels of Commonwealth funding (DET 2017a).

The schools that need the most additional resources will receive the fastest increase in funding (DET 2017b). This feature, along with the differing funding structures for government and non-government schools by the Commonwealth, will have implications for the amount of Commonwealth funding received by each State.

National Partnership payments

The Intergovernmental Agreement on Federal Financial Relations (IGAFFR) makes provision for National Partnership (NP) payments to the States to support the delivery of specific projects or outputs, facilitate reforms, and provide a mechanism to reward jurisdictions that deliver nationally significant reforms (COAG 2011). NPs are usually entered into for a fixed period of time, contingent upon the nature of the project or reform involved (Commonwealth of Australia 2017b, p. 11). There are three types of NP payments:

- **Project payments** are financial contributions to States to assist with the delivery of specific projects — such as improvements in the quality or quantity of service delivery, or projects that support national objectives (for example, specific infrastructure projects with national benefits). A project payment is typically (but not always) made in arrears, *after* a State has achieved particular milestones specified in the project agreement. Examples of NP project payments include funding distributed under the Natural Disaster Resilience and Bushfire Mitigation Partnership Project Agreements.
- **Facilitation payments** are made to assist States with progressing or achieving nationally significant reform, typically in recognition of the costs of initiating reform or pursuing

continuous improvement in service delivery (therefore, facilitation payments are less targeted towards discrete tasks than are project payments, but there *must* be a national benefit to the reform). Facilitation payments are primarily made in advance. Funding distributed under the (now concluded) National Partnership Agreement on Remote Indigenous Housing is an example of a facilitation payment.

- **Reward payments** are provided to States that deliver or progress nationally significant reform. They are contingent on the achievement of performance benchmarks and as such are paid in arrears. For example, the National Partnership Agreement to Deliver a Seamless National Economy makes provision for reward payments to the States based on the achievement of milestones in the areas of deregulation, competition reform, and regulatory reform (COAG 2009, 2011).

B.2 Treatment of payments for specific purposes in the GST distribution

Given that many payments for specific purposes are targeted towards areas where States have direct responsibility for service delivery, many such payments are taken into account by the CGC in State fiscal capacity assessments — either as part of State revenue, or as an offsetting reduction in State expenditure needs. Commonwealth payments are one of the eight categories of revenue taken into consideration by the CGC in its assessments of State fiscal capacities (chapter 2).

Some payments, however, are excluded from fiscal capacity assessments (‘quarantined’), or are heavily discounted (often by 50 per cent) — often, but not always, on the grounds that they support projects or reforms that reflect the broader needs of the nation, rather than the circumstances of individual States. Decisions to quarantine or discount Commonwealth payments are made by both the Commonwealth Treasurer and the CGC.

How is a payment’s inclusion or exclusion decided?

There are three steps in any Relativity Update or Methodology Review process where a payment may be specifically included or excluded from fiscal capacity assessments.

Step 1: The Intergovernmental Agreement on Federal Financial Relations

The IGAFRR sets out three general principles for the treatment of Commonwealth payments (schedule D, s 66(a)):

- General revenue assistance (excluding GST) should be treated by inclusion, recognising that these payments provide States with untied general budget support (COAG 2011).

-
- National SPPs, National Health Reform funding, and National Partnership *project* payments should be treated by inclusion, in recognition of the fact that these payments provide States with budget support for providing standard State public services.
 - National Partnership *facilitation* and *reward* payments should be treated by exclusion, so that any benefits to a State from achieving outputs or reforms specifically sought by the Commonwealth are not redistributed to other States through the HFE process.

This principle is typically reproduced in the terms of reference provided by the Commonwealth Treasurer for each Relativity Update and CGC Methodology Review.

Schedule D to the IGAFRR also provides for the CGC to exercise discretion over the inclusion or exclusion of some payments on a case-by-case basis:

- S 66(c): a particular component of general revenue assistance may be treated as ‘out of scope’ (that is, quarantined from HFE) if the CGC considers this to be appropriate.
- S 67: after consultation with the Commonwealth and States, the CGC may treat any National Partnership payment differently to the general principles, if it considers this to be appropriate.

Step 2: The terms of reference for Relativity Updates or Methodology Reviews

Where the IGAFRR is silent on the treatment of a particular payment, the Commonwealth Treasurer is mostly responsible for decisions regarding the payment’s inclusion, discount or exclusion in HFE calculations, and facilitates this by specifying the treatment of particular payments in the Relativity Update and Methodology Review terms of reference.

It is not uncommon for the Treasurer to quarantine a Commonwealth payment from future GST distributions where the funding agreement supports a project with national or cross-state benefits, or targets particular needs or shortfalls of individual States that may not be recognised in the CGC’s analyses. For example, table B.1 shows a sample of the Commonwealth payments that have been explicitly excluded from, or discounted for, the CGC’s assessment of fiscal capacities (by the Treasurer’s terms of reference) over the last five years. Many of these payments offer national or cross-state benefits.

However, in terms of value, only a small proportion of Commonwealth funding overall is quarantined — for example, in 2016-17, approximately 5 per cent of Commonwealth payments for specific purposes were excluded by terms of reference requirements (CGC pers. comm., 5 April 2018).

Schedule D to the IGAFRR also gives the Commonwealth Treasurer an explicit discretion to vary, via the terms of reference, the treatment of National Partnership payments from that laid out in the general principles (s 67(b)).

For some payments, the terms of reference do not stipulate a specific treatment, but do proscribe a particular *unwanted* outcome with regard to a payment. For example, the terms of reference for the 2015 Methodology Review state:

6. The [CGC] will ensure that the GST distribution process will not have the effect of unwinding the recognition of educational disadvantage embedded in the National Education Reform Agreement (NERA) funding arrangements. The Commission will also ensure that no State or Territory receives a windfall gain through the GST distribution from non-participation in NERA funding arrangements. (CGC 2015e, p. vii)

Table B.1 Selected Commonwealth payments quarantined or discounted by Treasurer, 2012-13 Update to 2017-18 Update^a

<i>Payment/partnership agreement</i>	<i>Recipient state</i>	<i>Year first quarantined/ discounted</i>	<i>Estimated value, 2011-12 onwards (\$m)</i>	<i>Treatment</i>
Centenary of Canberra – A Gift to the National Capital	ACT	2012	62	Excluded
Macquarie Point Railyards Precinct Remediation Project	Tas	2013	50	Excluded
Tasmanian Forests Intergovernmental Agreement	Tas	2013	53	Excluded
Stronger Futures in the Northern Territory (2 nd Implementation)	NT	2014	514	Excluded
South Australian River Murray Sustainability Program	SA	2014	285	Excluded
Commonwealth Government forgiveness of South Australian Government public housing debts	SA	2014	320	Excluded
Commonwealth payments for major roads ^b (including WestConnex, East–West Link, Western Sydney Infrastructure Plan, Perth Freight Link)	All except Tas and ACT	2015	9 400	50 per cent discount
Infrastructure Growth Package: Asset Recycling Fund (all States eligible, but not all have yet recycled assets)	ACT, NSW, NT, SA	2015	4 132	Excluded
Northern Territory Remote Aboriginal Investment	NT	2015	949	Excluded
Royal Victorian Eye and Ear Hospital Redevelopment	Vic	2016	100	Excluded
Infrastructure Projects in Western Australia	WA	2016	1 215	Excluded

^a The value listed is the total amount of funding (as stipulated in the funding agreement or Commonwealth Budgets) to be distributed over the life of the agreement; for some payments this extends to the 2020-21 financial year. This is the case because the terms of reference usually stipulate that, once a payment has been quarantined, the CGC should continue to treat it in the same manner until the agreement expires.

^b Some funding has been redirected to other State projects (following the cancellation of infrastructure projects such as the East–West Link and the Perth Freight Link) but has, thus far, remained discounted.

Sources: CGC (2017k, p. 2); COAG (2012b, 2014); Commonwealth of Australia (2012, 2013, 2014a, 2014b, 2015a, 2015b, 2016a, 2016b, 2017b, 2017f).

Step 3: The CGC's discretion

Where the Commonwealth has not specified the treatment of a particular payment in the terms of reference, or has given the CGC a discretion as to its treatment, the CGC may include, exclude or discount that payment according to the principles of HFE.

In the 2015 Methodology Review, the CGC adopted a new single guideline for *including* payments where a case-by-case discretion exists: ‘payments which support State services, and for which expenditure needs are assessed, will impact the relativities’ (CGC 2015f, p. 37). This guideline continues to apply.

Where expenditure needs are assessed, but the CGC is not confident that the assessment is entirely policy-neutral (or of its accuracy), the value of a Commonwealth payment will often be discounted so that its impact on relativities is mitigated. For example, in the 2017 Relativity Update, the CGC applied a 50 per cent discount on payments directed at improving the national road network, stating that the assessment may not have captured all non-policy influences (that is, structural disadvantages or ‘disabilities’) on State expenditure needs (CGC 2017k, p. 32).

Figure B.2 shows the number of Commonwealth payment agreements (by sector) that were included, excluded or discounted for HFE purposes in the 2017 Relativity Update. As the scale of funding varies enormously between agreements, this is not necessarily representative of the total amount of revenue included, excluded or discounted.

The effect of HFE on Commonwealth payment outcomes

Needs-based Commonwealth payments have something of a symbiotic relationship with HFE — at least where the assessment of need for a particular payment is similar to the CGC’s assessment — given that both arrangements target funding away from equal per capita (EPC) distributions. The CGC highlighted this feature in the 2015 Methodology Review:

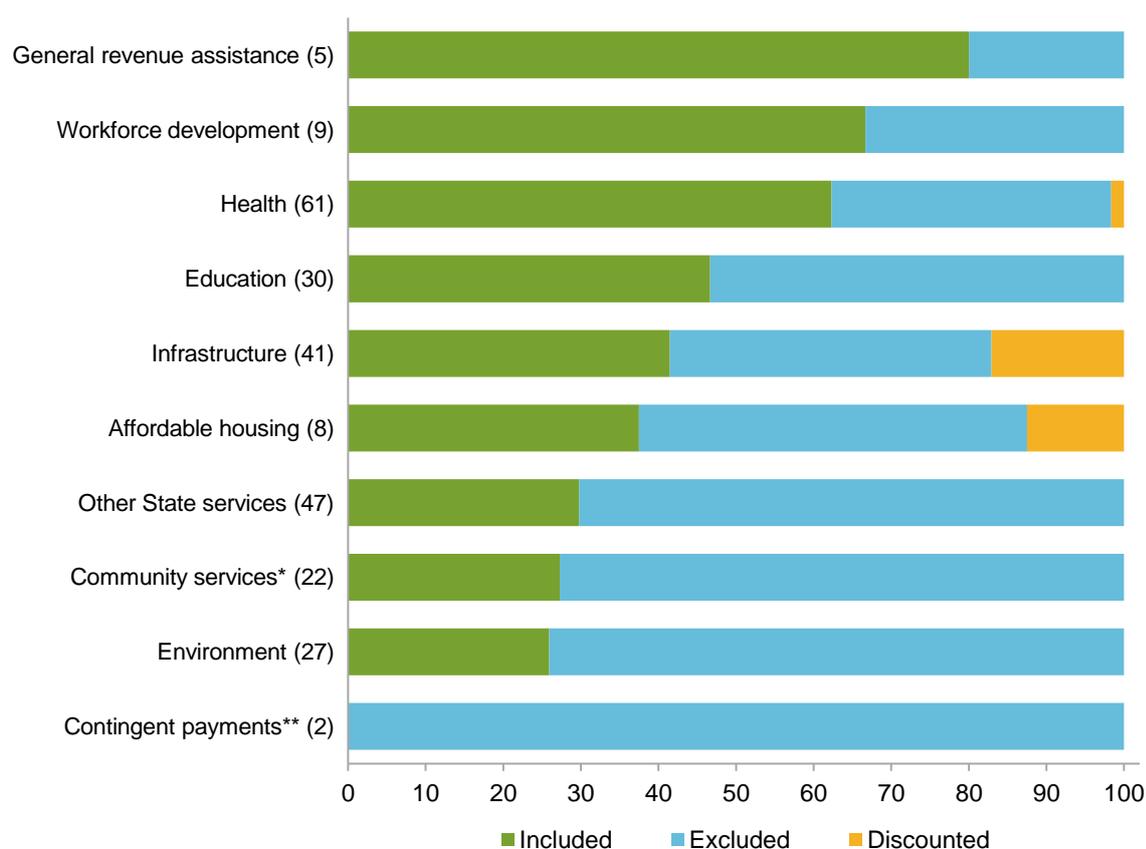
The closer Commonwealth payments in total are to an EPC distribution, the more work the GST has to do in meeting State needs. A larger proportion of the GST will be required for equalisation purposes. If the payments are distributed in a manner consistent with the Commission’s assessment of needs, this will reduce the extent to which GST is redistributed. State needs have already been met by the Commonwealth payments. (CGC 2015f, p. 47)

For example, both education and health funding have moved from primarily EPC arrangements to more needs-based (or activity-based) arrangements, as detailed in section B.1. This would partly reduce the difference between a State’s expenditure needs and available revenue, thus reducing the amount of GST required for equalisation purposes, all else equal (though, given that different bodies assess those needs, it is not likely to compensate for the entire gap). As such, many — but not all — components of both funding streams are treated by inclusion:

The [National Health Reform] funding directly impacts on State fiscal capacities as it assists to fund health services. The expenses funded by these payments are included in the category

expenses. ... The NPPs that assist States [to] fulfil *their* responsibility in delivering health services are treated in the same manner as the [National Health Reform] funding. Payments for purposes *outside* State responsibilities, such as to the Royal Darwin Hospital for the operation of a national critical care and trauma response centre, have no impact on State fiscal capacities and the payments are removed from category expenses. [emphasis added] (CGC 2015f, p. 175)

Figure B.2 Treatment of Commonwealth payments, 2017-18^a
Per cent of payment arrangements included, excluded and discounted by sector



^a Proportions shown are the numbers of payments treated each way, not the values of those payments. The total number of payment arrangements for each sector is shown in parentheses. Some arrangements are nationwide programs (meaning they involve payments to all States); some are for individual States.

* Including disability programs. ** Hepatitis C settlement fund; natural disaster relief and recovery funding.

Source: CGC (2017k).

However, where a payment is targeted in a different fashion (or at a different policy objective) to overall equalisation, the application of the CGC's guideline may work against that policy objective unless the payment is specifically quarantined by the terms of reference:

We consider that in exercising our discretion we can be guided only by the objective of the GST distribution which is the principle of HFE. The appropriate treatment of a particular payment where we have discretion is that which improves the HFE outcome.

We are aware there are other policy objectives behind the distribution of Commonwealth payments. However, we do not consider we have been asked to choose among objectives in

advising on the GST distribution. We have no discretion other than that which improves the HFE outcome. (CGC 2015f, p. 36)

The net effect of Commonwealth payments on the distribution of GST varies by State. In general, payments made by the Commonwealth to the States affect GST payments, because Commonwealth payments are used to fund assessed expenses. For example, the Northern Territory receives an above-average amount of Commonwealth payments, reducing its need for GST payments (CGC 2015f, p. 47). States with an above-average capacity to raise own-source revenue will have a lower requirement for Commonwealth funding to meet their assessed expenses.

Commonwealth payments directly affect the fiscal capacity of States by providing a source of revenue. However, Commonwealth payments also increase State expenditure, and for those States that need to spend more than the national average, the spending of Commonwealth revenue will increase GST requirements (CGC 2015f, p. 48). As a result, the net effect of the impacts of Commonwealth payments determines what the implications for a State's GST payments will be. In 2017-18, the total impact of Commonwealth payments on New South Wales, Victoria, Queensland, the ACT and the Northern Territory was negative, but was positive for the other States (table B.2).

Table B.2 Net effect on GST distribution of Commonwealth payments
2017-18, difference from an EPC distribution

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Total impact (\$m)	-75	-121	-129	278	126	24	-17	-85
Revenue impact (\$m)	103	272	-242	17	146	-24	62	-335
Expenses impact (\$m)	-178	-393	113	261	-20	48	-79	249
Total impact (\$pc)	-10	-19	-26	104	73	46	-42	-347
Revenue impact (\$pc)	13	44	-49	6	84	-46	155	-1 361
Expenses impact (\$pc)	-23	-63	23	97	-11	92	-197	1 014

Source: CGC (2018g).

Case study: treatment of school funding

Commonwealth funding for government (public) primary and secondary schools is an example of a payment stream for which all three steps detailed above have included specific inclusion or exclusion stipulations in recent years. Table B.3 shows the impact of movements in the government school funding distribution on GST payments, compared to an EPC distribution, for the last five years.

Table B.3 Effect of government school funding on GST payments^{a,b}

<i>Financial/update year</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total</i>
	<i>\$m</i>	$m	$m	$m	$m	$m	$m	$m	$m
2013-14									
Funding allocation	1 407	1 035	964	465	334	123	68	92	4 488
Assessed difference from EPC	-13	51	-37	12	4	-10	5	-13	73
2014-15									
Funding allocation	1 615	1 236	1 135	515	375	156	78	138	5 247
Assessed difference from EPC	68	63	-91	39	9	-31	8	-65	187
2015-16									
Funding allocation	1 758	1 361	1 291	562	405	164	83	144	5 766
Assessed difference from EPC	99	83	-134	36	13	-30	16	-83	247
2016-17^c									
Funding allocation	2 036	1 504	1 482	598	432	177	88	181	6 498
Assessed difference from EPC	46	105	-156	78	29	-33	17	-87	276
2017-18^c									
Funding allocation	2 261	1 609	1 622	648	463	186	96	196	7 081
Assessed difference from EPC	46	134	-142	17	22	-22	16	-70	235

^a School funding includes funding provided under the National Schools SPP (until 2014) and under the Students First framework (from 2014 onwards). It does not include funding provided under the Building the Education Revolution framework or other National Partnership agreements. ^b 'Assessed difference from EPC' is calculated, per the CGC's standard formula, on the basis of a lagged three-year average. As such, the assessed difference for any particular year does not reflect the funding allocation *for that year*, but for all three of the assessment years overall. ^c Projected (the move from Students First to Quality Schools has meant that final funding levels for 2016-17 have not yet been determined (Commonwealth of Australia (2017f)).

Sources: CGC (2013c, 2014, 2015b, 2016a, 2017b); Commonwealth of Australia (2013, 2014a, 2015a, 2016a, 2017b).

The treatment of the major government school funding arrangements has been as follows.

- At the time the IGAFRR was made (2011), school funding was provided under a National SPP on an EPC basis, and as such was automatically treated by inclusion (though 'Rewards for Great Teachers' bonus payments were excluded by the standard terms of reference, as they took place under a NP reward agreement) (COAG 2012a; Harrington 2013).
- In 2013, the National Education Reform Agreement (COAG 2013) saw this SPP replaced by needs-based 'Students First' funding (which, as discussed above, will soon be replaced by Quality Schools funding arrangements). As such, the IGAFRR is now silent on the treatment of school funding.
- In 2016, the terms of reference for the CGC Relativity Update were also silent on the treatment of Students First funding (Morrison 2016). The CGC treated this funding as follows (CGC 2016d, p. 23).

-
- Funding for government (public) schools was treated by inclusion, and therefore had an impact on relativities (given that education is a standard State public service).
 - Funding for non-government (private) schools was treated by exclusion (and therefore had no impact on relativities) because States only act as an intermediary for such funding, transferring it to individual schools with no control over its spending. States' needs for non-government school funding is also not assessed by the CGC.
 - In 2017, the terms of reference for the Relativity Update stipulated that Students First funding (for government schools) should affect relativities. The treatment of funding for non-government schools was not prescribed. Accordingly, the CGC treated Students First funding in the same way as 2016 (CGC 2017k, p. 7).

The CGC (2017d, p. 18) has indicated that the differences between Quality Schools funding and the previous National Education Reform funding (Students First) are minor. The current terms of reference (for NERA funding) require that the CGC:

- not unwind the recognition of educational disadvantage embedded in the needs-based funding arrangements
- ensure that no State received a windfall gain from non-participation in the arrangement (CGC 2015e). This is less relevant for Quality Schools, as it is more of a unilateral process run by the Commonwealth, where Students First relied on States' cooperation (CGC 2017d, p. 18).

C Calculations and cameos

The Productivity Commission has estimated the GST distribution implications of a range of relativity calculation methods in assessing the impacts of Australia's HFE system and evaluating alternative approaches to redistribution of the GST pool. The methods analysed include:

- alternative approaches, which represent significant departures from the current implementation of HFE by the Commonwealth Grants Commission (CGC) and alter the extent to which States' fiscal capacities are equalised. These include various alternative benchmarks of equalisation to less than the strongest State
- specific 'in system' adjustments to HFE using the current equalisation benchmark.

This appendix also examines how a State's choice of tax rates and levels of expenditure can affect its GST payments. These 'average rate effects' are mechanical and driven by the CGC's implementation of HFE. Their effects on States' incentives and decision making are discussed in chapter 3. Finally, this appendix considers three in-depth cameos of State tax reforms to illustrate how unilateral and multilateral reforms can affect GST payments.

C.1 Alternative approaches to equalising States' fiscal capacities

The calculations presented below follow the CGC's approach of using three years of data (2014-15, 2015-16, and 2016-17 — the 'assessment years') to calculate each State's GST payment for the current year (2018-19 — the 'application year').

Equal per capita

An equal per capita (EPC) approach simply distributes the total GST pool (an estimated \$65.8 billion in 2018-19) by each State's share of the Australian population. Compared to current HFE arrangements, an EPC distribution would benefit fiscally stronger States at the expense of fiscally weaker States. How States might fare under this approach will vary over time and, given their susceptibility to revenue shocks, their positions could change markedly from the snapshot portrayed in table C.1. In the current environment, an EPC distribution would see more GST revenue flow to New South Wales, Victoria and Western Australia, and commensurately less to the remaining States, with the Northern Territory experiencing the largest reduction in per capita terms.

If a ‘top up’ payment was used to maintain the current approach so that fiscally weaker States would not lose out under an EPC distribution, this would come at a total cost of \$6.8 billion.

Table C.1 Effects of equal per capita distribution
2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Equal per capita	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Change in GST payments								
\$m	3 021	201	-1 284	3 618	-2 188	-1 059	-200	-2 109
\$pc	376	31	-256	1 380	-1 257	-2 018	-479	-8 559
% change in State revenue	3.7	0.3	-2.3	12.2	-11.4	-17.7	-3.6	-39.2

Source: Productivity Commission estimates based on data provided by the CGC.

Equalisation to less than the strongest State

Equalisation to less than the strongest State involves lifting States up to some agreed level of fiscal capacity, but not bringing them up to the fiscally strongest State as presently occurs. The balance of the GST pool would then be distributed on an EPC basis. There are many possible variants of this form of equalisation.

Equalisation to the average

One approach to this could involve distributing GST payments to raise fiscally weaker States to the average fiscal capacity of all States. This involves using the current CGC approach to fund the weaker States based on the additional amount needed above their EPC share to address their (above average) assessed fiscal needs. It then apportions the remaining GST pool to all States on an EPC basis.

For the 2018 financial year relativity calculations, all States but New South Wales, Victoria and Western Australia require GST payments to reach this fiscal capacity. The difference between GST payments under this approach and current practices are presented in table C.2. For 2018-19, this approach would reduce GST payments to all States but New South Wales and Western Australia.

Table C.2 Effects of equalisation to the average

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Equalisation to the average	0.90	0.90	0.99	0.90	1.38	1.67	1.08	4.16
Change in GST payments								
\$m	833	-1 570	-1 368	2 903	-474	-143	-114	-67
\$pc	104	-242	-273	1 108	-273	-273	-273	-273
% change in State revenue	1.0	-2.3	-2.4	9.8	-2.5	-2.4	-2.0	-1.2
Total redistribution from EPC								
Current approach							\$6 840 million	
Equalisation to the average							\$4 757 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Equalisation to the second strongest State

An alternative approach is to raise States to the fiscal capacity of the second strongest State. This involves using the current CGC approach to fund the weaker States based on the additional amount needed above their EPC share (in the same way as table C.2), and then funding the six weakest States to raise them to the fiscal capacity of the second strongest State (currently New South Wales). The remaining GST pool is then distributed to all States on an EPC basis. The GST payments and relativities associated with this approach are presented in table C.3.

Table C.3 Effects of equalisation to the second strongest State

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Equalising to the second strongest State	0.82	0.95	1.06	0.82	1.44	1.73	1.14	4.22
Change in GST payments								
\$m	-842	-681	-526	2 357	-182	-55	-44	-26
\$pc	-105	-105	-105	899	-105	-105	-105	-105
% change in State revenue	-1.0	-1.0	-0.9	8.0	-0.9	-0.9	-0.8	-0.5
Total redistribution from EPC								
Current approach							\$6 840 million	
Equalisation to the second strongest State							\$6 006 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Equalisation to the average of the fiscally strong States

A similar approach is to set the equalisation standard to the weighted average of the fiscally stronger States. For the 2018-19 application year relativity calculations, the average relativity of the fiscally strong States was 0.85. This approach raises States to this standard, with the remaining GST pool distributed to all States on an EPC basis. For 2018-19, this approach would reduce GST payments to all States but Western Australia (table C.4).

Table C.4 Effects of equalisation to the average of the fiscally strong States

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Average of fiscally strong States	0.82	0.95	1.06	0.81	1.44	1.73	1.14	4.23
Change in GST payments								
\$m	-823	-666	-515	2 303	-178	-54	-43	-25
\$pc	-102	-102	-102	879	-102	-102	-102	-102
% change in State revenue	-1.0	-1.0	-0.9	7.8	-0.9	-0.9	-0.8	-0.5
Total redistribution from EPC								
Current approach							\$6 840 million	
Average of fiscally strong States							\$6 025 million	

Source: Productivity Commission estimates based on data provided by the CGC.

90 per cent full equalisation

In its post-draft submission, the CGC (sub.DR61) illustrated two other possible distributional approaches of less than full equalisation. This included a ‘symmetric approach’, which isolates part of the GST pool to be distributed evenly per person, with the remainder of the pool distributed using the CGC’s current approach.

The CGC’s example applied an EPC distribution for 10 per cent of the GST pool, and applied the current relativities to the remaining 90 per cent of the GST pool. This approach increases GST payments for the fiscally strong States and reduces them for fiscally weaker States, with the biggest per capita changes for Western Australia, Tasmania and the Northern Territory (table C.5).

Table C.5 Effects of 90 per cent full equalisation

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
90 per cent full equalisation	0.87	0.99	1.09	0.53	1.43	1.69	1.16	3.94
Change in GST payments								
\$m	302	20	-128	362	-219	-106	-20	-211
\$pc	38	3	-26	138	-126	-202	-48	-856
% change in State revenue	0.4	0.0	-0.2	1.2	-1.1	-1.8	-0.4	-3.9
Total redistribution from EPC								
Current approach							\$6 840 million	
90 per cent full equalisation							\$6 156 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Full equalisation for the smallest States

The second example illustrated by the CGC was for full equalisation for the small States only. This approach applies the current ‘full equalisation’ amounts of GST to the four least populous States, while the four most populous States would receive an equal per capita distribution of the remainder of the GST pool (roughly \$53 billion). Relative to the current approach, Western Australia and New South Wales would be better off while Victoria and Queensland would be worse off (table C.6).

Table C.6 Effects of full equalisation to the small States only

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Small States only	0.90	0.90	0.90	0.90	1.48	1.77	1.18	4.26
Change in GST payments								
\$m	1 009	-1 427	-2 542	2 961	0	0	0	0
\$pc	126	-220	-506	1 129	0	0	0	0
% change in State revenue	1.2	-2.1	-4.5	10.0	0.0	0.0	0.0	0.0
Total redistribution from EPC								
Current approach							\$6 840 million	
Small States only							\$5 556 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Relativity floors

Relativity floors set a minimum value below which relativities cannot fall. This example applies a relativity floor of 0.70 or 0.50. The only State currently below 0.70 is Western Australia, and as such, introducing a relativity floor would require a transfer from all other States to Western Australia. For 2018-19, the size of this transfer would be about \$1.6 billion (for a floor of 0.70). These funds are redistributed from the other States on an equal per capita basis, leaving all States but Western Australia worse off (table C.7).

Table C.7 GST effects of a relativity floor
2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
0.50 relativity floor	0.85	0.99	1.09	0.50	1.48	1.77	1.18	4.26
0.70 relativity floor	0.83	0.96	1.07	0.70	1.45	1.74	1.16	4.24
Change in GST payments (\$m)								
0.50 relativity floor	-65	-52	-41	181	-14	-4	-3	-2
0.70 relativity floor	-556	-450	-348	1 556	-120	-36	-29	-17
Change in GST payments (\$pc)								
0.50 relativity floor	-8	-8	-8	69	-8	-8	-8	-8
0.70 relativity floor	-69	-69	-69	594	-69	-69	-69	-69
Change in GST payments (% of State revenue)								
0.50 relativity floor	-0.1	-0.1	-0.1	0.6	-0.1	-0.1	-0.1	0.0
0.70 relativity floor	-0.7	-0.7	-0.6	5.3	-0.6	-0.6	-0.5	-0.3
Total redistribution from EPC								
Current approach							\$6 840 million	
0.50 relativity floor							\$6 775 million	
0.70 relativity floor							\$6 289 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Actual per capita

An actual per capita distribution uses GST payments to fund the gap between a State's actual expenses (including infrastructure expenses) and the revenue it receives. New South Wales, Western Australia, the ACT and the Northern Territory would receive more GST payments than they currently receive, while Victoria, Queensland, South Australia and Tasmania would receive less (table C.8).

Table C.8 Effects of actual per capita distribution

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Actual per capita	0.87	0.94	0.96	0.72	1.34	1.47	1.68	5.77
Change in GST payments								
\$m	258	-709	-1,746	1,704	-626	-407	545	981
\$pc	32	-109	-348	650	-360	-776	1301	3 983
% change in State revenue	0.3	-1.0	-3.1	5.8	-3.2	-6.8	9.7	18.2
Total redistribution from EPC								
Current approach							\$6 840 million	
Actual per capita							\$6 049 million	

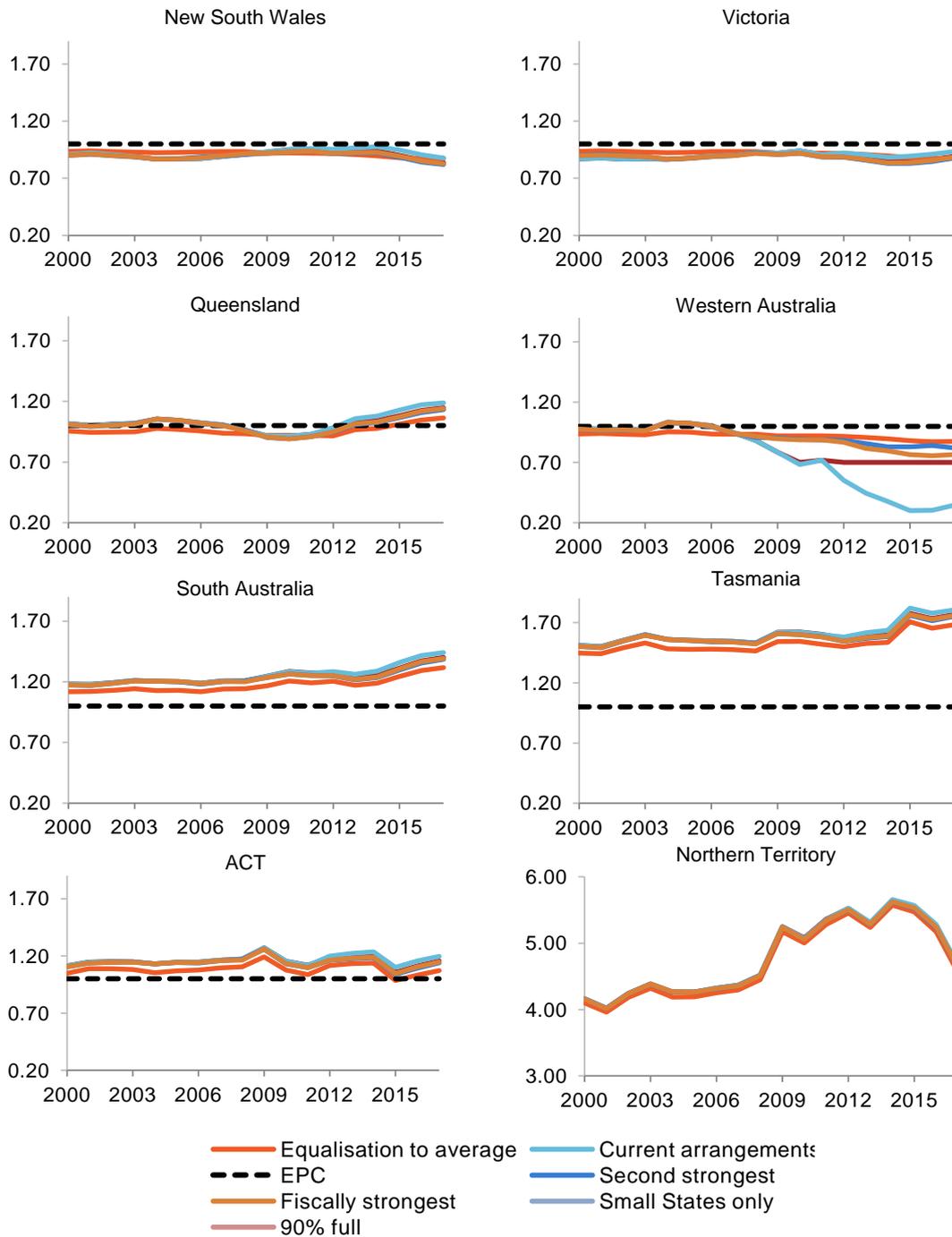
Source: Productivity Commission estimates based on data provided by the CGC.

Historical GST impacts of selected alternative approaches

The Commission has examined how alternative systems would have changed GST payments from the year 2000 onwards. Selected alternative approaches include a 0.70 floor, EPC distribution, equalisation to the average State and equalisation to the second strongest State (figure C.1).

Figure C.1 GST relativities

Under current and alternative distributions, 2000-01 to 2017-18



Source: Productivity Commission estimates based on data provided by the CGC.

C.2 Adjustments to the current HFE system

Discounting a share of royalties

Mineral royalty assessments have had substantial effects on GST payments in recent years. Discounting mineral revenue from the assessment involves calculating a proportion of assessed royalty revenue (the discount amount) on an EPC basis. Applying a 25 or 50 per cent discount to mineral royalty revenues to the current HFE system shifts GST payments to States with relatively larger mineral royalty revenue bases, including Queensland, Western Australia and the Northern Territory (table C.9).

Table C.9 Effects of discounts to the mineral royalty assessment
2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
25% discount	0.83	0.95	1.11	0.62	1.45	1.74	1.14	4.28
50% discount	0.81	0.90	1.12	0.83	1.42	1.70	1.09	4.30
Change in GST payments (\$m)								
25% discount	-428	-648	208	1042	-106	-40	-43	15
50% discount	-857	-1297	415	2086	-212	-79	-87	31
Change in GST payments (\$pc)								
25% discount	-53	-100	41	398	-61	-76	-104	63
50% discount	-107	-200	83	796	-122	-151	-207	125
Change in GST payments (% of State revenue)								
25% discount	-0.5	-1.1	0.4	3.9	-0.6	-0.7	-0.8	0.3
50% discount	-1.1	-2.1	0.7	7.7	-1.1	-1.4	-1.7	0.5
Total redistribution from EPC								
Current approach								\$6 840 million
25% discount								\$6 874 million
50% discount								\$6 907 million

Source: Productivity Commission estimates based on data provided by the CGC.

Discounting future tax rate changes

This cameo shows what the GST impacts on States could be from applying a discount to revenue associated with future tax rate changes, had such an approach been applied in the past. It is an illustration of the method being considered by the CGC to reduce the GST impact of a discretionary change in mining tax rates (CGC 2017j).

The calculations are based on the assumption that a discount would be applied such that the State undertaking the policy change would retain at least 50 per cent of any additional

revenue (or, conversely, bear at least 50 per cent of any revenue decrease). The cameo applies this discount to the increase in iron ore royalty rates in Western Australia from 2010, assuming the discount (and current mineral-by-mineral assessment) had been in place since that year (box C.1). In practice, the CGC did not change its assessment approach in response to the royalty rate change, but did receive direction from the Commonwealth Treasurer to adjust its assessments from 2011 to 2014 to reduce the fiscal impact on Western Australia (chapter 3).

Box C.1 Royalty rates on iron ore fines in Western Australia

In June 2010, the Western Australian Government announced that it would be removing the concessional royalty rate of 3.75 per cent that applied to about half the iron ore fines produced in the State. A royalty rate of 5.625 per cent would then apply to all iron ore fines produced in the State. In the 2011-12 Western Australian Budget, two further increases in the royalty rate applying to iron ore fines were announced — an increase in the rate to 6.5 per cent from 1 July 2012 and to 7.5 per cent from 1 July 2013. The second of these increases aligned the royalty rate on iron ore fines with that applying to lump iron ore.

Source: CGC (2017d).

Rationale

As part of the 2020 methodology review, the CGC is examining the method it uses to assess a State's ability to raise mining revenue. It has indicated that it is considering 'directly reducing the effect of a discretionary change in effective mining tax rates by the dominant State on the rate of tax used for the calculation of revenue capacity' (CGC 2017j, p. 29). Under this approach, no discount would apply to revenue that is a result of existing tax rates, but the additional revenue raised from an increase in tax rates would be subject to a discount (and, conversely, the reduction in revenue from a decrease in tax rates). The discount would be set such that the State retains at least 50 per cent of additional revenue raised.

The cameo analysis only considered the effect of discounting the iron ore assessment since 2010, as it is both the most significant part of the mining assessment (in terms of dollars redistributed) and is the least policy neutral. In practice, any change to effective royalty rates for gold and nickel over this period may have also been subjected to the discount had it been in place (chapter 7).

Assumptions

Before the 2016-17 application year, States' capacities to raise mining revenue were assessed using a different methodology than the current mineral-by-mineral assessment (chapter 3). So that the effects of the proposal could be compared on an even keel over time, the Commission assumed that a mineral-by-mineral assessment had been in place since 2010. This required re-calculating assessment year GST payments and relativities between 2010

and 2016 using the current methodology while holding all other assessments constant. The effect of the proposal was then compared against this new level (table C.10).

Table C.10 Baseline: relativities with a mineral-by-mineral assessment but no discount on iron ore royalty rate changes

Mining data from the 2018, 2017 and 2013 application years.

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>TAS</i>	<i>ACT</i>	<i>NT</i>
Assessment year relativities								
2010-11	0.97	0.88	1.12	0.34	1.32	1.50	1.24	5.43
2011-12	0.99	0.91	1.05	0.35	1.21	1.79	1.30	5.47
2012-13	0.94	0.88	1.12	0.33	1.36	1.77	1.10	6.03
2013-14	0.90	0.92	1.30	0.03	1.47	1.81	1.19	5.10
2014-15	0.88	0.99	1.14	0.31	1.43	1.77	1.18	4.40
2015-16	0.85	0.95	1.12	0.54	1.47	1.81	1.15	4.19
2016-17	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Application year relativities (3 year average of assessment year relativities)								
2012-13	0.95	0.92	0.98	0.58	1.30	1.58	1.19	5.28
2013-14	0.97	0.90	1.06	0.45	1.26	1.61	1.22	5.31
2014-15	0.97	0.89	1.10	0.34	1.30	1.69	1.21	5.65
2015-16	0.94	0.90	1.16	0.24	1.35	1.79	1.20	5.53
2016-17	0.91	0.93	1.19	0.22	1.42	1.79	1.16	5.18
2017-18	0.88	0.96	1.18	0.29	1.46	1.80	1.17	4.56
2018-19	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26

Source: Productivity Commission estimates based on data provided by the CGC.

Data provided by the CGC (from the 2018, 2017 and 2013 mining assessments) on the value of production in each State (the revenue base) and the total royalties (across all States) was used for each mineral category. State-by-State royalty data is not available, and so imputed iron ore royalties were calculated for each State. To do this, it was assumed that all States set the same average iron ore royalty rate in 2010 (5.099 per cent), with all States except Western Australia leaving their average royalty rate at this level between 2010 and 2017. Any change in royalties over the period was therefore due to either a change in the iron ore revenue base, or a change in Western Australia's average iron ore royalty rate²⁰. As each State's iron ore revenue base is known, this allowed an imputed average iron ore royalty rate to be calculated for Western Australia (table C.11).

²⁰ About 98 per cent of the iron ore revenue base is located in Western Australia. As a result any change in the national average iron ore royalty rate is almost entirely driven by changes in Western Australia's average rate.

Table C.11 Assumed average iron ore royalty rate

Per cent

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Western Australia ^a	5.099	6.267	6.099	6.762	7.162	7.306	7.299	7.285
All other States ^b	5.099	5.099	5.099	5.099	5.099	5.099	5.099	5.099
Total imputed royalty revenue (\$m)								
Western Australia	1 801	3 609	3 725	3 793	5 383	3 972	3 559	4 637
Due to royalty rate change	0	672	610	933	1 551	1 200	1 073	1 391
All other States	44	78	88	84	133	78	38	52
Total royalties^c	1 846	3 687	3 813	3 878	5 516	4 050	3 597	4 689

^a Imputed rate. ^b By assumption. ^c May not sum due to rounding.

Source: Productivity Commission estimates based on data provided by the CGC.

Calculations

The dollar value of royalties collected by Western Australia due to the change in its iron ore royalty rate was calculated by subtracting Western Australia's assumed average iron ore royalty rate in 2010 (5.099 per cent) from the imputed rate for that year (table C.11) and multiplying this number by Western Australia's iron ore revenue base. A discount factor (the proportion of additional revenues due to a royalty rate change that is to be subject to equalisation) was set such that exactly 50 per cent of this revenue would be retained. This factor is equal to the proportion of revenue to be retained (in this case 0.50) divided by the difference between Western Australia's share of the iron ore base and its population share:

$$\delta_t = \frac{0.5}{\text{base share}_{WA,t} - \text{pop share}_{WA,t}}$$

Where δ_t is the discount factor to be applied to the additional royalties that resulted from the rate increase in assessment year t . The discount factor changed slightly each year as Western Australia's base share and population share varied. Total royalties across all States that were subject to equalisation in each assessment year was therefore:

$$\text{Total royalties}_t = 0.05099 \sum_{i=1}^8 B_{i,t} + \delta_t (r_{WA,t} - 0.05099) B_{WA,t}$$

Where t is the assessment year, B_i is the base share of State i , and r_{WA} is the imputed royalty rate for Western Australia. A national average royalty rate for iron ore was then calculated using these discounted royalties, and applied to each State's revenue base to calculate assessed iron ore revenues.

Calculating the total GST requirement for each assessment year required two steps. First, the total GST requirement in each State net of the original mining assessment was calculated by subtracting each State's assessed difference for mining revenue from their GST requirement in that assessment year. The new mining assessed difference based on the mineral-by-mineral assessment and discounted royalties was then added back in. This is equivalent to holding all other assessments constant over the period, with only the mining revenue assessment changing.

GST impact

Table C.12 shows the amount of additional royalties resulting from a rate increase retained by Western Australia with and without the discount factor applied.

Table C.12 Discount factor and additional iron ore royalties retained

Applied to additional Western Australian iron ore royalties due to a rate change

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Discount factor	0.575	0.577	0.579	0.583	0.578	0.569	0.569
Additional iron ore royalties retained after equalisation							
No discount	88	82	128	221	161	130	168
With discount	336	305	466	775	600	536	696

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.13 shows the change in GST payments as a result of this reform, relative to what they would have been had a mineral-by-mineral assessment methodology and no discount been in place (table C.10). GST impacts in dollars and dollars per capita are reported for assessment years, not application years. In practice, the GST impact will be realised over three years, as a result of averaging, and with a lag (the GST impact for the 2018-19 application year – which takes into account averaging and time lags – is shown in table C.14).

GST payments would increase for Western Australia by between \$224 and \$554 million over the seven year period. GST payments to all other States would decrease. The largest decrease in payments would have been to New South Wales in 2013-14 (\$207 million) although on a per capita basis the decrease is spread evenly across the States.

Relativities would be higher for Western Australia and lower for all other States. With this approach (and a mineral-by-mineral assessment methodology) in place, Western Australia's application year relativities would have ranged from 0.30 to 0.60 over the period (table C.13), compared to a range of 0.22 to 0.58 without (table C.10).

Table C.13 Historical change in GST payments with 50 per cent discount on iron ore royalty rate changes

Assuming a mineral-by-mineral assessment methodology

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>TAS</i>	<i>ACT</i>	<i>NT</i>
\$ millions (assessment year)								
2010-11	-92	-71	-57	248	-16	-5	-5	-2
2011-12	-83	-64	-52	224	-14	-4	-4	-2
2012-13	-126	-97	-79	339	-21	-7	-6	-3
2013-14	-207	-161	-130	554	-32	-12	-11	-2
2014-15	-162	-128	-102	439	-28	-9	-8	-2
2015-16	-148	-117	-93	406	-28	-8	-8	-5
2016-17	-192	-154	-120	527	-37	-9	-10	-6
\$ per capita (assessment year)								
2010-11	-13	-13	-13	107	-10	-10	-13	-9
2011-12	-11	-11	-11	94	-9	-9	-11	-8
2012-13	-17	-17	-17	137	-12	-14	-17	-11
2013-14	-28	-28	-28	219	-19	-23	-28	-8
2014-15	-21	-21	-21	173	-17	-17	-21	-8
2015-16	-19	-19	-19	159	-16	-16	-19	-19
2016-17	-25	-25	-25	205	-21	-17	-25	-25
Assessment year relativities^a								
2010-11	0.96	0.88	1.11	0.39	1.32	1.49	1.24	5.43
2011-12	0.98	0.90	1.05	0.40	1.21	1.78	1.29	5.47
2012-13	0.93	0.87	1.11	0.40	1.35	1.77	1.09	6.03
2013-14	0.88	0.91	1.28	0.13	1.46	1.80	1.18	5.10
2014-15	0.87	0.99	1.13	0.38	1.42	1.77	1.17	4.40
2015-16	0.84	0.95	1.11	0.61	1.46	1.80	1.14	4.18
2016-17	0.83	1.00	1.02	0.66	1.52	1.71	1.20	4.18
Application year relativities^a (3 year average of assessment year relativities)								
2012-13	0.95	0.92	0.98	0.60	1.30	1.58	1.18	5.28
2013-14	0.96	0.90	1.05	0.48	1.26	1.61	1.22	5.31
2014-15	0.96	0.88	1.09	0.40	1.29	1.68	1.21	5.64
2015-16	0.93	0.89	1.15	0.31	1.34	1.78	1.19	5.53
2016-17	0.90	0.92	1.18	0.30	1.41	1.78	1.15	5.17
2017-18	0.87	0.95	1.17	0.37	1.45	1.79	1.16	4.56
2018-19	0.85	0.98	1.09	0.55	1.47	1.76	1.17	4.25

^a To be compared against relativities in table C.10.

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.14 Change in 2018-19 GST payments with 50 per cent discount on iron ore royalty rate changes

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Change in GST payments								
\$m	-190	-153	-118	519	-34	-9	-10	-4
\$pc	-24	-24	-24	198	-19	-18	-24	-17
% change in State revenue	-0.2	-0.3	-0.2	1.9	-0.2	-0.2	-0.2	-0.1
Total redistribution from EPC								
Current approach							\$6 840 million	
50 per cent discount							\$6 664 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Broad indicators

Broad indicator approaches to HFE use general measures of States' revenue raising capacities (typically economic indicators) to calculate relativities. Gross state product (GSP) and gross disposable income (GDI) have been identified as two potential broad indicators.

There is no consensus on the methodology for how broad indicators should be used to calculate relativities, and whether they should be applied to assess States' total fiscal capacity or solely revenue-raising capacity. The approach taken here is to calculate the shares of total revenue based on GSP and GDI. Either measure would replace the CGC's current approach of individually assessing State revenue items.

Table C.15 uses GSP and GDI as the revenue measures whilst removing all distribution of GST payments attributable to differences in expense capacities (which are not used to calculate relativities). Using this approach substantially decreases relativities for the ACT and the Northern Territory to a situation where they can even turn negative. In this situation, the States would presumably not receive any GST payment and would also need to provide some of their own revenue to redistribute to the other States.

Table C.15 GST effects of a broad indicators approach

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Gross state product	0.99	1.30	1.11	0.13	1.28	1.32	0.41	-0.95
Gross disposable income	0.89	1.31	1.10	0.70	1.14	1.17	-0.82	-0.62
Change in GST payments (\$m)								
Gross state product	2 812	5 225	93	-2 347	-926	-620	-845	-3 367
Gross disposable income	653	5 492	43	1 545	-1 556	-829	-2 194	-3 154
Change in GST payments (\$pc)								
Gross state product	350	804	19	-906	-532	-1 182	-2 018	-13 665
Gross disposable income	81	845	9	590	-894	-1 581	-5 241	--2 801
Change in GST payments (% of State revenue)								
Gross state product	3.5	7.7	0.2	-8.0	-4.8	-10.4	-15.1	-62.5
Gross disposable income	0.8	8.1	0.1	5.2	-8.1	-13.9	-39.3	-58.6
Total redistribution from EPC								
Current approach							\$6 840 million	
Gross state product							\$8 103 million	
Gross disposable income							\$7 479 million	

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.16 also uses GSP and GDI as the revenue measures but it uses the CGC's current methodology for the expenditure side. This approach leads to large declines in GST payments for the ACT and the Northern Territory, and a large increase for Western Australia (in the case of GDI).

Table C.16 Broad indicators for revenue with current expenditure approach

2018-19 GST payments and relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Relativities								
Current approach	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Gross state product	0.87	1.01	1.23	0.46	1.39	1.70	0.25	3.20
Gross disposable income	0.76	1.02	1.22	1.03	1.25	1.55	-0.98	3.53
Change in GST payments (\$m)								
Gross state product	210	378	1 754	-121	-423	-91	-1 023	-684
Gross disposable income	-1 960	641	1 705	3 815	-1 056	-301	-2 377	-468
Change in GST payments (\$pc)								
Gross state product	26	58	349	-46	-243	-173	-2 443	-2 775
Gross disposable income	-244	99	340	1 455	-607	-573	-5 679	-1 899
Change in GST payments (% of State revenue)								
Gross state product	0.3	0.6	3.1	-0.4	-2.2	-1.5	-18.3	-12.7
Gross disposable income	-2.4	0.9	3.0	12.9	-5.5	-5.0	-42.5	-8.7
Total redistribution from EPC								
Current approach							\$6 840 million	
Gross state product							\$7 372 million	
Gross disposable income							\$7 158 million	

Source: Productivity Commission estimates based on data provided by the CGC.

C.3 Average rate effects

Changes in any State's tax rate shifts the national average tax rate, driving a change in each State's assessed revenues and consequently its GST payments. A general measure of the effect of changes to revenue-raising effort on GST payments can be calculated by examining the change in GST payments due to raising an extra \$100 in revenue (in any State). Table C.17 presents this measure for selected revenue assessments.

Table C.17 Change in GST payments of raising revenue by \$100

2016-17, dollars

<i>Revenue category</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Insurance tax	-2.6	1.9	0.7	0.3	-0.5	0.4	0.1	-0.1
Land tax on income producing property	-7.5	-3.7	5.6	-0.2	3.5	1.2	0.8	0.3
Iron ore royalties	32.0	25.6	20.0	-87.9	6.1	1.5	1.7	1.0
Taxes on heavy vehicles	5.3	0.8	-1.3	-5.2	-0.2	-0.3	1.3	-0.3
Payroll tax	-2.9	1.3	2.1	-3.1	1.9	0.8	-0.1	-0.2
Stamp duty on property	-10.4	-1.5	1.5	5.3	3.5	1.0	0.0	0.6

Source: Productivity Commission estimates based on CGC (2018h) data.

Average rate effects also occur for changes in States' expenditure. These changes affect the average levels of expenditure across States, leading to changes in each State's assessed expenses and consequently its GST payments. As with revenue rate effects, expenditure rate effects presented below are given by the change in GST payments resulting from a \$100 reduction in expenditure. These effects are presented in table C.18. They are generally smaller than revenue rate effects and in most cases less than \$1.

Table C.18 Change in GST payments of reducing expenses by \$100

2016-17, dollars

<i>Expenditure category</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Health – admitted patients	0.1	1.1	0.0	-0.1	-0.5	-0.3	0.2	-0.5
Roads	3.0	3.7	-1.8	-3.2	-1.1	0.2	0.6	-1.4
Post-secondary education	0.4	1.0	-0.4	-0.4	0.0	0.0	-0.1	-0.5
Schools education – state funded component	0.8	2.6	-1.6	-0.9	-0.1	-0.1	0.1	-0.7
Justice	1.2	3.1	-1.2	-1.1	0.0	-0.1	0.2	-2.2

Source: Productivity Commission estimates based on CGC (2018h) data.

C.4 Cameos

The cameos presented here are used to illustrate how a change to a State's tax policy can influence its GST payments and its incentives to carry out a given reform. These include scenarios where only one State changes its tax policy (unilateral reforms), and when all States collectively change their tax policy (multilateral reforms).

Three cameos are presented here:

1. A revenue-neutral reform in which a State halves its stamp duty and introduces a broad-based land tax.

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2. A budget-neutral reform in which a State introduces a congestion tax to fund public transport.
 3. A reform in which a State abolishes taxes on insurance (not revenue neutral).

These cameos show the potential impact of an immediate reform to a State's GST payment. They show the *annual* GST relativity based on the most recent year for which CGC data are available (2016-17). This can be thought of as a comparative static analysis of the reform. In practice, however, the GST impact of the reform would come through gradually as it passes through the three-year moving average of the assessment period.

A State reform can have a positive or a negative effect on its GST payment. This depends on whether it is assessed as having an above-average capacity to raise revenue from the tax (where it receives a lower GST payment), or if it is assessed as having below-average capacity to raise revenue (where it receives a higher GST payment).

A reform can have two main impacts on the GST distribution (chapter 3). First, it can change the national average tax rate (the average rate effect). Second, it can change the size of the State's tax base (the elasticity effect). Both effects depend on the size of the State implementing the reform (a State with a large share of the overall tax base has a bigger influence on the national average tax rate), and on the size of the reform (where a large reform can cause a big shift in the tax rate and base).

How the reform is treated also depends on whether such a change has a 'material' effect on the GST distribution. At present, the CGC considers a redistribution of \$30 or more per capita to any State as a material effect that warrants inclusion in its assessment. This approach has been adopted in the cameos presented here. In scenarios where the assessment is not material, a simple EPC assessment has been used.

While these cameos are illustrative, there is considerable uncertainty in how a tax change would ultimately affect each State and its GST payments. The size and timing of the policy changes used in the cameos are not intended to reflect reality, but are instead used to demonstrate the influence on the GST distribution, how it is determined, and what factors need to be considered.

The cameos rest upon simple assumptions and share a number of limitations:

- First, two of the cameos assess the revenue bases for new types of taxes, and thus it is unclear how the CGC would treat these reforms in practice. For example, the CGC may follow a different approach to assess the revenue base (including what data sources are used to measure the base), to determine the average of what States collectively do, and to determine whether these impacts are material enough to require specific assessment.
- Second, the cameos assume that a State can fully and seamlessly offset its revenue and/or balance its spending in the same year the reform is implemented. This analysis does not consider the transition path for reform, such as the gradual phasing in of the new policy, or any indirect effects that might occur as a consequence. This analysis also does not consider the complexity of the tax reform, costs of administration or compliance rates.

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- Third, the cameos do not forecast any future changes or any long-term impact of the tax change. The analysis also does not consider the consequences of how other States may respond to this reform.
 - Finally, the impact of the reform on a State's tax base (the elasticity effect) is by assumption only. These cameos do not consider any further consequences of the reform (such as second-round economic impacts). For example, the cameos do not detail how businesses, consumers and households would respond to the tax change or whether people adapt to these reforms over time.

Replacing stamp duty with land tax

The first cameo involves a State halving its stamp duty on property and replacing this lost revenue with a new broad-based tax on residential land (with policy in all remaining States remaining unchanged). The analysis was conducted separately for each State (unilateral reform) and jointly for all States (multilateral reform).

Rationale for reform

Replacing stamp duty with a broader land tax has long been cited as an area for reform (for example, Henry et al. 2010a; PC 2004). Stamp duty is regarded as a highly inefficient tax that can discourage the turnover of property as people try to reduce or avoid paying the tax. As noted by the NSW Government (sub. 52, p. 14), this can lead to people living in homes that are not suited to them, which can increase commuting times and can constrain national productivity. It is also inequitable as it places a higher tax burden on those that need to move.

Land tax, on the other hand, is regarded as a more efficient tax. It is applied on the ownership of land and is therefore difficult to avoid paying, particularly if the tax is applied to a broad base. It is also collected annually and forms a stable source of State revenue.

Reduced stamp duty on property

The CGC currently assesses each State's capacity to raise revenue from stamp duty based on the amount of revenue actually raised by States (the tax rate) and the total property value of these transfers (the tax base). States vary in their legislated rates of stamp duty, as well as the scope of properties that attract the tax. Progressive rate scales are applied in all States, meaning that higher value properties attract higher tax rates.

A reform to reduce stamp duty on property can be shown by halving a State's average tax rate — total revenue divided by the total tax base. While States apply stamp duty using progressive rate structures in practice, the impact on different value categories has not been calculated as part of this analysis.

The reduced stamp duty revenue has two main impacts on the GST distribution. It reduces the national average stamp duty rate (the average rate effect), and it increases the size of the State's tax base (the elasticity effect). It is reasonable to expect that the tax base will change in response to a policy change of such magnitude.

A unilateral reform by a State to halve its stamp duty can have very different impacts on the average tax rate depending on how much of the revenue base it holds. For example, New South Wales held 42 per cent of the total stamp duty revenue base in 2016-17. If it were to halve its stamp duty rate (from 4 per cent to 2 per cent) this would halve its stamp duty revenue to about \$4.5 billion (assuming tax bases do not change). This would cause a big fall in the national average tax rate (from 4.1 per cent to 3.2 per cent). The halving of the stamp duty rate would cause a smaller reduction in the average tax rate if it occurred in other States because they hold less of the assessed revenue base. If States collectively halved their stamp duty rates (a multilateral reform), the Australian average tax rate would also halve (table C.19).

Table C.19 Average-rate effect from halving stamp duty rates
Unilateral change by each State and a multilateral change by all States^a

	<i>Units</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>All States</i>
Share of national revenue base	(%)	42	27	18	5	3	1	2	0	100
Reduction in stamp duty revenue	(\$m)	4 527	3 151	1 761	671	421	116	163	58	10 868
New State average tax rate	(%)	2.0	2.2	1.8	2.4	2.3	1.9	1.8	2.4	2.0
New national average rate	(%)	3.2	3.5	3.7	3.9	4.0	4.0	4.0	4.0	2.0

^a State columns show the effect of each State unilaterally halving its own stamp duty rate. 'All States' shows the effect if all States halve their stamp duty rates.

Source: Productivity Commission estimates based on data provided by the CGC.

Including elasticity effects would mean that the revenue base would also change (table C.20). This analysis uses lower and upper bound values for the elasticity of property transactions in response to a change in stamp duty rates, drawn from estimates published by Davidoff and Leigh (2013). The lower bound value is a 1.9 per cent reduction in transactions due to a 10 per cent increase in the duty rate (after one year).²¹ The upper bound value is a 6.6 per cent reduction (after three years).

²¹ This is the lowest elasticity estimate published by the authors. The estimate from their preferred specification is a 3 per cent reduction in transactions due to a 10 per cent increase in the duty rate (Davidoff and Leigh 2013, p. 403).

Table C.20 Elasticity effect from halving stamp duty rates
Unilateral change by each State and a multilateral change by all States^a

	<i>Units</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>All States</i>
Lower-bound										
Reduction in stamp duty revenue	(\$m)	4 097	2 852	1 593	608	381	105	147	53	9 836
New national average tax rate	(%)	3.2	3.4	3.7	3.9	4.0	4.0	4.0	4.0	2.0
Upper-bound										
Reduction in stamp duty revenue	(\$m)	3 033	2 111	1 180	450	282	77	109	39	7 282
New national average tax rate	(%)	3.1	3.4	3.6	3.9	4.0	4.0	4.0	4.0	2.0

^a State columns show the effect of each State unilaterally halving Stamp duty. 'All States' shows the effect if all States halve their stamp duty. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the tax base.

Source: Productivity Commission estimates based on data provided by the CGC.

A *reduction* in the stamp duty rate would therefore increase the number of property transactions that would occur in the State (while no change in the revenue base is assumed for the States that do not reform stamp duty). This means that the State's actual stamp duty revenue would not fall by as much as it would if elasticity effects were ignored. It also means that assessed stamp duty revenue for the State would be higher (although this is somewhat offset by the change in the average tax rate, which is also affected by the larger tax base in the reforming State).

Consequently, a State would receive a lower GST payment compared to a situation where the growth in their assessed tax base was ignored. When including elasticity effects, the halving of stamp duty rates is found to have a material effect on the GST distribution for any State that pursues this reform.

New broad-based land tax

To offset the loss in stamp duty revenue, it is assumed that a State introduces a broad-based land tax (a more efficient tax). This significant reform would involve the new tax being applied to residential property (including owner-occupied), as the owners of such property would be the main beneficiaries of reduced stamp duty.

Such a reform would be different to existing land taxes. All States (apart from the Northern Territory) currently apply some form of land tax, and these tax scales are generally progressive. However, a number of exemptions apply, with owner-occupied housing and land used for primary production generally exempted from the tax. States also vary in their legislated tax rates and in their tax-free thresholds.

At present, the CGC assesses two types of land tax collected by the States:

- A ‘general property’ component (which includes fire services levies, metropolitan improvement levies and general rates in the ACT). None of these have a material effect on GST relativities, and thus are assessed on an EPC basis (meaning that they have no impact on the GST distribution).
- An ‘income producing property’ component (such as residential rentals and commercial property). These are assessed differentially, with taxable land values used to measure each State’s revenue-raising capacity. A progressive tax scale structure is used for this assessment. The CGC has ‘moderate’ concerns about the comparability and reliability of these data from State Revenue Offices and applies a 25 per cent discount to this component of its assessment (CGC 2015f).

The analysis here does not involve simply increasing existing taxes on income-producing properties because the tax base is narrow. Doing so would require a very large increase in these taxes (in some cases, over 100 per cent) to recoup the reduced stamp duty revenue. Moreover, such a policy change is very unlikely to be considered by a State Government.

Instead, the analysis involves creating a new type of land tax. The tax base used for the analysis is the aggregate unimproved value of residential land in each State, sourced from the ABS (2017c). However, reflecting usual CGC practice, a differential assessment is only simulated where there is a material effect on the GST distribution. In scenarios where this is not material, a simple EPC assessment has been used.

The size of the land tax needed to offset stamp duty is shown in table C.21. For example, if New South Wales wanted to recoup the \$4.1 billion in revenue that it loses from the fall in stamp duty (under the lower-bound scenario), it would need to apply an annual flat tax rate of 0.21 per cent on the unimproved value of all residential land in the State. A lower land tax rate (of 0.16 per cent) would be required under the upper-bound scenario. This is because New South Wales does not lose as much stamp duty revenue because its lower duty rates increase the number of property transactions in the State.

Only a unilateral change to land tax in New South Wales or Victoria — or a multilateral change made by all States — is assessed to have a material impact on the GST distribution. A change to land tax made by any other State is treated on an EPC basis and would have no impact on the GST distribution.

Table C.21 Land tax required to offset stamp duty reduction

Unilateral change by each State and a multilateral change by all States^a

	<i>Units</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>All States</i>
Lower-bound										
Land tax rate required to raise equivalent revenue	(%)	0.21	0.22	0.23	0.15	0.16	0.17	0.19	0.19	..
New national average tax rate	(%)	0.09	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.21
Upper-bound										
Land tax rate required to raise equivalent revenue	(%)	0.16	0.16	0.17	0.11	0.12	0.13	0.14	0.14	..
New national average tax rate	(%)	0.06	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.15
Material impact on GST distribution? ^b		yes	yes	no	no	no	no	no	no	yes

^a State columns show the effect of each State unilaterally reforming land tax. 'All States' shows the effect if all States concurrently reform land tax. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the stamp duty tax base. ^b Material impacts refer to a redistribution of at least \$30 per capita in any State. .. Not applicable.

Source: Productivity Commission estimates based on data provided by the CGC.

The analysis shown here does not take explicit account of the impact on land values (the tax base). It also does not evaluate how the new land tax would affect the value and assessment of income-producing residential land that forms part of the CGC's existing assessment of land taxes on income-producing property. While land taxes do not affect the amount of land, they can have a significant impact on land values, even when tax rates are small (Henry et al. 2010b, p. 270). However, it is assumed that the reduction in stamp duty would offset the effect that the land tax would have in reducing land values. Including land value changes in the analysis does not change the pattern of the GST impacts presented.²²

GST impact

The combined GST impact from a unilateral reform of stamp duty/land tax is shown in table C.22 (for each reforming State only). Any State that carries out the reform would have lower GST payments, but the size of these impacts differ depending on the assumptions made about the elasticity of the tax base. In absolute terms, the net impact in GST payments of a unilateral reform by New South Wales or Victoria could exceed \$1 billion.

As a first mover on the reform, a reforming State would be made worse off in terms of its GST payments. This is because the State would be assessed as having a stronger capacity to raise revenue from stamp duty because of the growth in its assessed tax base, even though

²² Incorporating a fall in land values following the land tax reform (not including any offsetting increase in values from reducing stamp duty) leads to a slightly smaller GST impact for States where the land tax change is material (New South Wales and Victoria). This fall in land values was calculated using simplifying assumptions of a 5 per cent discount rate and full capitalisation of the tax into perpetuity.

the reform would mean that it actually now raises less revenue. The land tax reform would also cause New South Wales and Victoria (which have a material impact on redistribution) to lose GST payments as they are assessed to have a stronger capacity to raise this tax.

Table C.22 GST impact of stamp duty/land tax reform
Unilateral change made by each State, 2016-17^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Lower-bound								
Change in GST payments (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
Change in GST payments (\$pc)	-43	-56	-63	-51	-48	-45	-82	-39
Change in GST payments (% of State revenue)	-0.4	-0.6	-0.5	-0.5	-0.4	-0.4	-0.6	-0.2
New GST relativity	0.82	0.99	1.00	0.55	1.51	1.70	1.18	4.17
Upper-bound								
Change in GST payments (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
Change in GST payments (\$pc)	-164	-189	-201	-143	-146	-152	-283	-132
Change in GST payments (% of State revenue)	-1.6	-1.9	-1.7	-1.4	-1.4	-1.4	-2.2	-0.5
New GST relativity	0.77	0.93	0.95	0.52	1.47	1.66	1.10	4.13

^a GST impacts are evaluated on a 'steady state' basis; that is, assuming the new policy was fully in place in 2016-17. No transition paths are evaluated. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the tax base.

Source: Productivity Commission estimates based on data provided by the CGC.

If all States were to jointly reform stamp duty/land tax, the GST distribution effects would be smaller (table C.23). This is because the multilateral reform does not cause any State to deviate further from the average tax rate, while the assessed tax base increases for all States. This largely neutralises the impact on the GST distribution. In this scenario, the larger States (New South Wales, Victoria and Queensland) receive larger GST payments while all other States receive lower payments relative to the baseline.

Table C.23 GST impact of stamp duty/land tax reform

Multilateral change made by all States, 2016-17^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Lower-bound								
Change in GST payments (\$m)	135	-18	380	-306	-157	-19	-2	-13
Change in GST payments (\$pc)	17	-3	78	-119	-91	-37	-5	-55
Change in GST payments (% of State revenue)	0.2	0.0	0.7	-1.1	-0.8	-0.3	0.0	-0.2
New GST relativity	0.85	1.01	1.06	0.52	1.49	1.71	1.21	4.17
Upper-bound								
Change in GST payments (\$m)	100	-13	281	-227	-116	-14	-1	-10
Change in GST payments (\$pc)	13	-2	58	-88	-68	-27	-3	-41
Change in GST payments (% of State revenue)	0.1	0.0	0.5	-0.8	-0.6	-0.3	0.0	-0.2
New GST relativity	0.84	1.01	1.05	0.54	1.504	1.71	1.21	4.17

^a GST impacts are evaluated on a 'steady state' basis; that is, assuming the new policy was fully in place in 2016-17. No transition paths are evaluated. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the tax base.

Source: Productivity Commission estimates based on data provided by the CGC.

The GST impacts shown in these scenarios vary substantially, even though the reform itself is revenue neutral for the State. The size of the GST impact depends on the size of the tax, the size and elasticity of the tax base, whether a State is assessed as having above or below average capacity to raise revenue from the tax and how the tax is assessed. It also depends on whether other States also carry out the reform.

Abolishing insurance taxes

This cameo involves a State abolishing all taxes on insurance. The analysis was conducted separately for each State (unilateral reform) and jointly for all States (multilateral reform). This is not a revenue-neutral reform: reforming States would end up with less own-source revenue than they otherwise would have (that is, no adjustment is made for how States might replace the lost insurance tax revenue, whether by raising other taxes, reducing expenditure or increasing net debt).

Rationale for reform

All States currently impose insurance stamp duties on two broad types of insurance:

- life insurance

-
- general insurance — including home and contents, public liability and professional indemnity, commercial and domestic motor vehicles, and Compulsory Third Party motor vehicle cover (CGC 2015f, p. 90).

No State imposes duties on medical benefits insurance (health insurance) or reinsurance. New South Wales and Tasmania impose separate fire and emergency services levies (FESLs). In 2017, the NSW Government announced that it would be phasing out its FESL (to be gradually replaced by higher local government rates) but has since deferred implementation of this reform to July 2019 (NSW Treasury 2018).

Insurance taxes are among the most inefficient of all taxes (Henry et al. 2010a, p. 13). By taxing insurance transactions, these taxes create a financial incentive for households and businesses to underinsure — or not take out insurance at all. They can also discourage people from undertaking risky but economically valuable activities (Henry et al. 2010b, p. 470). Some inquiry participants pointed to the inefficiency of insurance taxes and the economic benefits that would result from reform (ICA, sub. DR70, p. 3; FSC, sub. DR90, p. 2). The Henry Review recommended abolishing State insurance taxes (Henry et al. 2010b, p. 474), as has the Productivity Commission on several occasions (PC 2014b, 2018).

Assumptions

The CGC currently assesses insurance taxes using gross written premiums as the tax base (across the taxable types of insurance). Because it is unable to obtain data on life insurance premiums by State, it excludes life insurance from its tax base measure (but not State revenue data). The effect is that each State's capacity to raise tax from life insurance is assumed to be the same as its capacity to raise tax from general insurance (CGC 2015f, p. 91).

Estimates of the impact on gross written premiums (the tax base measure) were drawn from econometric modelling published by Tooth (2015). This modelling produced estimates of what would happen to pre-tax premiums for home and contents insurance in each State if all State insurance taxes were abolished in full (table C.24). The estimates only apply to home and contents insurance, which represents 23 per cent of gross written premiums across all general insurance lines (APRA 2017).

The Commission has assumed that a similar impact on tax bases would arise from removing taxes on general insurance (indeed, the stamp duty rates are typically the same). The impact of FESLs has not been included in this estimate because these do not apply to other general insurance lines, and because an estimate is only available for one of the two States that impose such levies. Because the general insurance tax base is also used to assess life insurance taxes (as noted above), separate estimates of the impact of the reform on life insurance premiums are not required to calculate GST impacts.

Table C.24 Estimated change in pre-tax home and contents insurance premiums from removing State insurance taxes

Percentage increase, 2015

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>All States</i>
Insurance stamp duties only	9	9	8	8	10	8	5	5	10
FESL only	16	..	..	..	..	na	..	..	na
Both taxes	25	9	8	8	10	8	5	5	13

na Not available. .. Not applicable.

Source: Tooth (2015, p. 28).

As per the Commission's other cameos, the results only show a one-year GST impact for 2016-17 and do not incorporate any analysis of how the insurance tax abolition might be phased in — in other words, the figures only show what GST payments might have been in 2016-17 had no insurance taxes been in place.

GST impact

Table C.25 shows the impact on each State's own-source revenues, as well as the impacts on the national average tax rate. Tables C.26 and C.27 show the impacts on each State's GST payments and annual relativity of unilateral and multilateral reform, respectively. Because the reform is not own-source revenue neutral, the estimates of GST impacts include an offsetting calculation that adjusts for a change in the size of the overall equalisation task (in most cases a decrease) due to the reform.

Overall, the GST impacts are modest. This is primarily due to the small size of the insurance tax base (about \$5 billion nationally), which means that differences in the relative size of tax bases across States have only a small impact on the amount of money being redistributed.

All States lose GST from unilateral reform (table C.26), primarily because their tax base has increased but they are still assessed as having the capacity to raise revenue through insurance taxes. The largest total impact is on Victoria (a loss of \$87 million), whereas the largest per-capita impact falls on South Australia (a loss of \$17 per capita). Relative to the amount of own-source revenue being forgone, the percentage impact is greatest for the ACT (at 19 per cent), followed by Tasmania (at 8 per cent). The high figure for the ACT is due to a 'small denominator' effect (its insurance tax revenue was just \$20 million in 2016-17, well below its population share of the total).

The GST impacts in the multilateral scenario (table C.27) are simply the same as the current redistribution due to the insurance tax assessment with the signs reversed. In other words, all States abolishing their insurance taxes would yield the same outcome as removing insurance tax from HFE completely. New South Wales, South Australia and the Northern

Territory — which are currently assessed as having above-average capacity to raise insurance tax revenue — would gain GST revenue at the expense of the other jurisdictions.

Table C.25 Own-source revenue impact of abolishing insurance taxes
Unilateral change by each State and a multilateral change by all States, 2016-17^a

	<i>Units</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>All States</i>
Current share of national tax base	(%)	35	24	19	10	8	2	2	1	100
Increase in tax base due to abolishing insurance tax	(%)	9	9	8	8	10	8	5	5	9
Loss in own-source revenue	(\$m)	1 985	1 218	828	661	479	104	20	43	5 339
National average tax rate ^b	(%)	8.6	10.7	11.7	12.2	12.7	13.8	14.0	14.0	0.0

^a State columns show the effect of each State unilaterally undertaking reform. 'All States' shows the effect if all States concurrently undertake reform. ^b The national average tax rate may exceed the legislated rates in all States due to the inclusion of life insurance taxes in revenue figures but not tax base figures.

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.26 GST impact of abolishing insurance taxes
Unilateral change by each State, 2016-17

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Change in GST payments (\$m)	-16	-87	-61	-37	-30	-8	-4	-3
Change in GST payments (\$pc)	-2	-14	-12	-14	-17	-15	-9	-11
Change in GST payments (% of State revenue)	0.0	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1
Change in GST payments (% of pre-reform insurance tax revenue)	-1	-7	-7	-6	-6	-8	-19	-6
New GST relativity	0.84	1.01	1.03	0.57	1.52	1.71	1.21	4.18

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.27 GST impact of abolishing insurance taxes

Multilateral change by all States, 2016-17

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Change in GST payments (\$m)	136	-99	-35	-14	29	-20	-4	6
Change in GST payments (\$pc)	17	-16	-7	-5	17	-38	-9	26
Change in GST payments (% of State revenue)	0.2	-0.2	-0.1	-0.1	0.2	-0.4	-0.1	0.1
Change in GST payments (% of pre-reform insurance tax revenue)	7	-8	-4	-2	6	-19	-18	15
New GST relativity	0.84	1.00	1.03	0.57	1.54	1.70	1.21	4.20

Source: Productivity Commission estimates based on data provided by the CGC.

Congestion tax with increased public transport spending

This cameo involves a State introducing road pricing to reduce urban congestion (that is, a congestion tax) and hypothecating its revenue to spending on urban public transport operational expenses. Though the level of congestion varies substantially across States (with smaller States experiencing particularly low levels), for completeness, this analysis examines the impact of reform for each State. Specifically, it measures the effects of reform undertaken on an individual basis (unilateral reform) and across all States (multilateral reform).

Rationale for reform

The introduction of road pricing has been raised widely as an efficiency enhancing reform, as it has the potential to improve transport investment and reduce travel times, vehicle maintenance costs and pollution (for example, Henry et al. 2010b; PC 2014c). The Henry Tax Review suggested that the revenue from a congestion tax on existing roads should flow back to the community, initially to public transport in affected areas.

Introducing a congestion tax

Congestion taxes, implemented via road pricing, have not been introduced by any Australian State and are therefore not included in the CGC's current calculation of assessed revenues. The impact on GST payments of a State introducing a congestion tax depends on several factors, including the amount of funds raised by the State, the specific revenue base used and how the CGC would treat the new tax.

States will vary substantially in their capacity to raise revenue from congestion taxation, with States that have higher levels of traffic in metropolitan areas possessing a stronger revenue base. The Bureau of Infrastructure, Transport and Regional Economics has published several

measures of traffic levels in Australian cities, including vehicle-kilometres travelled (VKT), passenger car equivalent units and some estimates of the costs associated with these levels of traffic (BITRE 2017, p. 84).

For this cameo, metropolitan VKT has been used as a measure of a State's revenue base, rather than measures of congestion costs. VKT is likely to be less sensitive to States' policy choices on taxing congestion (and, as such, the tax examined would be more akin to a road user charge in the smaller jurisdictions with less congested capital cities). Given that the intention of a congestion tax would be to reduce congestion costs, using costs as a measure of the revenue base would leave GST payments highly sensitive to policy settings.

This cameo involves scenarios of States raising revenue equivalent to \$200 per capita in both unilateral and multilateral circumstances. The amount of revenue raised does not affect the *direction* of the policy's effect on a State's GST payments. That is, whether New South Wales raises \$10 or \$200 per capita does not affect whether its GST payments increase or decrease as a result of the policy. It does, however, affect the *magnitude* of this effect and therefore whether a congestion tax is considered material. Raising \$200 per capita in New South Wales, for example, equates to raising on average 3.7 cents per metropolitan VKT. In a multilateral reform scenario, this represents a 30 per cent increase in urban public transport expenses.

Table C.28 presents the effect of unilateral congestion reforms on components of the revenue assessment. It shows that where the tax is introduced it has a large impact on the national average tax rate and its materiality. Assuming States raise \$200 per capita, the introduction of a congestion tax would be material only for New South Wales and Victoria. In the analysis below, assessed revenues have been calculated on an EPC basis in cases where the congestion tax is not material.

Table C.28 Revenue assessment of a congestion tax
Unilateral change by each State and a change by all States^{a,b}

		Units	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	All States
Share of national revenue base	(%)		29	29	17	13	7	1	3	1	100
Total revenue raised	(\$m)		1 560	1 249	977	514	343	104	81	49	4 876
State tax rate	(cents/VKT)		3.7	3.0	4.2	2.8	3.3	5.3	2.1	4.4	
National average rate	(cents/VKT)		1.1	0.9	0.7	0.4	0.2	0.1	0.1	0.0	3.5
Material impact on GST distribution?			yes	yes	no	no	no	no	no	no	yes

^a The tax rates presented above represent the cents collected per urban vehicle-kilometres travelled. ^b State columns show the effect of each State unilaterally undertaking reform. 'All States' shows the effect if all States concurrently undertake reform.

Source: Productivity Commission estimates based on data provided by the CGC.

Hypothecated expenditure on urban public transport

In this cameo, the revenue raised from the congestion tax has been allocated to urban public transport operational and depreciation expenses. This differs from *investment* in public transport infrastructure. As such, this cameo does not consider transitional effects associated with introducing a congestion tax and increasing expenditure on public transport. Rather, it simulates a steady-state situation in which States have developed their transport infrastructure such that operational and depreciation expenses have increased by the amount raised from a congestion tax. These operational expenses could include expenditure relating to bus, rail, ferry, and any other services assessed by the CGC as urban transport expenses.

An increase in transport expenditure originating in any single State increases assessed transport expenses for all other States — for example, an increase in expenditure in New South Wales raises the assessed expenses of all other States. The size of the shift in all States' assessed expenditure will depend in part on the size of the change in spending and therefore the size of the State introducing reform. For example, changes in assessed expenses are much larger where New South Wales undertakes reform, compared with the Northern Territory (table C.29).

Table C.29 Hypothecated spending and assessed transport expenses

Unilateral change by each State and a change by all States, \$ million

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Current assessed expenses	4 234	3 814	2 038	1 367	762	62	169	27
Scenario assessed expenses	4 763	4 196	2 198	1 423	783	62	170	27
Difference	529	382	160	56	21	1	1	0

Source: Productivity Commission estimates based on data provided by the CGC.

The net effect of introducing a congestion tax and directing revenue raised to urban transport is presented in table C.30. The GST payment impacts are positive for New South Wales, Victoria (as these two States have an outsized share of the urban transport expense base), and largely unchanged or negative for the other States. As a proportion of the revenue raised from a congestion tax, these effects range from 4.7 per cent (for New South Wales), to -3.7 per cent (for Queensland), and have minor effects on GST relativities.

Table C.30 GST impact of a congestion tax and public transport spending

Unilateral change by each State, 2016-17

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Change in GST payments (\$m)	73	19	-36	2	-3	-2	0	0
Change in GST payments (\$pc)	9	3	-7	1	-2	-3	-1	-2
Change in GST payments (% of State revenue)	0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Change in GST payments (% of pre-reform insurance tax revenue)	4.7	1.5	-3.7	0.4	-0.9	-1.9	0.0	0.0
New GST relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19

Source: Productivity Commission estimates based on data provided by the CGC.

The effects of multilateral reform are much larger, particularly for smaller States (table C.31). As a proportion of the revenue raised from a congestion tax, these effects range from 15 per cent (for New South Wales) to -86 per cent (for the ACT). The larger effect associated with multilateral reform is the result of a larger change in average expenses and therefore larger changes in assessed expenses.

Table C.31 GST impact of a congestion tax and public transport spending

Multilateral change by all States, 2016-17

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Baseline: GST annual relativity	0.84	1.01	1.03	0.57	1.53	1.72	1.21	4.19
Change in GST payments (\$m)	227	76	-8	-91	-62	-43	-70	-28
Change in GST payments (\$pc)	29	12	-2	-35	-36	-83	-172	-113
Change in GST payments (% of State revenue)	0.3	0.1	0.0	-0.3	-0.3	-0.8	-1.4	-0.5
Change in GST payments (% of pre-reform insurance tax revenue)	15	6	-1	-18	-18	-41	-86	-57
New GST relativity	0.85	1.02	1.03	0.56	1.52	1.69	1.14	4.14

Source: Productivity Commission estimates based on data provided by the CGC.

There are several factors that this analysis does not incorporate. It is assumed that VKT does not respond to the introduction of a congestion tax. For unilateral reforms, reduced VKT resulting from a congestion tax would increase GST payments to the reforming State. For multilateral reforms, the effects of reduced VKT would vary across States, depending on the relative size of a State's VKT and its responsiveness to the tax. Finally, as outlined above, as this analysis simulates a 'steady state' of increased urban transport operational expenses, it does not consider transitional developments.

Policy-neutral indicators for stamp-duty

The CGC currently assesses each State's capacity to raise revenue from stamp duty based on the average tax rate (the ratio of total revenue raised by States and the total value of properties transferred), and each State's tax base (the total value of property transferred in that State). As shown above, the current assessment means that GST payments are prone to change as a result of tax reforms to replace stamp duty with land tax.

Policy-neutral indicators of the stamp duty tax base offer potential to reduce the disincentives for this policy reform. Two possible measures were considered.

- *Total value of the dwelling stock owned by households* (ABS 2018). This is a general measure of the underlying base for most property taxes, including stamp duties. Only dwellings owned by households were considered as stamp duties on Government-owned housing are likely to be both small (as Government-owned housing is rarely transacted) and would be a payment that increases expenditure and revenue equally, such that, on net, Government fiscal capacity is unchanged.²³ The value of the dwelling stock owned by households comprises about 95 per cent of the total value of the dwelling stock.
- *Aggregate unimproved value of residential land in each State* (ABS 2017c). This measure is the same tax base used for the new simulated land tax.

This analysis uses lower and upper bound values for the elasticity of average house prices to changes in stamp duty rates, drawn from estimates published by Davidoff and Leigh (2013). The lower bound value is a 2 per cent reduction in transactions due to a 10 per cent increase in the duty rate. The upper bound value is a 2.6 per cent reduction. Aside from these elasticity estimates, all other calculations and assumptions are identical to those used in the stamp duty/land tax cameo detailed above. Any differences between the two simulations can therefore be attributed to the use of a policy-neutral indicator.

Using the total value of the dwelling stock in each State as a measure of the stamp duty tax base reduces the impact that unilateral stamp duty reform has on a State's GST payments by between 41 and 63 per cent for the upper bound estimates (table C.32). In absolute terms, the reduction was largest in New South Wales (about \$758 million). The disincentive for unilateral stamp duty reform was more or less unchanged using the lower bound estimates.

Using the aggregate unimproved value of residential land in each State would eliminate the GST impact in this cameo. This is because the same indicator is used to estimate the GST distribution due to the new land tax, creating an aggregated assessment for these two revenue items. As the tax reform is revenue-neutral, the assessed ability to raise revenue from this aggregated base is unchanged for each State.

If all States were to jointly reform stamp duty/land tax, the GST distribution effects would be smaller than if a single State reformed (table C.33). What remained of the disincentive in

²³ Using the total value of dwelling stock as a policy-neutral indicator did not materially affect the results.

the multilateral reform scenario would be almost eliminated when using the value of dwelling stock as a policy-neutral indicator.

Table C.32 GST impact of stamp duty/land tax reform with category indicators

Unilateral change made by each State, 2016-17^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Current approach								
GST, lower bound (\$m)	-337	-351	-308	-131	-83	-24	-33	-10
GST, lower bound (\$pc)	-43	-56	-63	-51	-48	-45	-82	-39
GST, lower bound (% revenue)	-0.4	-0.6	-0.5	-0.5	-0.4	-0.4	-0.6	-0.2
GST, upper bound (\$m)	-1 281	-1 178	-982	-366	-250	-79	-115	-32
GST, upper bound (\$pc)	-164	-189	-201	-143	-146	-152	-283	-132
GST, upper bound (% revenue)	-1.6	-1.9	-1.7	-1.4	-1.4	-1.4	-2.2	-0.5
Value of dwelling stock								
GST, lower bound (\$m)	-404	-340	-329	-169	-105	-27	-33	-10
GST, lower bound (\$pc)	-52	-54	-67	-66	-61	-52	-81	-41
GST, lower bound (% revenue)	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.2
GST, upper bound (\$m)	-523	-449	-398	-215	-133	-35	-43	-13
GST, upper bound (\$pc)	-67	-72	-82	-84	-78	-67	-105	-52
GST, lower bound (% revenue)	-0.7	-0.7	-0.7	-0.8	-0.7	-0.6	-0.8	-0.2
Unimproved value of land								
GST (m)	0	0	0	0	0	0	0	0
GST (\$pc)	0	0	0	0	0	0	0	0

^a GST impacts are evaluated on a 'steady state' basis; that is, assuming the new policy was fully in place in 2016-17. No transition paths are evaluated. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the tax base.

Source: Productivity Commission estimates based on data provided by the CGC.

Table C.33 GST impact of stamp duty/land tax reform with category indicators

Multilateral change made by all States, 2016-17^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Current approach								
GST, lower bound (\$m)	135	-18	380	-306	-157	-19	-2	-13
GST, lower bound (\$pc)	17	-3	78	-119	-91	-37	-5	-55
GST, lower bound (% revenue)	0.2	0.0	0.7	-1.1	-0.8	-0.3	0.0	-0.2
GST, upper bound (\$m)	100	-13	281	-227	-116	-14	-1	-10
GST, upper bound (\$pc)	13	-2	58	-88	-68	-27	-3	-41
GST, upper bound (% revenue)	0.1	0.0	0.5	-0.8	-0.6	-0.3	0.0	-0.2
Value of dwelling stock								
GST, lower bound (\$m)	-5	85	-14	-11	-28	-5	-9	-13
GST, lower bound (\$pc)	-1	14	-3	-4	-16	-10	-21	-52
GST, lower bound (% revenue)	0.0	0.1	0.0	0.0	-0.2	-0.1	-0.2	-0.2
GST, upper bound (\$m)	-5	82	-13	-11	-27	-5	-8	-12
GST, upper bound (\$pc)	-1	13	-3	-4	-16	-10	-20	-51
GST, lower bound (% revenue)	0.0	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.2
Unimproved value of land								
GST (m)	0	0	0	0	0	0	0	0
GST (\$pc)	0	0	0	0	0	0	0	0

^a GST impacts are evaluated on a 'steady state' basis; that is, assuming the new policy was fully in place in 2016-17. No transition paths are evaluated. Lower and upper bounds refer to the elasticity estimates used to calculate changes in the tax base.

Source: Productivity Commission estimates based on data provided by the CGC.

D Modelling the efficiency of HFE

This appendix looks at the modelling studies undertaken in Australia and Canada that have aimed to quantify the efficiency effects of HFE. It describes the main approaches, assumptions and outcomes of these studies, as well as their limitations.

D.1 Studies that model the efficiency effects of HFE

There have been past attempts to measure the efficiency effects of HFE through modelling. These studies have primarily been conducted using either computable general equilibrium modelling or deadweight loss analysis.²⁴ Both types of modelling aim to quantify whether people are better or worse off under different equalisation scenarios. This is measured in terms of the ‘consumer welfare’ of people in each State and for the nation as a whole. The model outcomes are shown to be broadly similar when using either a general equilibrium or a deadweight loss approach. However, using different underlying assumptions and approaches can have a significant bearing on the model’s outcomes, regardless of the estimation method.

The most comprehensive modelling of Australia’s HFE system has been undertaken by Dixon, Picton and Rimmer (2002, 2005), Independent Economics (2012, 2015) and Murphy (2015, 2017). These groups disagreed on whether HFE enhances or reduces national welfare through its impact on migration (when compared to an equal per capita (EPC) distribution or some variant). However, despite these models applying different assumptions and leading to different conclusions, the overall efficiency impacts of all three models are generally found to be small (table D.1). These estimates are typically computed on a basis relative to an EPC distribution, as opposed to other less extreme alternative equalisation benchmarks, such as equalising to the average fiscal capacity of the States.

Dixon, Picton and Rimmer (2002, 2005)

Dixon, Picton and Rimmer (2002), from the Centre of Policy Studies, were commissioned by fiscally stronger States (New South Wales, Victoria and Western Australia) to undertake modelling for the *Review of Commonwealth-State Funding* (Garnaut and FitzGerald 2002b). Their computable general equilibrium model included details on each State (such as their tax

²⁴ Deadweight loss analysis calculates the loss in economic efficiency as a result of a move away from the most efficient (‘optimal’) scenario.

bases and costs of delivering services) and incorporated an assumption that fiscally weaker States have higher and increasingly inefficient levels of government discretionary spending.

They modelled a move to an EPC distribution. Their results suggest welfare gains of up to \$169 million per year (in 2000-01 terms), driven largely by the assumed higher government discretionary spending and the higher relative cost of delivering services in fiscally weaker States under HFE. In a follow up study in 2005, they reported smaller welfare gains associated with a move to an EPC distribution — ranging from \$16 million to \$135 million, depending on how factor mobility, government spending, fiscal externalities and congestion externalities were treated.

Table D.1 Modelling results summary: selected Australian studies

	<i>Dixon, Picton and Rimmer</i>		<i>Independent Economics</i>		<i>Murphy</i>	
	2002	2005	2012	2015	2015	2017
Change in national welfare from moving to an EPC distribution (\$million per year) ^a	+\$169 (2000-01)	+\$49 (2000-01)	-\$295 (2009-10)	-\$521 (2015-16)	-\$445 (2015-16)	-\$330 (2017-18)
Selected assumptions ^b						
EPC includes equalisation payments for Indigeneity	x	x	✓	✓	✓	✓
State preferences can differ from resident preferences	✓	✓	x	x	x	x
Single household utility function	x	x	✓	✓	✓	✓
Partial cost equalisation can improve welfare	x	x	✓	✓	✓	✓
Estimation method ^c	CGE	CGE	CGE	CGE	CGE/DWL	DWL

^a National welfare broadly refers to a utility function based on the consumption of private goods, government services, and leisure. ^b Refers to the assumptions used in these specific scenarios. ^c **CGE** computable general equilibrium modelling, **DWL** deadweight loss analysis.

Sources: Dixon, Picton and Rimmer (2002, 2005); Independent Economics (2012, 2015); Murphy (2015, 2017).

In 2006, the Queensland Treasury engaged the Centre of Policy Studies to repeat the 2002 modelling under a different set of assumptions that the Treasury considered were more realistic — this included a more consistent approach to fiscally strong and weak States' tax and spending decisions. In contrast to the earlier studies, these new assumptions produced results suggesting that a move to an EPC distribution would result in a \$620 million welfare loss (Queensland Treasury 2006; Tasmanian Government, sub. 28).

Independent Economics (2012, 2015)

Independent Economics (2012), in work commissioned by the SA Government, constructed a computable general equilibrium model that included several features of the Centre of Policy Studies model, in addition to some assumptions of their own (table D.1).

Their study estimated that a move to a ‘modified’ EPC distribution system (in which equalisation for differences in States’ spending needs for Indigenous populations are retained) leads to a welfare loss of \$295 million per year in 2009-10 terms. Independent Economics (2015) updated this model to account for some further differences between States. They reported a welfare loss of \$521 million associated with moving to a modified EPC system (in 2015-16 terms). They also found welfare losses associated with a move to a relativity floor of 0.75 and a scenario in which all payments to fiscally weaker States were funded by additional Commonwealth taxation.

Murphy (2015, 2017)

Chris Murphy (director of Independent Economics) re-examined the efficiency impacts of HFE using an alternative approach and applied it to additional scenarios. This involved developing a theoretical (‘optimal’) model of fiscal equalisation that builds on the framework of Boadway and Flatters (1982) and Albouy (2012). Roughly speaking, this equalisation formula only fully equalises States for source-based tax revenues (such as from mining royalties and land taxes), for the fixed costs of government and for differences in States’ demographic mixes. Other factors are subject to no or limited equalisation, so as not to distort price signals for migration (chapter 5).

Murphy (2015) estimated a welfare loss of \$445 million (in 2015-16 terms) associated with a move from the current HFE system to a modified EPC scenario (as described above for Independent Economics). A move from the current HFE system to his ‘optimal’ scenario was estimated to lead to a welfare gain of \$260 million.²⁵

In a further extension, Murphy (2017) added more detail to the design of the ‘optimal’ equalisation approach. He also updated his estimates and added further equalisation scenarios. Compared to the current HFE system (in 2017-18 terms):

- a move to a modified EPC scenario is estimated to lead to an annual consumer welfare loss of \$330 million
- a move to an EPC approach without equalisation for Indigeneity leads to a much larger welfare loss of more than \$1 billion

²⁵ While Murphy used both computable general equilibrium modelling and deadweight loss analysis in his 2015 paper, he reported only the former, noting that the two sets of estimates were ‘broadly similar’ (Murphy 2015, p. 21).

-
- using a system of Commonwealth ‘grants’ to fund equalisation is estimated to reduce welfare by \$100 million, while a 0.75 relativity floor scenario reduces welfare by \$71 million
 - in contrast, a scenario in which all equalisation transfers are discounted by 25 per cent (from the 2017-18 recommended relativities) is estimated to improve welfare by \$48 million
 - a move to the ‘optimal’ model is estimated to increase national welfare by \$71 million.

Canadian empirical studies of the efficiency impacts of equalisation

Canadian studies find mixed results on the role of Canada’s system of equalisation.

- An early study by Watson (1986) used a deadweight loss analysis to estimate small efficiency gains from its equalisation system of about \$1.4 million per year (in 1971 Canadian dollars), below the costs of raising these funds.
- However, Wilson (2003) was critical of some of Watson’s assumptions and claimed that the efficiency gains were in fact much larger. He argued that when migration patterns are considered over a longer period (not just population movements in a single year) the efficiency gains would be about \$60.3 million per year (in 1971 Canadian dollars).
- Albouy (2012) also used a deadweight loss analysis to estimate what he considered to be the inefficiencies of Canada’s equalisation policies. These include mining revenues being equalised only partially, and the Atlantic and Prairie Provinces being compensated for having lower nominal tax capacities, even though cost of living differences mean that their real fiscal capabilities are the same as the more populated Provinces. Albouy estimated that these inefficiencies cost Canada \$4.3 billion per year (in 2001 Canadian dollars).

D.2 Limitations of the modelling

There are limitations to such modelling exercises. As can be seen from the contrasting results of the studies described above, a model’s results can depend strongly on the specific assumptions made and the methodological approach. While certain assumptions are needed to simplify complex real world interactions, some are contentious. As a result, model outcomes depend critically on what underlying (often contentious) assumptions are first made about whether HFE improves or distorts migration decisions.

For example, assumptions about the behaviour of governments and people can drive the results, but the empirics of these behaviours are not well-known, and are generally determined *outside* of the models. In a situation where changes in fiscal transfers lead to a reduction in a State’s revenue, it could encourage that State to borrow more, tax more, or spend less (and perhaps even become more efficient in delivering services). These different responses can have different impacts on overall efficiency.

Also, States are assumed to take their equalisation grants as given in these models. That is, they do not engage in strategic behaviour or face any impact on their incentives to develop their tax bases. Such incentives can also impact on the overall efficiency of HFE. However, such incentives would be very difficult to model and have not been included in any empirical modelling to date.

Overall, HFE can bear on efficiency through multiple channels that are not typically captured in a model. Jonathan Pincus (sub. DR96, pp. 2-3) argued that if the model is underpinned only by the assumption that HFE removes incentives for labour to respond to differences in States' fiscal capacities, then it must show that HFE improves economic efficiency. However, he noted that the results may change if other possible inefficiencies of HFE are included, such as the disincentives for tax reform or development.

In submissions to this inquiry, most stakeholders have questioned the use of models to assess the efficiency of HFE (box D.1). As noted in chapters 1 and 5, the Productivity Commission has not undertaken its own economy-wide modelling of the impacts of HFE. The small and ambiguous efficiency impacts found in past modelling attempts (computed on a basis relative to EPC), as well as the extensive work already carried out in Australia, do not make a strong case for further modelling as part of this inquiry.

Box D.1 **Modelling HFE impacts: what participants say**

The SA Government (sub. 25, p. 1) noted the important findings of the modelling work that it commissioned:

The efficiency impacts of the current system of HFE were the subject of a detailed review undertaken by Independent Economics ... [the report] found that there would be a significant loss in overall national economic productivity if there was a departure from full HFE. This was a very important finding and represented a breakthrough in quantitative modelling in the Australian context.

Most other States, however, were more doubtful of the evidence from this sort of modelling. The ACT Government (sub. 49, p. 23) noted the importance of the underlying assumptions in modelling the efficiency effects of HFE:

There have been several attempts at quantifying welfare gains and losses from equalisation transfers. Some of the work has shown welfare gains due to equalisation, while other studies have found welfare losses as a result of equalisation. The differences in these findings depend significantly on the underlying theoretical assumptions.

The WA Government (sub. 15, pp. 37–8) was critical of the ‘essential limitations’ of general equilibrium models. It argued that such models follow the presumption of ‘a world of timeless relationships’ and use simple production functions fixed by recent economic data that ‘can provide no guidance on long-run efficiency’. Accordingly:

It is not technically feasible to develop a general equilibrium model that captures the efficiency impacts of HFE. Models that purport to do so demonstrate the effect of the assumptions, not what happens in practice. (sub. 15, p. 31)

Similarly, the Victorian Government (sub. 53, p. 4) noted that:

Computable general equilibrium models should not be used to assess the magnitude of any economic costs, given that these models are largely assumptions-driven. These models can show large differences in results, and/or contradictory results, when inputs and assumptions are changed slightly.

Jonathan Pincus (sub. DR96, p. 2) argued that the existing modelling did not capture the possible HFE-induced disincentives for State tax reform or development:

... no GCE model (to my knowledge) has included either of these two possible sources of inefficiency: they are ruled out by assumption, justified, if at all, by the technical difficulties of their inclusion, or by a priori theorising or casual empiricism and anecdote.

In contrast, the Minerals Council of Australia (sub. 48, p. 11) said that further modelling would be valuable, despite its limitations:

Further modelling of fiscal equalisation in Australia would be valuable to measure the broad economic benefits of the existing system and any potential changes, but such modelling must be based on more realistic or empirically relevant assumptions that represent both the theory of efficient equalisation and the actual distribution system in Australia. In particular, this modelling must consider the extent to which Australia is actually implementing HFE with its transfer methods and the impact of incentives on government behaviour.

The Parliamentary Liberal Party of WA (sub. 22, p. 5) also noted how the economic impact of HFE is likely to be felt most strongly at the State and regional level, rather than the national level:

The Productivity Commission Inquiry will no doubt do some modelling of the impact on the national economy, though the results are likely to be modest. The true impact is felt at a State or regional level. The recent experience of Western Australia is an obvious example.

E Fiscal equalisation in OECD countries

OECD countries have a range of fiscal equalisation schemes in place. This appendix discusses the features of those schemes, how they equalise fiscal disparities, and whether there are any lessons for Australia.

E.1 Features of fiscal equalisation

Countries pursue different equalisation objectives

OECD countries exhibit considerable variation in the extent to which their equalisation schemes seek to reduce fiscal disparities among sub-central governments (table E.1). In part, this is a function of differences in how countries define ‘equalisation’. Australia, for example, interprets horizontal fiscal equalisation as the ‘full and comprehensive’ equalisation of both revenue raising capacity and expenditure needs (chapter 2). The Commonwealth Grants Commission (CGC) commented that ‘the principle [of HFE] has focused on the provision of financial support from the Commonwealth to ensure that each State has the same capacity to provide an equivalent standard of services to its residents’ (sub. 1, p. 3). By comparison:

- Canada seeks ‘reasonably comparable levels of public services at reasonably comparable levels of taxation across provinces’
- Germany aims ‘to equalise the differences in financial [revenue raising] capacity of states’
- Switzerland looks ‘to provide minimum acceptable levels of certain public services without much heavier tax burdens in some cantons than others’ (Shah 2014, p. 9).

Although ‘full’ equalisation largely eliminates fiscal disparities between sub-central governments, ‘partial’ equalisation’ (as pursued in most OECD countries) allows for greater emphasis to be placed on other criteria such as efficiency, transparency, accountability, simplicity and predictability (Shah, sub. DR103, pp. 2-3; Boadway and Shah 2007, p. 36; Brumby, Carter and Greiner 2012a, pp. 44, 135). The extent to which a country reduces fiscal disparities largely reflects the priorities of governments in regards to these criteria, taking into account wider institutional frameworks, political structures and economic constraints. This is discussed in the Australian context in chapter 6.

Table E.1 A comparison of fiscal equalisation systems

Canada, Germany and Australia

	<i>Canada</i>	<i>Germany</i>	<i>Australia</i>
Equalisation definition	<ul style="list-style-type: none"> Reasonably comparable levels of public services at reasonably comparable levels of taxation across provinces (constitutional). 	<ul style="list-style-type: none"> To equalise the differences in financial capacity of States (Länder) (constitutional). 	<ul style="list-style-type: none"> States have the capacity to provide services at the same standard with same revenue effort and same operational efficiency (Federal law).
Benchmark	<ul style="list-style-type: none"> Below average provinces equalised to the average fiscal capacity of all provincial governments. 	<ul style="list-style-type: none"> Equalisation to ensure the financial capacity of States is not substantially below the German average. 	<ul style="list-style-type: none"> Equalisation to the fiscally strongest State.
Total funding pool determination	<ul style="list-style-type: none"> Formula. Capped by three-year moving average rate of growth in nominal GDP. 	<ul style="list-style-type: none"> Formula. Funding sources include the value added tax and States' own source revenue (including their share of joint taxes). 	<ul style="list-style-type: none"> Capped by amount of revenue generated by Goods and Services Tax (GST).
Sub-central governments	<ul style="list-style-type: none"> All provincial governments are considered for the purpose of equalisation. Territories receive funding through a separate formula. 	<ul style="list-style-type: none"> All States. 	<ul style="list-style-type: none"> All States and Territories.
Institutional arrangements	<ul style="list-style-type: none"> Intergovernmental Committees. Primary legal responsibility rests with the federal government (Ministry of Finance) and final approval with the National Parliament. 	<ul style="list-style-type: none"> Intergovernmental forum. Major decisions are reached by a forum of federal and state leaders. Oversight provided by the Financial Planning Council. 	<ul style="list-style-type: none"> Independent Government Agency (Commonwealth Grants Commission). The Treasurer provides final approval of equalisation payments.
Vertical and horizontal transfers	<ul style="list-style-type: none"> Vertical transfers only. 	<ul style="list-style-type: none"> Both vertical and horizontal transfers. 	<ul style="list-style-type: none"> Vertical transfers only.
Cost and revenue equalisation	<ul style="list-style-type: none"> Revenue equalisation only for provincial governments. Transfers to territories assess both revenue and expense needs. 	<ul style="list-style-type: none"> Focus on revenue equalisation, with adjustments to account for population size and density. 	<ul style="list-style-type: none"> Both revenue and cost equalisation.
Assessments	<ul style="list-style-type: none"> Representative tax system (5 revenue categories). Natural resources are partially included and assessed based on actual revenues. 	<ul style="list-style-type: none"> Financial capacity is based on actual revenues — States' tax receipts and 64% of the sum of receipts of its local authorities. 	<ul style="list-style-type: none"> Both representative revenue and expenditure systems. Considerably detailed and complex calculations. Mining revenues are assessed based on internal standards and are fully included.
Contemporaneity	<ul style="list-style-type: none"> Three-year weighted moving average of measured fiscal capacities with a two-year lag. 	<ul style="list-style-type: none"> Payments based on financial capacity in a given year. 	<ul style="list-style-type: none"> Three-year weighted moving average of measured fiscal capacities and expense needs with a two-year lag.
Additional Transfers	<ul style="list-style-type: none"> Health and social transfers Territorial funding. Special needs grants. 	<ul style="list-style-type: none"> Special supplementary central government grants. 	<ul style="list-style-type: none"> Specific purpose payments and other general revenue assistance (appendix B).

Sources: Brumby et al. (2012a); Department of Finance (Canada) (2006); Edison (2013); Feehan (2014); German Ministry of Finance (2016); Shah (2014).

Most countries pursue less than full equalisation

Most OECD countries pursue less than full (or ‘partial’) equalisation, and do so in a variety of ways. While the average per capita fiscal capacity of sub-central governments is often used as the benchmark to guide equalisation, the methods of equalisation and the outcomes achieved under the alternative systems differ considerably (table E.1). For example:

- in Canada, provincial governments with below-average fiscal capacity are equalised ‘up’ to the Canadian-average fiscal capacity. Provinces with above-average fiscal capacity neither receive payments nor are required to contribute (Brumby, Carter and Greiner 2012b, p. 5)
- in Germany, States (Länder) with below-average fiscal capacity are ‘levelled up’ towards the German average, while States with above-average fiscal capacity are ‘levelled down’ (box E.1). As noted by the German Federal Ministry of Finance (2016, p. 3), partial equalisation is pursued in the interest of the fiscal autonomy and sovereignty of the States
- in Switzerland, equalisation payments aim to provide each State (Canton) with a minimum per capita financial resource level of 85 per cent of the Swiss average. As noted by the Swiss Federal Department of Finance (2018), partial equalisation allows for a balance between fiscal equity between States and States’ financial independence.

While the decision to pursue partial equalisation is often intentional, as in Germany and Switzerland, this is not always the case. In Canada, for example, the amount of equalisation funding is only sufficient to bring the fiscally weaker provinces up to a minimum level (Brumby, Carter and Greiner 2012a, p. 172).²⁶

These varied approaches to equalisation result in differences in the extent to which countries reduce disparities in fiscal capacity (table E.2). Based on measurement of the Gini coefficient of tax raising capacity and the ratio of highest and lowest tax raising capacities before and after equalisation, Australia is found to have eliminated measured fiscal disparities among the State Governments. By comparison, substantial disparities remained in Canada and Switzerland, and some disparities remained in Germany (OECD 2013, p. 105).

²⁶ While equalisation funding is insufficient to pursue full equalisation, the Canadian system still promotes simplicity, objectivity and transparency (Department of Finance (Canada) 2006).

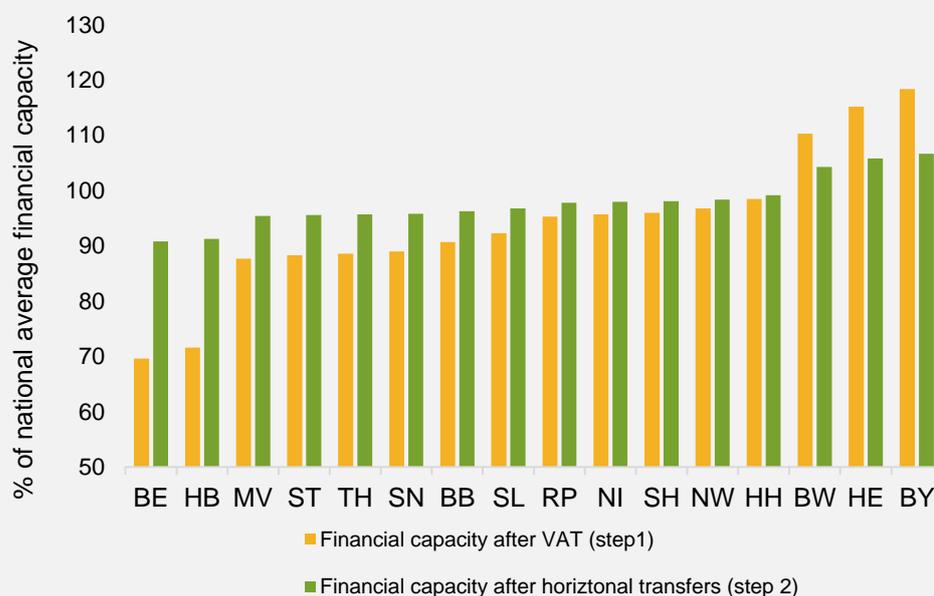
Box E.1 Germany's equalisation system

Equalisation ensures the financial capacities of German States are not substantially below the German average. The process of equalisation can be simplified to three steps. Each step is funded by a different revenue source.

- Step 1: States receive a share (approximately 45 per cent) of the Value Added Tax revenue. 75 per cent of the share is allocated on an equal per capita basis. The remaining 25 per cent is provided to States with tax revenue below the average, with between 60 per cent and 95 per cent of the gap 'topped up'.
- Step 2: Equalisation payments are made between stronger States and weaker States (based on their per capita financial capacity after step 1) (horizontal equalisation). States with below average financial capacity are 'levelled up' towards the German average, while States with above average financial capacity are 'levelled down'. The financial capacity of a State is calculated based on the sum of its tax receipts²⁷ and 64 per cent of the sum of receipts of its local authorities. Adjustments ensure that the ranked order of the States, in terms of financial capacity, does not change due to equalisation (figure below).
- Step 3: States whose per capita financial capacity (after steps 1 and 2) is still below the German average financial capacity receive supplementary funds from the federal government, making up 77.5 per cent of any remaining shortfall.

In 2016, equalisation narrowed the range of per capita financial capacity to between 97.5 per cent of the average in Berlin and 106.7 per cent in Bavaria.

Germany's equalisation system, 2016^{a,b}



^a Adjustments are made to account for different population sizes and densities. ^b Acronyms refer to German States

Sources: Brumby, Carter and Greiner (2012a); Deutsche Bundesbank (2014); Federal Ministry of Finance (Germany) (2016, 2017).

²⁷ States have a constitutional right to 42.5 per cent of the income tax, 50 per cent of the corporation tax and approximately 45 per cent of the value added tax.

Table E.2 Fiscal disparities in selected countries before and after equalisation^a
2012

Country	Gini coefficient of tax-raising capacity		Ratio of highest to lowest tax raising capacity	
	Before equalisation	After equalisation	Before equalisation	After equalisation
Australia	0.07	0.00	7.5	1.0
Austria	na	0.05	na	1.5
Canada	0.11	0.08	2.4	1.8
China (2010)	0.31	0.18	10.3	5.3
Germany (2005)	0.06	0.02	1.7	1.1
Italy	0.19	0.04	4.5	1.3
Spain	0.13	0.05	3.0	1.4
Switzerland	0.17	0.11	4.3	2.6

^a The Gini coefficient measures the statistical dispersion (spread) of fiscal capacity among sub-central governments. The Gini coefficient and ratio of highest to lowest tax raising capacity both provide a measure of variability in fiscal capacity — they do not measure the extent that economic disparities are eliminated. **na** Not available

Source: OECD (2013, p. 105).

Not all revenue or costs are equalised

Fiscal equalisation across the OECD is given effect through revenue equalisation, cost equalisation or a combination of the two (as occurs in Australia).²⁸ The relative reliance on cost and revenue equalisation varies considerably among OECD countries. For example:

- in Canada, provincial governments are equalised based on revenue raising capacity only. The three territorial governments are equalised through a separate formula (territorial formula financing) that considers both revenue raising capacity and expenditure needs (Department of Finance (Canada) 2012)
- in Germany, the focus is on revenue (both horizontal and vertical) equalisation. Adjustments are made to account for different population sizes and densities (Brumby, Carter and Greiner 2012b, p. 5)
- in Switzerland, while there is a focus on revenue equalisation, substantial adjustments are made to account for geographical/topographic and socio-demographic factors that result in higher costs of providing services (Federal Department of Finance (Switzerland) 2018).

²⁸ Revenue equalisation is the transfer of fiscal resources to reduce differences in a jurisdiction's per capita revenue raising capacity. Cost equalisation is the transfer of fiscal resources to reduce differences in a jurisdiction's per capita cost of providing a standard set of public services

Approaches to revenue equalisation

OECD countries use various approaches to estimate sub-central governments' revenue raising capacity. One approach — adopted by many countries — is to use a 'representative' tax system, although countries differ on what they consider to be representative. These approaches are based on 'internal standards' — what jurisdictions actually do (OECD 2013, pp. 103–104). No country appears to use an 'external standard' (that is, some concept of optimal policy) to estimate revenue raising capacity.

In Canada, for example, all provincial government revenue sources are allocated to one of five categories: personal income taxes, business income taxes, consumption taxes, property taxes and natural resource revenues (Feehan 2014, p. 5). The equalisation formula estimates per capita fiscal capacity for each of the revenue categories (excluding natural resources) by determining the amount of revenue that each province could generate if it applied the national average provincial tax rate. Because of the wide range of natural resources and royalty structures across the provinces, actual resource revenues are used to measure fiscal capacity for this revenue category, instead of creating a national average tax rate (Edison 2013). Since 2007, the equalisation formula has only partially included natural resource revenues (box E.2).

Similar to Canada, Australia uses a form of representative tax system, although in Australia State revenues are allocated to one of eight categories (seven own-source revenue categories plus Commonwealth payments). The main difference between the two systems is that Australia's approach to estimating revenue raising capacity involves considerably more detailed and complex calculations within many of these categories (chapter 2). Moreover, natural resource revenues are assessed based on internal standards (not actual revenues) and are fully included in the equalisation formula.

As an alternative to a representative tax system, Germany's approach is based on actual revenues. The financial capacity of a State is calculated based on the sum of its receipts (less 12 per cent of its above-average increase in tax revenue [excluding VAT] over the previous year compared with other States) and a proportion (about two thirds) of the sum of receipts of its local authorities (Federal Ministry of Finance (Germany) 2017, p. 42). The revenues of local authorities are taken into account when assessing financial capacity because the States are responsible for providing their local authorities with appropriate and adequate financial resources. All types of States and local authority revenues are taken into account when determining financial capacity (Federal Ministry of Finance (Germany) 2016, p. 3).

Approaches to cost equalisation

Cost equalisation aims to compensate for differences in the per capita cost of providing public services among sub-central governments. Cost equalisation that is based on actual spending has largely been phased out in OECD countries as it gives sub-central governments an incentive to inflate expenditures or, at the very least, to not contain costs or pursue efficiency improvements (OECD 2013, p. 104). In practice, there are various approaches to

expenditure equalisation, including representative expenditure systems, imputation methods/econometric approaches, and the application of cost disability factors.

Box E.2 Canada's mining discount

In 2006-07, Canada undertook extensive reform of its fiscal equalisation system, following the recommendations of the Expert Panel on Equalisation. In undertaking its review, the Expert Panel commented that:

By far, the most contentious issue involves how resource revenues should be treated in the formula. The Panel heard strongly held and diametrically opposing views ranging from excluding resource revenues entirely to including them completely. Given the importance of resources to the economies of some provinces and the impact of high prices for oil and gas in particular, this issue has direct bearing not only on the Equalisation program but on the potential for resource revenues to increase disparities among provinces. (Department of Finance (Canada) 2006, p. 4)

Partial Inclusion

A key part of the reform was that natural resource revenues, such as royalties and fees, would be partially included in equalisation payments. Prior to 2004, 100 per cent of natural resource revenues were included in the equalisation formula.

The Expert Panel recommended that natural resource revenues should only contribute 50 per cent to defined provincial fiscal capacity (i.e. a 50 per cent discount of mining royalties). However, due to a pre-election promise to exclude natural resource revenues from equalisation payments, the equalisation formula was changed in 2007 to involve two options. Provinces would be entitled to a payment based on a calculation that either includes 50 per cent of natural resource revenues or excludes natural resource revenues entirely. Provinces automatically receive payments according to the formula that yields the higher payment. The use of actual resource revenues, instead of resource tax bases, was also introduced to calculate fiscal capacities of the provinces.

Fiscal Capacity Cap

As part of the reform package, a fiscal capacity cap on equalisation payments was introduced to address the partial inclusion of natural resource revenues. The fiscal capacity cap aimed to ensure that when including 100 per cent of natural resource revenues the fiscal capacity of eligible provinces, after receiving equalisation payments, did not exceed the fiscal capacity of the fiscally weakest non-equalisation-receiving province. Provinces are eligible for payments if their per capita fiscal capacity is below the Canadian average. In 2009, the Canadian government modified the standard of the cap to ensure that the fiscal capacity of equalisation-receiving provinces did not exceed the average of all equalisation-receiving provinces.

Sources: Department of Finance (Canada) (2006); Edison (2013); Feehan (2014).

In Australia, the Commonwealth Grants Commission (CGC) uses a hybrid of these approaches — a form of a representative expenditure system with the overlay of cost disability factors (chapter 2). Other OECD countries tend to follow a simpler approach. Switzerland, for example, devotes 19 per cent of its equalisation pool to compensate for geographical/topographic and socio-demographic factors that result in higher costs in the provision of public goods and services. Eight factors are considered: population size, area, population density, population older than 80, number of large cities, number of foreign adults

resident for more than 10 years, unemployment and the number of people requesting social assistance from the State (Shah, sub. DR103, p. 19).²⁹

Although the system in Germany focuses on revenue equalisation, some adjustments are made to account for States' different expenditure needs (Brumby, Carter and Greiner 2012b, p. 5). The States of Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt have their populations 'marginally upgraded' to account for the higher costs of providing services in sparsely-populated regions. The 'city-states' of Berlin, Bremen and Hamburg that have a much higher per capita financial requirement (in part because they provide public services to residents of other States) have their populations notionally increased by 35 per cent (Deutsche Bundesbank 2014).

In Canada, provincial governments' expense needs are not considered. The default presumption is that the cost of providing public services across provinces is the same and that the public-service needs of people are equal on a per capita basis (Boadway 2014, p. 5). Expenditure needs are instead addressed through federal specific purpose programs (Shah, sub. DR103, p. 20). And, as noted in table E.1, the three territorial governments receive payments based on both revenue raising capacity and expenditure needs (ensuring that territorial spending can grow in line with changes in relative population growth and changes in provincial-local government spending) (Department of Finance (Canada) 2017).

Countries generally seek budget stability

In some OECD countries, changes in sub-central governments' revenue-raising capacity can result in frequent and rapid adjustments to their equalisation payments. These adjustments can exacerbate annual fluctuations in total sub-central government revenue, and complicate budget planning (OECD 2013, p. 111). The trade-off between contemporaneous assessments and budget stability in Australia's HFE system is discussed in chapter 4.

Most countries, including Australia and Canada, have addressed the potential for instability by linking equalisation payments to lagged fiscal capacity indicators and/or moving averages of States' fiscal capacities (Blöchliger et al. 2007, p. 23).

Another response to concerns about volatility has been to set equalisation transfers as a fixed percentage of total tax revenue or to introduce ceiling and floor provisions to dampen fluctuations. For example, in 2009 the Canadian Government introduced a 'gross domestic product growth ceiling' that fixed the pool of funding allocated to equalisation to a three-year moving average rate of growth in nominal GDP. As noted by Edison (2013, p. 1) '[t]he ceiling also functions as a floor because the total amount of equalisation payments increases in accordance with GDP even when there is a reduction in fiscal disparities among the provinces'.

²⁹ A Cohesion Fund was also introduced in 2008-09 to provide additional financing for infrastructure deficiencies and to ensure that financially weak States were not made worse off in transition to the new equalisation system introduced in 2008.

Alternatively, in Germany the system's horizontal equalisation component (involving the transfers of fiscal resources between the States) acts to smooth regional cycles. Vertical transfers are pro cyclical and not based on moving averages (Blöchliger 2014, p. 14).

Institutional arrangements for fiscal equalisation

Institutional arrangements for fiscal equalisation vary markedly across countries. A country's approach is often constrained by factors such as the inherent scope and nature of its intergovernmental fiscal relations, existing institutional arrangements, and administrative capacity of central (and local) institutions (Boex and Martinez-Vazquez 2004, p. 7). That said, the diverse institutional arrangements for fiscal equalisation can be classified into four stylised models.

1. A central/national government ministry/agency (for example, Italy, Poland, Switzerland).
2. The national legislature (for example, Brazil).
3. Intergovernmental forums, including intergovernmental-cum-civil-society forums (for example, Canada, Germany).
4. An independent agency (grants commission) reporting either to the executive or the legislature on a permanent or periodic basis (for example, Australia, India) (Shah 2005, pp. 2–6).

E.2 Lessons from international experience

Horizontal equalisation arrangements in other countries are inextricably linked to their particular distribution of authority to collect taxes, legal and constitutional allocation of responsibilities for the provision of public services, and to federal–state government agreements to provide other funding. A review of OECD experience found:

Fiscal equalisation is also tremendously country specific. Fiscal equalisation is shaped by the wider institutional framework such as size, number and geographical distribution of sub-central governments, the responsibilities and fiscal resources allocated to each jurisdiction, or the mechanics of power sharing between the central and the sub-central level. ... The wealth of explicit and implicit, statutory and common, equalisation arrangements makes it hard to find a common baseline and reduces the body of generalised policy analysis applicable to all countries alike. (Blöchliger et al. 2007, p. 5)

The country-specific nature of equalisation arrangements means the applicability of those schemes to Australia (with its own unique institutional framework, responsibility for providing public services, fiscal capacities and societal values) is somewhat limited. Nonetheless, a number of important lessons can be distilled from the international experience.

Equalisation can create perverse incentives

A characteristic of equalisation systems is that an increase in own-source revenue for a sub-central government will result in lower equalisation payments to that State. The magnitude of this loss in funding for a sub-central government varies considerably across countries, and can range from zero to 100 per cent (OECD 2013, pp. 106–107). For example, in Austria, States with below-average fiscal capacity lose up to 88 per cent of funds generated from an increase in own source revenue, while in Canada, provinces with below-average fiscal capacity lose between 70–100 per cent of additional own source revenue.

OECD experience provides evidence that these distortions can reduce the incentive for sub-central governments to increase their fiscal base and pursue regional growth. OECD country studies, for example, indicate that high offset rates associated with interstate fiscal equalisation in Germany have a negative impact on States' tax revenue collection efforts (OECD 2006, p. 61). Other studies suggest equalisation produces disincentives for regional governments to develop their tax bases (Wurzel 2003, p. 14).³⁰ As noted by Shah, similar adverse incentives are present in Australia (however unlike Canada and Austria, high equalisation offset rates primarily apply to States with above average fiscal capacity) (chapter 3):

Equalisation creates significant adverse incentives for expansion in tax base and/or tax rate by the dominant base states as equalisation offsets confiscate most of additional revenues from such expansion. (Shah, sub. DR103, p. 4)

The need to take account of broader conditional transfers

In a number of OECD countries, the equalisation system operates within a broader landscape of tied (or conditional) transfers to sub-central governments (discussed in the Australian context in chapter 9). As such, the design of the equalisation system (and potential improvements to it) should not be looked at in isolation from this broader fiscal system (Shah 2006, p. 48). Indeed, in some countries, the broader landscape has been an explicit consideration. For example, Canada, Germany and Finland compensate for different expenditure needs through separate conditional transfers in order to keep the fiscal equalisation system simple, objective and transparent (Shah, pers. comm., 19 July 2017).

Linked to this is the view that the broader fiscal system (and particularly tied payments to sub-central governments) should be incorporated into any examination of inter-jurisdictional

³⁰ Equalisation offset rates can also create a development trap for fiscally weaker sub-central governments (Blöchliger et al. 2007, p. 16). This is most likely where equalisation schemes ensure a minimum fiscal capacity to governments whose fiscal capacity falls below a certain threshold. Under those circumstances, jurisdictions would effectively lose 100 per cent of additional funds for any increase in their revenues up to that threshold — these 'cliff edge' effects were present in Germany's system prior to equalisation reforms in 2005 (Färber 2013, p. 13). In contrast, jurisdictions above that threshold face a smaller equalisation tax rate that can be as low as zero per cent.

fiscal equity and fiscal efficiency (Shah 2012, p. 27; pers. comm., 19 July 2017). This is the approach taken in Australia where, for example, elements of National Specific Purpose Payments and National Partnership Payments are considered when calculating States' relativities (discussed further in chapter 2 and appendix B).

Providing autonomy to States through equalisation payments

In some OECD countries, equalisation transfers are conditional upon funds being spent in a particular area. This results in sub-central governments delivering the services, but doing so under the central government's direction.

These tied arrangements raise a number of concerns (OECD 2013, p. 110). First, equalisation transfers are intended to provide sub-central governments with the fiscal capacity to meet some standard of service provision if they choose to do so, but do not compel them to do so. Tied transfers contradict the notion of sub-central government autonomy.

While some OECD countries (such as Switzerland) provide tied equalisation transfers, the majority of countries avoid the practice. In Germany, transfers designed to address 'special burdens' in fiscally weak States are not tied to a specific purpose. Similarly, in Canada, Territorial funding (which is designed to address the unique cost disadvantages faced by the Territories) is untied. Second, tied transfers can generate significant administrative burdens and compliance costs for central and sub-central governments.

OECD experience suggests that conditional transfers are not necessarily the best way to achieve desired outcomes:

If a central government is to retain control over the proper use of equalisation funds, it can do so more effectively through appropriate public service regulation — by, for example, setting minimum standards or using output and performance indicators. It should leave the operation and management of fiscal resources to the discretion of local and regional governments. (OECD 2013, p. 110)

The issue of tied versus untied equalisation payments and the appropriate balance between the two is discussed in chapter 2 and chapter 9.

The importance of independent governance arrangements

The desirable institutional arrangement will depend upon the features of the broader equalisation landscape in a country (Boadway and Shah 2007, p. 293). However, OECD experience suggests that, particularly for countries that operate *cost* equalisation arrangements, an independent agency leaves less room for political bargaining and allows the allocation of equalisation revenue to occur as a technical exercise (Blöchliger et al. 2007, p. 25). This is in the context of a growing body of literature that highlights the role of political

factors in distorting equalisation policy (Khemani 2007, p. 464). Studies of UK equalisation arrangements also endorse the independent agency model (McLean 2004, pp. 34–37).

That said, it has also been suggested that, in some instances, an independent agency can produce other issues, such as mission creep, incentives for complexity, and issues with public oversight (Shah 2005, pp. 12–13). Further, Blöchliger and Charbit note that intergovernmental forums provide simple and feasible alternatives, that minimise transaction costs:

An agency brings a principal-agency-problem: the agency might have an interest to make its work more complex than necessary so as to ensure its existence and to enlarge the scope of its work. Moreover, it might lead to an increase in transaction costs. (2008, p. 14)

As noted by participants to this inquiry, changes to equalisation arrangements require political buy-in by sub-central governments. Thus, a balance is required between an independent agency and political ownership (Shah, sub. DR103, p. 2). The role of the CGC in Australia is discussed in chapter 9.

Achieving societal consensus should be at the heart of equalisation arrangements

The current debate in Australia about whether the distribution of GST revenues is ‘fair’ or ‘equitable’ mirrors the debate in other countries where fiscal equalisation is part of the intergovernmental landscape. As an OECD working paper on fiscal federalism has noted:

The stakes of jurisdictions with high tax revenue and low cost of public services are almost inevitably opposed to those jurisdictions with low tax revenue and high public service cost. (Blöchliger et al. 2007, p. 5)

Accordingly, any process of change is unlikely to be decided on the basis of the benefits and costs of alternatives to improve fiscal equalisation outcomes, but rather by lengthy processes to achieve political acceptance by sub-central governments (Blöchliger et al. 2007, p. 5).

These lessons indicate the value of informing and educating stakeholders about the merits of any change to the equalisation system, to help ensure that changes are enduring. This theme is developed further in chapter 6.

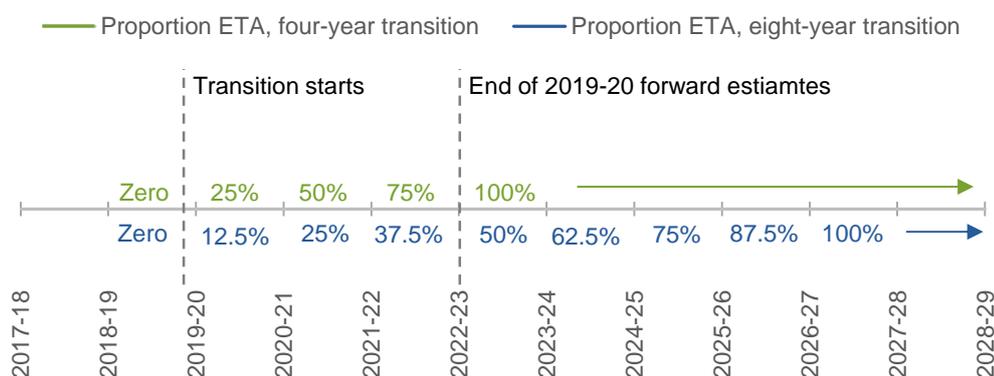
F Transition analysis

This appendix provides detail on the quantitative analysis that has guided the Commission’s assessment of the transition options for moving to a new equalisation benchmark — equalising to the average fiscal capacity of States (chapter 9). The transition options are outlined in section F.1 along with some additional information on the transition principles outlined in chapter 9. The quantitative analysis is detailed in section F.2 which includes the projection methodology, inputs and assumptions for the Commission’s ‘best estimate’ of GST payments over the transition period. Results are presented in section F.3. An annex is presented in section F.A where alternative scenarios for future GST payments are explored.

F.1 Transition options and principles

The Commission has considered two possible transition periods, both starting in 2019-20 — a four year transition and an eight year transition (figure F.1). Under both options, relativities are calculated using a weighted average of the relativities that would apply under the current benchmark and equalisation to the average of all States (ETA), with weights increased by 25 percentage points per year until 2022-23 (for the four year transition) and 12.5 percentage points per year until 2026–2027 (for the eight year transition).

Figure F.1 **Key dates for transition**



Principles for transition to a revised HFE benchmark

Assessing the impact of a transition path is difficult due to the challenges associated with estimating States' future GST payments. Choosing a transition path based on clear principles can assist in managing some of this uncertainty, and improves transparency by explicitly stating the grounds upon which a transition path was assessed. In chapter 9, the Commission identified three principles to guide its selection of a transition path. A transition path should:

- be manageable (from a budget perspective) for the States
- be fiscally sustainable for all Governments
- deliver the benefits of reform in a timely manner.

These principles are not detailed here but some additional information on how to interpret the first principle — manageability for the States — in the context of the transition analysis and results is provided in box F.1.

F.2 Assessment methodology, inputs and assumptions

There are three components relevant to estimating GST payments to the States. These are: States' relative fiscal capacities (GST relativities), population growth, and the size of the GST pool (box F.2).

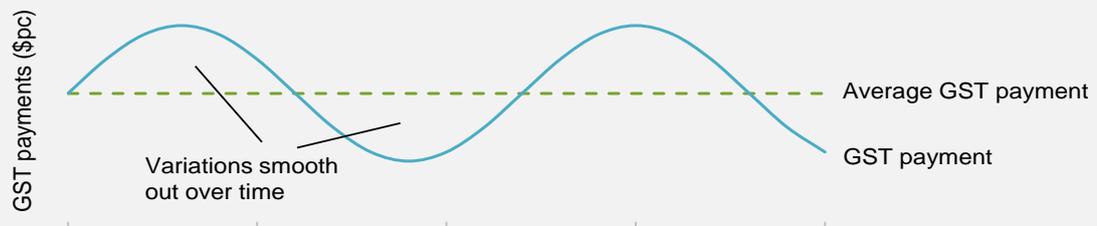
The Commission has consulted with each State Treasury and the Commonwealth Treasury on the best way to estimate the components of GST payments. Their inputs and feedback have informed the Commission's 'best estimate' of future GST payments to the States. This best estimate is based on estimates of future relative fiscal capacities, State populations and GST pool growth either provided to the Commission by State Treasuries or available in the 2017-18 Commonwealth Mid-Year Economic and Fiscal Outlook (MYEFO) update. For the purposes of the analysis presented here, the Commission has used projected relativities under the current methodology (equalisation to the strongest state) as a measure of States' relative fiscal capacities.

State Treasuries are best placed to make projections of their GST relativities as they have the most knowledge about their State's fiscal circumstances and how these may change in the future. However, economic variables do not always evolve as State and Commonwealth Treasuries expect and it is difficult to accurately predict how fiscal capacities will develop or be impacted over the long term. Estimating State fiscal capacities (and GST relativities) in particular is a complex task as it requires estimates of a range of uncertain variables, such as revenues and expenditures, for each State. For example, an external shock to a State's fiscal capacity, such as from a natural disaster, could affect both the revenue a State receives (as some business activity may be lower) and the expenditures it needs to make (such as reconstruction of public assets).

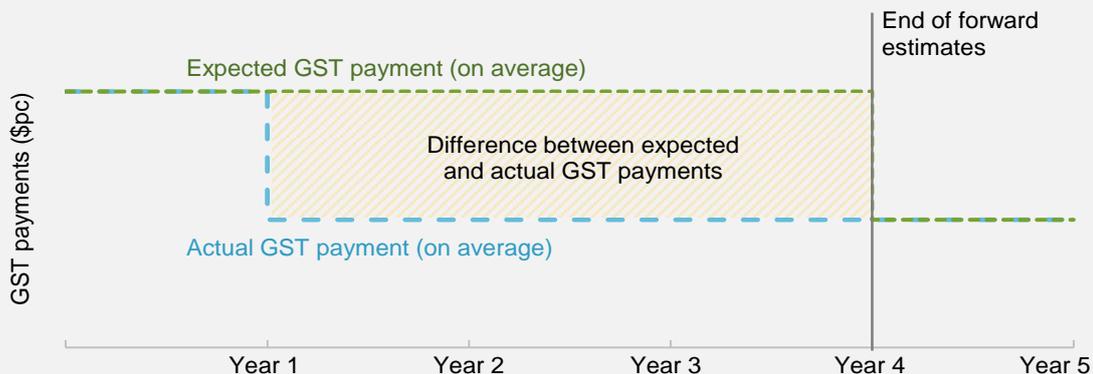
Box F.1 A permanent change in revenue requires lasting reforms

From a budget management perspective, it is important to differentiate between two sources of variation in expenditures and revenues. Some variations are temporary, occur on both the upside and downside, and if symmetric will cancel out over the economic cycle. Other variations are due to permanent shifts in the revenue raising ability or expenditure commitments of the State. The size of a variation in revenues or expenditures that a State can manage, and the tools for dealing with it, will depend on which of these two types of variation has occurred.

Temporary variations in a State's GST payments are relatively common. These forecasting errors happen on both the upside (for example, if a weaker than expected State economy results in lower assessed revenues) and on the downside (vice-versa). But over the medium term these sorts of variations can even out, and GST payments will fluctuate around an average amount (figure below). Managing such temporary variations in GST payments is a routine part of budget management. States use a range of tools to smooth out these fluctuations, such as borrowing or lending, or imposing temporary budget levies.



GST payments can also vary (relative to what was expected) due to a permanent shift in the average GST payment the State will receive. In these cases the average GST payment is trending upwards or downwards over time. This could be for several reasons. For example, an unexpected but permanent increase in a State's population share could result in GST payments to the other States being permanently lower than expected (figure below). Changing the equalisation benchmark would also change the average amount of GST a State receives, all other things being equal.



The tools available to States to manage a permanent change in their GST payments are different to the tools used to manage temporary fluctuations. In particular, debt is a less sustainable tool for managing a decrease and more lasting solutions may need to be found. For example, States may need to improve the efficiency of service delivery (so that the same services can be provided using less revenue).

Box F.2 Three components to States' future GST payments

Future GST payments to the States under any equalisation benchmark are uncertain. The amount of GST that a State receives will depend on the State's population share, its GST relativity and the size of the GST pool. Some of these components are estimated as part of State and Commonwealth Treasury budgets.

GST relativities are not consistently forecast and can be highly variable, especially when estimated beyond the period where observed data are available. Relativities have the greatest impact on State GST payments and are also the most difficult to forecast.

In recent budgets, the Commonwealth Treasury has held GST relativities constant. The ACT and NT Treasuries use the same approach. Other States forecast relativities over the forward estimates using data from the most up-to-date budget documents for each State, as well as information contained in CGC updates and Commonwealth Treasury budget documents. Not all information is available in these documents and so forecasts tend to focus on the most material and most volatile budget items, such as State revenues. The CGC does not provide GST relativity forecasts.

GST pool growth is forecast by the Commonwealth Treasury as part of its budget process for the current year and the three-year forward estimates. These forecasts are based on expected consumption and prices of GST-taxable goods and services.

State population growth is also forecast by the Commonwealth Treasury over the same period as the GST pool. It uses the latest demographic data available from the ABS as well as Treasury assumptions on fertility, mortality, net overseas migration and interstate migration. The migration components are volatile and so these are estimated based on a weighted average of the three most recent observed years.

Source: Various State and Commonwealth Treasury budget papers.

Projecting State fiscal capacities

Expectations of future GST relativities (based on the Commonwealth Grants Commission's (CGC) current methodology) have been supplied to the Commission by some State Treasuries on a confidential basis. An average of these estimates formed the Commission's best estimate of States' relative fiscal capacities over the projection period³¹ (box F.3, table F.1, figure F.2).

Compared to the current year, all participating State Treasuries expected relativities (based on the current methodology) to rise significantly for Western Australia and the Northern Territory in 2019-20 (figure F.2). Individual State Treasury forecasts were not unanimous on the direction of changes for other States, although the differences were typically small. The consensus forecast was for relativities (based on the current methodology) in all other States to remain at about their current levels or slightly decrease.

³¹ When weighted using MYEFO population estimates, the average of projected State Treasury GST relativities sum to almost one (between about 0.995 and 0.999). This was sufficiently accurate for the illustrative purposes of the transition analysis.

Box F.3 A best estimate was found by averaging relativity forecasts

The ‘best estimate’ projection of the relative fiscal capacities of the States was based on an average of the forecast GST relativity estimates (based on the current equalisation benchmark) provided by contributing State Treasuries. State Treasuries are best placed to make estimates of their relative fiscal capacities as they have the most knowledge about State fiscal circumstances and how they may change in the future. An average was taken to create a consensus forecast, and to maintain the confidentiality of individual State’s estimates.

Treasury Departments had differing views on the averaging approach for GST relativities. Some supported the approach on the basis that it can help reduce bias in underlying assumptions. Those that were critical noted that some jurisdictions simply assume GST relativities remain at their current levels over the projection period and including these estimates as part of an average could increase the forecast error rate. The Commission therefore excluded these forecasts from its best estimate.

Another issue raised was that averaging the relativity forecasts of each State may give a slightly different number for State relativities than averaging the components that underpin each State’s relativity calculation. One situation where this could occur is if States have projected different GST pool sizes in a given year. Because the GST formula must balance, a State that assumes a larger GST pool also requires the level of GST components to be ‘more extreme’ (higher in the case of assessed expenses, investment and net lending, or lower in the case of revenue, Special Purpose Payments and National Partnership Payments) relative to other States’ estimates. This means that an average based on GST components could produce a different result to an average based on relativities.

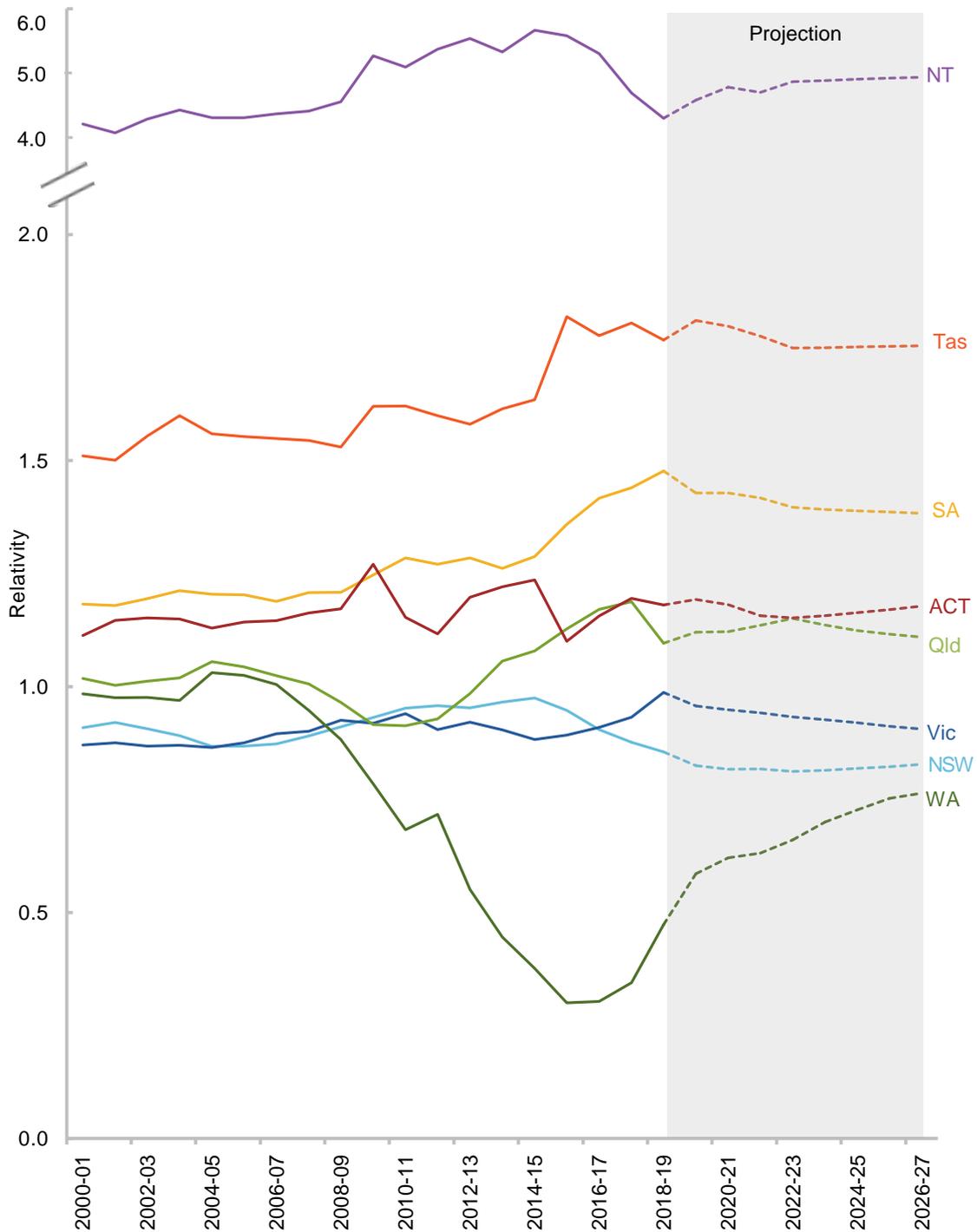
However, the difference between relativities produced by these two averaging approaches is small, especially if States’ forecasts of GST pool size are broadly similar. States did not provide the Commission with their estimates of the components of GST that underpin their calculations and so an average of application year relativities was used for the analysis.

Table F.1 Current benchmark: projected State relativities

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
CGC 2018 recommended relativities								
2018-19	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Best estimate relativities — current equalisation benchmark								
2019-20	0.82	0.96	1.12	0.59	1.43	1.81	1.19	4.55
2020-21	0.82	0.95	1.12	0.62	1.43	1.80	1.18	4.75
2021-22	0.82	0.94	1.14	0.63	1.42	1.78	1.16	4.67
2022-23	0.81	0.93	1.15	0.66	1.40	1.75	1.15	4.84
2023-24	0.81	0.93	1.14	0.70	1.39	1.75	1.16	4.86
2024-25	0.82	0.92	1.12	0.73	1.39	1.75	1.16	4.88
2025-26	0.82	0.91	1.12	0.75	1.39	1.75	1.17	4.90
2026-27	0.83	0.91	1.11	0.76	1.38	1.75	1.18	4.91

Sources: CGC (2018g); Productivity Commission estimates based on data provided by State Treasuries (confidential).

Figure F.2 Current benchmark: historical and projected State relativities
 Best estimate scenario, 2000-01 to 2026-27



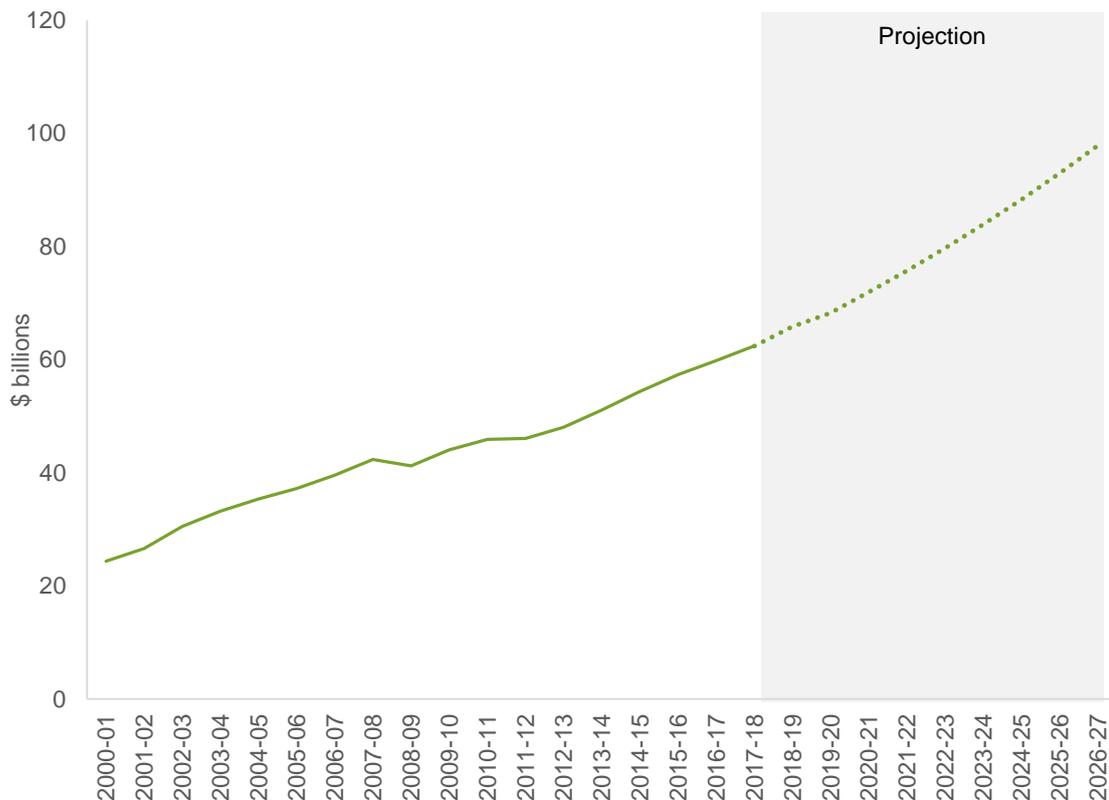
Sources: CGC (2018g); table F.1.

Projecting State populations and GST pool growth

The average annual growth rate of GST revenue since it was introduced has been approximately 6 per cent (in nominal terms), although this has varied year to year with overall consumption growth and consumption patterns on GST-taxable goods and services. GST pool growth is expected to slow in the coming years. The Commonwealth Treasury has estimated annual GST pool growth over the period to 2020-21 to be about 5 per cent (nominal) (Commonwealth of Australia 2017e).

For the period beyond 2020-21, the Commission has assumed that the nominal GST pool grows at a rate of 5.25 per cent per year. This is based on the assumption that the economy — and the GST pool — grows at its long-run potential growth rate (2.75 per cent real growth plus 2.5 per cent inflation) past the forward-estimates and that the share of GST-taxable goods in total expenditure remains constant (Commonwealth of Australia 2017e, p. 21) (figure F.3).

Figure F.3 Historical and projected GST pool growth
\$ billions (nominal), best estimate, 2000-01 to 2026-27



Source: Productivity Commission estimates based on Commonwealth Treasury budget documents.

The Commonwealth Treasury has also estimated annual total population growth to average about 1.5 per cent over the forward estimates, with different growth rates for each State. The

Commission used the final year (2020-21) of MYEFO estimates to project each State's population growth for the period beyond 2020-21 (table F.2).

Table F.2 Projections of State population growth rates
2018-19 to 2026-27, per cent per year

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total</i>
Best estimate (based on Commonwealth MYEFO)									
2018-19	1.51	2.03	1.41	1.06	0.70	0.54	1.51	0.28	1.49
2019-20	1.55	2.06	1.42	1.07	0.73	0.55	1.52	0.28	1.52
2020-21	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.53
2021-22	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.53
2022-23	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.54
2023-24	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.54
2024-25	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.54
2025-26	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.54
2026-27	1.58	2.08	1.43	1.08	0.75	0.56	1.52	0.28	1.54

Source: Productivity Commission estimates based on Commonwealth of Australia (2017e).

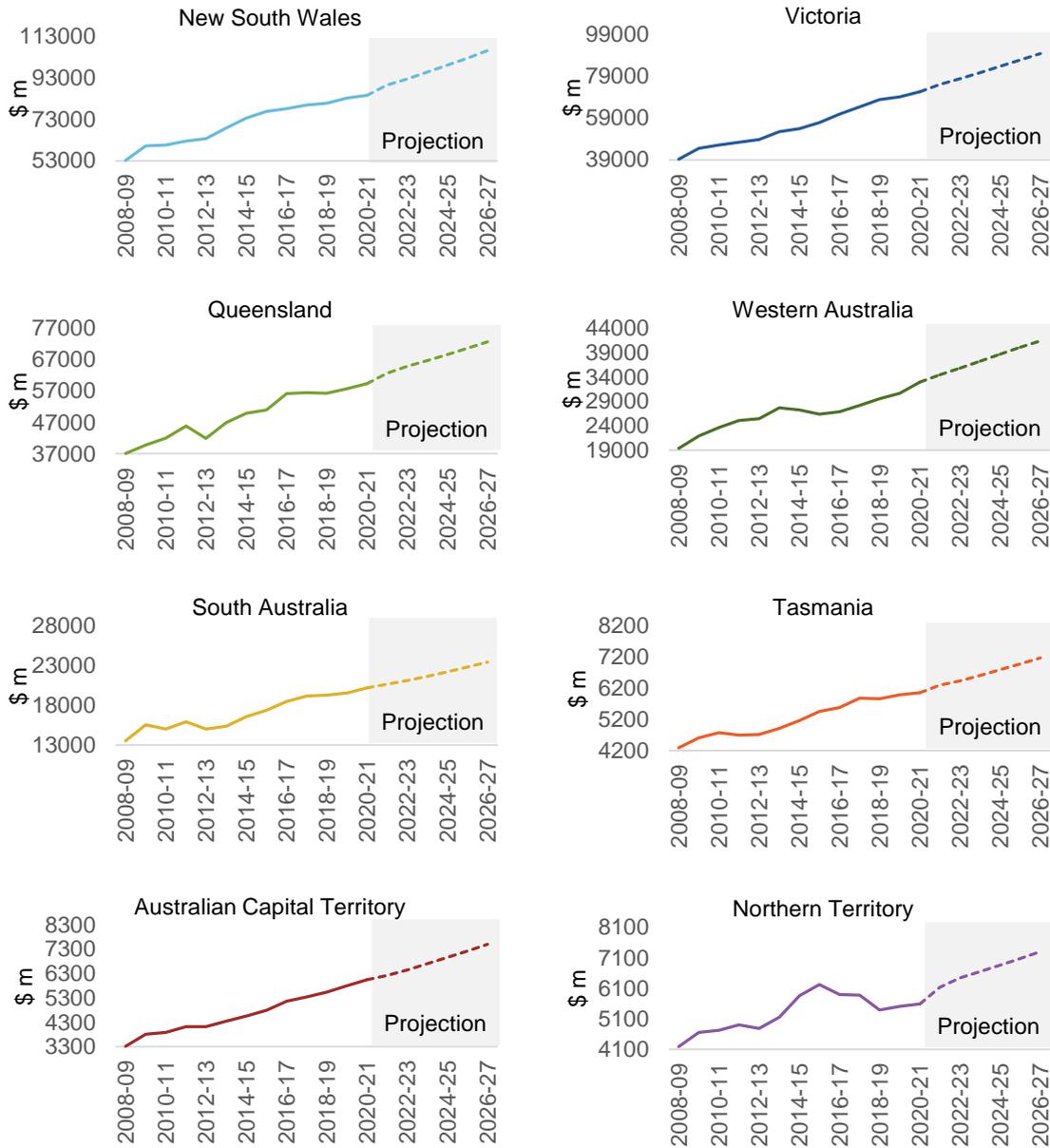
Projecting growth in State revenue

State Governments currently provide estimates of future State revenue to 2020-21 (the end of budget year 2017-18 forward estimates). To estimate revenue for the period 2021-22 to 2026-27, the Commission projected a linear trend of non-GST revenue from 2008-09 to 2020-21 for each State. Data was sourced from the ABS (2017d) (State total revenue for the general government sector) and the budget estimates contained in each State Treasury's mid-year (2017-18) budget update.

Projected GST payments in each year (based on the Commission's best estimate) were then added to projected non-GST revenue to give total projected revenue for each State (figure F.4).

Figure F.4 Projected State revenue

Historical and projected revenues, 2008-09 to 2026-27



Sources: Productivity Commission estimates based on ABS, *Government Finance Statistics, Australia, 2015-16*, Cat. No. 5512.0 and various State budget papers.

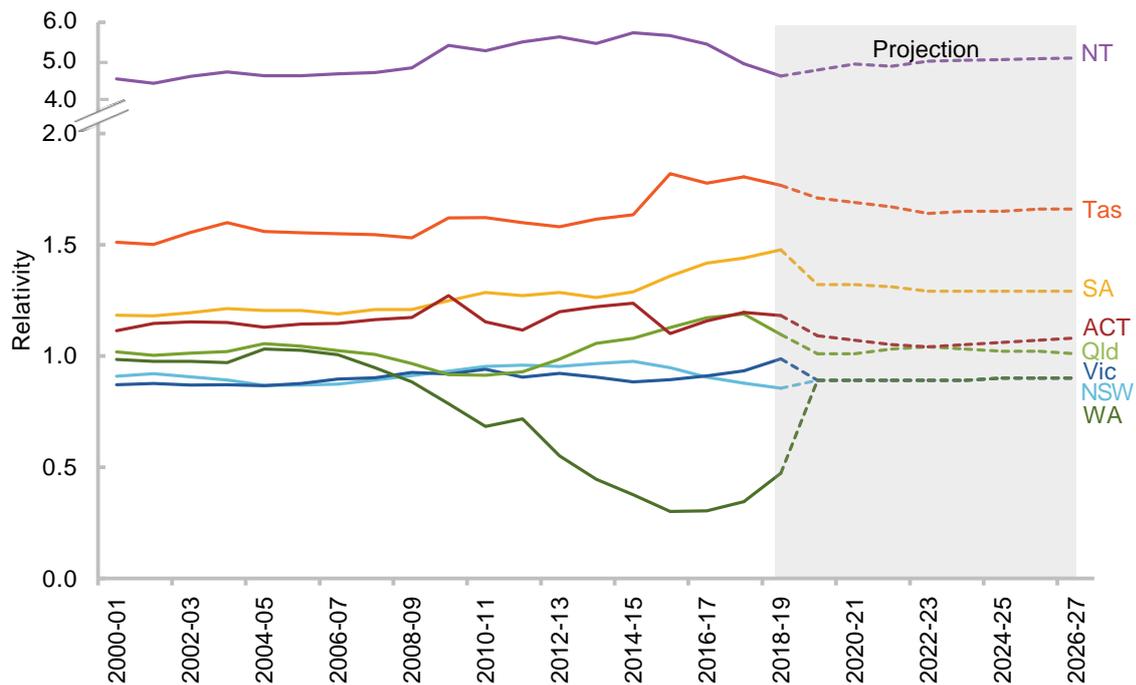
F.3 Transition results

An immediate transition to ETA in 2019-20 would result in Western Australia’s projected relativity increasing from 0.59 to 0.89, and New South Wales’ projected relativity increasing from 0.82 to 0.89 (figure F.5, table F.3). In all other States, projected relativities would be

lower under ETA than under the current benchmark. However, immediate implementation of ETA is not feasible, as some States will need time to adjust their budgets as their GST payments change due to the new equalisation benchmark.

Figure F.5 Immediate implementation of ETA in 2019-20: historical and projected State relativities

Best estimate scenario, 2000-01 to 2026-27



Sources: CGC (2018g), table F.3.

Table F.3 Immediate implementation of ETA in 2019-20: projected State relativities

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Best estimate relativities — immediate implementation of ETA								
2019-20	0.89	0.89	1.01	0.89	1.32	1.71	1.09	4.45
2020-21	0.89	0.89	1.01	0.89	1.32	1.69	1.07	4.65
2021-22	0.89	0.89	1.03	0.89	1.31	1.67	1.05	4.57
2022-23	0.89	0.89	1.04	0.89	1.29	1.64	1.04	4.74
2023-24	0.89	0.89	1.03	0.89	1.29	1.65	1.05	4.77
2024-25	0.90	0.90	1.02	0.90	1.29	1.65	1.06	4.79
2025-26	0.90	0.90	1.02	0.90	1.29	1.66	1.07	4.82
2026-27	0.90	0.90	1.01	0.90	1.29	1.66	1.08	4.84

Source: Productivity Commission estimates based on data provided by State Treasuries (confidential).

GST impacts under the 'best estimate' scenario

The effect of the transition is to gradually spread the GST impacts of the change to ETA over four or eight years.

For the four and eight year transition periods, the following information is presented:

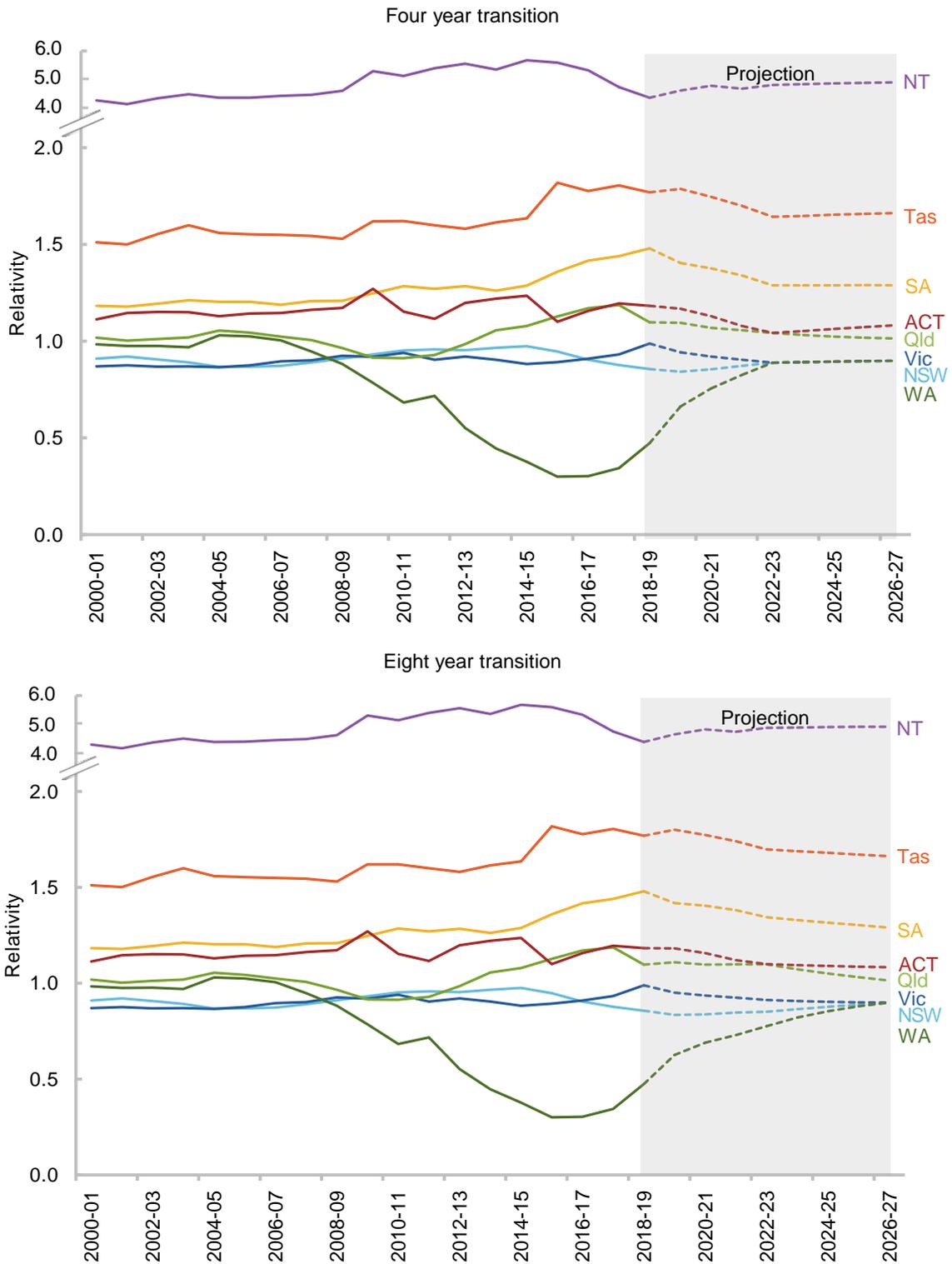
- the projected relativities for each State
- the total change in each State's annual GST payment due to the new equalisation benchmark as a proportion of total State revenue, in dollars per capita and in millions of dollars
- the year-on-year change in GST payments due to the new equalisation benchmark as a proportion of total State revenue, in dollars per capita and in millions of dollars. This provides an indicator of the effect on State budget management as it shows the incremental adjustment States would need to make each year.

Relativities converge towards their ETA levels over the transition period

A gradual transition to ETA means that each State's relativity converges from its current level to what it would be under ETA (by 2022-23 for the four year transition, and by 2026-27 for the eight year transition) (figure F.6, table F.4). For the four year transition, once relativities reach their ETA levels they are projected to remain at about those levels until 2026-27. Relativities in the fiscally strong States (currently New South Wales, Victoria and Western Australia) are projected to be the same (as States above the new equalisation benchmark will receive the same GST payment per capita).

Figure F.6 Four year and eight year transition to ETA: historical and projected State relativities

Best estimate scenario, 2000-01 to 2026-27



Sources: CGC (2018g); table F.4.

Table F.4 Gradual transition to ETA: projected State relativities

Best estimate scenario, four year and eight year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Best estimate relativities — four year transition to ETA								
2019-20	0.84	0.94	1.10	0.66	1.40	1.79	1.17	4.53
2020-21	0.85	0.92	1.07	0.76	1.38	1.75	1.13	4.71
2021-22	0.87	0.90	1.06	0.83	1.34	1.70	1.08	4.60
2022-23	0.89	0.89	1.04	0.89	1.29	1.64	1.04	4.74
2023-24	0.89	0.89	1.03	0.89	1.29	1.65	1.05	4.77
2024-25	0.90	0.90	1.02	0.90	1.29	1.65	1.06	4.79
2025-26	0.90	0.90	1.02	0.90	1.29	1.66	1.07	4.82
2026-27	0.90	0.90	1.01	0.90	1.29	1.66	1.08	4.84
Best estimate relativities — eight year transition to ETA								
2019-20	0.83	0.95	1.11	0.63	1.42	1.80	1.18	4.54
2020-21	0.84	0.94	1.10	0.69	1.40	1.77	1.16	4.74
2021-22	0.85	0.92	1.10	0.73	1.38	1.74	1.12	4.64
2022-23	0.85	0.91	1.10	0.78	1.34	1.70	1.10	4.80
2023-24	0.86	0.91	1.07	0.82	1.33	1.69	1.09	4.81
2024-25	0.88	0.90	1.05	0.85	1.32	1.68	1.09	4.82
2025-26	0.89	0.90	1.03	0.88	1.30	1.67	1.09	4.83
2026-27	0.90	0.90	1.01	0.90	1.29	1.66	1.08	4.84

Source: Productivity Commission estimates based on data provided by State Treasuries (confidential).

GST payments are projected to be higher in New South Wales and Western Australia over the forward estimates

In the first year of the transition (2019-20), GST payments are projected to be higher in New South Wales and Western Australia, and lower than currently expected in each of the other States. With a four year transition, the change in GST payments in the first year ranges from (table F.5, figure F.7, figure F.8):

- as a proportion of State revenue, an increase of about 1.8 per cent (in Western Australia) to a decrease of about 0.7 per cent (in South Australia)
- in per capita terms, an increase of \$204 (in Western Australia) to a decrease of \$73 (in Queensland, South Australia, Tasmania, the ACT and the NT)
- an increase of \$540 million (in Western Australia) to a decrease of \$372 million (in Queensland).

With an eight year transition, these figures are halved (table F.6).

Table F.5 Four year transition to ETA: projected change in GST payments due to change in the equalisation benchmark
Relative to current benchmark, 'Best estimate' scenario

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	351	-303	-372	540	-128	-39	-31	-18
2020-21	818	-573	-788	997	-270	-81	-66	-38
2021-22	1267	-814	-1243	1502	-422	-127	-104	-59
2022-23	1900	-976	-1767	1849	-596	-178	-148	-83
2023-24	2022	-831	-1799	1624	-603	-180	-151	-83
2024-25	2070	-676	-1842	1483	-613	-183	-154	-84
2025-26	2111	-479	-1898	1326	-628	-187	-159	-86
2026-27	2079	-317	-1961	1287	-644	-191	-165	-88
\$ per capita								
2019-20	43	-46	-73	204	-73	-73	-73	-73
2020-21	99	-85	-153	372	-153	-153	-153	-153
2021-22	151	-118	-237	555	-237	-237	-237	-237
2022-23	222	-138	-333	676	-333	-333	-333	-333
2023-24	233	-115	-334	587	-334	-334	-334	-334
2024-25	235	-92	-337	530	-337	-337	-337	-337
2025-26	236	-64	-342	469	-342	-342	-342	-342
2026-27	229	-41	-349	451	-349	-349	-349	-349
Proportion of State revenue (per cent)								
2019-20	0.42	-0.44	-0.64	1.76	-0.65	-0.64	-0.53	-0.33
2020-21	0.97	-0.80	-1.33	3.03	-1.33	-1.34	-1.06	-0.68
2021-22	1.42	-1.09	-1.99	4.36	-2.04	-1.99	-1.65	-0.96
2022-23	2.05	-1.25	-2.72	5.17	-2.83	-2.75	-2.26	-1.29
2023-24	2.11	-1.03	-2.70	4.36	-2.78	-2.70	-2.21	-1.25
2024-25	2.09	-0.81	-2.68	3.84	-2.76	-2.66	-2.18	-1.23
2025-26	2.06	-0.55	-2.69	3.31	-2.75	-2.65	-2.17	-1.22
2026-27	1.96	-0.35	-2.70	3.11	-2.75	-2.64	-2.16	-1.20

Source: Productivity Commission estimates.

By the end of the four year transition (in 2022-23), the change in GST payments ranges from (table F.5, figure F.7, figure F.8):

- as a proportion of State revenue, an increase of about 5.2 per cent (in Western Australia) to a decrease of about 2.8 per cent (in South Australia)
- in per capita terms, an increase of \$676 per capita (in Western Australia) to a decrease of \$333 per capita (in Queensland, South Australia, Tasmania, the ACT and the NT)
- an increase of \$1900 million (in New South Wales) to a decrease of \$1767 million (in Queensland).

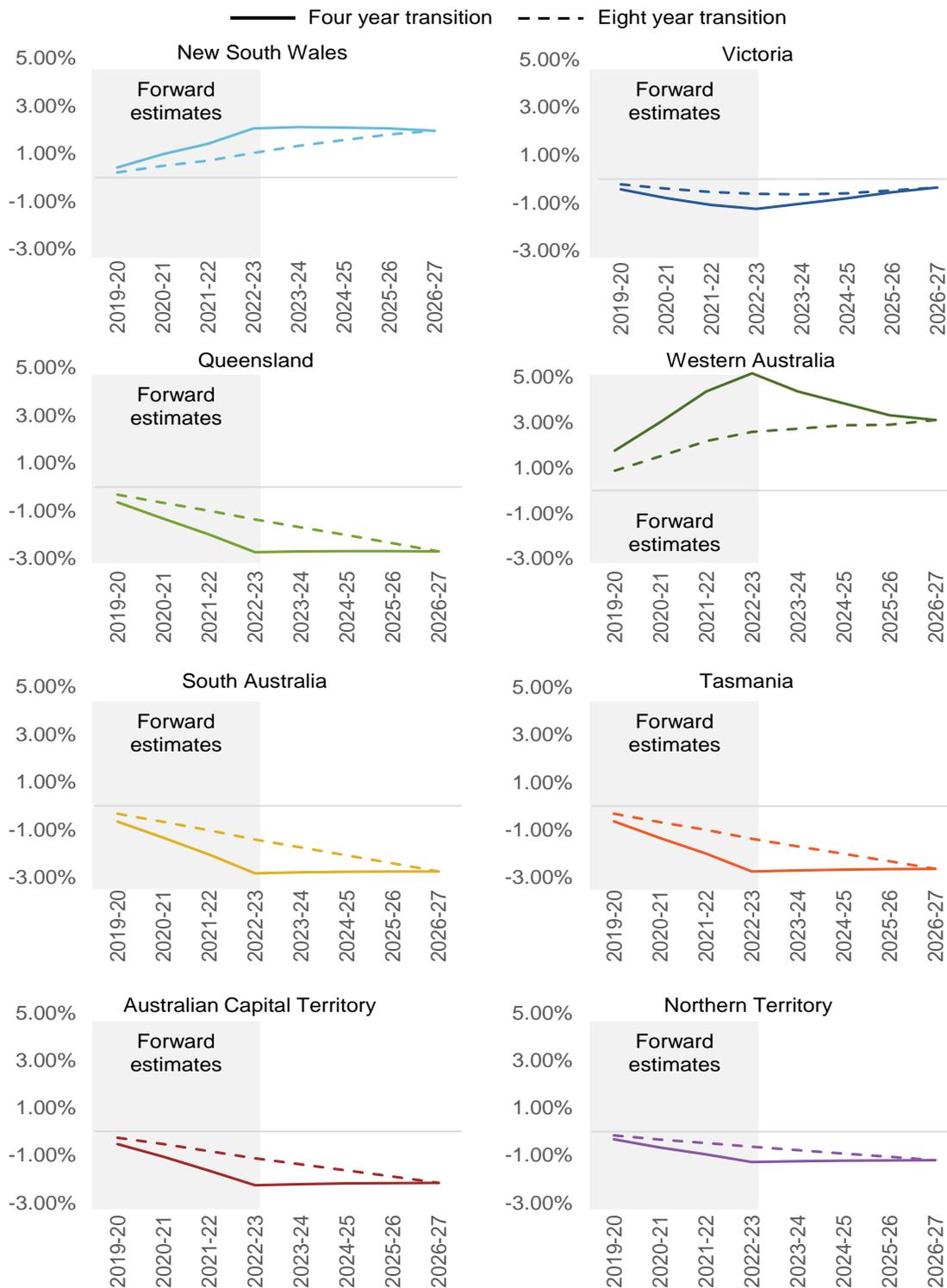
With an eight year transition these figures are halved (table F.6).

Table F.6 Eight year transition to ETA: projected change in GST payments due to change in the equalisation benchmark
Relative to current benchmark, 'Best estimate' scenario

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	175	-151	-186	270	-64	-19	-16	-9
2020-21	409	-286	-394	498	-135	-40	-33	-19
2021-22	633	-407	-622	751	-211	-63	-52	-29
2022-23	950	-488	-884	925	-298	-89	-74	-41
2023-24	1264	-519	-1124	1015	-377	-112	-94	-52
2024-25	1553	-507	-1382	1112	-460	-137	-116	-63
2025-26	1847	-419	-1661	1160	-549	-163	-139	-75
2026-27	2079	-317	-1961	1287	-644	-191	-165	-88
\$ per capita								
2019-20	21	-23	-36	102	-36	-36	-36	-36
2020-21	49	-42	-76	186	-76	-76	-76	-76
2021-22	75	-59	-119	278	-119	-119	-119	-119
2022-23	111	-69	-166	338	-166	-166	-166	-166
2023-24	146	-72	-209	367	-209	-209	-209	-209
2024-25	176	-69	-253	398	-253	-253	-253	-253
2025-26	206	-56	-300	411	-300	-300	-300	-300
2026-27	229	-41	-349	451	-349	-349	-349	-349
Proportion of State revenue (per cent)								
2019-20	0.21	-0.22	-0.32	0.88	-0.33	-0.32	-0.26	-0.16
2020-21	0.48	-0.40	-0.66	1.51	-0.67	-0.67	-0.53	-0.34
2021-22	0.71	-0.54	-0.99	2.18	-1.02	-1.00	-0.82	-0.48
2022-23	1.03	-0.63	-1.36	2.58	-1.41	-1.37	-1.13	-0.64
2023-24	1.32	-0.64	-1.69	2.72	-1.74	-1.69	-1.38	-0.78
2024-25	1.57	-0.60	-2.01	2.88	-2.07	-2.00	-1.64	-0.92
2025-26	1.80	-0.48	-2.35	2.90	-2.41	-2.32	-1.90	-1.06
2026-27	1.96	-0.35	-2.70	3.11	-2.75	-2.64	-2.16	-1.20

Source: Productivity Commission estimates.

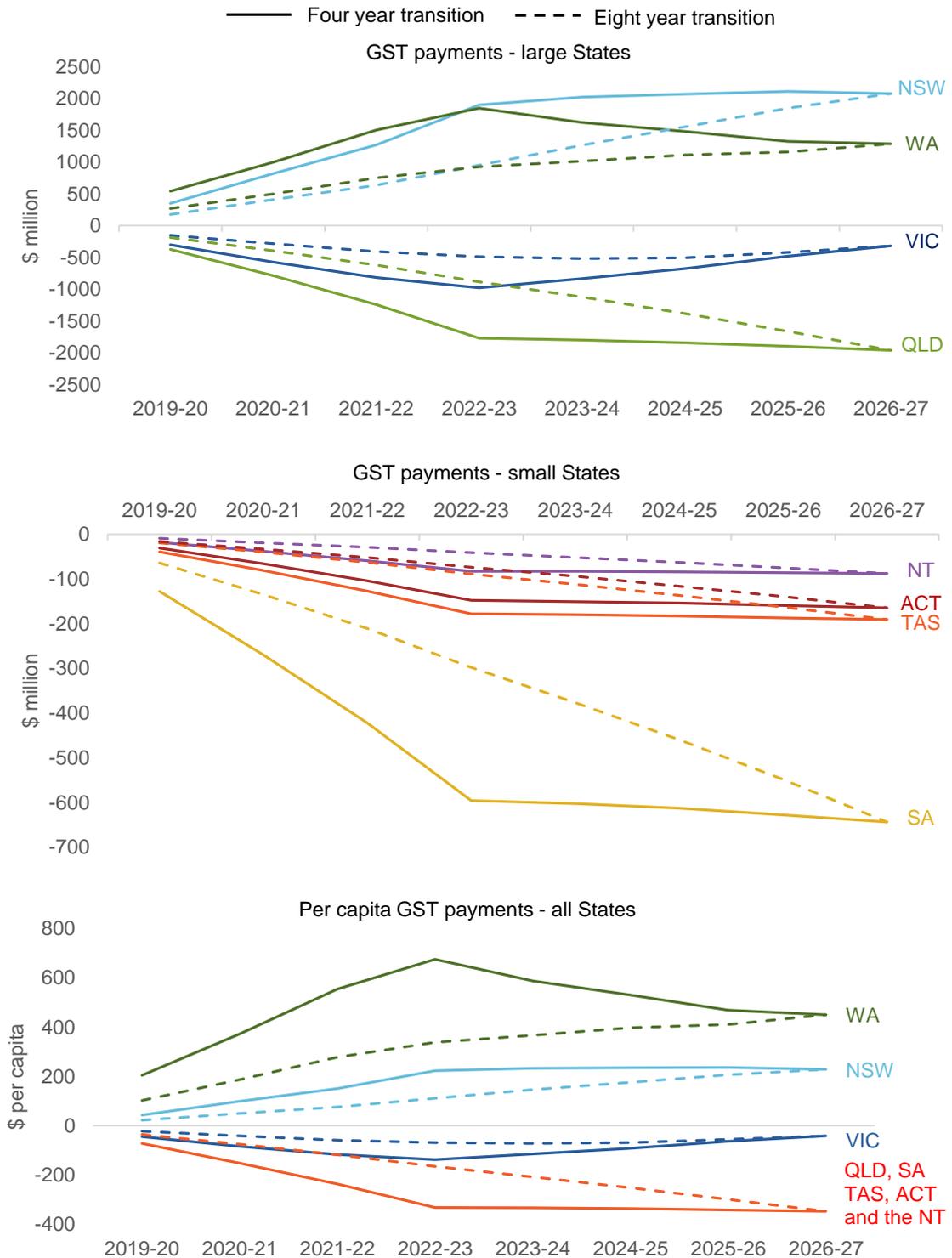
Figure F.7 Two transition paths to phase the GST impacts over time
 Transitioning to ETA: change in GST payments (relative to current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27



Source: Productivity Commission estimates.

Figure F.8 Transitioning to ETA: change in GST payments

Transitioning to ETA: change in GST payments (relative to the current benchmark), best estimate scenario, 2019-20 to 2026-27



Source: Productivity Commission estimates.

The year-on-year changes in GST payments are judged to be manageable

The year-on-year change in GST payments (due to the change in the benchmark) shows the amount to be adjusted in any given year. In the first year (2019-20) of the four year transition, the year-on-year change in GST payments ranges from (table F.7, figure F.9):

- as a proportion of State revenue, an increase of about 1.8 per cent (in Western Australia) to a decrease of about 0.7 per cent (in South Australia)
- in per capita terms, an increase of \$204 per capita (in Western Australia) to a decrease of \$73 per capita (in Queensland, South Australia, Tasmania, the ACT and the NT)
- an increase of \$540 million (in Western Australia) to a decrease of \$372 million (in Queensland).

With an eight year transition, these figures are halved (table F.8). By the end of the four year transition (in 2022-23), year-on-year changes in GST payments range from (table F.7, figure F.9):

- as a proportion of State revenue, an increase of 1.0 per cent (in Western Australia) to a decrease of 0.8 per cent (in South Australia).
- in per capita terms, an increase of \$127 per capita (Western Australia) to a decrease of \$99 per capita (in Queensland and the ACT)
- an increase of \$633 million (New South Wales) to a decrease of \$524 million (Queensland).

With an eight year transition these figures are halved (table F.8).

In no year does any State experience a reduction in its GST payments from the previous year of more than about 0.8 per cent with a four year transition, or about 0.4 per cent with an eight year transition.

Table F.7 Four year transition to ETA: yearly budget adjustment due to change in the equalisation benchmark

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark), best estimate scenario

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	351	-303	-372	540	-128	-39	-31	-18
2020-21	468	-270	-417	457	-142	-42	-35	-20
2021-22	448	-242	-455	506	-153	-46	-38	-21
2022-23	633	-162	-524	347	-174	-52	-44	-24
2023-24	122	145	-31	-225	-6	-2	-3	-1
2024-25	48	155	-43	-142	-10	-3	-4	-1
2025-26	41	197	-56	-156	-15	-4	-5	-2
2026-27	-32	162	-63	-39	-16	-5	-5	-2
\$ per capita								
2019-20	43	-46	-73	204	-73	-73	-73	-73
2020-21	56	-40	-81	171	-80	-80	-81	-80
2021-22	53	-35	-87	187	-86	-85	-87	-85
2022-23	74	-23	-99	127	-97	-97	-99	-96
2023-24	14	20	-6	-81	-4	-3	-6	-2
2024-25	5	21	-8	-51	-6	-5	-8	-4
2025-26	5	26	-10	-55	-8	-7	-10	-6
2026-27	-4	21	-11	-14	-9	-8	-11	-7
Proportion of State revenue (per cent)								
2019-20	0.42	-0.44	-0.64	1.76	-0.65	-0.64	-0.53	-0.33
2020-21	0.55	-0.38	-0.70	1.39	-0.70	-0.70	-0.56	-0.35
2021-22	0.50	-0.32	-0.73	1.47	-0.74	-0.72	-0.60	-0.34
2022-23	0.68	-0.21	-0.81	0.97	-0.82	-0.80	-0.67	-0.37
2023-24	0.13	0.18	-0.05	-0.60	-0.03	-0.02	-0.04	-0.01
2024-25	0.05	0.19	-0.06	-0.37	-0.05	-0.04	-0.05	-0.02
2025-26	0.04	0.23	-0.08	-0.39	-0.06	-0.06	-0.07	-0.02
2026-27	-0.03	0.18	-0.09	-0.09	-0.07	-0.06	-0.07	-0.03

Source: Productivity Commission estimates.

Table F.8 Eight year transition to ETA: yearly budget adjustment due to change in the equalisation benchmark

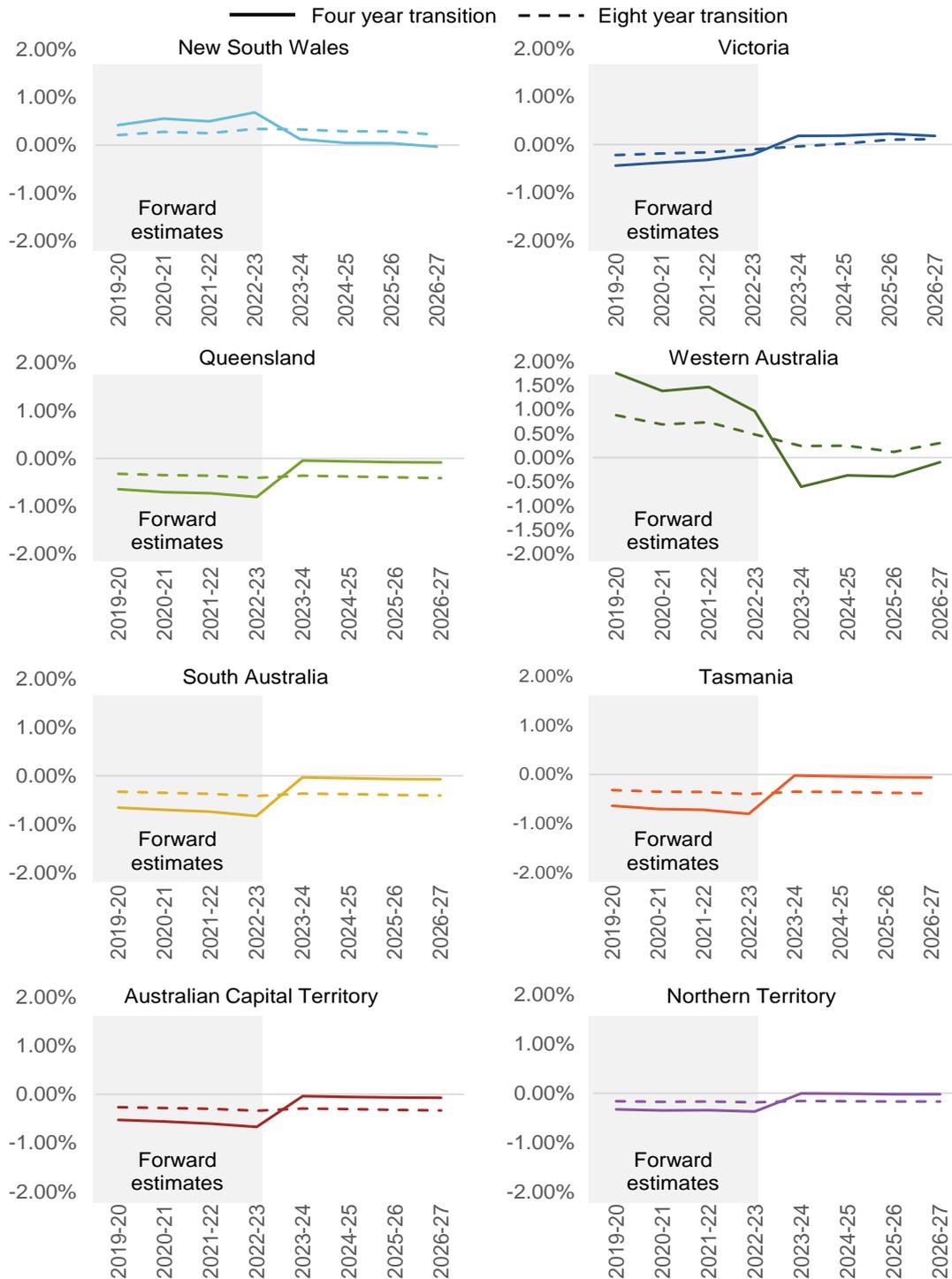
Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark), best estimate scenario

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	175	-151	-186	270	-64	-19	-16	-9
2020-21	234	-135	-208	229	-71	-21	-17	-10
2021-22	224	-121	-227	253	-76	-23	-19	-11
2022-23	316	-81	-262	173	-87	-26	-22	-12
2023-24	314	-31	-240	91	-79	-23	-20	-11
2024-25	289	13	-257	97	-83	-25	-22	-11
2025-26	295	88	-280	48	-89	-26	-24	-12
2026-27	232	102	-300	127	-95	-28	-25	-13
\$ per capita								
2019-20	21	-23	-36	102	-36	-36	-36	-36
2020-21	28	-20	-40	85	-40	-40	-40	-40
2021-22	27	-18	-43	93	-43	-43	-43	-43
2022-23	37	-11	-49	63	-49	-48	-49	-48
2023-24	36	-4	-45	33	-44	-43	-45	-43
2024-25	33	2	-47	35	-46	-45	-47	-45
2025-26	33	12	-50	17	-49	-48	-51	-48
2026-27	26	13	-53	44	-51	-51	-54	-50
Proportion of State revenue (per cent)								
2019-20	0.21	-0.22	-0.32	0.88	-0.33	-0.32	-0.26	-0.16
2020-21	0.28	-0.19	-0.35	0.69	-0.35	-0.35	-0.28	-0.18
2021-22	0.25	-0.16	-0.36	0.73	-0.37	-0.36	-0.30	-0.17
2022-23	0.34	-0.10	-0.40	0.48	-0.41	-0.40	-0.34	-0.19
2023-24	0.33	-0.04	-0.36	0.24	-0.36	-0.35	-0.30	-0.16
2024-25	0.29	0.02	-0.37	0.25	-0.37	-0.36	-0.31	-0.16
2025-26	0.29	0.10	-0.40	0.12	-0.39	-0.37	-0.32	-0.17
2026-27	0.22	0.11	-0.41	0.31	-0.41	-0.38	-0.33	-0.17

Source: Productivity Commission estimates.

Figure F.9 Transitioning to ETA: the year-on-year impacts on State budgets are likely to prove manageable

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark) as a share of State revenue, best estimate scenario, 2019-20 to 2026-27



Source: Productivity Commission estimates.

F.A Annex: Alternative scenarios for future GST payments

In addition to the best estimate projections, the Commission has examined some possible alternative scenarios for future GST payments. These alternative scenarios assume that relative fiscal capacities return to their 19 year averages in the first period after the forward estimates (2023-24), and that relative fiscal capacities remain at their 2018-19 levels for the projection period (box F.A1).

Budget management outcomes under these alternative scenarios were broadly in line with the best estimate results, and in no year did any State experience a reduction in its GST payments from one year to the next of more than about 0.8 per cent (with a four year transition), or about 0.5 per cent (with an eight year transition).

The results are presented in tables F.A1 to F.A8. Where there were material differences to the best estimate scenario, these were generally the largest for the fiscally strongest States (New South Wales, Victoria and Western Australia).

- When relative fiscal capacities were assumed to return to their long run trend, GST payments for Victoria and New South Wales were projected to be broadly similar to what they would receive under the current benchmark. This is compared to a projected increase in GST payments under the best estimate for New South Wales, and a projected decrease in GST payments under the best estimate for Victoria.
- When relative fiscal capacities were assumed to stay at their current levels, GST payments to Western Australia were projected to increase by more under the ‘best estimate’ scenario (\$3463 million in 2022-23, compared with \$1849 million, with a four year transition).
- When relative fiscal capacities were assumed to return to their long run trend, the reduction in GST payments in each of Queensland, South Australia, Tasmania, the ACT and the NT was smaller compared to the ‘best estimate’ case.

Box F.A1 **Beyond ‘best estimate’ projections: alternative scenarios for future GST payments**

The Commission initially assessed two alternative methods for projecting each of: relative fiscal capacities, population growth rates, and the size of the GST pool.

- Future relative fiscal capacities were projected using a ‘long-run trend’ method where relative fiscal capacities (measured by GST relativities) return to their 19 year average (2000-01 to 2018-19) in the first year after the forward estimates (2023-24), and a ‘business as usual’ method where fiscal capacities remain at their 2018-19 levels for the projection period (table).
- Population growth was projected by assuming that State population growth rates move from their current rates to either the 10-year average growth rate (2007-08 to 2017-18), or 10-year linear trend at the end of the forward estimates, and grow at that rate thereafter.
- GST pool growth beyond the forward estimates was projected using a high-growth estimate, where the GST pool grows at 0.5 percentage points above the ‘best estimate’ (which is 5.25 per cent), and a low-growth estimate, where the GST pool grows at 1.0 percentage points below the ‘best estimate’. The larger range on the downside reflects the possibility that the trend in consumption towards GST exempt goods will continue beyond the forward estimates.

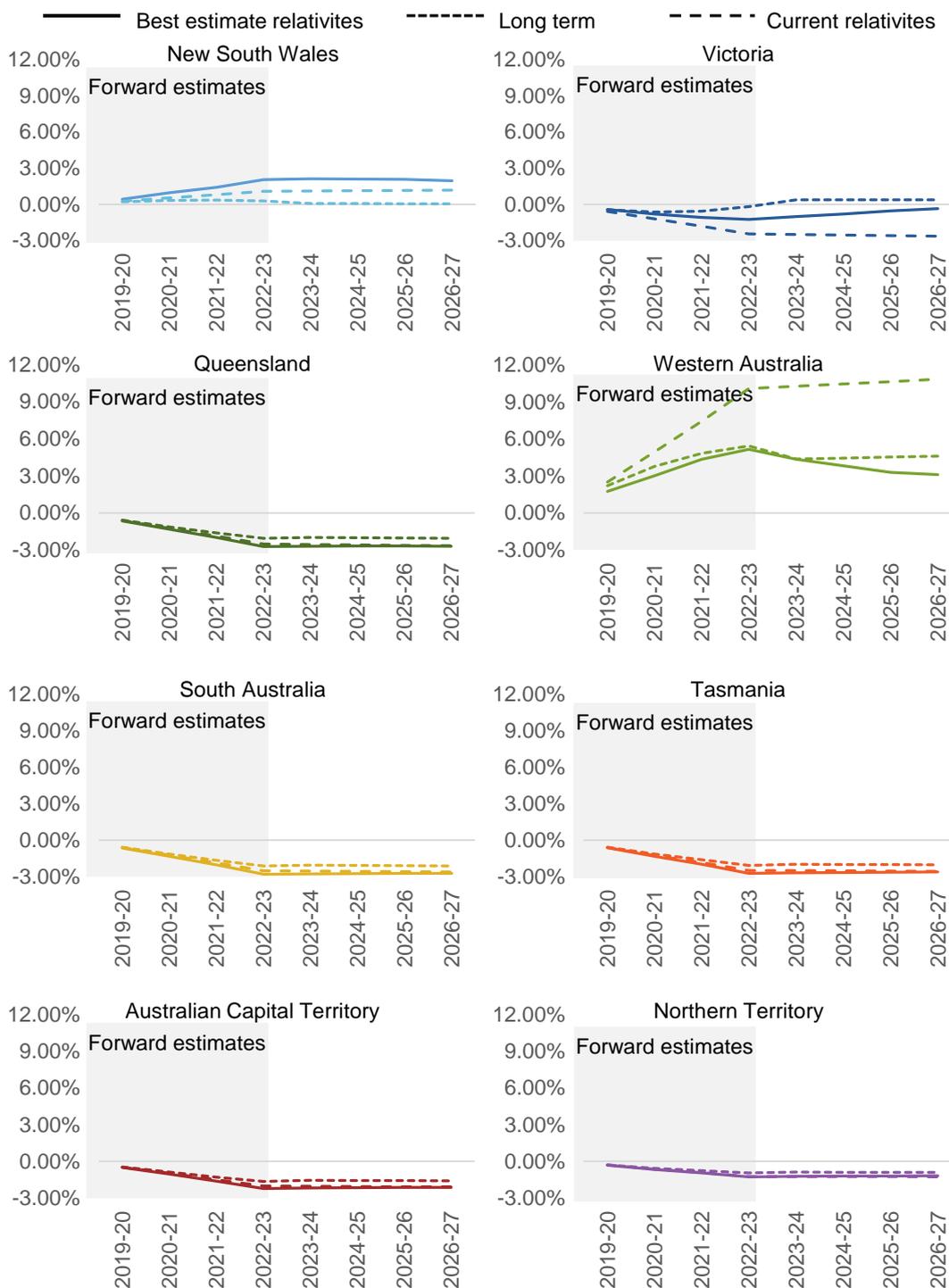
Current benchmark: projected State relativities under two alternative scenarios

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
CGC 2018 recommended relativities								
2018-19	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
Relative fiscal capacities return to long-run trend								
2019-20	0.87	0.97	1.08	0.52	1.44	1.74	1.18	4.36
2020-21	0.88	0.95	1.07	0.57	1.39	1.71	1.17	4.46
2021-22	0.89	0.94	1.06	0.62	1.35	1.68	1.17	4.56
2022-23	0.90	0.92	1.04	0.67	1.31	1.65	1.17	4.66
2023-24	0.91	0.90	1.03	0.72	1.27	1.62	1.17	4.76
2024-25	0.91	0.90	1.03	0.72	1.27	1.62	1.17	4.76
2025-26	0.91	0.90	1.03	0.72	1.27	1.62	1.17	4.76
2026-27	0.91	0.90	1.03	0.72	1.27	1.62	1.17	4.76
Relative fiscal capacities stay at current levels								
2019-20	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2020-21	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2021-22	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2022-23	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2023-24	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2024-25	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2025-26	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26
2026-27	0.86	0.99	1.10	0.47	1.48	1.77	1.18	4.26

While alternative projections of State populations and GST pool growth rates have a direct effect on the *level* of GST payments, they have only a minor influence on the *change* in GST payments due to a change in the equalisation benchmark. By contrast, alternative estimates for State fiscal capacities have a material influence. The Commission sought to illustrate how its proposal to change the equalisation benchmark could broadly impact on State budgets over time. As such, only alternative scenarios for State fiscal capacities were included in the analysis (tables F.A1 – F.A8).

Figure F.A1 Four year transition to ETA: alternative scenarios produce similar outcomes to the 'best estimate' for most States

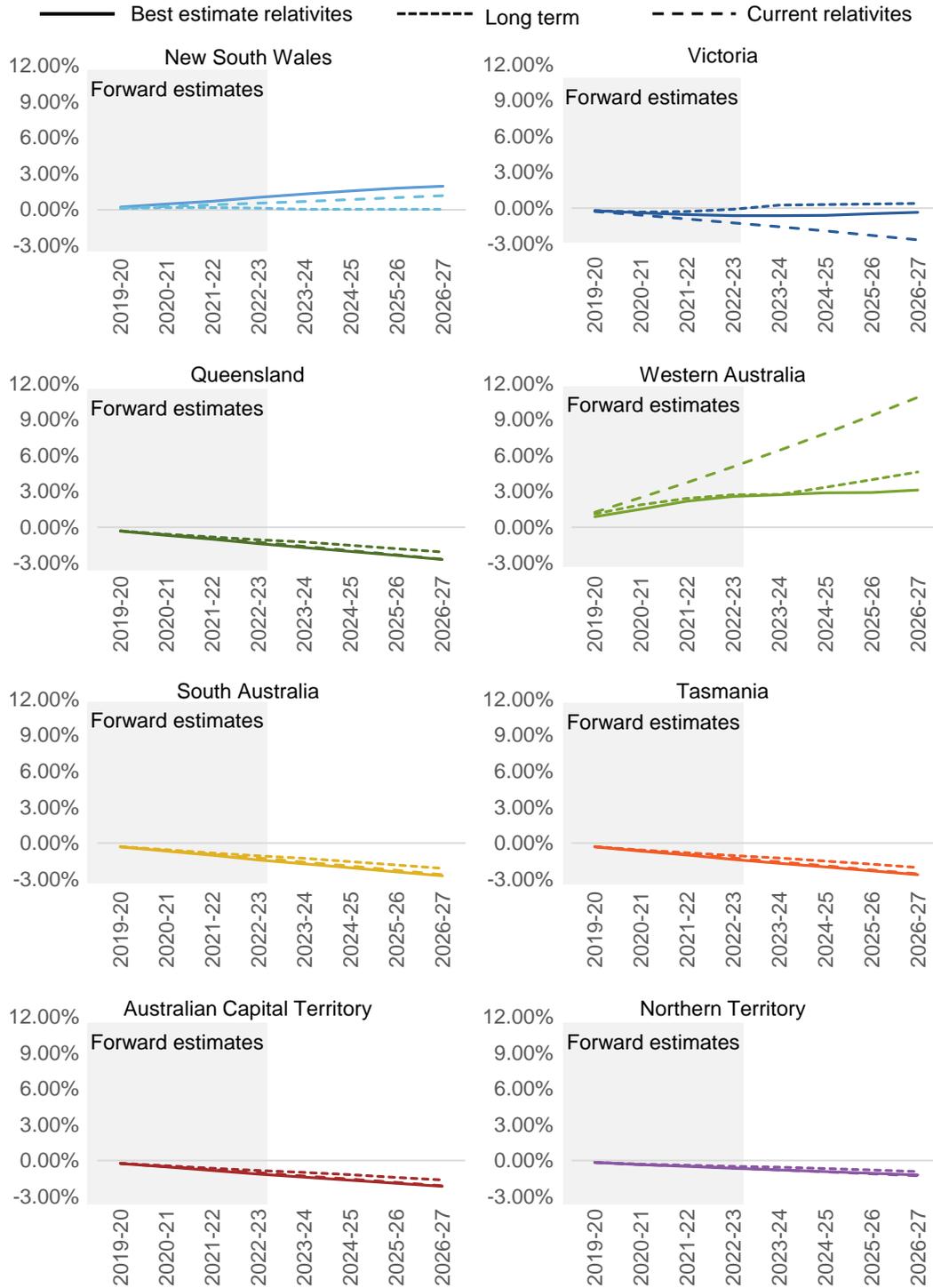
Change in GST payments (relative to the current benchmark) as a share of State revenue under the best estimate and two alternative scenarios, four year transition, 2019-20 to 2026-27



Source: Productivity Commission estimates.

Figure F.A2 Eight year transition to ETA: alternative scenarios produce similar outcomes to the 'best estimate' for most States

Change in GST payments (relative to the current benchmark) as a share of State revenue under the best estimate and two alternative scenarios, eight year transition, 2019-20 to 2026-27



Source: Productivity Commission estimates.

Tables of results: relative fiscal capacities returning to long run trend

The following tables present results of the transition to ETA using an alternative scenario for future relative State fiscal capacities. This scenario assumes that relativities return to their 'long run trend' (using a 19 year average) in the first period after the end of the forward estimates (2023-24) (box F.A1).

Table F.A1 Alternative scenario (long run trend): projected change in GST due to change in the benchmark to ETA

Four year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	177	-315	-336	669	-116	-35	-28	-16
2020-21	288	-467	-668	1233	-229	-69	-56	-32
2021-22	319	-425	-993	1668	-337	-101	-83	-47
2022-23	254	-154	-1308	1952	-441	-132	-109	-61
2023-24	60	307	-1287	1647	-431	-129	-108	-60
2024-25	57	319	-1345	1725	-448	-133	-113	-62
2025-26	53	332	-1406	1806	-465	-138	-118	-64
2026-27	48	346	-1470	1892	-483	-143	-124	-66
\$ per capita								
2019-20	22	-47	-66	252	-66	-66	-66	-66
2020-21	35	-69	-129	460	-129	-129	-129	-129
2021-22	38	-62	-190	616	-190	-190	-190	-190
2022-23	30	-22	-246	713	-246	-246	-246	-246
2023-24	7	43	-239	596	-239	-239	-239	-239
2024-25	6	43	-246	617	-246	-246	-246	-246
2025-26	6	44	-254	639	-254	-254	-254	-254
2026-27	5	45	-261	662	-261	-261	-261	-261
Proportion of State revenue (per cent)								
2019-20	0.21	-0.45	-0.59	2.21	-0.59	-0.59	-0.48	-0.30
2020-21	0.33	-0.65	-1.14	3.78	-1.14	-1.16	-0.90	-0.59
2021-22	0.35	-0.57	-1.62	4.85	-1.66	-1.63	-1.31	-0.78
2022-23	0.27	-0.20	-2.07	5.43	-2.13	-2.08	-1.66	-0.97
2023-24	0.06	0.38	-1.98	4.39	-2.05	-1.99	-1.58	-0.91
2024-25	0.06	0.38	-2.01	4.46	-2.08	-2.01	-1.59	-0.91
2025-26	0.05	0.38	-2.03	4.53	-2.10	-2.03	-1.61	-0.91
2026-27	0.04	0.38	-2.06	4.61	-2.12	-2.05	-1.62	-0.92

Source: Productivity Commission estimates.

Table F.A2 Alternative scenario (long run trend): projected change in GST due to change in the benchmark to ETA
Eight year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	88	-157	-168	334	-58	-17	-14	-8
2020-21	144	-234	-334	616	-114	-34	-28	-16
2021-22	159	-212	-497	834	-169	-51	-42	-24
2022-23	127	-77	-654	976	-221	-66	-55	-31
2023-24	38	192	-804	1030	-270	-80	-67	-37
2024-25	43	240	-1009	1294	-336	-100	-85	-46
2025-26	46	291	-1231	1581	-407	-121	-103	-56
2026-27	48	346	-1470	1892	-483	-143	-124	-66
\$ per capita								
2019-20	11	-24	-33	126	-33	-33	-33	-33
2020-21	17	-35	-65	230	-65	-65	-65	-65
2021-22	19	-31	-95	308	-95	-95	-95	-95
2022-23	15	-11	-123	357	-123	-123	-123	-123
2023-24	4	27	-149	372	-149	-149	-149	-149
2024-25	5	33	-185	463	-185	-185	-185	-185
2025-26	5	39	-222	559	-222	-222	-222	-222
2026-27	5	45	-261	662	-261	-261	-261	-261
Proportion of State revenue (per cent)								
2019-20	0.11	-0.23	-0.29	1.11	-0.30	-0.29	-0.24	-0.15
2020-21	0.17	-0.33	-0.57	1.89	-0.57	-0.58	-0.45	-0.30
2021-22	0.17	-0.28	-0.81	2.42	-0.83	-0.81	-0.66	-0.39
2022-23	0.13	-0.10	-1.03	2.72	-1.07	-1.04	-0.83	-0.49
2023-24	0.04	0.24	-1.24	2.75	-1.28	-1.25	-0.99	-0.57
2024-25	0.04	0.29	-1.50	3.35	-1.56	-1.51	-1.19	-0.68
2025-26	0.04	0.34	-1.78	3.97	-1.84	-1.77	-1.40	-0.80
2026-27	0.04	0.38	-2.06	4.61	-2.12	-2.05	-1.62	-0.92

Source: Productivity Commission estimates.

Table F.A3 Alternative scenario (long run trend): yearly budget adjustment due to change to ETA — four year transition

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark), four year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	177	-315	-336	669	-116	-35	-28	-16
2020-21	111	-152	-332	564	-113	-34	-28	-16
2021-22	31	42	-325	435	-109	-32	-27	-15
2022-23	-65	271	-315	284	-104	-31	-26	-14
2023-24	-194	461	21	-305	10	3	2	2
2024-25	-3	12	-58	78	-17	-5	-5	-2
2025-26	-4	13	-61	81	-17	-5	-5	-2
2026-27	-4	14	-64	85	-18	-5	-5	-2
\$ per capita								
2019-20	22	-47	-66	252	-66	-66	-66	-66
2020-21	13	-22	-64	210	-64	-64	-64	-64
2021-22	4	6	-62	161	-61	-61	-62	-61
2022-23	-8	38	-59	104	-58	-58	-59	-57
2023-24	-22	64	4	-110	6	6	4	7
2024-25	0	2	-11	28	-9	-9	-11	-8
2025-26	0	2	-11	29	-9	-9	-11	-8
2026-27	0	2	-11	30	-10	-9	-12	-8
Proportion of State revenue (per cent)								
2019-20	0.21	-0.45	-0.59	2.21	-0.59	-0.59	-0.48	-0.30
2020-21	0.13	-0.21	-0.57	1.73	-0.56	-0.57	-0.45	-0.29
2021-22	0.03	0.06	-0.53	1.26	-0.53	-0.52	-0.43	-0.25
2022-23	-0.07	0.35	-0.50	0.79	-0.50	-0.49	-0.40	-0.22
2023-24	-0.20	0.57	0.03	-0.81	0.05	0.05	0.02	0.03
2024-25	0.00	0.01	-0.09	0.20	-0.08	-0.07	-0.07	-0.03
2025-26	0.00	0.01	-0.09	0.20	-0.08	-0.07	-0.07	-0.03
2026-27	0.00	0.02	-0.09	0.21	-0.08	-0.07	-0.07	-0.03

Source: Productivity Commission estimates.

Table F.A4 Alternative scenario (long run trend): yearly budget adjustment due to change to ETA — eight year transition

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark), eight year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	88	-157	-168	334	-58	-17	-14	-8
2020-21	56	-76	-166	282	-56	-17	-14	-8
2021-22	16	21	-162	218	-54	-16	-14	-8
2022-23	-32	135	-157	142	-52	-15	-13	-7
2023-24	-89	269	-150	54	-49	-14	-13	-7
2024-25	5	48	-205	264	-66	-20	-17	-9
2025-26	4	51	-222	287	-71	-21	-19	-10
2026-27	2	55	-240	311	-76	-22	-20	-10
\$ per capita								
2019-20	11	-24	-33	126	-33	-33	-33	-33
2020-21	7	-11	-32	105	-32	-32	-32	-32
2021-22	2	3	-31	80	-31	-30	-31	-30
2022-23	-4	19	-30	52	-29	-29	-30	-29
2023-24	-10	37	-28	19	-27	-27	-28	-27
2024-25	1	6	-37	95	-36	-36	-38	-36
2025-26	0	7	-40	102	-39	-38	-40	-38
2026-27	0	7	-43	109	-41	-41	-43	-40
Proportion of State revenue (per cent)								
2019-20	0.11	-0.23	-0.29	1.11	-0.30	-0.29	-0.24	-0.15
2020-21	0.06	-0.11	-0.28	0.86	-0.28	-0.29	-0.22	-0.15
2021-22	0.02	0.03	-0.26	0.63	-0.27	-0.26	-0.22	-0.12
2022-23	-0.03	0.17	-0.25	0.40	-0.25	-0.24	-0.20	-0.11
2023-24	-0.09	0.33	-0.23	0.14	-0.23	-0.22	-0.19	-0.10
2024-25	0.00	0.06	-0.31	0.68	-0.31	-0.30	-0.24	-0.13
2025-26	0.00	0.06	-0.32	0.72	-0.32	-0.31	-0.25	-0.14
2026-27	0.00	0.06	-0.34	0.76	-0.33	-0.32	-0.27	-0.14

Source: Productivity Commission estimates.

Tables of results: relative fiscal capacities remaining at current levels

The following tables present results of the transition to ETA using an alternative scenario for future relative State fiscal capacities. This scenario is based on a 'business as usual' method where fiscal capacities remain at their 2018-19 levels for the projection period (box F.A1).

Table F.A5 Alternative scenario (current fiscal capacities): projected change in GST due to change in the benchmark to ETA

Four year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	216	-410	-353	750	-121	-37	-29	-17
2020-21	457	-868	-738	1575	-252	-76	-62	-35
2021-22	722	-1378	-1158	2477	-393	-118	-97	-55
2022-23	1015	-1945	-1615	3463	-545	-163	-135	-76
2023-24	1070	-2058	-1688	3631	-566	-169	-141	-78
2024-25	1128	-2178	-1765	3806	-587	-175	-148	-81
2025-26	1190	-2305	-1845	3990	-610	-182	-155	-84
2026-27	1255	-2439	-1929	4183	-633	-188	-162	-86
\$ per capita								
2019-20	27	-62	-69	283	-69	-69	-69	-69
2020-21	55	-128	-143	588	-143	-143	-143	-143
2021-22	86	-200	-221	915	-221	-221	-221	-221
2022-23	119	-276	-304	1266	-304	-304	-304	-304
2023-24	123	-286	-313	1313	-313	-313	-313	-313
2024-25	128	-296	-323	1362	-323	-323	-323	-323
2025-26	133	-307	-333	1412	-333	-333	-333	-333
2026-27	138	-319	-343	1465	-343	-343	-343	-343
Proportion of State revenue (per cent)								
2019-20	0.26	-0.59	-0.61	2.51	-0.61	-0.61	-0.50	-0.32
2020-21	0.53	-1.20	-1.25	4.95	-1.24	-1.26	-1.00	-0.67
2021-22	0.80	-1.82	-1.87	7.46	-1.88	-1.86	-1.53	-0.94
2022-23	1.08	-2.46	-2.52	10.11	-2.53	-2.50	-2.05	-1.26
2023-24	1.10	-2.50	-2.56	10.28	-2.55	-2.52	-2.07	-1.27
2024-25	1.13	-2.55	-2.59	10.47	-2.58	-2.54	-2.08	-1.27
2025-26	1.15	-2.60	-2.63	10.66	-2.61	-2.56	-2.10	-1.28
2026-27	1.17	-2.65	-2.66	10.87	-2.64	-2.58	-2.12	-1.28

Source: Productivity Commission estimates.

Table F.A6 Alternative scenario (current fiscal capacities): projected change in GST due to change in the benchmark to ETA
Eight year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	108	-205	-176	375	-61	-18	-15	-9
2020-21	228	-434	-369	788	-126	-38	-31	-18
2021-22	361	-689	-579	1239	-197	-59	-48	-27
2022-23	508	-972	-807	1731	-272	-81	-68	-38
2023-24	669	-1286	-1055	2269	-354	-106	-88	-49
2024-25	846	-1634	-1324	2855	-441	-131	-111	-61
2025-26	1041	-2017	-1615	3492	-534	-159	-136	-73
2026-27	1255	-2439	-1929	4183	-633	-188	-162	-86
\$ per capita								
2019-20	13	-31	-35	142	-35	-35	-35	-35
2020-21	28	-64	-71	294	-71	-71	-71	-71
2021-22	43	-100	-111	458	-111	-111	-111	-111
2022-23	59	-138	-152	633	-152	-152	-152	-152
2023-24	77	-179	-196	821	-196	-196	-196	-196
2024-25	96	-222	-242	1021	-242	-242	-242	-242
2025-26	116	-269	-291	1236	-291	-291	-291	-291
2026-27	138	-319	-343	1465	-343	-343	-343	-343
Proportion of State revenue (per cent)								
2019-20	0.13	-0.29	-0.31	1.26	-0.31	-0.30	-0.25	-0.16
2020-21	0.27	-0.60	-0.63	2.47	-0.62	-0.63	-0.50	-0.34
2021-22	0.40	-0.91	-0.93	3.73	-0.94	-0.93	-0.76	-0.47
2022-23	0.54	-1.23	-1.26	5.05	-1.26	-1.25	-1.03	-0.63
2023-24	0.69	-1.57	-1.60	6.43	-1.60	-1.58	-1.29	-0.79
2024-25	0.84	-1.91	-1.94	7.85	-1.94	-1.91	-1.56	-0.95
2025-26	1.01	-2.27	-2.30	9.33	-2.28	-2.24	-1.84	-1.12
2026-27	1.17	-2.65	-2.66	10.87	-2.64	-2.58	-2.12	-1.28

Source: Productivity Commission estimates.

Table F.A7 Alternative scenario (current fiscal capacities): yearly budget adjustment due to change to ETA — four year transition

Year-to-year change (incremental change from previous year) in GST payments (relative to the current benchmark), four year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	216	-410	-353	750	-121	-37	-29	-17
2020-21	240	-458	-386	825	-131	-39	-32	-18
2021-22	265	-510	-420	902	-141	-42	-35	-20
2022-23	293	-567	-456	986	-151	-45	-38	-21
2023-24	55	-113	-74	168	-21	-6	-6	-3
2024-25	58	-120	-77	176	-22	-6	-7	-3
2025-26	61	-127	-80	184	-23	-6	-7	-3
2026-27	65	-134	-84	193	-23	-7	-7	-3
\$ per capita								
2019-20	27	-62	-69	283	-69	-69	-69	-69
2020-21	29	-68	-75	308	-74	-74	-75	-74
2021-22	32	-74	-80	333	-79	-79	-80	-79
2022-23	34	-80	-86	360	-84	-84	-86	-83
2023-24	6	-16	-14	61	-12	-11	-14	-10
2024-25	7	-16	-14	63	-12	-11	-14	-11
2025-26	7	-17	-14	65	-12	-12	-15	-11
2026-27	7	-18	-15	68	-13	-12	-15	-11
Proportion of State revenue (per cent)								
2019-20	0.26	-0.59	-0.61	2.51	-0.61	-0.61	-0.50	-0.32
2020-21	0.28	-0.63	-0.65	2.59	-0.64	-0.65	-0.52	-0.35
2021-22	0.29	-0.67	-0.68	2.72	-0.67	-0.66	-0.55	-0.33
2022-23	0.31	-0.72	-0.71	2.88	-0.70	-0.69	-0.58	-0.35
2023-24	0.06	-0.14	-0.11	0.47	-0.09	-0.09	-0.09	-0.04
2024-25	0.06	-0.14	-0.11	0.48	-0.10	-0.09	-0.09	-0.04
2025-26	0.06	-0.14	-0.11	0.49	-0.10	-0.09	-0.09	-0.04
2026-27	0.06	-0.15	-0.12	0.50	-0.10	-0.09	-0.09	-0.04

Source: Productivity Commission estimates.

Table F.A8 Alternative scenario (current fiscal capacities): yearly budget adjustment due to change to ETA — eight year transition

Year-on-year change (incremental change from previous year) in GST payments (relative to the current benchmark), eight year transition

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
\$ million								
2019-20	108	-205	-176	375	-61	-18	-15	-9
2020-21	120	-229	-193	412	-66	-20	-16	-9
2021-22	133	-255	-210	451	-70	-21	-18	-10
2022-23	146	-283	-228	493	-76	-23	-19	-10
2023-24	161	-314	-248	538	-81	-24	-21	-11
2024-25	177	-347	-269	586	-87	-26	-23	-12
2025-26	195	-383	-291	637	-93	-27	-25	-12
2026-27	214	-422	-315	692	-100	-29	-27	-13
\$ per capita								
2019-20	13	-31	-35	142	-35	-35	-35	-35
2020-21	15	-34	-37	154	-37	-37	-37	-37
2021-22	16	-37	-40	167	-40	-39	-40	-39
2022-23	17	-40	-43	180	-42	-42	-43	-42
2023-24	19	-44	-46	194	-45	-45	-46	-44
2024-25	20	-47	-49	210	-48	-47	-49	-47
2025-26	22	-51	-52	225	-51	-50	-53	-50
2026-27	23	-55	-56	242	-54	-53	-56	-53
Proportion of State revenue (per cent)								
2019-20	0.13	-0.29	-0.31	1.26	-0.31	-0.30	-0.25	-0.16
2020-21	0.14	-0.32	-0.33	1.30	-0.32	-0.33	-0.26	-0.17
2021-22	0.15	-0.34	-0.34	1.36	-0.34	-0.33	-0.28	-0.17
2022-23	0.16	-0.36	-0.36	1.44	-0.35	-0.35	-0.29	-0.17
2023-24	0.17	-0.38	-0.38	1.52	-0.37	-0.36	-0.30	-0.18
2024-25	0.18	-0.41	-0.39	1.61	-0.38	-0.37	-0.32	-0.18
2025-26	0.19	-0.43	-0.41	1.70	-0.40	-0.39	-0.33	-0.19
2026-27	0.20	-0.46	-0.43	1.80	-0.41	-0.40	-0.35	-0.20

Source: Productivity Commission estimates.

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